NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

BUDGET ESTIMATES

FISCAL YEAR 2025

CONGRESSIONAL SUBMISSION

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Budget Estimates, Fiscal Year 2025
Congressional Submission

Table of Contents

Exhibit No.	Exhibit	Page No.
Summary Materials		
1	Table of Contents	NOAA-1
2	Organizational Chart	NOAA-15
3	Executive Summary	NOAA-17
4A	Increases/Decreases/Terminations	NOAA-19
4T	Transfer Summary Table	NOAA-25
	Research and Development (R&D) Estimates	NOAA-27
4B	NOAA Control Table	Control Table-1
Appropriation Account Materials: Operations, Research, and Facilities		
5	Summary of Resource Requirements	ORF-1
6	Summary of Reimbursable Obligations	ORF-5
7	Summary of Financing	ORF-7
8	Adjustments to Base	ORF-9
16	Summary of Requirements by Object Class	ORF-11
16A	Select Activities by Object Class – LO Detail	ORF-13
Appropriation Account Materials: Procurement, Acquisition, and Construction		
5	Summary of Resource Requirements	PAC-1
7	Summary of Financing	PAC-5
8	Adjustments to Base	PAC-7
16	Summary of Requirements by Object Class	PAC-9
16A	Select Activities by Object Class – LO Detail	PAC-11
Operating Unit Materials:		
National Ocean Service		
3	**NOS Overview**	NOS-1
10	Program and Performance: Direct Obligations	NOS-3

13	Terminate NOAA Community Project Funding/NOAA Special Projects	NOS-4
	NOS Operations, Research, and Facilities	
12	**Navigation, Observations and Positioning**	NOS-5
13	Terminate the Center of Excellence for Operational Ocean and Great Lakes Mapping	NOS-19
14	Terminate the Center of Excellence for Operational Ocean and Great Lakes Mapping	NOS-21
15	Terminate the Center of Excellence for Operational Ocean and Great Lakes Mapping	NOS-22
13	Terminate Geospatial Modeling Grants	NOS-23
15	Terminate Geospatial Modeling Grants	NOS-25
13	Reduce NOAA Support for the Joint Hydrographic Centers for Coastal and Ocean Mapping	NOS-26
15	Reduce NOAA Support for the Joint Hydrographic Centers for Coastal and Ocean Mapping	NOS-28
13	Enterprise Infrastructure Solutions (EIS) Decrease	NOS-29
15	Enterprise Infrastructure Solutions (EIS) Decrease	NOS-30
13	Decrease IOOS Regional Observations	NOS-31
15	Decrease IOOS Regional Observations	NOS-34
12	**Coastal Science and Assessment**	NOS-35
13	Foundational Information for Expansion of Offshore Wind Energy	NOS-48
14	Foundational Information for Expansion of Offshore Wind Energy	NOS-52
15	Foundational Information for Expansion of Offshore Wind Energy	NOS-53
13	Decrease Disaster Preparedness Program (DPP) Funding	NOS-54
15	Decrease Disaster Preparedness Program (DPP) Funding	NOS-56
13	Terminate NCCOS Support to NOAA's Cooperative Institute for Research to Operations in Hydrology	NOS-57
15	Terminate NCCOS Support to NOAA's Cooperative Institute for Research to Operations in Hydrology	NOS-58
13	Enterprise Infrastructure Solutions (EIS) Decrease	NOS-59
15	Enterprise Infrastructure Solutions (EIS) Decrease	NOS-60
13	Decrease Competitive Research	NOS-61
15	Decrease Competitive Research	NOS-64
12	**Ocean and Coastal Management and Services**	NOS-65
13	Natural Capital Accounting	NOS-81
15	Natural Capital Accounting	NOS-84
13	Terminate Funding Support for Existing Regional Ocean Data Portals	NOS-85
15	Terminate Funding Support for Existing Regional Ocean Data Portals	NOS-87
13	Enterprise Infrastructure Solutions (EIS) Decrease	NOS-88

15	Enterprise Infrastructure Solutions (EIS) Decrease	NOS-89
13	Terminate Base Funding for the National Coastal Resilience Fund	NOS-90
15	Terminate Base Funding for the National Coastal Resilience Fund	NOS-91
13	Reduce Support for Coral Reef Conservation Program Grants	NOS-92
15	Reduce Support for Coral Reef Conservation Program Grants	NOS-95
13	Increasing Conservation and Protection Across the National Marine Sanctuary System	NOS-96
14	Increasing Conservation and Protection Across the National Marine Sanctuary System	NOS-99
15	Increasing Conservation and Protection Across the National Marine Sanctuary System	NOS-100
13	Enterprise Infrastructure Solutions (EIS) Decrease	NOS-101
15	Enterprise Infrastructure Solutions (EIS) Decrease	NOS-102
	NOS Procurement, Acquisition, and Construction	
12	**Construction**	NOS-103
13	Reduce National Estuarine Research Reserve Construction	NOS-108
15	Reduce National Estuarine Research Reserve Construction	NOS-111
13	Reduce Marine Sanctuaries Construction	NOS-112
15	Reduce Marine Sanctuaries Construction	NOS-114
	Damage Assessment and Restoration Revolving Fund	
5	Summary of Resource Requirements: Direct Obligations	NOS-115
12	Justification of Program and Performance	NOS-117
16	Summary of Requirements by Object Class	NOS-118
	Sanctuaries Enforcement Asset Forfeiture Fund	
5	Summary of Resource Requirements: Direct Obligations	NOS-121
12	Justification of Program and Performance	NOS-123
16	Summary of Requirements by Object Class	NOS-124
	Gulf Coast Ecosystem Restoration Science, Observation, Monitoring and Technology Fund	
5	Summary of Resource Requirements: Direct Obligations	NOS-127
12	Justification of Program and Performance	NOS-129
16	Summary of Requirements by Object Class	NOS-130
13	Terminate the Center of Excellence for Operational Ocean and Great Lakes Mapping	NOS-19
14	Terminate the Center of Excellence for Operational Ocean and Great Lakes Mapping	NOS-21
15	Terminate the Center of Excellence for Operational Ocean and Great Lakes Mapping	NOS-22

13	Terminate Geospatial Modeling Grants	NOS-23
15	Terminate Geospatial Modeling Grants	NOS-25
13	Reduce NOAA Support for the Joint Hydrographic Centers for Coastal and Ocean Mapping	NOS-26
	National Marine Fisheries Service	
3	**NMFS Overview**	NMFS-1
10	Program and Performance: Direct Obligations	NMFS-4
13	Terminate NOAA Community Project Funding/NOAA Special Projects	NMFS-7
12	**Protected Resources Science and Management**	NMFS-8
13	Wind Energy: Protected Species Environmental Reviews and Science	NMFS-15
14	Wind Energy: Protected Species Environmental Reviews and Science	NMFS-18
15	Wind Energy: Protected Species Environmental Reviews and Science	NMFS-19
13	Prescott Grant Program	NMFS-20
15	Prescott Grant Program	NMFS-22
13	Marine Mammal Projects Reductions	NMFS-23
15	Marine Mammal Projects Reductions	NMFS-25
13	Species Recovery Grants Program	NMFS-26
14	Species Recovery Grants Program	NMFS-28
15	Species Recovery Grants Program	NMFS-29
12	**Fisheries Science and Management**	NMFS-30
13	Wind Energy: Fisheries Science and Technical Reviews	NMFS-50
14	Wind Energy: Fisheries Science and Technical Reviews	NMFS-53
15	Wind Energy: Fisheries Science and Technical Reviews	NMFS-54
13	Enterprise Infrastructure Solutions (EIS) Decrease	NMFS-55
15	Enterprise Infrastructure Solutions (EIS) Decrease	NMFS-56
13	Wind Energy: Scientific Survey Mitigation	NMFS-57
14	Wind Energy: Scientific Survey Mitigation	NMFS-60
15	Wind Energy: Scientific Survey Mitigation	NMFS-61
13	Cooperative Research Program	NMFS-62
14	Cooperative Research Program	NMFS-64
15	Cooperative Research Program	NMFS-65
13	Fisheries Data Collection Projects Reduction	NMFS-66
15	Fisheries Data Collection Projects Reduction	NMFS-67
13	Wind Energy: Fisheries Management	NMFS-68

14	Wind Energy: Fisheries Management	NMFS-71
15	Wind Energy: Fisheries Management	NMFS-72
13	Bycatch Reduction Engineering Program	NMFS-73
15	Bycatch Reduction Engineering Program	NMFS-75
13	Fisheries Management Projects Reduction	NMFS-76
15	Fisheries Management Projects Reduction	NMFS-77
13	Mitchell Act Hatcheries Reduction	NMFS-78
15	Mitchell Act Hatcheries Reduction	NMFS-81
13	Interjurisdictional Fisheries Grants	NMFS-82
14	Interjurisdictional Fisheries Grants	NMFS-83
15	Interjurisdictional Fisheries Grants	NMFS-84
12	**Enforcement**	NMFS-85
13	Enforcement Projects Reduction	NMFS-90
15	Enforcement Projects Reduction	NMFS-91
12	**Habitat Conservation and Restoration**	NMFS-92
13	Habitat Restoration Program	NMFS-96
15	Habitat Restoration Program	NMFS-98
	Pacific Coastal Salmon Recovery Fund	
5	Summary of Resource Requirements	NMFS-99
12	Justification of Program and Performance	NMFS-101
16	Summary of Requirements by Object Class	NMFS-104
	Fisheries Disaster Assistance Fund	
5	Summary of Resource Requirements: Direct Obligations	NMFS-107
12	Justification of Program and Performance	NMFS-109
13	Fisheries Disaster Assistance	NMFS-111
14	Fisheries Disaster Assistance	NMFS-112
15	Fisheries Disaster Assistance	NMFS-113
16	Summary of Requirements by Object Class	NMFS-114
	Fishermen's Contingency Fund	
5	Summary of Resource Requirements: Direct Obligations	NMFS-117
12	Justification of Program and Performance	NMFS-119
16	Summary of Requirements by Object Class	NMFS-120

Foreign Fishing Observer Fund

5	Summary of Resource Requirements: Direct Obligations	NMFS-123
12	Justification of Program and Performance	NMFS-125
16	Summary of Requirements by Object Class	NMFS-126

Fisheries Finance Program Account

5	Summary of Resource Requirements: Direct Obligations	NMFS-129
12	Justification of Program and Performance	NMFS-131
16	Summary of Requirements by Object Class	NMFS-133

Promote and Develop Fisheries Products

5	Summary of Resource Requirements: Direct Obligations	NMFS-135
12	Justification of Program and Performance	NMFS-137
16	Summary of Requirements by Object Class	NMFS-139

Federal Ship Financing Fund

5	Summary of Resource Requirements: Direct Obligations	NMFS-141
12	Justification of Program and Performance	NMFS-143
16	Summary of Requirements by Object Class	NMFS-144

Environmental Improvement and Restoration Fund

5	Summary of Resource Requirements: Direct Obligations	NMFS-147
12	Justification of Program and Performance	NMFS-149
16	Summary of Requirements by Object Class	NMFS-150

Limited Access System Administration Fund

5	Summary of Resource Requirements: Direct Obligations	NMFS-153
12	Justification of Program and Performance	NMFS-155
16	Summary of Requirements by Object Class	NMFS-156

Marine Mammal Unusual Mortality Event Fund

5	Summary of Resource Requirements: Direct Obligations	NMFS-159
12	Justification of Program and Performance	NMFS-161
16	Summary of Requirements by Object Class	NMFS-165

	Western Pacific Sustainable Fisheries Fund	
5	Summary of Resource Requirements: Direct Obligations	NMFS-167
12	Justification of Program and Performance	NMFS-169
16	Summary of Requirements by Object Class	NMFS-171
	Fisheries Enforcement Asset Forfeiture Fund	
5	Summary of Resource Requirements: Direct Obligations	NMFS-173
12	Justification of Program and Performance	NMFS-175
16	Summary of Requirements by Object Class	NMFS-176
	North Pacific Observer Fund	
5	Summary of Resource Requirements: Direct Obligations	NMFS-179
12	Justification of Program and Performance	NMFS-181
16	Summary of Requirements by Object Class	NMFS-183
	Seafood Inspection Program Trust Revolving Fund	
5	Summary of Resource Requirements: Direct Obligations	NMFS-185
12	Justification of Program and Performance	NMFS-187
16	Summary of Requirements by Object Class	NMFS-188
Oceanic and Atmospheric Research		
3	**OAR Overview**	OAR-1
10	Program and Performance: Direct Obligations	OAR-7
13	Terminate NOAA Community Project Funding/NOAA Special Projects	OAR-8
12	**Climate Research**	OAR-9
13	Climate Laboratories and Cooperative Institutes Grants Decrease	OAR-18
15	Climate Laboratories and Cooperative Institutes Grants Decrease	OAR-20
13	Building climate resilience with readily available, integrated data and information	OAR-21
14	Building climate resilience with readily available, integrated data and information	OAR-24
15	Building climate resilience with readily available, integrated data and information	OAR-25
13	Climate Competitive Research Grants Decrease	OAR-26
15	Climate Competitive Research Grants Decrease	OAR-29
13	Water in the West Decrease	OAR-30
15	Water in the West Decrease	OAR-32

12	**Weather and Air Chemistry Research**	OAR-33
13	Weather Laboratories and Cooperative Institutes Grants Decrease	OAR-42
15	Weather Laboratories and Cooperative Institutes Grants Decrease	OAR-44
13	U.S. Weather Research Program Grants Decrease	OAR-45
15	U.S. Weather Research Program Grants Decrease	OAR-47
13	Joint Technology Transfer Initiative (JTTI) Grants Decrease	OAR-48
15	Joint Technology Transfer Initiative (JTTI) Grants Decrease	OAR-50
12	**Ocean, Coastal, and Great Lakes Research**	OAR-51
13	Ocean Laboratories and Cooperative Institutes Grants Decrease	OAR-65
15	Ocean Laboratories and Cooperative Institutes Grants Decrease	OAR-67
13	National Sea Grant College Program Decrease	OAR-68
14	National Sea Grant College Program Decrease	OAR-71
15	National Sea Grant College Program Decrease	OAR-72
13	Sea Grant Aquaculture Research Termination	OAR-73
14	Sea Grant Aquaculture Research Termination	OAR-74
15	Sea Grant Aquaculture Research Termination	OAR-75
13	Ocean Exploration and Research Grants Decrease	OAR-76
15	Ocean Exploration and Research Grants Decrease	OAR-78
13	National Oceanographic Partnership Program Decrease	OAR-79
15	National Oceanographic Partnership Program Decrease	OAR-81
12	**Innovative Research & Technology**	OAR-82
	OAR Procurement, Acquisition, and Construction	
12	**Systems Acquisition**	OAR-87
13	Research and Development (R&D) High Performance Computing (HPC)	OAR-91
15	Research and Development (R&D) High Performance Computing (HPC)	OAR-93
13	Phased Array Radar Research and Development Follow-On Plan	OAR-94
15	Phased Array Radar Research and Development Follow-On Plan	OAR-95
National Weather Service		
3	**NWS Overview**	NWS-1
10	Program and Performance: Direct Obligations	NWS-3

13	Terminate NOAA Community Project Funding/NOAA Special Projects	NWS-4
12	**Observations**	NWS-5
13	AWIPS in the Cloud - Data Flows	NWS-11
15	AWIPS in the Cloud - Data Flows	NWS-14
13	Reduce National Mesonet Program	NWS-15
15	Reduce National Mesonet Program	NWS-17
12	**Central Processing**	NWS-18
13	Tsunami Warning Center Alignment - Addressing Information Security Risks	NWS-22
14	Tsunami Warning Center Alignment - Addressing Information Security Risks	NWS-24
15	Tsunami Warning Center Alignment - Addressing Information Security Risks	NWS-25
13	AWIPS in the Cloud - System Engineering/Architecture	NWS-26
15	AWIPS in the Cloud - System Engineering/Architecture	NWS-29
13	Eliminate Advanced Hydrologic Prediction Services System Expansion	NWS-30
15	Eliminate Advanced Hydrologic Prediction Services System Expansion	NWS-32
12	**Analyze, Forecast, and Support**	NWS-33
13	Tsunami Warning Center Alignment - Common Analytic System	NWS-42
15	Tsunami Warning Center Alignment - Common Analytic System	NWS-44
13	Terminate Tsunami Grant Program	NWS-45
15	Terminate Tsunami Grant Program	NWS-46
12	**Dissemination**	NWS-47
13	Integrated Dissemination Program Implementation	NWS-53
15	Integrated Dissemination Program Implementation	NWS-55
13	AWIPS in the Cloud – Networking	NWS-56
15	AWIPS in the Cloud – Networking	NWS-59
12	**Science and Technology Integration**	NWS-60
13	Reduce the Cooperative Institute for Research to Operations in Hydrology	NWS-68
15	Reduce the Cooperative Institute for Research to Operations in Hydrology	NWS-70
13	Suspend COASTAL Act	NWS-71
15	Suspend COASTAL Act	NWS-72
	NWS Procurement, Acquisition, and Construction	

12	**Systems Acquisition**	NWS-73
12	**Observations**	NWS-73
12	**Central Processing**	NWS-77
13	Slow cloud readiness studies	NWS-80
15	Slow cloud readiness studies	NWS-82
12	**Dissemination**	NWS-83
12	**NWS Construction**	NWS-86
13	Reduce Radar Relocations	NWS-89
15	Reduce Radar Relocations	NWS-91
National Environmental Satellite, Data, and Information Service		
3	**NESDIS Overview**	NESDIS-1
3T	Transfer Change Detail by Object Class	NESDIS-13
10	Program and Performance: Direct Obligations	NESDIS-25
13	Terminate NOAA Community Project Funding/NOAA Special Projects	NESDIS-27
	NESDIS Operations, Research, and Facilities	
12	**Environmental Satellite Observing System**	NESDIS-28
13	Enterprise Infrastructure Solutions (EIS) Decrease	NESDIS-39
15	Enterprise Infrastructure Solutions (EIS) Decrease	NESDIS-40
13	U.S. Group on Earth Observations (USGEO)	NESDIS-41
15	U.S. Group on Earth Observations (USGEO)	NESDIS-44
12	**National Centers for Environmental Information**	NESDIS-45
	NESDIS Procurement, Acquisition, and Construction	
12	**Systems Acquisition**	NESDIS-55
13	GOES-R Series	NESDIS-84
15	GOES-R Series	NESDIS-88

13	Polar Weather Satellites (PWS)	NESDIS-89
15	Polar Weather Satellites (PWS)	NESDIS-94
13	Space Weather Follow On	NESDIS-95
15	Space Weather Follow On	NESDIS-100
13	Data-source Agnostic Common Services (DACS)	NESDIS-101
15	Data-source Agnostic Common Services (DACS)	NESDIS-105
13	Office of Common Services Decrease	NESDIS-106
15	Office of Common Services Decrease	NESDIS-110
13	Geostationary Extended Observations	NESDIS-111
15	Geostationary Extended Observations	NESDIS-116
13	Near Earth Orbit Network	NESDIS-117
15	Near Earth Orbit Network	NESDIS-121
13	Polar Operational Environmental Satellites (POES) Extension	NESDIS-122
15	Polar Operational Environmental Satellites (POES) Extension	NESDIS-124
13	Space Weather Next	NESDIS-125
15	Space Weather Next	NESDIS-128
13	Joint Venture	NESDIS-129
15	Joint Venture	NESDIS-132

Mission Support

3	**MS Overview**	MS-1
10	Program and Performance: Direct Obligations	MS-3
13	Terminate NOAA Community Project Funding/NOAA Special Projects	MS-5
	MS Operations, Research, and Facilities	
12	**Executive Leadership, Mission Services and Management, IT Security, Payment to the DOC Working Capital Fund, Office of Education, and Facilities Maintenance**	MS-6
13	Space Portal	MS-25
15	Space Portal	MS-28
13	Mission Authorization and Supervision (MA&S)	MS-29
14	Mission Authorization and Supervision (MA&S)	MS-31
15	Mission Authorization and Supervision (MA&S)	MS-32
	MS Procurement, Acquisition, and Construction	

12	**Construction**	MS-33
Office of Marine & Aviation Operations		
3	**OMAO Overview**	OMAO-1
10	Program and Performance: Direct Obligations	OMAO-3
	OMAO Operations, Research, and Facilities	
12	**Marine Operations and Maintenance**	OMAO-4
13	Enhanced Fleet Operations	OMAO-10
14	Enhanced Fleet Operations	OMAO-13
15	Enhanced Fleet Operations	OMAO-14
13	Enterprise Infrastructure Solutions (EIS) Decrease	OMAO-15
15	Enterprise Infrastructure Solutions (EIS) Decrease	OMAO-16
12	**Aviation Operations and Aircraft Services**	OMAO-17
13	Flight Hours in Support of Cross NOAA Climate Objectives	OMAO-24
14	Flight Hours in Support of Cross NOAA Climate Objectives	OMAO-26
15	Flight Hours in Support of Cross NOAA Climate Objectives	OMAO-27
12	**Autonomous Uncrewed Technology Operations**	OMAO-28
13	Reduce research and external partnerships	OMAO-33
15	Reduce research and external partnerships	OMAO-34
12	**NOAA Commissioned Officer Corps**	OMAO-35
13	Grow the NOAA Corps to Execute Marine and Aviation Requirements	OMAO-39
14	Grow the NOAA Corps to Execute Marine and Aviation Requirements	OMAO-42
15	Grow the NOAA Corps to Execute Marine and Aviation Requirements	OMAO-43
12	**Marine and Aviation Capital Investments**	OMAO-44
13	New Vessel Construction Decrease	OMAO-55
15	New Vessel Construction Decrease	OMAO-57
13	Second Aircraft to meet National Weather Research and Forecasting Needs	OMAO-58
15	Second Aircraft to meet National Weather Research and Forecasting Needs	OMAO-61
13	P-3 Service Depot Level Maintenance Completed	OMAO-62
15	P-3 Service Depot Level Maintenance Completed	OMAO-64

	NOAA Corps Retirement Pay	
5	Summary of Resource Requirements: Direct Obligations	OMAO-65
12	Justification of Program and Performance	OMAO-66
16	Summary of Requirements by Object Class	OMAO-69
	Medicare Eligible Retiree Health Fund Contribution – NOAA Corps	
5	Summary of Resource Requirements: Direct Obligations	OMAO-71
12	Justification of Program and Performance	OMAO-73
16	Summary of Requirements by Object Class	OMAO-74
Additional Materials		
33	Appropriation Language and Code Citations	AM-1
34	Advisory and Assistance Services	AM-23
35	Periodical, Pamphlets, and Audiovisual Products	AM-25
36	Average Grade and Salary	AM-27
41	Implementation Status of GAO and OIG Recommendations	AM-29
42	Description of Tribal Consultations	AM-47
Bipartisan Infrastructure Law		
3	Executive Summary	BIL-1
5	Summary of Resource Requirements	BIL-3
10	Program and Performance: Direct Obligations	BIL-7
12	Justification of Program and Performance	BIL-13
16	Summary of Resource Requirements by Object Class	BIL-49
34	Advisory and Assistance Services	BIL-53
4B	BIL Control Table	BIL Control Table-1
Annual Performance Plan/Annual Performance Report		APPR-1

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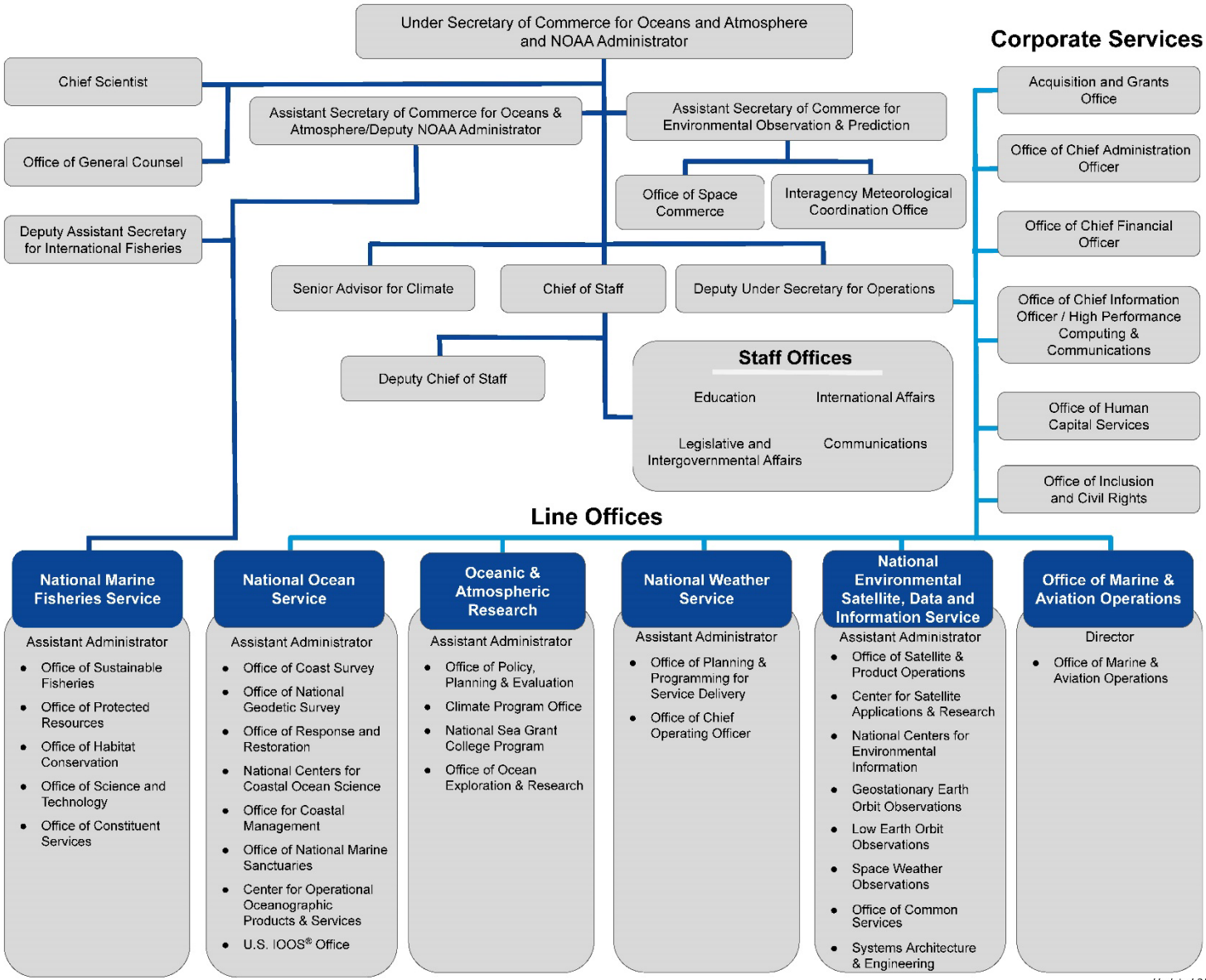
NOAA Headquarters Organization

Office of the Under Secretary for Oceans and Atmosphere



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Department of Commerce
National Oceanic and Atmospheric Administration
Budget Estimates, Fiscal Year 2025

EXECUTIVE SUMMARY

For Fiscal Year (FY) 2025, the National Oceanic and Atmospheric Administration (NOAA) proposes a budget of $6,560,975,000 in discretionary appropriations, an increase of $187,891,000 from the FY 2024 Annualized CR. In FY 2025, NOAA will prioritize investments in the critical operational and infrastructure activities that support its ability to carry out its mission. These substantial investments, along with other targeted increases, will allow NOAA to: maintain its next generation satellite program and collect the observations and data that enable improved forecasts, economic growth, and environmental stewardship; support the deployment of renewable wind energy and advance climate resilience across the Nation through expansion of usable products and services; and protect and restore our natural resources for the benefit and enjoyment of future generations. These activities, in conjunction with NOAA's Bipartisan Infrastructure Law and Inflation Reduction Act resources, will continue to advance NOAA's mission of science, service, and stewardship.

The FY 2025 request prioritizes necessary investments for NOAA's satellite program. Increases are requested to maintain planned development of current and next-generation satellite systems in geostationary and low Earth orbits as well as in deep space, and common ground services. An increase of $513,400,000 is requested to continue the development of the Geostationary Extended Observations program, advancing NOAA's weather, ocean, and climate observational capabilities to support U.S. forecasting and prediction operations. An increase of $158,910,000 is necessary to return to the resource level required for Polar Weather Satellites, supporting operations of on-orbit polar satellites and maintain development schedule of JPSS-3 and -4, and an increase of $85,148,000 is requested for Space Weather Next to support the execution of a comprehensive space weather program, including a Lagrange point 1 Series continuity project and a partnership project to Lagrange point 5. Further, an increase of $15,478,000 is requested for the Data-source Agnostic Common Services initiative, which enables enhanced satellite data products to meet NOAA's needs and deliver a common cloud platform that will scale to meet NOAA's data holding growth while expanding data access.

The NOAA aircraft and ships are vital assets for collecting observational data that support vital services to communities and businesses around the country. Aircraft recapitalization is necessary to keep the fleet operational and continue to support a climate and weather ready nation, specifically missions such as hurricane and atmospheric river forecasts, fisheries management, and flood planning. In FY 2025, NOAA requests an increase of $17,000,000, leveraging Inflation Reduction Act funding, to complete acquisition and outfitting of a second high-altitude hurricane hunter aircraft (G-550), which in addition to providing critical hurricane surveillance and backup capability, will provide longer lead times for atmospheric river forecasts and expand NOAA's capacity across the western Pacific. In order to safely and effectively operate the ships and aircraft, and meet the growing demands for NOAA science, NOAA requests an increase of $22,881,000 to grow the NOAA Corps. To deliver days at sea and flight hours to support critical observational mission requirements, NOAA requests an increase of $41,488,000 and $6,629,000, respectively.

There is increasing demand for NOAA to deliver continually improved products and services and to improve predictions of extreme weather events and climate-related impacts. To better support this increasing demand, an increase of $11,447,000 is requested to continue the planned implementation of the Integrated Dissemination Program to better support reliable dissemination infrastructure and ensure that essential warnings and forecasts are communicated in a timely manner to the American public. Further, an increase of $11,000,000 is requested to begin transforming NOAA's weather and climate services delivery by migrating the Advanced Weather Interactive Processing System, or AWIPS, to a cloud framework. This will provide forecasters with efficient and secure remote access to the system allowing them to be more nimble and flexible in providing impact-based decision support services when and where it is needed most. NOAA also requests an increase of $7,000,000 to support the Climate Resilience Information System and the Climate Mapping for Resilience and Adaptation, which will enhance the accessibility and usability of Federal climate data to inform local decision-making, and $1,000,000 to support the implementation of the marine component of the National Natural Capital Accounting Strategy which will provide a comprehensive accounting of ecosystem usage by industry and further contribute to ocean intelligence.

NOAA will optimize advances in science and technology to create value-added, data-driven economic opportunities and solutions to pressing societal needs, with an emphasis on offshore wind, alignment of the Tsunami Warning Centers, and space commerce. In FY 2025, an increase of $30,823,000 is requested to support the Administration's goal to deploy 30 gigawatts of offshore energy by 2030, while protecting biodiversity and promoting sustainable ocean co-use. Offshore wind development continues to rapidly expand and requires substantial scientific and regulatory review. In addition, an increase of $4,000,000 is requested to support the alignment of Tsunami Warning Centers, located in Palmer, Alaska, and Honolulu, Hawai'i. Tsunamis are unpredictable and have an extremely high impact with potentially disastrous consequences to life and property along the already vulnerable U.S. coastlines, and this request will ensure product consistency and fluid continuity of operations. Further, increases of $3,000,000 and $2,000,000 are requested for a Space Portal and for Mission Authorization and Supervision, respectively, for the Office of Space Commerce. Commercial space activities are experiencing tremendous economic and technological growth and these requests contribute to U.S. leadership in an increasingly competitive and global marketplace.

In FY 2025 NOAA requests an increase of $17,740,000 to support National Marine Sanctuaries and Marine Protected Areas as part of the Administration's America the Beautiful Initiative, which aims to conserve at least 30 percent of U.S. lands and waters by 2030. This would expand critical conservation work and support the designation process for additional sanctuaries. In addition, NOAA requests an increase of $10,000,000 to support Mitchell Act hatcheries in the Columbia River Basin. These additional funds are part of the Administration's commitment to prioritize the restoration of healthy and abundant wild salmon, steelhead, and other native fish populations to the Columbia River Basin, and honor the United States' obligations to tribal nations.

The NOAA FY 2025 request will make critical investments to better enable NOAA to address current and emerging needs of the Nation by expanding NOAA's climate products and services to build a climate-ready Nation; fostering environmental stewardship and

economic development by optimize advances in science and technology with a focus on the New Blue Economy; integrating equity across the organization and in our work; and supporting ongoing investments in NOAA's aircraft and ships, satellites, and facilities.. This will allow NOAA to be well-positioned to make tangible improvements in the communities we serve, particularly those most vulnerable to climate change and its impacts. Through this budget, NOAA will support the whole-of-government effort to address the climate crisis, boost resilience, and promote economic growth. For current GPRA targets please see the FY 2025/2023 Annual Performance Plan and Report.

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Department of Commerce
National Oceanic and Atmospheric Administration
FY 2025 PROGRAM INCREASES / DECREASES / TERMINATIONS
(Dollar amounts in thousands)
(By Budget Program, Largest to Smallest)

Increases

Page No In CJ	Appropriations	Budget Program	Title of Increase	Positions	Budget Authority
NOS-96	ORF	NOS	Increasing Conservation and Protection Across the National Marine Sanctuary System	15	$17,740
NOS-48	ORF	NOS	Foundational Information for Expansion of Offshore Wind Energy	2	$6,219
NOS-81	ORF	NOS	Natural Capital Accounting	0	$1,000
NMFS-78	ORF	NMFS	Mitchell Act Hatcheries	0	$10,000
NMFS-57	ORF	NMFS	Wind Energy: Scientific Survey Mitigation	17	$9,990
NMFS-50	ORF	NMFS	Wind Energy: Fisheries Science and Technical Reviews	11	$6,257
NMFS-15	ORF	NMFS	Wind Energy: Protected Species Environmental Reviews and Science	13	$5,545
NMFS-68	ORF	NMFS	Wind Energy: Fisheries Management	10	$2,812
OAR-23	ORF	OAR	Building climate resilience with readily available, integrated data and information	4	$7,000
NWS-53	ORF	NWS	Integrated Dissemination Program Implementation	0	$11,447
NWS-56	ORF	NWS	AWIPS in the Cloud – Networking	0	$5,000
NWS-11	ORF	NWS	AWIPS in the Cloud – Data Flows	0	$4,500
NWS-42	ORF	NWS	Tsunami Warning Center Alignment – Common Analytic System	0	$2,250
NWS-22	ORF	NWS	Tsunami Warning Center Alignment – Addressing Information Security Risks	3	$1,750
NWS-26	ORF	NWS	AWIPS in the Cloud – System Engineering/Architecture	0	$1,500
NESDIS-111	PAC	NESDIS	Geostationary Extended Observations	0	$513,400

Department of Commerce
National Oceanic and Atmospheric Administration
FY 2025 PROGRAM INCREASES / DECREASES / TERMINATIONS
(Dollar amounts in thousands)
(By Budget Program, Largest to Smallest)

NESDIS-89	PAC	NESDIS	Polar Weather Satellites	0	$158,910
NESDIS-125	PAC	NESDIS	Space Weather Next	0	$85,148
NESDIS-101	PAC	NESDIS	Data-source Agnostic Common Services	0	$15,478
NESDIS-41	ORF	NESDIS	U.S. Group on Earth Observations (USGEO)	0	$250
MS-25	ORF	MS	Space Portal	0	$3,000
MS-29	ORF	MS	Mission Authorization and Supervision	10	$2,000
OMAO-10	ORF	OMAO	Enhanced Fleet Operations	87	$41,488
OMAO-39	ORF	OMAO	Grow the NOAA Corps	50	$22,881
OMAO-58	PAC	OMAO	Second Aircraft to Meet National Weather Research and Forecasting Needs	0	$17,000
OMAO-24	ORF	OMAO	Flight Hours in Support of Cross NOAA Climate Objectives	7	$6,629
	Subtotal, Increases			229	$959,194

Decreases

Page No In CJ	Appropriations	Budget Program	Title of Decrease	Positions	Budget Authority
NOS-31	ORF	NOS	Decrease IOOS Regional Observations	0	($32,500)
NOS-61	ORF	NOS	Decrease Competitive Research	0	($17,496)
NOS-92	ORF	NOS	Reduce Support for Coral Reef Conservation Program Grants	0	($14,279)
NOS-108	PAC	NOS	Reduce National Estuarine Research Reserve Construction	0	($5,498)
NOS-26	ORF	NOS	Reduce NOAA Support for Joint Hydrographic Centers for Coastal and Ocean Mapping	0	($4,698)
NOS-54	ORF	NOS	Decrease Disaster Preparedness Program (DPP) Funding	0	($1,603)

Department of Commerce
National Oceanic and Atmospheric Administration
FY 2025 PROGRAM INCREASES / DECREASES / TERMINATIONS
(Dollar amounts in thousands)
(By Budget Program, Largest to Smallest)

NOS-112	PAC	NOS	Reduce Marine Sanctuaries Construction	0	($1,500)
NMFS-62	ORF	NMFS	Cooperative Research Program	(10)	($9,831)
NMFS-96	ORF	NMFS	Habitat Restoration Program	0	($7,000)
NMFS-23	ORF	NMFS	Marine Mammal Projects Reduction	0	($2,690)
NMFS-76	ORF	NMFS	Fisheries Management Projects Reduction	0	($1,850)
NMFS-66	ORF	NMFS	Fisheries Data Collection Projects Reduction	0	($1,200)
NMFS-90	ORF	NMFS	Enforcement Projects Reduction	0	($950)
OAR-76	ORF	OAR	Ocean Exploration and Research Grants Decrease	0	($21,033)
OAR-48	ORF	OAR	Joint Technology Transfer Initiative (JTTI) Decrease	0	($12,320)
OAR-18	ORF	OAR	Climate Laboratories and Cooperative Institutes Grants Decrease	0	($10,198)
OAR-42	ORF	OAR	Weather Laboratories and Cooperative Institutes Grants Decrease	0	($8,413)
OAR-69	ORF	OAR	National Sea Grant College Program Decrease	(3)	($8,056)
OAR-45	ORF	OAR	U.S. Weather Research Program Grants Decrease	0	($8,013)
OAR-26	ORF	OAR	Climate Competitive Research Grants Decrease	0	($7,617)
OAR-30	ORF	OAR	Water in the West Decrease	0	($3,000)
OAR-65	ORF	OAR	Ocean Laboratories and Cooperative Institutes Grants Decrease	0	($2,937)
OAR-79	ORF	OAR	National Oceanographic Partnership Program Decrease	0	($1,525)
OAR-91	PAC	OAR	Research and Development (R&D) High Performance Computing (HPC)	0	($1,500)
NWS-68	ORF	NWS	Reduce the Cooperative Institute for Research to Operations in Hydrology	0	($19,050)
NWS-15	ORF	NWS	Reduce National Mesonet Program	0	($5,137)

Department of Commerce
National Oceanic and Atmospheric Administration
FY 2025 PROGRAM INCREASES / DECREASES / TERMINATIONS
(Dollar amounts in thousands)
(By Budget Program, Largest to Smallest)

NWS-89	PAC	NWS	Reduce Radar Relocations	0	($3,500)
NWS-30	ORF	NWS	Eliminate Advanced Hydrologic Prediction Services System Expansion	0	($2,609)
NWS-80	PAC	NWS	Slow cloud readiness studies	0	($1,649)
NESDIS-84	PAC	NESDIS	GOES-R Series	0	($200,097)
NESDIS-95	PAC	NESDIS	Space Weather Follow On	0	($95,000)
NESDIS-106	PAC	NESDIS	Office of Common Services Decrease	0	($10,784)
NESDIS-117	PAC	NESDIS	Near Earth Orbit Network	0	($9,893)
OMAO-55	PAC	OMAO	New Vessel Construction Decrease	0	($20,000)
OMAO-33	ORF	OMAO	Reduce research and external partnerships	0	($491)
	Subtotal, Decreases			(13)	($553,917)

Terminations

Page No In CJ	Appropriations	Budget Program	Title of Decrease	Positions	Budget Authority
NOS-4	ORF	NOS	Terminate NOAA Community Project Funding / NOAA Special Projects	0	($37,673)
NOS-90	ORF	NOS	Terminate Base Funding for the National Coastal Resilience Fund	0	($34,000)
NOS-19	ORF	NOS	Terminate the Center of Excellence for Operational Ocean and Great Lakes Mapping	(6)	($10,000)
NOS-23	ORF	NOS	Terminate Geospatial Modeling Grants	0	($8,000)

Department of Commerce
National Oceanic and Atmospheric Administration
FY 2025 PROGRAM INCREASES / DECREASES / TERMINATIONS
(Dollar amounts in thousands)
(By Budget Program, Largest to Smallest)

NOS-85	ORF	NOS	Terminate Funding Support for Existing Regional Ocean Data Portals	0	($2,500)
NOS-57	ORF	NOS	Terminate NCCOS Support to NOAA's Cooperative Institute for Research to Operations in Hydrology	0	($1,020)
NOS-29	ORF	NOS	Enterprise Infrastructure Solutions (EIS) Decrease	0	($1,000)
NOS-59	ORF	NOS	Enterprise Infrastructure Solutions (EIS) Decrease	0	($900)
NOS-88	ORF	NOS	Enterprise Infrastructure Solutions (EIS) Decrease	0	($800)
NOS-101	ORF	NOS	Enterprise Infrastructure Solutions (EIS) Decrease	0	($300)
NMFS-7	ORF	NMFS	Terminate NOAA Community Project Funding / NOAA Special Projects	0	($38,486)
NMFS-26	ORF	NMFS	Species Recovery Grants Program	(4)	($7,264)
NMFS-20	ORF	NMFS	Prescott Grant Program	0	($4,517)
NMFS-82	ORF	NMFS	Interjurisdictional Fisheries Grants	(2)	($3,380)
NMFS-73	ORF	NMFS	Bycatch Reduction Engineering Program	0	($2,875)
NMFS-55	ORF	NMFS	Enterprise Infrastructure Solutions (EIS) Decrease	0	($200)
NMFS-111	FDAF	NMFS	Fisheries Disaster Assistance	(1)	($300)
OAR-94	PAC	OAR	Phased Array Radar Research and Development Follow-On Plan	0	($30,000)
OAR-8	ORF	OAR	Terminate NOAA Community Project Funding / NOAA Special Projects	0	($20,841)
OAR-73	ORF	OAR	Sea Grant Aquaculture Research Termination	(4)	($14,080)
NWS-4	ORF	NWS	Terminate NOAA Community Project Funding / NOAA Special Projects	0	($7,265)
NWS-45	ORF	NWS	Terminate Tsunami Grant Program	0	($6,000)

Department of Commerce
National Oceanic and Atmospheric Administration
FY 2025 PROGRAM INCREASES / DECREASES / TERMINATIONS
(Dollar amounts in thousands)
(By Budget Program, Largest to Smallest)

NWS-71	ORF	NWS	Suspend COASTAL Act	0	($1,314)
NESDIS-129	PAC	NESDIS	Joint Venture	0	($20,000)
NESDIS-122	PAC	NESDIS	Polar Operational Environmental Satellites (POES) Extension	0	($10,000)
NESDIS-27	ORF	NESDIS	Terminate NOAA Community Project Funding / NOAA Special Projects	0	($2,500)
NESDIS-39	ORF	NESDIS	Enterprise Infrastructure Solutions (EIS) Decrease	0	($1,500)
MS-5	ORF	MS	Terminate NOAA Community Project Funding / NOAA Special Projects	0	($4,700)
OMAO-62	PAC	OMAO	P-3 Service Depot Level Maintenance Completed	0	($5,000)
OMAO-15	ORF	OMAO	Enterprise Infrastructure Solutions (EIS) Decrease	0	($200)
	Subtotal, Terminations			(17)	($276,615)

Department of Commerce
National Oceanic and Atmospheric Administration
FY 2023 TRANSFER SUMMARY TABLE
(Dollar amounts in thousands)
(Grouped by Title of Transfer, Largest to Smallest)

Page No In CJ	Budget Program	Appropriations	Title of Transfer	Positions	Budget Authority
	NESDIS		Low Earth Orbit Operational Phase Transfers to	1	8,100
NESDIS-13		ORF	Office of Satellite and Product Operations	[1]	[5,750]
NESDIS-15		ORF	Product Development, Readiness and Application	[0]	[2,350]
	NESDIS		Low Earth Orbit Operational Phase Transfers from	(1)	(8,100)
NESDIS-14		PAC	Low Earth Orbit	[(1)]	[(5,750)]
NESDIS-16		PAC	Low Earth Orbit	[0]	[(2,350)]
	NESDIS		Space Weather Follow On Operational Phase Transfers to	0	1,465
NESDIS-17		ORF	Office of Satellite and Product Operations	[0]	[1,065]
NESDIS-19		ORF	National Centers for Environmental Information	[0]	[400]
	NESDIS		Space Weather Follow On Operational Phase Transfers from	0	(1,465)
NESDIS-18		PAC	Space Weather Follow On	[0]	[(1,065)]
NESDIS-20		PAC	Space Weather Follow On	[0]	[(400)]
	NESDIS		GOES-R Series Operational Phase Transfers to	0	17,400
NESDIS-21		ORF	Office of Satellite and Product Operations	[0]	[7,000]
NESDIS-23		PAC	Common Ground Services	[0]	[10,400]
	NESDIS		GOES-R Series Operational Phase Transfers from	(0)	(17,400)
NESDIS-22		PAC	Geostationary Systems - R	[0]	[(7,000)]
NESDIS-24		PAC	Geostationary Systems - R	[0]	[(10,400)]
		Total, Transfers		0	0

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Department of Commerce
National Oceanic and Atmospheric Administration
Research and Development (R&D) Investments
(Dollar amounts in thousands)

The NOAA FY 2025 Budget estimates for R&D investments are the result of an integrated requirements-based strategic planning process. This process provides the structure to link NOAA's strategic vision with programmatic detail and budget development, with the goal of maximizing resources while optimizing capabilities.

The NOAA Science Council - an internal body composed of senior scientific personnel from every Line Office in the agency - developed NOAA's most recent Strategic Research Guidance Memorandum, FY 2024. This memorandum guides NOAA's R&D activities and provides a common understanding among NOAA's leadership, its workforce, its partners, constituents and Congress on the value of NOAA's R&D activities.

NOAA requests $861 million for investments (excluding equipment and facilities) in R&D in the FY 2025 Budget. The distribution by Line Offices is provided in the table below.

Line Office ($ in thousands)	**Research**	**Development**	**Total R&D (excluding Equipment and Facilities)**	**Equipment and Facilities**	**Total R&D with Equipment and Facilities**
NOS	94,224	11,099	105,323	0	105,323
NMFS	43,838	17,062	60,900	0	60,900
OAR	422,104	109,043	531,147	77,662	608,809
NWS	12,952	26,476	39,428	0	39,428
NESDIS	60,740	0	60,740	0	60,740
OMAO	48,132	0	48,132	226,605	274,736
MS	2,000	13,000	15,000	0	15,000
Total	**$683,989**	**$176,680**	**$860,669**	**$304,267**	**$1,164,936**

*Totals may not add due to rounding

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Department of Commerce
National Oceanic and Atmospheric Administration
CONTROL TABLE
(Dollar amounts in thousands)

NATIONAL OCEAN SERVICE

Direct Obligations

FY 2025 Proposed Operating Plan	POS	FTE	FY 2024 Estimate	POS	FTE	FY 2025 Calculated ATBs	FY 2025 Technical ATBs	POS	FTE	FY 2025 Base	POS	FTE	FY 2025 Program Changes	POS	FTE	FY 2025 President's Budget
Navigation, Observations and Positioning																
Navigation, Observations and Positioning	623	589	184,702	0	0	3,990	0	623	589	188,692	(6)	(6)	(23,698)	617	583	164,994
Hydrographic Survey Priorities/Contracts	24	24	32,500	0	0	163	0	24	24	32,663	0	0	0	24	24	32,663
IOOS Regional Observations	0	0	42,500	0	0	0	0	0	0	42,500	0	0	(32,500)	0	0	10,000
Total, Navigation, Observations and Positioning	**647**	**613**	**259,702**	**0**	**0**	**4,153**	**0**	**647**	**613**	**263,855**	**(6)**	**(6)**	**(56,198)**	**641**	**607**	**207,657**
Coastal Science and Assessment																
Coastal Science, Assessment, Response and Restoration	298	279	96,500	0	0	1,890	0	298	279	98,390	2	2	2,696	300	281	101,086
Competitive Research	4	4	22,500	0	0	27	0	4	4	22,527	0	0	(17,496)	4	4	5,031
Total, Coastal Science and Assessment	**302**	**283**	**119,000**	**0**	**0**	**1,917**	**0**	**302**	**283**	**120,917**	**2**	**2**	**(14,800)**	**304**	**285**	**106,117**
Ocean and Coastal Management and Services																
Coastal Zone Management and Services	128	126	51,220	0	0	854	0	128	126	52,074	0	0	(1,800)	128	126	50,274
Coastal Zone Management Grants	0	0	81,500	0	0	0	0	0	0	81,500	0	0	0	0	0	81,500
National Oceans and Coastal Security Fund	0	0	34,000	0	0	0	0	0	0	34,000	0	0	(34,000)	0	0	0
Coral Reef Program	33	31	33,500	0	0	210	0	33	31	33,710	0	0	(14,279)	33	31	19,431
National Estuarine Research Reserve System	0	0	32,500	0	0	0	0	0	0	32,500	0	0	0	0	0	32,500
Sanctuaries and Marine Protected Areas	188	184	68,000	0	0	1,247	0	188	184	69,247	15	11	16,940	203	195	86,187
Total, Ocean and Coastal Management and Services	**349**	**341**	**300,720**	**0**	**0**	**2,311**	**0**	**349**	**341**	**303,031**	**15**	**11**	**(33,139)**	**364**	**352**	**269,892**
NOAA Community Project Funding/NOAA Special Projects	**0**	**0**	**37,673**	**0**	**0**	**0**	**0**	**0**	**0**	**37,673**	**0**	**0**	**(37,673)**	**0**	**0**	**0**
Total, NOS - Discretionary ORF	**1,298**	**1,237**	**717,095**	**0**	**0**	**8,381**	**0**	**1,298**	**1,237**	**725,476**	**11**	**7**	**(141,810)**	**1,309**	**1,244**	**583,666**
Total, NOS - Discretionary PAC	1	1	14,000	0	0	0	0	1	1	14,000	0	0	(6,998)	1	1	7,002
Discretionary Total - NOS	**1,299**	**1,238**	**731,095**	**0**	**0**	**8,381**	**0**	**1,299**	**1,238**	**739,476**	**11**	**7**	**(148,808)**	**1,310**	**1,245**	**590,668**
Total, NOS - Other Mandatory Accounts	32	32	178,162	0	0	0	(144,820)	32	32	33,342	0	0	0	32	32	33,342
GRAND TOTAL NOS	**1,331**	**1,270**	**909,257**	**0**	**0**	**8,381**	**(144,820)**	**1,331**	**1,270**	**772,818**	**11**	**7**	**(148,808)**	**1,342**	**1,277**	**624,010**

Department of Commerce
National Oceanic and Atmospheric Administration
CONTROL TABLE
(Dollar amounts in thousands)

NATIONAL MARINE FISHERIES SERVICE

Direct Obligations

FY 2025 Proposed Operating Plan	POS	FTE	FY 2024 Estimate	POS	FTE	FY 2025 Calculated ATBs	FY 2025 Technical ATBs	POS	FTE	FY 2025 Base	POS	FTE	FY 2025 Program Changes	POS	FTE	FY 2025 President's Budget
Protected Resources Science and Management																
Marine Mammals, Sea Turtles, and Other Species	549	465	175,255	0	0	2,612	0	549	465	177,867	13	10	(1,662)	562	475	176,205
Species Recovery Grants	4	2	7,250	0	0	14	0	4	2	7,264	(4)	(2)	(7,264)	0	0	0
Atlantic Salmon	23	19	6,750	0	0	116	0	23	19	6,866	0	0	0	23	19	6,866
Pacific Salmon	340	289	72,000	0	0	1,667	0	340	289	73,667	0	0	0	340	289	73,667
Total, Protected Resources Science and Management	**916**	**775**	**261,255**	**0**	**0**	**4,409**	**0**	**916**	**775**	**265,664**	**9**	**8**	**(8,926)**	**925**	**783**	**256,738**
Fisheries Science and Management																
Fisheries and Ecosystem Science Programs and Services	668	585	161,500	0	0	3,091	0	668	585	164,591	11	8	6,057	679	593	170,648
Fisheries Data Collections, Surveys, and Assessments	511	466	203,851	0	0	2,902	0	511	466	206,753	7	3	(1,041)	518	469	205,712
Observers and Training	161	149	58,383	0	0	684	0	161	149	59,067	0	0	0	161	149	59,067
Fisheries Management Programs and Services	500	458	137,750	0	0	2,459	0	500	458	140,209	10	8	(1,913)	510	466	138,296
Aquaculture	43	36	19,000	0	0	244	0	43	36	19,244	0	0	0	43	36	19,244
Salmon Management Activities	42	41	65,250	0	0	220	0	42	41	65,470	0	0	10,000	42	41	75,470
Regional Councils and Fisheries Commissions	13	11	44,297	0	0	1,418	0	13	11	45,715	0	0	0	13	11	45,715
Interjurisdictional Fisheries Grants	2	1	3,377	0	0	3	0	2	1	3,380	(2)	(1)	(3,380)	0	0	0
Total, Fisheries Science and Management	**1,940**	**1,747**	**693,408**	**0**	**0**	**11,021**	**0**	**1,940**	**1,747**	**704,429**	**26**	**18**	**9,723**	**1,966**	**1,765**	**714,152**
Enforcement																
Enforcement	259	226	82,000		0	1,405	0	259	226	83,405	0	0	(950)	259	226	82,455
Total, Enforcement	**259**	**226**	**82,000**	**0**	**0**	**1,405**	**0**	**259**	**226**	**83,405**	**0**	**0**	**(950)**	**259**	**226**	**82,455**
Habitat Conservation and Restoration																
Habitat Conservation and Restoration	191	183	56,684	0	0	1,037	0	191	183	57,721	0	0	(7,000)	191	183	50,721
Subtotal, Habitat Conservation & Restoration	**191**	**183**	**56,684**	**0**	**0**	**1,037**	**0**	**191**	**183**	**57,721**	**0**	**0**	**(7,000)**	**191**	**183**	**50,721**
NOAA Community Project Funding/NOAA Special Projects	**0**	**0**	**38,486**	**0**	**0**	**0**	**0**	**0**	**0**	**38,486**	**0**	**0**	**(38,486)**	**0**	**0**	**0**
Total, NMFS - Discretionary ORF	**3,306**	**2,931**	**1,131,833**	**0**	**0**	**17,872**	**0**	**3,306**	**2,931**	**1,149,705**	**35**	**26**	**(45,639)**	**3,341**	**2,957**	**1,104,066**
Total, NMFS - Discretionary PAC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total, NMFS - Other Discretionary Accounts	3	3	65,649	0	0	0	0	3	3	65,649	(1)	(1)	(300)	2	2	65,349
Discretionary Total - NMFS	**3,309**	**2,934**	**1,197,482**	**0**	**0**	**17,872**	**0**	**3,309**	**2,934**	**1,215,354**	**34**	**25**	**(45,939)**	**3,343**	**2,959**	**1,169,415**
Total, NMFS - Mandatory Accounts	168	150	76,596	0	5	0	(17,480)	168	155	59,116	0	0	0	168	155	59,116
GRAND TOTAL NMFS	**3,477**	**3,084**	**1,274,078**	**0**	**5**	**17,872**	**(17,480)**	**3,477**	**3,089**	**1,274,470**	**34**	**25**	**(45,939)**	**3,511**	**3,114**	**1,228,531**

Department of Commerce
National Oceanic and Atmospheric Administration
CONTROL TABLE
(Dollar amounts in thousands)

OFFICE OF OCEANIC AND ATMOSPHERIC RESEARCH

Direct Obligations

FY 2025 Proposed Operating Plan	POS	FTE	FY 2024 Estimate	POS	FTE	FY 2025 Calculated ATBs	FY 2025 Technical ATBs	POS	FTE	FY 2025 Base	POS	FTE	FY 2025 Program Changes	POS	FTE	FY 2025 President's Budget
Climate Research																
Climate Laboratories & Cooperative Institutes	213	201	104,102	0	0	1,264	0	213	201	105,366	0	0	(10,198)	213	201	95,168
Regional Climate Data & Information	29	29	47,932	0	0	335	0	29	29	48,267	4	3	7,000	33	32	55,267
Climate Competitive Research	60	51	72,116	0	0	532	0	60	51	72,648	0	0	(10,617)	60	51	62,031
Total, Climate Research	**302**	**281**	**224,150**	**0**	**0**	**2,131**	**0**	**302**	**281**	**226,281**	**4**	**3**	**(13,815)**	**306**	**284**	**212,466**
Weather & Air Chemistry Research																
Weather Laboratories & Cooperative Institutes																
Weather Laboratories & Cooperative Institutes	283	243	93,156	0	0	1,378	0	283	243	94,534	0	0	(8,413)	283	243	86,121
Subtotal, Weather Laboratories and Cooperative Institutes	**283**	**243**	**93,156**	**0**	**0**	**1,378**	**0**	**283**	**243**	**94,534**	**0**	**0**	**(8,413)**	**283**	**243**	**86,121**
Weather and Air Chemistry Research Programs																
U.S. Weather Research Program (USWRP)	20	17	39,100	0	0	247	0	20	17	39,347	0	0	(8,013)	20	17	31,334
Tornado Severe Storm Research / Phased Array Radar	6	6	20,916	0	0	120	0	6	6	21,036	0	0	0	6	6	21,036
Joint Technology Transfer Initiative	4	4	13,244	0	0	77	0	4	4	13,321	0	0	(12,320)	4	4	1,001
Subtotal, Weather and Air Chemistry Research Programs	**30**	**27**	**73,260**	**0**	**0**	**444**	**0**	**30**	**27**	**73,704**	**0**	**0**	**(20,333)**	**30**	**27**	**53,371**
Total, Weather and Air Chemistry Research	**313**	**270**	**166,416**	**0**	**0**	**1,822**	**0**	**313**	**270**	**168,238**	**0**	**0**	**(28,746)**	**313**	**270**	**139,492**
Ocean, Coastal, and Great Lakes Research																
Ocean Laboratories and Cooperative Institutes																
Ocean Laboratories and Cooperative Institutes	131	111	39,500	0	0	615	0	131	111	40,115	0	0	(2,937)	131	111	37,178
Subtotal, Ocean Laboratories and Cooperative Institutes	**131**	**111**	**39,500**	**0**	**0**	**615**	**0**	**131**	**111**	**40,115**	**0**	**0**	**(2,937)**	**131**	**111**	**37,178**
National Sea Grant College Program																
National Sea Grant College Program	20	20	80,000	0	0	448	0	20	20	80,448	(3)	(3)	(8,056)	17	17	72,392
Sea Grant Aquaculture Research	4	4	14,000	0	0	80	0	4	4	14,080	(4)	(4)	(14,080)	0	0	0
Subtotal, National Sea Grant College Program	**24**	**24**	**94,000**	**0**	**0**	**528**	**0**	**24**	**24**	**94,528**	**(7)**	**(7)**	**(22,136)**	**17**	**17**	**72,392**
Ocean Exploration and Research	38	36	46,000	0	0	353	0	38	36	46,353	0	0	(21,033)	38	36	25,320
Integrated Ocean Acidification	14	14	17,000	0	0	133	0	14	14	17,133	0	0	0	14	14	17,133
Sustained Ocean Observations and Monitoring	32	32	52,500	0	0	368	0	32	32	52,868	0	0	0	32	32	52,868
National Oceanographic Partnership Program	1	1	2,500	0	0	15	0	1	1	2,515	0	0	(1,525)	1	1	990
Total, Ocean, Coastal, and Great Lakes Research	**240**	**218**	**251,500**	**0**	**0**	**2,012**	**0**	**240**	**218**	**253,512**	**(7)**	**(7)**	**(47,631)**	**233**	**211**	**205,881**
Innovative Research & Technology																
High Performance Computing Initiatives	17	16	18,231	0	0	147	0	17	16	18,378	0	0	0	17	16	18,378
Uncrewed Systems	3	2	1,000	0	0	12	0	3	2	1,012	0	0	0	3	2	1,012
Total, Innovative Research & Technology	**20**	**18**	**19,231**	**0**	**0**	**159**	**0**	**20**	**18**	**19,390**	**0**	**0**	**0**	**20**	**18**	**19,390**
NOAA Community Project Funding/NOAA Special Projects	**0**	**0**	**20,841**	**0**	**0**	**0**	**0**	**0**	**0**	**20,841**	**0**	**0**	**(20,841)**	**0**	**0**	**0**
Total, OAR - Discretionary ORF	**875**	**787**	**682,138**	**0**	**0**	**6,124**	**0**	**875**	**787**	**688,262**	**(3)**	**(4)**	**(111,033)**	**872**	**783**	**577,229**
Total, OAR - Discretionary PAC	4	4	100,000	0	0	0	0	4	4	100,000	0	0	(31,500)	4	4	68,500
Discretionary Total - OAR	**879**	**791**	**782,138**	**0**	**0**	**6,124**	**0**	**879**	**791**	**788,262**	**(3)**	**(4)**	**(142,533)**	**876**	**787**	**645,729**
GRAND TOTAL OAR	**879**	**791**	**782,138**	**0**	**0**	**6,124**	**0**	**879**	**791**	**788,262**	**(3)**	**(4)**	**(142,533)**	**876**	**787**	**645,729**

Department of Commerce
National Oceanic and Atmospheric Administration
CONTROL TABLE
(Dollar amounts in thousands)

NATIONAL WEATHER SERVICE

Direct Obligations

FY 2025 Proposed Operating Plan	POS	FTE	FY 2024 Estimate	POS	FTE	FY 2025 Calculated ATBs	FY 2025 Technical ATBs	POS	FTE	FY 2025 Base	POS	FTE	FY 2025 Program Changes	POS	FTE	FY 2025 President's Budget
Observations	725	712	251,462	0	0	4,139	0	725	712	255,601	0	0	(637)	725	712	254,964
Central Processing	231	221	110,500	0	0	1,613	0	231	221	112,113	3	2	641	234	223	112,754
Analyze, Forecast and Support	2,846	2,846	589,500	0	0	13,991	0	2,846	2,846	603,491	0	0	(3,750)	2,846	2,846	599,741
Dissemination	93	85	116,979	0	0	1,147	0	93	85	118,126	0	0	16,447	93	85	134,573
Science and Technology Integration	471	438	178,952	0	0	2,556	0	471	438	181,508	0	0	(20,364)	471	438	161,144
NOAA Community Project Funding/NOAA Special Projects	**0**	**0**	**7,265**	**0**	**0**	**0**	**0**	**0**	**0**	**7,265**	**0**	**0**	**(7,265)**	**0**	**0**	**0**
Total, NWS - Discretionary ORF	**4,366**	**4,302**	**1,254,658**	**0**	**0**	**23,446**	**0**	**4,366**	**4,302**	**1,278,104**	**3**	**2**	**(14,928)**	**4,369**	**4,304**	**1,263,176**
Total, NWS - Discretionary PAC	32	31	109,349	0	0	0	0	32	31	109,349	0	0	(5,149)	32	31	104,200
Total, NWS - Other Discretionary Accounts																
Discretionary Total - NWS	**4,398**	**4,333**	**1,364,007**	**0**	**0**	**23,446**	**0**	**4,398**	**4,333**	**1,387,453**	**3**	**2**	**(20,077)**	**4,401**	**4,335**	**1,367,376**
GRAND TOTAL NWS	**4,398**	**4,333**	**1,364,007**	**0**	**0**	**23,446**	**0**	**4,398**	**4,333**	**1,387,453**	**3**	**2**	**(20,077)**	**4,401**	**4,335**	**1,367,376**

Department of Commerce
National Oceanic and Atmospheric Administration
CONTROL TABLE
(Dollar amounts in thousands)

NATIONAL ENVIRONMENTAL SATELLITE, DATA, AND INFORMATION SERVICE

Direct Obligations

FY 2025 Proposed Operating Plan	POS	FTE	FY 2024 Estimate	POS	FTE	FY 2025 Calculated ATBs	FY 2025 Technical ATBs	POS	FTE	FY 2025 Base	POS	FTE	FY 2025 Program Changes	POS	FTE	FY 2025 President's Budget
Environmental Satellite Observing Systems																
Office of Satellite and Product Operations	325	311	245,915	1	1	4,250	13,815	326	312	263,980	0	0	(1,500)	326	312	262,480
Product Development, Readiness & Application	87	79	57,500	0	0	890	2,350	87	79	60,740	0	0	0	87	79	60,740
U.S. Group on Earth Observations (USGEO)	0	0	750	0	0	0	0	0	0	750	0	0	250	0	0	1,000
Total, Environmental Satellite Observing Systems	**412**	**390**	**304,165**	**1**	**1**	**5,140**	**16,165**	**413**	**391**	**325,470**	**0**	**0**	**(1,250)**	**413**	**391**	**324,220**
National Centers for Environmental Information																
National Centers for Environmental Information	210	200	71,372	0	0	1,518	400	210	200	73,290	0	0	0	210	200	73,290
Total, National Centers for Environmental Information	**210**	**200**	**71,372**	**0**	**0**	**1,518**	**400**	**210**	**200**	**73,290**	**0**	**0**	**0**	**210**	**200**	**73,290**
NOAA Community Project Funding/NOAA Special Projects	**0**	**0**	**2,500**	**0**	**0**	**0**	**0**	**0**	**0**	**2,500**	**0**	**0**	**(2,500)**	**0**	**0**	**0**
Total, NESDIS - Discretionary ORF	**622**	**590**	**378,037**	**1**	**1**	**6,658**	**16,565**	**623**	**591**	**401,260**	**0**	**0**	**(3,750)**	**623**	**591**	**397,510**
Total, NESDIS - Discretionary PAC	354	297	1,330,119	(1)	(1)	0	(16,565)	353	296	1,313,554	0	0	427,162	353	296	1,740,716
Discretionary Total - NESDIS	**976**	**887**	**1,708,156**	**0**	**0**	**6,658**	**0**	**976**	**887**	**1,714,814**	**0**	**0**	**423,412**	**976**	**887**	**2,138,226**
GRAND TOTAL NESDIS	**976**	**887**	**1,708,156**	**0**	**0**	**6,658**	**0**	**976**	**887**	**1,714,814**	**0**	**0**	**423,412**	**976**	**887**	**2,138,226**

Department of Commerce
National Oceanic and Atmospheric Administration
CONTROL TABLE
(Dollar amounts in thousands)

MISSION SUPPORT
Direct Obligations

FY 2025 Proposed Operating Plan	POS	FTE	FY 2024 Estimate	POS	FTE	FY 2025 Calculated ATBs	FY 2025 Technical ATBs	POS	FTE	FY 2025 Base	POS	FTE	FY 2025 Program Changes	POS	FTE	FY 2025 President's Budget
Mission Support Services																
Executive Leadership	124	124	31,743	0	0	733	0	124	124	32,476	0	0	0	124	124	32,476
Mission Services and Management	663	630	182,375	0	0	4,410	0	663	630	186,785	0	0	0	663	630	186,785
IT Security	22	22	16,393	0	0	203	0	22	22	16,596	0	0	0	22	22	16,596
Payment to the DOC Working Capital Fund	0	0	71,299	0	0	14,374	0	0	0	85,673	0	0	0	0	0	85,673
Facilities Maintenance	0	0	6,500	0	0	94	0	0	0	6,594	0	0	0	0	0	6,594
Office of Space Commerce	36	29	70,000	0	0	638	0	36	29	70,638	10	7	5,000	46	36	75,638
Total, Mission Support Services	**845**	**805**	**378,310**	**0**	**0**	**20,452**	**0**	**845**	**805**	**398,762**	**10**	**7**	**5,000**	**855**	**812**	**403,762**
Office of Education																
Office of Education	16	16	35,450	0	0	151	0	16	16	35,601	0	0	0	16	16	35,601
Total, Office of Education	**16**	**16**	**35,450**	**0**	**0**	**151**	**0**	**16**	**16**	**35,601**	**0**	**0**	**0**	**16**	**16**	**35,601**
NOAA Community Project Funding/NOAA Special Projects	**0**	**0**	**4,700**	**0**	**0**	**0**	**0**	**0**	**0**	**4,700**	**0**	**0**	**(4,700)**	**0**	**0**	**0**
Undistributed ATBs	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Total, MS - Discretionary ORF	**861**	**821**	**418,460**	**0**	**0**	**20,603**	**0**	**861**	**821**	**439,063**	**10**	**7**	**300**	**871**	**828**	**439,363**
Total, MS - Discretionary PAC	2	2	90,000	0	0	0	0	2	2	90,000	0	0	0	2	2	90,000
Discretionary Total - MS	**863**	**823**	**508,460**	**0**	**0**	**20,603**	**0**	**863**	**823**	**529,063**	**10**	**7**	**300**	**873**	**830**	**529,363**
GRAND TOTAL MS	**863**	**823**	**508,460**	**0**	**0**	**20,603**	**0**	**863**	**823**	**529,063**	**10**	**7**	**300**	**873**	**830**	**529,363**

Department of Commerce
National Oceanic and Atmospheric Administration
CONTROL TABLE
(Dollar amounts in thousands)

OFFICE OF MARINE AND AVIATION OPERATIONS

Direct Obligations

FY 2025 Proposed Operating Plan	POS	FTE	FY 2024 Estimate	POS	FTE	FY 2025 Calculated ATBs	FY 2025 Technical ATBs	POS	FTE	FY 2025 Base	POS	FTE	FY 2025 Program Changes	POS	FTE	FY 2025 President's Budget
Marine Operations and Maintenance	704	688	204,000	0	0	4,786	0	704	688	208,786	87	65	41,288	791	753	250,074
Aviation Operations and Aircraft Services	103	97	40,500	0	0	1,309	0	103	97	41,809	7	5	6,629	110	102	48,438
Autonomous Uncrewed Technology Operations	16	13	21,677	0	0	112	0	16	13	21,789	0	0	(491)	16	13	21,298
NOAA Commissioned Officer Corps	354	354	62,500	(2)	(2)	2,400	0	352	352	64,900	50	49	22,881	402	401	87,781
Total, OMAO - Discretionary ORF	**1,177**	**1,152**	**328,677**	**(2)**	**(2)**	**8,607**	**0**	**1,175**	**1,150**	**337,284**	**144**	**119**	**70,307**	**1,319**	**1,269**	**407,591**
Total, OMAO - Discretionary PAC	69	66	132,000	0	0	0	0	69	66	132,000	0	0	(8,000)	69	66	124,000
Total, OMAO - Other Discretionary Accounts	0	0	1,970	0	0	0	0	0	0	1,970	0	0	0	0	0	1,970
Discretionary Total - OMAO	**1,246**	**1,218**	**462,647**	**(2)**	**(2)**	**8,607**	**0**	**1,244**	**1,216**	**471,254**	**144**	**119**	**62,307**	**1,388**	**1,335**	**533,561**
Total, OMAO - Other Mandatory Accounts	0	0	34,998	0	0	0	0	0	0	34,998	0	0	0	0	0	34,998
GRAND TOTAL OMAO	**1,246**	**1,218**	**497,645**	**(2)**	**(2)**	**8,607**	**0**	**1,244**	**1,216**	**506,252**	**144**	**119**	**62,307**	**1,388**	**1,335**	**568,559**

Department of Commerce
National Oceanic and Atmospheric Administration
CONTROL TABLE
(Dollar amounts in thousands)

ORF SUMMARY

LINE OFFICE DIRECT DISCRETIONARY OBLIGATIONS

FY 2025 Proposed Operating Plan	POS	FTE	FY 2024 Estimate	POS	FTE	FY 2025 Calculated ATBs	FY 2025 Technical ATBs	POS	FTE	FY 2025 Base	POS	FTE	FY 2025 Program Changes	POS	FTE	FY 2025 President's Budget
National Ocean Service	1,298	1,237	717,095	0	0	8,381	0	1,298	1,237	725,476	11	7	(141,810)	1,309	1,244	583,666
National Marine Fisheries Service	3,306	2,931	1,131,833	0	0	17,872	0	3,306	2,931	1,149,705	35	26	(45,639)	3,341	2,957	1,104,066
Office of Oceanic and Atmospheric Research	875	787	682,138	0	0	6,124	0	875	787	688,262	(3)	(4)	(111,033)	872	783	577,229
National Weather Service	4,366	4,302	1,254,658	0	0	23,446	0	4,366	4,302	1,278,104	3	2	(14,928)	4,369	4,304	1,263,176
National Environmental Satellite, Data and Information Service	622	590	378,037	1	1	6,658	16,565	623	591	401,260	0	0	(3,750)	623	591	397,510
Mission Support	861	821	418,460	0	0	20,603	0	861	821	439,063	10	7	300	871	828	439,363
Office of Marine and Aviation Operations	1,177	1,152	328,677	(2)	(2)	8,607	0	1,175	1,150	337,284	144	119	70,307	1,319	1,269	407,591
SUBTOTAL LO DIRECT DISCRETIONARY ORF OBLIGATIONS	**12,505**	**11,820**	**4,910,898**	**(1)**	**(1)**	**91,691**	**16,565**	**12,504**	**11,819**	**5,019,154**	**200**	**157**	**(246,553)**	**12,704**	**11,976**	**4,772,601**

Department of Commerce
National Oceanic and Atmospheric Administration
CONTROL TABLE
(Dollar amounts in thousands)

ORF ADJUSTMENTS

FY 2025 Proposed Operating Plan	POS	FTE	FY 2024 Estimate	POS	FTE	FY 2025 Calculated ATBs	FY 2025 Technical ATBs	POS	FTE	FY 2025 Base	POS	FTE	FY 2025 Program Changes	POS	FTE	FY 2025 President's Budget
SUBTOTAL ORF DIRECT OBLIGATIONS	**12,505**	**11,820**	**4,910,898**	**(1)**	**(1)**	**91,691**	**16,565**	**12,504**	**11,819**	**5,019,154**	**200**	**157**	**(246,553)**	**12,704**	**11,976**	**4,772,601**
FINANCING																
Deobligations	0	0	(23,000)	0	0	0	0	0	0	(23,000)	0	0	0	0	0	(23,000)
Total ORF Financing	**0**	**0**	**(23,000)**	**0**	**0**	**0**	**0**	**0**	**0**	**(23,000)**	**0**	**0**	**0**	**0**	**0**	**(23,000)**
SUBTOTAL ORF BUDGET AUTHORITY	**12,505**	**11,820**	**4,887,898**	**(1)**	**(1)**	**91,691**	**16,565**	**12,504**	**11,819**	**4,996,154**	**200**	**157**	**(246,553)**	**12,704**	**11,976**	**4,749,601**
TRANSFERS																
Transfer from P&D to ORF	0	0	(344,901)	0	0	0	(32,462)	0	0	(377,363)	0	0	0	0	0	(377,363)
Total ORF Transfers	**0**	**0**	**(344,901)**	**0**	**0**	**0**	**(32,462)**	**0**	**0**	**(377,363)**	**0**	**0**	**0**	**0**	**0**	**(377,363)**
SUBTOTAL ORF APPROPRIATION	**12,505**	**11,820**	**4,542,997**	**(1)**	**(1)**	**91,691**	**(15,897)**	**12,504**	**11,819**	**4,618,791**	**200**	**157**	**(246,553)**	**12,704**	**11,976**	**4,372,238**

Department of Commerce
National Oceanic and Atmospheric Administration
CONTROL TABLE
(Dollar amounts in thousands)

PROCUREMENT, ACQUISITION, AND CONSTRUCTION

Direct Discretionary Obligations

FY 2025 Proposed Operating Plan	POS	FTE	FY 2024 Estimate	POS	FTE	FY 2025 Calculated ATBs	FY 2025 Technical ATBs	POS	FTE	FY 2025 Base	POS	FTE	FY 2025 Program Changes	POS	FTE	FY 2025 President's Budget
NOS																
Acquisition/Construction																
National Estuarine Research Reserve Construction	0	0	8,500	0	0	0	0	0	0	8,500	0	0	(5,498)	0	0	3,002
Marine Sanctuaries Construction	1	1	5,500	0	0	0	0	1	1	5,500	0	0	(1,500)	1	1	4,000
Other NOS Construction	0	0	0							0			0	0	0	0
Subtotal, NOS Construction	**1**	**1**	**14,000**	**0**	**0**	**0**	**0**	**1**	**1**	**14,000**	**0**	**0**	**(6,998)**	**1**	**1**	**7,002**
Total, NOS - PAC	**1**	**1**	**14,000**	**0**	**0**	**0**	**0**	**1**	**1**	**14,000**	**0**	**0**	**(6,998)**	**1**	**1**	**7,002**
NMFS																
Total, NMFS - PAC	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
OAR																
Systems Acquisition																
Research Supercomputing/ CCRI	4	4	70,000	0	0	0	0	4	4	70,000	0	0	(1,500)	4	4	68,500
Research Acquisitions and Management	0	0	30,000	0	0	0	0	0	0	30,000	0	0	(30,000)	0	0	0
Subtotal, OAR Systems Acquisition	**4**	**4**	**100,000**	**0**	**0**	**0**	**0**	**4**	**4**	**100,000**	**0**	**0**	**(31,500)**	**4**	**4**	**68,500**
Total, OAR - PAC	**4**	**4**	**100,000**	**0**	**0**	**0**	**0**	**4**	**4**	**100,000**	**0**	**0**	**(31,500)**	**4**	**4**	**68,500**
NWS																
Systems Acquisition																
Observations	3	3	16,200	0	0	0	0	3	3	16,200	0	0	0	3	3	16,200
Central Processing	27	26	69,649	0	0	0	0	27	26	69,649	0	0	(1,649)	27	26	68,000
Dissemination	1	1	10,000	0	0	0	0	1	1	10,000	0	0	0	1	1	10,000
Subtotal, NWS Systems Acquisition	**31**	**30**	**95,849**	**0**	**0**	**0**	**0**	**31**	**30**	**95,849**	**0**	**0**	**(1,649)**	**31**	**30**	**94,200**
Construction																
Facilities Construction and Major Repairs	1	1	13,500	0	0	0	0	1	1	13,500	0	0	(3,500)	1	1	10,000
Subtotal, NWS Construction	**1**	**1**	**13,500**	**0**	**0**	**0**	**0**	**1**	**1**	**13,500**	**0**	**0**	**(3,500)**	**1**	**1**	**10,000**
Total, NWS - PAC	**32**	**31**	**109,349**	**0**	**0**	**0**	**0**	**32**	**31**	**109,349**	**0**	**0**	**(5,149)**	**32**	**31**	**104,200**

Department of Commerce
National Oceanic and Atmospheric Administration
CONTROL TABLE
(Dollar amounts in thousands)

PROCUREMENT, ACQUISITION, AND CONSTRUCTION

Direct Discretionary Obligations

FY 2025 Proposed Operating Plan	POS	FTE	FY 2024 Estimate	POS	FTE	FY 2025 Calculated ATBs	FY 2025 Technical ATBs	POS	FTE	FY 2025 Base	POS	FTE	FY 2025 Program Changes	POS	FTE	FY 2025 President's Budget
NESDIS																
Systems Acquisition																
Geostationary Systems - R	51	48	301,000	0	0	0	(17,400)	51	48	283,600	0	0	(200,097)	51	48	83,503
Polar Weather Satellites	57	52	183,500	0	0	0	0	57	52	183,500	0	0	158,910	57	52	342,410
Space Weather Follow On	27	22	136,200	0	0	0	(1,465)	27	22	134,735	0	0	(95,000)	27	22	39,735
Common Ground Services (CGS)	78	68	105,433	0	0	0	10,400	78	68	115,833	0	0	4,694	78	68	120,527
Geostationary Earth Orbit (GEO)	34	28	285,000	0	0	0	0	34	28	285,000	0	0	513,400	34	28	798,400
Low Earth Orbit (LEO)	16	13	96,430	(1)	(1)	0	(8,100)	15	12	88,330	0	0	(19,893)	15	12	68,437
Space Weather Next	49	32	151,606	0	0	0	0	49	32	151,606	0	0	85,148	49	32	236,754
Systems/Services Architecture and Engineering (SAE)	42	34	68,500	0	0	0	0	42	34	68,500	0	0	(20,000)	42	34	48,500
Subtotal, NESDIS Systems Acquisition	**354**	**297**	**1,327,669**	**(1)**	**(1)**	**0**	**(16,565)**	**353**	**296**	**1,311,104**	**0**	**0**	**427,162**	**353**	**296**	**1,738,266**
Construction																
Satellite CDA Facility	0	0	2,450	0	0	0	0	0	0	2,450	0	0	0	0	0	2,450
Subtotal, NESDIS Construction	**0**	**0**	**2,450**	**0**	**0**	**0**	**0**	**0**	**0**	**2,450**	**0**	**0**	**0**	**0**	**0**	**2,450**
Total, NESDIS - PAC	**354**	**297**	**1,330,119**	**(1)**	**(1)**	**0**	**(16,565)**	**353**	**296**	**1,313,554**	**0**	**0**	**427,162**	**353**	**296**	**1,740,716**
Mission Support																
Construction																
NOAA Construction	2	2	90,000	0	0	0	0	2	2	90,000	0	0	0	2	2	90,000
Subtotal, Mission Support Construction	**2**	**2**	**90,000**	**0**	**0**	**0**	**0**	**2**	**2**	**90,000**	**0**	**0**	**0**	**2**	**2**	**90,000**
Total, Mission Support - PAC	**2**	**2**	**90,000**	**0**	**0**	**0**	**0**	**2**	**2**	**90,000**	**0**	**0**	**0**	**2**	**2**	**90,000**
OMAO																
Marine and Aviation Capital Investments																
Fleet Capital Improvements & Tech Infusion	17	17	28,000	0	0	0	0	17	17	28,000	0	0	0	17	17	28,000
Vessel Recapitalization and Construction	43	40	95,000	0	0	0	0	43	40	95,000	0	0	(20,000)	43	40	75,000
Aircraft Recapitalization and Construction	9	9	9,000	0	0	0	0	9	9	9,000	0	0	12,000	9	9	21,000
Subtotal, Marine and Aviation Capital Investments	**69**	**66**	**132,000**	**0**	**0**	**0**	**0**	**69**	**66**	**132,000**	**0**	**0**	**(8,000)**	**69**	**66**	**124,000**
Total, OMAO - PAC	**69**	**66**	**132,000**	**0**	**0**	**0**	**0**	**69**	**66**	**132,000**	**0**	**0**	**(8,000)**	**69**	**66**	**124,000**
GRAND TOTAL PAC DISCRETIONARY OBLIGATIONS	**462**	**401**	**1,775,468**	**(1)**	**(1)**	**0**	**(16,565)**	**461**	**400**	**1,758,903**	**0**	**0**	**375,515**	**461**	**400**	**2,134,418**

Department of Commerce
National Oceanic and Atmospheric Administration
CONTROL TABLE
(Dollar amounts in thousands)

PAC ADJUSTMENTS

FY 2025 Proposed Operating Plan	POS	FTE	FY 2024 Estimate	POS	FTE	FY 2025 Calculated ATBs	FY 2025 Technical ATBs	POS	FTE	FY 2025 Base	POS	FTE	FY 2025 Program Changes	POS	FTE	FY 2025 President's Budget
SUBTOTAL PAC DIRECT OBLIGATIONS	**462**	**401**	**1,775,468**	**(1)**	**(1)**	**0**	**(16,565)**	**461**	**400**	**1,758,903**	**0**	**0**	**375,515**	**461**	**400**	**2,134,418**
FINANCING																
Deobligations	0	0	(13,000)	0	0	0	0	0	0	(13,000)	0	0	0	0	0	(13,000)
Total PAC Financing	**0**	**0**	**(13,000)**	**0**	**0**	**0**	**0**	**0**	**0**	**(13,000)**	**0**	**0**	**0**	**0**	**0**	**(13,000)**
SUBTOTAL PAC BUDGET AUTHORITY	**462**	**401**	**1,762,468**	**(1)**	**(1)**	**0**	**(16,565)**	**461**	**400**	**1,745,903**	**0**	**0**	**375,515**	**461**	**400**	**2,121,418**
TRANSFERS																
Transfer from ORF to PAC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transfer from PAC to ORF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total PAC Transfers	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
SUBTOTAL PAC APPROPRIATION	**462**	**401**	**1,762,468**	**(1)**	**(1)**	**0**	**(16,565)**	**461**	**400**	**1,745,903**	**0**	**0**	**375,515**	**461**	**400**	**2,121,418**

Department of Commerce
National Oceanic and Atmospheric Administration
CONTROL TABLE
(Dollar amounts in thousands)

OTHER ACCOUNTS DISCRETIONARY

FY 2025 Proposed Operating Plan	POS	FTE	FY 2024 Estimate	POS	FTE	FY 2025 Calculated ATBs	FY 2025 Technical ATBs	POS	FTE	FY 2025 Base	POS	FTE	FY 2025 Program Changes	POS	FTE	FY 2025 President's Budget
NMFS																
Fishermen's Contingency Fund Obligations	0	0	349	0	0	0	0	0	0	349	0	0	0	0	0	349
Fishermen's Contingency Fund Budget Authority	0	0	349	0	0	0	0	0	0	349	0	0	0	0	0	349
Fishermen's Contingency Fund Appropriations	0	0	349	0	0	0	0	0	0	349	0	0	0	0	0	349
Promote and Develop Fisheries Obligations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Promote and Develop Fisheries Budget Authority	0	0	(344,901)	0	0	0	(32,462)	0	0	(377,363)	0	0	0	0	0	(377,363)
Promote and Develop Fisheries Appropriation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pacific Coastal Salmon Recovery Fund Obligations	2	2	65,000	0	0	0	0	2	2	65,000	0	0	0	2	2	65,000
Pacific Coastal Salmon Recovery Fund Budget Authority	2	2	65,000	0	0	0	0	2	2	65,000	0	0	0	2	2	65,000
Pacific Coastal Salmon Recovery Fund Appropriation	2	2	65,000	0	0	0	0	2	2	65,000	0	0	0	2	2	65,000
Marine Mammal Unusual Mortality Event Fund Obligations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Marine Mammal Unusual Mortality Event Fund Budget Authority	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Marine Mammal Unusual Mortality Event Fund Appropriation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fisheries Disaster Assistance Fund Obligations	1	1	300	0	0	0	0	1	1	300	(1)	(1)	(300)	0	0	0
Fisheries Disaster Assistance Fund Budget Authority	1	1	300	0	0	0	0	1	1	300	(1)	(1)	(300)	0	0	0
Fisheries Disaster Assistance Fund Appropriation	1	1	300	0	0	0	0	1	1	300	(1)	(1)	(300)	0	0	0
Subtotal, NMFS Other Discretionary Direct Obligations	**3**	**3**	**65,649**	**0**	**0**	**0**	**0**	**3**	**3**	**65,649**	**(1)**	**(1)**	**(300)**	**2**	**2**	**65,349**
Subtotal, NMFS Other Discretionary Budget Authority	**3**	**3**	**(279,252)**	**0**	**0**	**0**	**(32,462)**	**3**	**3**	**(311,714)**	**(1)**	**(1)**	**(300)**	**2**	**2**	**(312,014)**
Subtotal, NMFS Other Discretionary Appropriation	**3**	**3**	**65,649**	**0**	**0**	**0**	**0**	**3**	**3**	**65,649**	**(1)**	**(1)**	**(300)**	**2**	**2**	**65,349**
OMAO																
Medicare Eligible Retiree Healthcare Fund Obligations	0	0	1,970	0	0	0	0	0	0	1,970	0	0	0	0	0	1,970
Medicare Eligible Retiree Healthcare Fund Budget Authority	0	0	1,970	0	0	0	0	0	0	1,970	0	0	0	0	0	1,970
Medicare Eligible Retiree Healthcare Fund Appropriation	0	0	1,970	0	0	0	0	0	0	1,970	0	0	0	0	0	1,970
Subtotal, OMAO Other Discretionary Direct Obligations	**0**	**0**	**1,970**	**0**	**0**	**0**	**0**	**0**	**0**	**1,970**	**0**	**0**	**0**	**0**	**0**	**1,970**
Subtotal, OMAO Other Discretionary Budget Authority	**0**	**0**	**1,970**	**0**	**0**	**0**	**0**	**0**	**0**	**1,970**	**0**	**0**	**0**	**0**	**0**	**1,970**
Subtotal, OMAO Other Discretionary Appropriation	**0**	**0**	**1,970**	**0**	**0**	**0**	**0**	**0**	**0**	**1,970**	**0**	**0**	**0**	**0**	**0**	**1,970**
TOTAL, OTHER DISCRETIONARY DIRECT OBLIGATIONS	**3**	**3**	**67,619**	**0**	**0**	**0**	**0**	**3**	**3**	**67,619**	**(1)**	**(1)**	**(300)**	**2**	**2**	**67,319**
TOTAL, OTHER DISCRETIONARY BUDGET AUTHORITY	**3**	**3**	**(277,282)**	**0**	**0**	**0**	**(32,462)**	**3**	**3**	**(309,744)**	**(1)**	**(1)**	**(300)**	**2**	**2**	**(310,044)**
TOTAL, OTHER DISCRETIONARY APPROPRIATION	**3**	**3**	**67,619**	**0**	**0**	**0**	**0**	**3**	**3**	**67,619**	**(1)**	**(1)**	**(300)**	**2**	**2**	**67,319**

Department of Commerce
National Oceanic and Atmospheric Administration
CONTROL TABLE
(Dollar amounts in thousands)

GRAND TOTAL SUMMARY DISCRETIONARY APPROPRIATIONS

FY 2025 Proposed Operating Plan	POS	FTE	FY 2024 Estimate	POS	FTE	FY 2025 Calculated ATBs	FY 2025 Technical ATBs	POS	FTE	FY 2025 Base	POS	FTE	FY 2025 Program Changes	POS	FTE	FY 2025 President's Budget
Operations, Research, and Facilities	12,505	11,820	4,542,997	(1)	(1)	91,691	(15,897)	12,504	11,819	4,618,791	200	157	(246,553)	12,704	11,976	4,372,238
Procurement, Acquisition, and Construction	462	401	1,762,468	(1)	(1)	0	(16,565)	461	400	1,745,903	0	0	375,515	461	400	2,121,418
Fisherman's Contingency Fund	0	0	349	0	0	0	0	30	30	0	0	0	0	0	0	349
Pacific Coastal Salmon Recovery Fund	2	2	65,000	0	0	0	0	2	2	65,000	0	0	0	2	2	65,000
Fisheries Disaster Assistance Fund	1	1	300	0	0	0	0	1	1	300	(1)	(1)	(300)	0	0	0
Marine Mammal Unusual Mortality Event Fund	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Medicare Eligible Retiree Health Care Fund	0	0	1,970	0	0	0	0	0	0	1,970	0	0	0	0	0	1,970
GRAND TOTAL DISCRETIONARY APPROPRIATION	**12,970**	**12,224**	**6,373,084**	**(2)**	**(2)**	**91,691**	**(32,462)**	**12,998**	**12,252**	**6,431,964**	**199**	**156**	**128,662**	**13,167**	**12,378**	**6,560,975**

Department of Commerce
National Oceanic and Atmospheric Administration
CONTROL TABLE
(Dollar amounts in thousands)

SUMMARY OF DISCRETIONARY RESOURCES

FY 2025 Proposed Operating Plan	POS	FTE	FY 2024 Estimate	POS	FTE	FY 2025 Calculated ATBs	FY 2025 Technical ATBs	POS	FTE	FY 2025 Base	POS	FTE	FY 2025 Program Changes	POS	FTE	FY 2025 President's Budget
Direct Discretionary Obligations																
ORF Direct Obligations	12,505	11,820	4,910,898	(1)	(1)	91,691	16,565	12,504	11,819	5,019,154	200	157	(246,553)	12,704	11,976	4,772,601
PAC Direct Obligations	462	401	1,775,468	(1)	(1)	0	(16,565)	461	400	1,758,903	0	0	375,515	461	400	2,134,418
OTHER Direct Obligations	3	3	67,619	0	0	0	0	3	3	67,619	(1)	(1)	(300)	2	2	67,319
TOTAL Direct Discretionary Obligations	**12,970**	**12,224**	**6,753,985**	**(2)**	**(2)**	**91,691**	**0**	**12,968**	**12,222**	**6,845,676**	**199**	**156**	**128,662**	**13,167**	**12,378**	**6,974,338**
Discretionary Budget Authority																
ORF Budget Authority	12,505	11,820	4,887,898	(1)	(1)	91,691	16,565	12,504	11,819	4,996,154	200	157	(246,553)	12,704	11,976	4,749,601
PAC Budget Authority	462	401	1,762,468	(1)	(1)	0	(16,565)	461	400	1,745,903	0	0	375,515	461	400	2,121,418
OTHER Budget Authority	3	3	(277,282)	0	0	0	(32,462)	3	3	(309,744)	(1)	(1)	(300)	2	2	(310,044)
TOTAL Discretionary Budget Authority	**12,970**	**12,224**	**6,373,084**	**(2)**	**(2)**	**91,691**	**(32,462)**	**12,968**	**12,222**	**6,432,313**	**199**	**156**	**128,662**	**13,167**	**12,378**	**6,560,975**
Discretionary Appropriations																
ORF Appropriation	12,505	11,820	4,542,997	(1)	(1)	91,691	(15,897)	12,504	11,819	4,618,791	200	157	(246,553)	12,704	11,976	4,372,238
PAC Appropriation	462	401	1,762,468	(1)	(1)	0	(16,565)	461	400	1,745,903	0	0	375,515	461	400	2,121,418
OTHER Appropriation	3	3	67,619	0	0	0	0	3	3	67,619	(1)	(1)	(300)	2	2	67,319
TOTAL Discretionary Appropriation	**12,970**	**12,224**	**6,373,084**	**(2)**	**(2)**	**91,691**	**(32,462)**	**12,968**	**12,222**	**6,432,313**	**199**	**156**	**128,662**	**13,167**	**12,378**	**6,560,975**

Department of Commerce
National Oceanic and Atmospheric Administration
CONTROL TABLE
(Dollar amounts in thousands)

OTHER ACCOUNTS MANDATORY

FY 2025 Proposed Operating Plan	POS	FTE	FY 2024 Estimate	POS	FTE	FY 2025 Calculated ATBs	FY 2025 Technical ATBs	POS	FTE	FY 2025 Base	POS	FTE	FY 2025 Program Changes	POS	FTE	FY 2025 President's Budget
NOS																
Damage Assessment and Restoration Revolving Fund Obligations	30	30	166,484	0	0	0	(148,484)	30	30	18,000	0	0	0	30	30	18,000
Damage Assessment and Restoration Revolving Fund Budget Authority	30	30	7,884	0	0	0	116	30	30	8,000	0	0	0	30	30	8,000
Damage Assessment and Restoration Revolving Fund Appropriation	30	30	0	0	0	0	0	30	30	0	0	0	0	30	30	0
Sanctuaries Enforcement Asset Forfeiture Fund Obligations	0	0	1,287	0	0	0	(637)	0	0	650	0	0	0	0	0	650
Sanctuaries Enforcement Asset Forfeiture Fund Budget Authority	0	0	1,277	0	0	0	(637)	0	0	640	0	0	0	0	0	640
Sanctuaries Enforcement Asset Forfeiture Fund Appropriation	0	0	1,300	0	0	0	(700)	0	0	600	0	0	0	0	0	600
Gulf Coast Ecosystem Restoration Fund Obligations	2	2	10,391	0	0	0	4,301	2	2	14,692	0	0	0	2	2	14,692
Gulf Coast Ecosystem Restoration Fund Budget Authority	2	2	0	0	0	0	0	2	2	0	0	0	0	2	2	0
Gulf Coast Ecosystem Restoration Fund Appropriation	2	2	0	0	0	0	0	2	2	0	0	0	0	2	2	0
Subtotal, NOS Other Mandatory Direct Obligations	**32**	**32**	**178,162**	**0**	**0**	**0**	**(144,820)**	**32**	**32**	**33,342**	**0**	**0**	**0**	**32**	**32**	**33,342**
Subtotal, NOS Other Mandatory Budget Authority	**32**	**32**	**9,161**	**0**	**0**	**0**	**(521)**	**32**	**32**	**8,640**	**0**	**0**	**0**	**32**	**32**	**8,640**
Subtotal, NOS Other Mandatory Appropriation	**32**	**32**	**1,300**	**0**	**0**	**0**	**(700)**	**32**	**32**	**600**	**0**	**0**	**0**	**32**	**32**	**600**
NMFS																
Promote and Develop Fisheries Obligations	0	0	31,621	0	0	0	(31,621)	0	0	0	0	0	0	0	0	0
Promote and Develop Fisheries Budget Authority	0	0	376,522	0	0	0	841	0	0	377,363	0	0	0	0	0	377,363
Promote and Develop Fisheries Appropriation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fisheries Finance Program Account Obligations	0	0	202	0	0	0	(202)	0	0	0	0	0	0	0	0	0
Fisheries Finance Program Account Budget Authority	0	0	202	0	0	0	(202)	0	0	0	0	0	0	0	0	0
Fisheries Finance Program Account Appropriation	0	0	202	0	0	0	(202)	0	0	0	0	0	0	0	0	0
Environmental Improvement & Restoration Fund Obligations	0	0	8,448	0	0	0	6,616	0	0	15,064	0	0	0	0	0	15,064
Environmental Improvement & Restoration Fund Budget Authority	0	0	8,448	0	0	0	6,616	0	0	15,064	0	0	0	0	0	15,064
Environmental Improvement & Restoration Fund Appropriation	0	0	8,959	0	0	0	7,016	0	0	15,975	0	0	0	0	0	15,975
Limited Access System Administration Fund Obligations	40	40	14,133	0	0	0	295	40	40	14,428	0	0	0	40	40	14,428
Limited Access System Administration Fund Budget Authority	40	40	14,133	0	0	0	295	40	40	14,428	0	0	0	40	40	14,428
Limited Access System Administration Fund Appropriation	40	40	14,089	0	0	0	360	40	40	14,449	0	0	0	40	40	14,449
Western Pacific Sustainable Fisheries Fund Obligations	0	0	750	0	0	0	0	0	0	750	0	0	0	0	0	750
Western Pacific Sustainable Fisheries Fund Budget Authority	0	0	750	0	0	0	0	0	0	750	0	0	0	0	0	750
Western Pacific Sustainable Fisheries Fund Appropriation	0	0	750	0	0	0	0	0	0	750	0	0	0	0	0	750
Fisheries Enforcement Asset Forfeiture Fund Obligations	0	0	2,298	0	0	0	(4)	0	0	2,294	0	0	0	0	0	2,294
Fisheries Enforcement Asset Forfeiture Fund Budget Authority	0	0	2,298	0	0	0	(4)	0	0	2,294	0	0	0	0	0	2,294
Fisheries Enforcement Asset Forfeiture Fund Appropriation	0	0	2,294	0	0	0	0	0	0	2,294	0	0	0	0	0	2,294
North Pacific Observer Fund Obligations	0	0	4,674	0	0	0	26	0	0	4,700	0	0	0	0	0	4,700
North Pacific Observer Fund Budget Authority	0	0	4,674	0	0	0	26	0	0	4,700	0	0	0	0	0	4,700
North Pacific Observer Fund Appropriation	0	0	4,700	0	0	0	0	0	0	4,700	0	0	0	0	0	4,700

Department of Commerce
National Oceanic and Atmospheric Administration
CONTROL TABLE
(Dollar amounts in thousands)

OTHER ACCOUNTS MANDATORY

FY 2025 Proposed Operating Plan	POS	FTE	FY 2024 Estimate	POS	FTE	FY 2025 Calculated ATBs	FY 2025 Technical ATBs	POS	FTE	FY 2025 Base	POS	FTE	FY 2025 Program Changes	POS	FTE	FY 2025 President's Budget
Seafood Inspection Program Trust Fund	128	110	14,470	0	5	0	7,410	128	115	21,880	0	0	0	128	115	21,880
Seafood Inspection Program Trust Fund	128	110	0	0	5	0	0	128	115	0	0	0	0	128	115	0
Seafood Inspection Program Trust Fund	128	110	0	0	5	0	0	128	115	0	0	0	0	128	115	0
Subtotal, NMFS Other Mandatory Direct Obligations	**168**	**150**	**76,596**	**0**	**5**	**0**	**(17,480)**	**168**	**155**	**59,116**	**0**	**0**	**0**	**168**	**155**	**59,116**
Subtotal, NMFS Other Mandatory Budget Authority	**168**	**150**	**407,027**	**0**	**5**	**0**	**7,572**	**168**	**155**	**414,599**	**0**	**0**	**0**	**168**	**155**	**414,599**
Subtotal, NMFS Other Mandatory Appropriation	**168**	**150**	**30,994**	**0**	**5**	**0**	**7,174**	**168**	**155**	**38,168**	**0**	**0**	**0**	**168**	**155**	**38,168**
MS																
Spectrum Relocation Fund (ORF) Obligations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spectrum Relocation Fund (ORF) Budget Authority	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spectrum Relocation Fund (ORF) Appropriation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spectrum Relocation Fund (PAC) Obligations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spectrum Relocation Fund (PAC) Budget Authority	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spectrum Relocation Fund (PAC) Appropriation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spectrum Pipeline (ORF) Obligations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spectrum Pipeline (ORF) Budget Authority	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spectrum Pipeline (ORF) Appropriation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal, MS Other Mandatory Direct Obligations	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Subtotal, MS Other Mandatory Budget Authority	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Subtotal, MS Other Mandatory Appropriation	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
OMAO																
NOAA Corps Commissioned Officers Retirement Obligations	0	0	34,998	0	0	0	0	0	0	34,998	0	0	0	0	0	34,998
NOAA Corps Commissioned Officers Retirement Budget Authority	0	0	34,998	0	0	0	0	0	0	34,998	0	0	0	0	0	34,998
NOAA Corps Commissioned Officers Retirement Appropriation	0	0	34,998	0	0	0	0	0	0	34,998	0	0	0	0	0	34,998
Subtotal, OMAO Other Mandatory Direct Obligations	**0**	**0**	**34,998**	**0**	**0**	**0**	**0**	**0**	**0**	**34,998**	**0**	**0**	**0**	**0**	**0**	**34,998**
Subtotal, OMAO Other Mandatory Budget Authority	**0**	**0**	**34,998**	**0**	**0**	**0**	**0**	**0**	**0**	**34,998**	**0**	**0**	**0**	**0**	**0**	**34,998**
Subtotal, OMAO Other Mandatory Appropriation	**0**	**0**	**34,998**	**0**	**0**	**0**	**0**	**0**	**0**	**34,998**	**0**	**0**	**0**	**0**	**0**	**34,998**
Inflation Reduction Act (ORF) Obligations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Inflation Reduction Act (ORF) Budget Authority																
Inflation Reduction Act (ORF) Appropriation																
Inflation Reduction Act (PAC) Obligations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Inflation Reduction Act (PAC) Budget Authority																
Inflation Reduction Act (PAC) Appropriation																
Inflation Reduction Act (PCSRF) Obligations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Inflation Reduction Act (PCSRF) Budget Authority																
Inflation Reduction Act (PCSRF) Appropriation																
TOTAL, OTHER MANDATORY DIRECT OBLIGATIONS	**200**	**182**	**289,756**	**0**	**5**	**0**	**(162,300)**	**200**	**187**	**127,456**	**0**	**0**	**0**	**200**	**187**	**127,456**
TOTAL, OTHER MANDATORY BUDGET AUTHORITY	**200**	**182**	**451,186**	**0**	**5**	**0**	**7,051**	**200**	**187**	**458,237**	**0**	**0**	**0**	**200**	**187**	**458,237**
TOTAL, OTHER MANDATORY APPROPRIATION	**200**	**182**	**67,292**	**0**	**5**	**0**	**6,474**	**200**	**187**	**73,766**	**0**	**0**	**0**	**200**	**187**	**73,766**

Department of Commerce
National Oceanic and Atmospheric Administration
CONTROL TABLE
(Dollar amounts in thousands)

NOAA SUMMARY

FY 2025 Proposed Operating Plan	POS	FTE	FY 2024 Estimate	POS	FTE	FY 2025 Calculated ATBs	FY 2025 Technical ATBs	POS	FTE	FY 2025 Base	POS	FTE	FY 2025 Program Changes	POS	FTE	FY 2025 President's Budget
TOTAL Direct Obligations (Discretionary & Mandatory)	13,170	12,406	7,043,741	(2)	3	91,691	(162,300)	13,168	12,409	6,973,132	199	156	128,662	13,367	12,565	7,101,794
TOTAL Budget Authority (Discretionary & Mandatory)	13,170	12,406	6,824,270	(2)	3	91,691	(25,411)	13,168	12,409	6,890,550	199	156	128,662	13,367	12,565	7,019,212
TOTAL Appropriation (Discretionary & Mandatory)	13,170	12,406	6,440,376	(2)	3	91,691	(25,988)	13,168	12,409	6,506,079	199	156	128,662	13,367	12,565	6,634,741
Reimbursable Financing	496	421	496,389	0	0	0	(254,389)	496	421	242,000	0	0	0	496	421	242,000
TOTAL OBLIGATIONS (Direct & Reimbursable)	**13,666**	**12,827**	**7,540,130**	**(2)**	**3**	**91,691**	**(416,689)**	**13,664**	**12,830**	**7,215,132**	**199**	**156**	**128,662**	**13,863**	**12,986**	**7,343,794**
Offsetting Receipts	0	0	(19,000)	0	0	0	6,759	0	0	(12,241)	0	0	0	0	0	(12,241)
TOTAL OBLIGATIONS (Direct, Reimbursable & Offsetting Receipts)	**13,666**	**12,827**	**7,521,130**	**(2)**	**3**	**91,691**	**(409,930)**	**13,664**	**12,830**	**7,202,891**	**199**	**156**	**128,662**	**13,863**	**12,986**	**7,331,553**

Department of Commerce
National Oceanic and Atmospheric Administration
CONTROL TABLE
(Dollar amounts in thousands)

LINE OFFICE SUMMARY

FY 2025 Proposed Operating Plan	POS	FTE	FY 2024 Estimate	POS	FTE	FY 2025 Calculated ATBs	FY 2025 Technical ATBs	POS	FTE	FY 2025 Base	POS	FTE	FY 2025 Program Changes	POS	FTE	FY 2025 President's Budget
National Ocean Service																
ORF	1,298	1,237	717,095	0	0	8,381	0	1,298	1,237	725,476	11	7	(141,810)	1,309	1,244	583,666
PAC	1	1	14,000	0	0	0	0	1	1	14,000	0	0	(6,998)	1	1	7,002
OTHER	32	32	178,162	0	0	0	(144,820)	32	32	33,342	0	0	0	32	32	33,342
TOTAL, NOS	1,331	1,270	909,257	0	0	8,381	(144,820)	1,331	1,270	772,818	11	7	(148,808)	1,342	1,277	624,010
National Marine Fisheries Service																
ORF	3,306	2,931	1,131,833	0	0	17,872	0	3,306	2,931	1,149,705	35	26	(45,639)	3,341	2,957	1,104,066
PAC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OTHER	171	153	142,245	0	5	0	(17,480)	171	158	124,765	(1)	(1)	(300)	170	157	124,465
TOTAL, NMFS	3,477	3,084	1,274,078	0	5	17,872	(17,480)	3,477	3,089	1,274,470	34	25	(45,939)	3,511	3,114	1,228,531
Oceanic and Atmospheric Research																
ORF	875	787	682,138	0	0	6,124	0	875	787	688,262	(3)	(4)	(111,033)	872	783	577,229
PAC	4	4	100,000	0	0	0	0	4	4	100,000	0	0	(31,500)	4	4	68,500
TOTAL, OAR	879	791	782,138	0	0	6,124	0	879	791	788,262	(3)	(4)	(142,533)	876	787	645,729
National Weather Service																
ORF	4,366	4,302	1,254,658	0	0	23,446	0	4,366	4,302	1,278,104	3	2	(14,928)	4,369	4,304	1,263,176
PAC	32	31	109,349	0	0	0	0	32	31	109,349	0	0	(5,149)	32	31	104,200
TOTAL, NWS	4,398	4,333	1,364,007	0	0	23,446	0	4,398	4,333	1,387,453	3	2	(20,077)	4,401	4,335	1,367,376
National Environmental Satellite, Data and Information Service																
ORF	622	590	378,037	1	1	6,658	16,565	623	591	401,260	0	0	(3,750)	623	591	397,510
PAC	354	297	1,330,119	(1)	(1)	0	(16,565)	353	296	1,313,554	0	0	427,162	353	296	1,740,716
TOTAL, NESDIS	976	887	1,708,156	0	0	6,658	0	976	887	1,714,814	0	0	423,412	976	887	2,138,226
Mission Support																
ORF	861	821	418,460	0	0	20,603	0	861	821	439,063	10	7	300	871	828	439,363
PAC	2	2	90,000	0	0	0	0	2	2	90,000	0	0	0	2	2	90,000
OTHER	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL, Mission Support	863	823	508,460	0	0	20,603	0	863	823	529,063	10	7	300	873	830	529,363
Office of Marine and Aviation Operations																
ORF	1,177	1,152	328,677	(2)	(2)	8,607	0	1,175	1,150	337,284	144	119	70,307	1,319	1,269	407,591
PAC	69	66	132,000	0	0	0	0	69	66	132,000	0	0	(8,000)	69	66	124,000
OTHER	0	0	36,968	0	0	0	0	0	0	36,968	0	0	0	0	0	36,968
TOTAL, OMAO	1,246	1,218	497,645	(2)	(2)	8,607	0	1,244	1,216	506,252	144	119	62,307	1,388	1,335	568,559
DIRECT OBLIGATIONS																
ORF	12,505	11,820	4,910,898	(1)	(1)	91,691	16,565	12,504	11,819	5,019,154	200	157	(246,553)	12,704	11,976	4,772,601
PAC	462	401	1,775,468	(1)	(1)	0	(16,565)	461	400	1,758,903	0	0	375,515	461	400	2,134,418
OTHER	203	185	357,375	0	5	0	(162,300)	203	190	195,075	(1)	(1)	(300)	202	189	194,775
TOTAL, DIRECT OBLIGATIONS	**13,170**	**12,406**	**7,043,741**	**(2)**	**3**	**91,691**	**(162,300)**	**13,168**	**12,409**	**6,973,132**	**199**	**156**	**128,662**	**13,367**	**12,565**	**7,101,794**

Department of Commerce
National Oceanic and Atmospheric Administration
CONTROL TABLE
(Dollar amounts in thousands)

LINE OFFICE SUMMARY

FY 2025 Proposed Operating Plan	POS	FTE	FY 2024 Estimate	POS	FTE	FY 2025 Calculated ATBs	FY 2025 Technical ATBs	POS	FTE	FY 2025 Base	POS	FTE	FY 2025 Program Changes	POS	FTE	FY 2025 President's Budget
ORF Adjustments (Deobligations/Rescissions)	0	0	(23,000)	0	0	0	0	0	0	(23,000)	0	0	0	0	0	(23,000)
ORF Transfers	0	0	(344,901)	0	0	0	(32,462)	0	0	(377,363)	0	0	0	0	0	(377,363)
PAC Adjustments (Deobligations/Rescissions)	0	0	(13,000)	0	0	0	0	0	0	(13,000)	0	0	0	0	0	(13,000)
PAC Transfers	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OTHER Discretionary Adjustments	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mandatory Accounts Excluded	(200)	(182)	(289,756)	0	(5)	0	162,300	(200)	(187)	(127,456)	0	0	0	(200)	(187)	(127,456)
TOTAL, DISCRETIONARY APPROPRIATIONS	**12,970**	**12,224**	**6,373,084**	**(2)**	**(2)**	**91,691**	**(32,462)**	**12,968**	**12,222**	**6,432,313**	**199**	**156**	**128,662**	**13,167**	**12,378**	**6,560,975**

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
SUMMARY OF RESOURCE REQUIREMENTS
(Dollar amounts in thousands)

	Positions	FTE	Budget Authority	Direct Obligations
Estimate, 2024 Annualized CR	12,505	11,820	4,887,898	4,910,898
Plus: Inflationary adjustments to base	0	0	91,691	91,691
Plus: Technical adjustments to base	(1)	(1)	16,565	16,565
2025 Base	12,504	11,819	4,996,154	5,019,154
Plus: 2025 Program Changes	200	157	(246,553)	(246,553)
2025 Estimate	12,704	11,976	4,749,601	4,772,601

Exhibit 5

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
SUMMARY OF RESOURCE REQUIREMENTS
(Dollar amounts in thousands)

		2023 Actual		2024 Annualized CR		2025 Base		2025 Estimate		Increase/Decrease from 2025 Base	
Comparison by program		Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
National Ocean Service	Pos/BA	1,151	976,016	1,298	717,095	1,298	725,476	1,309	583,666	11	(141,810)
	FTE/Obl	1,131	1,053,107	1,237	717,095	1,237	725,476	1,244	583,666	7	(141,810)
National Marine Fisheries Service	Pos/BA	2,850	1,330,955	3,306	1,131,833	3,306	1,149,705	3,341	1,104,066	35	(45,639)
	FTE/Obl	2,783	1,329,267	2,931	1,131,833	2,931	1,149,705	2,957	1,104,066	26	(45,639)
Oceanic and Atmospheric Research	Pos/BA	737	715,638	875	682,138	875	688,262	872	577,229	(3)	(111,033)
	FTE/Obl	778	773,613	787	682,138	787	688,262	783	577,229	(4)	(111,033)
National Weather Service	Pos/BA	4,284	1,292,497	4,366	1,254,658	4,366	1,278,104	4,369	1,263,176	3	(14,928)
	FTE/Obl	4,265	1,300,379	4,302	1,254,658	4,302	1,278,104	4,304	1,263,176	2	(14,928)
National Environmental Satellite, Data, & Info Service	Pos/BA	578	379,698	622	378,037	623	401,260	623	397,510	0	(3,750)
	FTE/Obl	556	385,951	590	378,037	591	401,260	591	397,510	0	(3,750)
Mission Support	Pos/BA	738	426,078	861	418,460	861	439,063	871	439,363	10	300
	FTE/Obl	694	388,098	821	418,460	821	439,063	828	439,363	7	300
Office of Marine & Aviation Operations	Pos/BA	1,014	332,117	1,177	328,677	1,175	337,284	1,319	407,591	144	70,307
	FTE/Obl	1,010	340,225	1,152	328,677	1,150	337,284	1,269	407,591	119	70,307
ORF Financing	Pos/BA	0	(66)	0	(23,000)	0	(23,000)	0	(23,000)	0	0
	FTE/Obl	0	0	0	0	0	0	0	0	0	0
Total	Pos/BA	11,352	5,452,933	12,505	4,887,898	12,504	4,996,154	12,704	4,749,601	200	(246,553)
	FTE/Obl	11,217	5,570,640	11,820	4,910,898	11,819	5,019,154	11,976	4,772,601	157	(246,553)

* FY 2024 and FY 2025 Amounts do not include funds received through the IIJA ($515,383 million each year).

Exhibit 5

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
SUMMARY OF RESOURCE REQUIREMENTS
(Dollar amounts in thousands)

	2023 Actual		2024 Annualized CR		2025 Base		2025 Estimate		Increase/Decrease from 2025 Base	
	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount
Direct Discretionary Obligation	11,217	5,570,640	11,820	4,910,898	11,819	5,019,154	11,976	4,772,601	157	(246,553)
Total Obligations	**11,217**	**5,570,640**	**11,820**	**4,910,898**	**11,819**	**5,019,154**	**11,976**	**4,772,601**	**157**	**(246,553)**
Adjustments to Obligations:										
Deobligations	0	(57,253)	0	0	0	0	0	0	0	0
Unobligated Balance, SOY	0	(617,288)	0	(23,000)	0	(23,000)	0	(23,000)	0	0
Unobligated Balance, Expiring	0	7,579	0	0	0	0	0	0	0	0
Unobligated Balance, EOY	0	549,321	0	0	0	0	0	0	0	0
Unobligated Balance, Transferred	0	0	0	0	0	0	0	0	0	0
Unobligated Balance, not apportioned	0	0	0	0	0	0	0	0	0	0
Collections	0	(66)	0	0	0	0	0	0	0	0
Rescission	0	0	0	0	0	0	0	0	0	0
Total Budget Authority	**11,217**	**5,452,933**	**11,820**	**4,887,898**	**11,819**	**4,996,154**	**11,976**	**4,749,601**	**157**	**(246,553)**
Financing from Transfers and Other:										
Transfer from ORF to PAC	0	5,400	0	0	0	0	0	0	0	0
Transfer from PAC to ORF	0	(3,951)	0	0	0	0	0	0	0	0
Transfer from P&D to ORF	0	(344,901)	0	(344,901)	0	(377,363)	0	(377,363)	0	0
Transfer from PCSRF to ORF	0	(99)	0	0	0	0	0	0	0	0
Transfer from FDAF	0	(300)	0	0	0	0	0	0	0	0
Transfer from USDA to ORF	0	(1,501)	0	0	0	0	0	0	0	0
Transfer to OIG	0	0	0	0	0	0	0	0	0	0
Rescission	0	0	0	0	0	0	0	0	0	0
Net Appropriation	**11,217**	**5,107,581**	**11,820**	**4,542,997**	**11,819**	**4,618,791**	**11,976**	**4,372,238**	**157**	**(246,553)**

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Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
SUMMARY OF REIMBURSABLE OBLIGATIONS
(Dollar Amounts in Thousands)

Comparison by program		2023 Actual		2024 Annualized CR		2025 Base		2025 Estimate		Increase/Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
National Ocean Service	Pos./BA	10	36,560	10	27,145	10	24,000	10	24,000	0	0
	FTE/Obl	8	26,768	9	27,145	9	24,000	9	24,000	0	0
National Marine Fisheries Service	Pos./BA	259	72,914	259	75,073	259	95,000	259	95,000	0	0
	FTE/Obl	124	120,641	235	75,073	235	95,000	235	95,000	0	0
Oceanic and Atmospheric Research	Pos./BA	22	145,404	22	195,352	22	50,000	22	50,000	0	0
	FTE/Obl	23	66,793	22	195,352	22	50,000	22	50,000	0	0
National Weather Service	Pos./BA	161	75,880	161	117,878	161	44,000	161	44,000	0	0
	FTE/Obl	159	76,801	112	117,878	112	44,000	112	44,000	0	0
National Environmental Satellite, Data, and Information Service	Pos./BA	24	42,307	24	43,628	24	15,000	24	15,000	0	0
	FTE/Obl	23	40,060	23	43,628	23	15,000	23	15,000	0	0
Mission Support	Pos./BA	20	29,422	20	36,813	20	12,000	20	12,000	0	0
	FTE/Obl	21	20,884	20	36,813	20	12,000	20	12,000	0	0
Office of Marine and Aviation Operations	Pos./BA	0	200	0	500	0	2,000	0	2,000	0	0
	FTE/Obl	0	26	0	500	0	2,000	0	2,000	0	0
NOAA Wide Support Services	Pos./BA	0	0	0	0	0	0	0	0	0	0
	FTE/Obl	0	(16)	0	0	0	0	0	0	0	0
Total	Pos./BA	496	402,687	496	496,389	496	242,000	496	242,000	0	0
	FTE/Obl	358	351,957	421	496,389	421	242,000	421	242,000	0	0

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Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
SUMMARY OF FINANCING
(Dollar amounts in thousands)

	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/Decrease from 2025 Base
Direct Discretionary Obligation	5,570,640	4,910,898	5,019,154	4,772,601	(246,553)
Direct Mandatory Obligation	358,023	59,590	54,717	54,717	0
Reimbursable Obligation	351,957	496,389	242,000	242,000	0
Total Obligations	**6,280,620**	**5,466,877**	**5,315,871**	**5,069,318**	**(246,553)**
Adjustments to Obligations:					
Federal funds	(242,744)	(399,491)	(194,760)	(194,760)	0
Non-federal Sources	(25,818)	(96,898)	(47,240)	(47,240)	0
Change Uncollected Customer Pmts from Fed. Sources	(63,457)	0	0	0	0
Collections (Direct Disc.)	(66)	0	0	0	0
Deobligation/Recoveries (Direct Disc.)	(58,049)	(23,000)	(23,000)	(23,000)	0
Deobligation/Recoveries (Mand.)	0	0	0	0	0
Unobligated balance adjusted, SOY (Direct Disc.)	(617,288)	(549,321)	(549,321)	(549,321)	0
Unobligated balance, Expiring (Direct Disc)	7,579	0	0	0	0
Unobligated balance, EOY (Direct Disc.)	549,321	549,321	549,321	549,321	0
Unobligated balance adjusted, SOY (Mand.)	(2,527,860)	(2,243,131)	(2,218,539)	(2,218,539)	0
Unobligated balance, Expiring (Mand.)	2,540	0	0	0	0
Unobligated balance, EOY (Mand.)	2,243,131	2,218,539	2,198,820	2,198,820	0
Unobligated balance, SOY Reimbursable	(106,604)	(87,288)	(87,288)	(87,288)	0
Unobligated balance, EOY Reimbursable	87,288	87,288	87,288	87,288	0
Total Budget Authority	**5,528,593**	**4,922,896**	**5,031,152**	**4,784,599**	**(246,553)**
Financing from Tranfers and Other:					
Transfer from ORF to PAC	5,400	0	0	0	0
Transfer from PAC to ORF	(3,951)	0	0	0	0
Transfer from P&D to ORF	(344,901)	(344,901)	(377,363)	(377,363)	0
Transfer from PCSRF to ORF	(99)	0	0	0	0
NOAA Corps Retirement Pay (Mand)	(34,760)	(34,998)	(34,998)	(34,998)	0
Spectrum Relocation Fund (Mand)	(40,900)	0	0	0	0
Transfer from FDAF to ORF	(300)	0	0	0	0
Transfer from USDA to ORF	(1,501)	0	0	0	0
Net Appropriation	**5,107,581**	**4,542,997**	**4,618,791**	**4,372,238**	**(246,553)**

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Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
ADJUSTMENTS TO BASE
(Dollar amounts in thousands)

	FTE	Amount
Transfer	1	16,565
Adjustment	(2)	23,000
Financing		(23,000)
Other Changes		
2023 Pay raise		23,441
2024 Pay raise		28,258
Awards		0
NOAA Corps Allowances		709
Change in compensable days		0
Civil Service Retirement System (CSRS)		(98)
Federal Employee Retirement System (FERS)		(621)
Thrift Savings Plan		55
Federal Insurance Contribution Act (FICA) - OASDI		458
Health Insurance		2,747
TriCare		158
Employees Compensation Fund		1,020
Travel:		
Mileage		29
Per Diem		503
Rental payments to GSA		638
GSA Furniture and IT (FIT) Program		66
Working Capital Fund, Departmental Management*		14,374
Cybersecurity (Non-Add in WCF)		[(198)]
NARA Storage & Maintenance		39
General Pricing Level Adjustment		31,933
Enterprise Services		(15,078)
HCHB Utilities		0
Commerce Business System		0
Federal Protective Service		365
Grants		1,373
Ship and Aircraft Fuel Costs		1,322

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
ADJUSTMENTS TO BASE
(Dollar amounts in thousands)

Subtotal, other changes**	0	91,691
Total, Adjustment to Base	**(1)**	**108,256**

**Does not add due to rounding

Exhibit 16

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
SUMMARY OF REQUIREMENTS BY OBJECT CLASS
(Dollar amounts in thousands)

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/Decrease from 2025 Base
11.1	Full-time permanent compensation	1,307,215	1,396,893	1,435,753	1,448,634	12,881
11.3	Other than full-time permanent	6,070	6,307	7,112	7,112	0
11.5	Other personnel compensation	81,888	85,279	85,279	89,379	4,100
11.7	Military Personnel	43,976	46,105	47,575	55,131	7,556
11.9	**Total personnel compensation**	1,439,148	1,534,584	1,575,719	1,600,256	24,537
12.1	Civilian personnel benefits	523,412	554,873	569,873	577,570	7,697
12.2	Military personnel benefits	8,175	8,387	8,585	8,585	0
13	Benefits for former personnel	30,594	33,479	33,479	33,530	51
21	Travel and transportation of persons	51,081	51,443	51,975	57,176	5,201
22	Transportation of things	16,362	16,645	17,011	18,847	1,836
23.1	Rental payments to GSA	106,484	108,350	109,056	110,742	1,686
23.2	Rental payments to others	30,021	30,616	31,289	41,122	9,833
23.3	Communications, utilities, and misc. charges	92,738	90,605	92,598	88,467	(4,131)
24	Printing and reproduction	6,624	6,754	6,902	6,913	11
25.1	Advisory and assistance services	461,831	345,087	349,566	350,681	1,115
25.2	Other services from non-Federal sources	786,200	709,868	714,360	756,143	41,783
25.3	Other goods and services from Federal sources	198,385	187,642	214,664	218,088	3,424
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	16,760	14,864	14,864	14,864	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
26	Supplies and materials	138,011	133,844	137,607	147,185	9,578

Exhibit 16

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
SUMMARY OF REQUIREMENTS BY OBJECT CLASS
(Dollar amounts in thousands)

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/Decrease from 2025 Base
31	Equipment	53,291	50,194	51,297	53,939	2,642
32	Lands and structures	3,853	3,368	3,368	3,363	(5)
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	1,965,459	1,089,652	1,091,425	739,614	(351,811)
42	Insurance claims and indemnities	3	4	4	4	0
43	Interest and dividends	232	229	229	229	0
44	Refunds	0	0	0	0	0
99.9	Total obligations	**5,928,663**	**4,970,488**	**5,073,871**	**4,827,318**	**(246,553)**
	Less Mandatory Obligations	(358,023)	(59,590)	(54,717)	(54,717)	0
	Total Discretionary Obligations	**5,570,640**	**4,910,898**	**5,019,154**	**4,772,601**	**(246,553)**
	Personnel Data					
	Full-time Equivalent Employment					
	Full-time permanent	11,217	11,820	11,819	11,976	157
	Other than full-time permanent	0	0	0	0	0
	Total	11,217	11,820	11,819	11,976	157
	Authorized Positions:					
	Full-time permanent	11,352	12,505	12,504	12,704	200
	Other than full-time permanent	0	0	0	0	0
	Total	11,352	12,505	12,504	12,704	200

*Totals and deltas may not add due to rounding

Exhibit 16A

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
National Ocean Service
SELECT ACTIVITIES BY OBJECT CLASS
(Dollar amounts in thousands)

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/Decrease from 2025 Base
11.1	Full-time permanent compensation	152,964	151,615	156,128	156,596	468
11.3	Other than full-time permanent	570	569	578	578	0
11.5	Other personnel compensation	4,202	4,211	4,211	4,211	0
11.7	Military Personnel	13	0	0	0	0
11.9	**Total personnel compensation**	157,748	156,395	160,917	161,385	468
12.1	Civilian personnel benefits	57,213	56,714	58,342	58,527	185
12.2	Military personnel benefits	0	0	0	0	0
13	Benefits for former personnel	22	21	21	21	0
21	Travel and transportation of persons	6,392	6,128	6,191	6,275	84
22	Transportation of things	939	951	972	979	7
23.1	Rental payments to GSA	13,244	13,457	13,536	13,536	0
23.2	Rental payments to others	807	824	842	842	0
23.3	Communications, utilities, and misc. charges	4,116	4,195	4,287	1,657	(2,630)
24	Printing and reproduction	232	237	242	242	0
25.1	Advisory and assistance services	105,968	53,858	54,467	53,995	(472)
25.2	Other services from non-Federal sources	108,445	91,237	92,253	103,798	11,545
25.3	Other goods and services from Federal sources	5,218	3,319	3,356	3,854	498
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	809	825	825	825	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
26	Supplies and materials	8,141	6,664	6,802	7,552	750

Exhibit 16A

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
National Ocean Service
SELECT ACTIVITIES BY OBJECT CLASS
(Dollar amounts in thousands)

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/Decrease from 2025 Base
31	Equipment	7,632	6,960	7,113	7,413	300
32	Lands and structures	615	66	66	66	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	662,815	315,231	315,231	162,686	(152,545)
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	14	12	12	12	0
44	Refunds	0	0	0	0	0
99.9	Total obligations	**1,140,370**	**717,095**	**725,476**	**583,666**	**(141,810)**
		(87,263)	0	0	0	0
		1,053,107	**717,095**	**725,476**	**583,666**	**(141,810)**
	Personnel Data					
	Full-time Equivalent Employment					
	Full-time permanent	1,131	1,237	1,237	1,244	7
	Other than full-time permanent	0	0	0	0	0
	Total	1,131	1,237	1,237	1,244	7
	Authorized Positions:					
	Full-time permanent	1,151	1,298	1,298	1,309	11
	Other than full-time permanent	0	0	0	0	0
	Total	1,151	1,298	1,298	1,309	11

*Totals and deltas may not add due to rounding

Exhibit 16A

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
National Marine Fisheries Service
SELECT ACTIVITIES BY OBJECT CLASS
(Dollar amounts in thousands)

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/Decrease from 2025 Base
11.1	Full-time permanent compensation	345,027	365,738	375,876	377,988	2,112
11.3	Other than full-time permanent	2,709	2,840	2,882	2,882	0
11.5	Other personnel compensation	12,317	13,207	13,207	13,207	0
11.7	Military Personnel	0	0	0	0	0
11.9	**Total personnel compensation**	360,052	381,785	391,965	394,077	2,112
12.1	Civilian personnel benefits	137,760	146,052	149,954	150,859	905
12.2	Military personnel benefits	0	0	0	0	0
13	Benefits for former personnel	137	140	140	140	0
21	Travel and transportation of persons	15,099	15,375	15,534	16,785	1,251
22	Transportation of things	2,408	2,451	2,505	2,942	437
23.1	Rental payments to GSA	17,635	17,962	18,068	18,068	0
23.2	Rental payments to others	2,241	2,286	2,336	2,336	0
23.3	Communications, utilities, and misc. charges	18,176	14,766	15,090	15,090	0
24	Printing and reproduction	3,804	3,880	3,965	3,965	0
25.1	Advisory and assistance services	49,464	43,826	44,017	43,361	(656)
25.2	Other services from non-Federal sources	185,815	193,110	193,951	197,802	3,851
25.3	Other goods and services from Federal sources	14,044	14,716	14,780	14,780	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
26	Supplies and materials	18,420	16,818	17,165	21,043	3,878

Exhibit 16A

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
National Marine Fisheries Service
SELECT ACTIVITIES BY OBJECT CLASS
(Dollar amounts in thousands)

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/Decrease from 2025 Base
31	Equipment	9,040	8,910	9,106	9,781	675
32	Lands and structures	507	517	517	517	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	670,613	269,201	270,574	212,482	(58,092)
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	38	38	38	38	0
44	Refunds	0	0	0	0	0
99.9	Total obligations	**1,505,254**	**1,131,833**	**1,149,705**	**1,104,066**	**(45,639)**
		(175,987)	0	0	0	0
		1,329,267	**1,131,833**	**1,149,705**	**1,104,066**	**(45,639)**
	Personnel Data					
	Full-time Equivalent Employment					
	Full-time permanent	2,783	2,931	2,931	2,957	26
	Other than full-time permanent	0	0	0	0	0
	Total	2,783	2,931	2,931	2,957	26
	Authorized Positions:					
	Full-time permanent	2,850	3,306	3,306	3,341	35
	Other than full-time permanent	0	0	0	0	0
	Total	2,850	3,306	3,306	3,341	35

*Totals and deltas may not add due to rounding

Exhibit 16A

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
Office of Oceanic and Atmospheric Research
SELECT ACTIVITIES BY OBJECT CLASS
(Dollar amounts in thousands)

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/Decrease from 2025 Base
11.1	Full-time permanent compensation	106,395	111,600	114,673	114,255	(418)
11.3	Other than full-time permanent	1,133	1,175	1,193	1,193	0
11.5	Other personnel compensation	3,279	3,362	3,362	3,362	0
11.7	Military Personnel	0	0	0	0	0
11.9	**Total personnel compensation**	110,806	116,137	119,228	118,810	(418)
12.1	Civilian personnel benefits	38,797	40,827	41,910	41,786	(124)
12.2	Military personnel benefits	0	0	0	0	0
13	Benefits for former personnel	44	44	44	44	0
21	Travel and transportation of persons	5,065	5,103	5,156	5,123	(33)
22	Transportation of things	1,616	1,617	1,653	1,653	0
23.1	Rental payments to GSA	9,954	10,113	10,173	10,173	0
23.2	Rental payments to others	6,395	6,518	6,661	6,632	(29)
23.3	Communications, utilities, and misc. charges	9,480	9,657	9,869	9,868	(1)
24	Printing and reproduction	537	546	558	558	0
25.1	Advisory and assistance services	19,226	16,412	16,584	16,205	(379)
25.2	Other services from non-Federal sources	81,644	70,673	71,450	70,732	(718)
25.3	Other goods and services from Federal sources	14,593	8,045	8,129	8,125	(4)
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	4,447	3,564	3,564	3,564	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
26	Supplies and materials	13,368	11,517	11,755	11,735	(20)

Exhibit 16A

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
Office of Oceanic and Atmospheric Research
SELECT ACTIVITIES BY OBJECT CLASS
(Dollar amounts in thousands)

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/Decrease from 2025 Base
31	Equipment	9,117	7,419	7,582	7,542	(40)
32	Lands and structures	113	114	114	109	(5)
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	485,154	373,801	373,801	264,539	(109,262)
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	32	30	30	30	0
44	Refunds	0	0	0	0	0
99.9	Total obligations	**810,387**	**682,138**	**688,262**	**577,229**	**(111,033)**
		(36,774)	0	0	0	0
		773,613	**682,138**	**688,262**	**577,229**	**(111,033)**
	Personnel Data					
	Full-time Equivalent Employment					
	Full-time permanent	778	787	787	783	(4)
	Other than full-time permanent	0	0	0	0	0
	Total	778	787	787	783	(4)
	Authorized Positions:					
	Full-time permanent	737	875	875	872	(3)
	Other than full-time permanent	0	0	0	0	0
	Total	737	875	875	872	(3)

*Totals and deltas may not add due to rounding

Exhibit 16A

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
National Weather Service
SELECT ACTIVITIES BY OBJECT CLASS
(Dollar amounts in thousands)

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/Decrease from 2025 Base
11.1	Full-time permanent compensation	480,974	504,591	518,989	519,265	276
11.3	Other than full-time permanent	1,158	1,203	1,221	1,221	0
11.5	Other personnel compensation	35,457	36,840	36,840	36,840	0
11.7	Military Personnel	0	0	0	0	0
11.9	**Total personnel compensation**	517,588	542,633	557,049	557,325	276
12.1	Civilian personnel benefits	200,357	210,198	215,979	216,073	94
12.2	Military personnel benefits	0	0	0	0	0
13	Benefits for former personnel	386	393	393	393	0
21	Travel and transportation of persons	11,024	11,137	11,252	11,252	0
22	Transportation of things	8,342	8,508	8,695	8,695	0
23.1	Rental payments to GSA	35,639	36,311	36,525	35,211	(1,314)
23.2	Rental payments to others	12,200	12,444	12,718	22,580	9,862
23.3	Communications, utilities, and misc. charges	49,593	50,580	51,691	51,691	0
24	Printing and reproduction	221	225	230	230	0
25.1	Advisory and assistance services	120,550	82,382	82,349	82,349	0
25.2	Other services from non-Federal sources	181,212	148,298	148,238	148,238	0
25.3	Other goods and services from Federal sources	14,230	14,512	14,506	14,506	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	240	245	245	245	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
26	Supplies and materials	56,601	56,893	58,067	58,067	0

Exhibit 16A

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
National Weather Service
SELECT ACTIVITIES BY OBJECT CLASS
(Dollar amounts in thousands)

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/Decrease from 2025 Base
31	Equipment	12,903	12,203	12,471	13,587	1,116
32	Lands and structures	868	885	885	885	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	79,280	66,755	66,755	41,793	(24,962)
42	Insurance claims and indemnities	3	4	4	4	0
43	Interest and dividends	52	51	51	51	0
44	Refunds	0	0	0	0	0
99.9	Total obligations	**1,301,289**	**1,254,658**	**1,278,104**	**1,263,176**	**(14,928)**
		(910)	0	0	0	0
		1,300,379	**1,254,658**	**1,278,104**	**1,263,176**	**(14,928)**
	Personnel Data					
	Full-time Equivalent Employment					
	Full-time permanent	4,265	4,302	4,302	4,304	2
	Other than full-time permanent	0	0	0	0	0
	Total	4,265	4,302	4,302	4,304	2
	Authorized Positions:					
	Full-time permanent	4,284	4,366	4,366	4,369	3
	Other than full-time permanent	0	0	0	0	0
	Total	4,284	4,366	4,366	4,369	3

*Totals and deltas may not add due to rounding

Exhibit 16A

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
National Environmental Satellite, Data, and Information Service
SELECT ACTIVITIES BY OBJECT CLASS

(Dollar amounts in thousands)

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/Decrease from 2025 Base
11.1	Full-time permanent compensation	74,772	82,331	84,718	84,718	0
11.3	Other than full-time permanent	177	184	187	187	0
11.5	Other personnel compensation	6,743	7,006	7,006	7,006	0
11.7	Military Personnel	0	0	0	0	0
11.9	**Total personnel compensation**	81,692	89,521	91,911	91,911	0
12.1	Civilian personnel benefits	28,073	30,909	31,766	31,766	0
12.2	Military personnel benefits	0	0	0	0	0
13	Benefits for former personnel	8	8	8	8	0
21	Travel and transportation of persons	1,368	1,343	1,357	1,357	0
22	Transportation of things	132	135	138	138	0
23.1	Rental payments to GSA	17,960	18,314	18,422	18,422	0
23.2	Rental payments to others	624	637	651	651	0
23.3	Communications, utilities, and misc. charges	2,866	2,923	2,987	1,487	(1,500)
24	Printing and reproduction	133	136	139	139	0
25.1	Advisory and assistance services	133,889	124,410	126,397	126,397	0
25.2	Other services from non-Federal sources	59,462	53,431	54,448	54,448	0
25.3	Other goods and services from Federal sources	16,827	15,012	31,211	31,211	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	11,246	10,211	10,211	10,211	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
26	Supplies and materials	1,689	1,692	1,727	1,727	0

Exhibit 16A

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
National Environmental Satellite, Data, and Information Service
SELECT ACTIVITIES BY OBJECT CLASS
(Dollar amounts in thousands)

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/Decrease from 2025 Base
31	Equipment	6,054	5,999	6,131	6,131	0
32	Lands and structures	11	12	12	12	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	26,919	23,322	23,722	21,472	(2,250)
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	24	24	24	24	0
44	Refunds	0	0	0	0	0
99.9	Total obligations	**388,977**	**378,037**	**401,260**	**397,510**	**(3,750)**
	Personnel Data					
	Full-time Equivalent Employment					
	Full-time permanent	556	590	591	591	0
	Other than full-time permanent	0	0	0	0	0
	Total	556	590	591	591	0
	Authorized Positions:					
	Full-time permanent	578	622	623	623	0
	Other than full-time permanent	0	0	0	0	0
	Total	578	622	623	623	0

*Totals and deltas may not add due to rounding

Exhibit 16A

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
Mission Support
SELECT ACTIVITIES BY OBJECT CLASS
(Dollar amounts in thousands)

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/Decrease from 2025 Base
11.1	Full-time permanent compensation	96,106	117,349	120,174	121,472	1,298
11.3	Other than full-time permanent	161	167	170	170	0
11.5	Other personnel compensation	3,350	3,468	3,468	3,468	0
11.7	Military Personnel	0	0	0	0	0
11.9	**Total personnel compensation**	99,616	120,984	123,812	125,110	1,298
12.1	Civilian personnel benefits	35,827	43,797	44,813	45,202	389
12.2	Military personnel benefits	0	0	0	0	0
13	Benefits for former personnel	51	51	51	51	0
21	Travel and transportation of persons	2,471	2,502	2,528	2,528	0
22	Transportation of things	191	195	199	199	0
23.1	Rental payments to GSA	10,682	10,796	10,926	10,926	0
23.2	Rental payments to others	2,630	2,683	2,742	2,742	0
23.3	Communications, utilities, and misc. charges	1,379	1,407	1,442	1,442	0
24	Printing and reproduction	1,642	1,675	1,712	1,712	0
25.1	Advisory and assistance services	21,659	16,904	18,330	21,643	3,313
25.2	Other services from non-Federal sources	70,119	77,383	76,964	76,964	0
25.3	Other goods and services from Federal sources	124,232	124,613	135,128	135,128	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
26	Supplies and materials	1,328	1,353	1,381	1,381	0

Exhibit 16A

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
Mission Support
SELECT ACTIVITIES BY OBJECT CLASS
(Dollar amounts in thousands)

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/Decrease from 2025 Base
31	Equipment	2,022	2,049	2,094	2,094	0
32	Lands and structures	1,722	1,756	1,756	1,756	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	34,328	34,863	34,863	30,163	(4,700)
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	40	40	40	40	0
44	Refunds	0	0	0	0	0
99.9	Total obligations	**409,940**	**443,052**	**458,782**	**459,082**	**300**
	Less Mandatory Obligations	(21,842)	(24,592)	(19,719)	(19,719)	0
	Total Discretionary Obligations	**388,098**	**418,460**	**439,063**	**439,363**	**300**
	Personnel Data					
	Full-time Equivalent Employment					
	Full-time permanent	694	821	821	828	7
	Other than full-time permanent					0
	Total	694	821	821	828	7
	Authorized Positions:					
	Full-time permanent	738	861	861	871	10
	Other than full-time permanent	0	0	0	0	0
	Total	738	861	861	871	10

*Totals and deltas may not add due to rounding

Exhibit 16A

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
Office of Marine and Aviation Operations
SELECT ACTIVITIES BY OBJECT CLASS
(Dollar amounts in thousands)

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/Decrease from 2025 Base
11.1	Full-time permanent compensation	50,978	63,668	65,194	74,339	9,145
11.3	Other than full-time permanent	163	170	882	882	0
11.5	Other personnel compensation	16,541	17,186	17,186	21,286	4,100
11.7	Military Personnel	43,963	46,105	47,575	55,131	7,556
11.9	**Total personnel compensation**	111,645	127,129	130,837	151,638	20,801
12.1	Civilian personnel benefits	25,386	26,376	27,109	33,357	6,248
12.2	Military personnel benefits	8,174	8,387	8,585	8,585	0
13	Benefits for former personnel	29,947	32,821	32,821	32,872	51
21	Travel and transportation of persons	9,661	9,854	9,956	13,855	3,899
22	Transportation of things	2,734	2,788	2,849	4,241	1,392
23.1	Rental payments to GSA	1,370	1,397	1,406	4,406	3,000
23.2	Rental payments to others	5,122	5,225	5,340	5,340	0
23.3	Communications, utilities, and misc. charges	7,127	7,077	7,232	7,232	0
24	Printing and reproduction	55	56	57	68	11
25.1	Advisory and assistance services	11,075	7,296	7,423	6,732	-691
25.2	Other services from non-Federal sources	99,502	75,737	77,057	104,162	27,105
25.3	Other goods and services from Federal sources	9,240	7,425	7,554	10,484	2,930
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	18	18	18	18	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
26	Supplies and materials	38,465	38,907	40,710	45,680	4,970

Exhibit 16A

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
Office of Marine and Aviation Operations
SELECT ACTIVITIES BY OBJECT CLASS
(Dollar amounts in thousands)

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/Decrease from 2025 Base
31	Equipment	6,523	6,653	6,799	7,390	591
32	Lands and structures	17	17	17	17	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	6,351	6,478	6,478	6,478	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	32	33	33	33	0
44	Refunds	0	0	0	0	0
99.9	Total obligations	**372,446**	**363,675**	**372,282**	**442,589**	**70,307**
	Less Mandatory Obligations	(32,221)	(34,998)	(34,998)	(34,998)	0
	Total Discretionary Obligations	**340,225**	**328,677**	**337,284**	**407,591**	**70,307**
	Personnel Data					
	Full-time Equivalent Employment					
	Full-time permanent	1,010	1,152	1,150	1,269	119
	Other than full-time permanent	0	0	0	0	0
	Total	1,010	1,152	1,150	1,269	119
	Authorized Positions:					
	Full-time permanent	1,014	1,177	1,175	1,319	144
	Other than full-time permanent	0	0	0	0	0
	Total	1,014	1,177	1,175	1,319	144

*Totals and deltas may not add due to rounding

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
SUMMARY OF RESOURCE REQUIREMENTS
(Dollar amounts in thousands)

	Positions	FTE	Budget Authority	Direct Obligations
Estimate, 2024	462	401	1,762,468	1,775,468
Less: Other adjustments to base	(1)	(1)	(16,565)	(16,565)
Less: Carryover	0	0	0	0
2025 Base	461	400	1,745,903	1,758,903
Plus: 2025 Program Changes	0	0	375,515	375,515
2025 Estimate	461	400	2,121,418	2,134,418

Exhibit 5

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
SUMMARY OF RESOURCE REQUIREMENTS
(Dollar amounts in thousands)

Comparison by activity/subactivity		2023 Actual		2024 Annualized CR		2025 Base		2025 Estimate		Increase/Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
National Ocean Service	Pos/BA	1	13,787	1	14,000	1	14,000	1	7,002	0	(6,998)
	FTE/OBL	1	13,335	1	14,000	1	14,000	1	7,002	0	(6,998)
National Marine Fisheries Service	Pos/BA	0	0	0	0	0	0	0	0	0	0
	FTE/OBL	0	1,214	0	0	0	0	0	0	0	0
Oceanic and Atmospheric Research	Pos/BA	4	99,775	4	100,000	4	100,000	4	68,500	0	(31,500)
	FTE/OBL	4	113,942	4	100,000	4	100,000	4	68,500	0	(31,500)
National Weather Service	Pos/BA	32	108,410	32	109,349	32	109,349	32	104,200	0	(5,149)
	FTE/OBL	26	132,374	31	109,349	31	109,349	31	104,200	0	(5,149)
National Environmental Satellite, Data, & Information Service	Pos/BA	273	1,318,718	354	1,330,119	353	1,313,554	353	1,740,716	0	427,162
	FTE/OBL	266	1,280,997	297	1,330,119	296	1,313,554	296	1,740,716	0	427,162
Mission Support	Pos/BA	2	93,704	2	90,000	2	90,000	2	90,000	0	0
	FTE/OBL	5	58,996	2	90,000	2	90,000	2	90,000	0	0
Office of Marine Aviation & Operations	Pos/BA	62	457,242	69	132,000	69	132,000	69	124,000	0	(8,000)
	FTE/OBL	59	285,102	66	132,000	66	132,000	66	124,000	0	(8,000)
Other	Pos/BA	0	(18)	0	(13,000)	0	(13,000)	0	(13,000)	0	0
	FTE/OBL	0	0	0	0	0	0	0	0	0	0
Total	Pos/BA	374	2,091,618	462	1,762,468	461	1,745,903	461	2,121,418	0	375,515
	FTE/OBL	361	1,885,960	401	1,775,468	400	1,758,903	400	2,134,418	0	375,515

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
SUMMARY OF RESOURCE REQUIREMENTS
(Dollar amounts in thousands)

	2023 Actual		2024 Annualized CR		2025 Base		2025 Estimate		Increase/Decrease from 2025 Base	
	FTE	Amount	FTE	Amount		Amount	FTE	Amount	FTE	Amount
Direct Discretionary Obligation	361	1,885,960	401	1,775,468	400	1,758,903	400	2,134,418	0	375,515
Total Obligations	361	1,885,960	401	1,775,468	400	1,758,903	400	2,134,418	0	375,515
Adjustments to Obligations:										
Deobligations	0	(54,080)	0	(13,000)	0	(13,000)	0	(13,000)	0	0
Unobligated balance, Expiring end of year	0	1,455	0	0	0	0	0	0	0	0
Unobligated Balance, EOY	0	868,207	0	0	0	0	0	0	0	0
Unobligated Balance Adj. SOY (start of	0	(609,906)	0	0	0	0	0	0	0	0
Unobligated Balance, Transferred	0	0	0	0	0	0	0	0	0	0
Collections	0	(18)	0	0	0	0	0	0	0	0
Rescission	0	0	0	0	0	0	0	0	0	0
Total Budget Authority	361	2,091,618	401	1,762,468	400	1,745,903	400	2,121,418	0	375,515
Financing from Transfers and Other:										
Unoblig Balance Rescission Adj Appn	0	0	0	0	0	0	0	0	0	0
Transfer from ORF to PAC	0	(5,400)	0	0	0	0	0	0	0	0
Transfer from PAC to ORF	0	3,951	0	0	0	0	0	0	0	0
Transfer to OIG	0	0	0	0	0	0	0	0	0	0
Net Appropriation	361	2,090,169	401	1,762,468	400	1,745,903	400	2,121,418	0	375,515

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Exhibit 7

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
SUMMARY OF FINANCING
(Dollar amounts in thousands)

	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/Decrease from 2025 Base
Direct Discretionary Obligation	1,885,960	1,775,468	1,758,903	2,134,418	375,515
Direct Mandatory Obligation	155,846	6,567	9,180	9,180	0
Total Obligations	**2,041,806**	**1,782,035**	**1,768,083**	**2,143,598**	**375,515**
Adjustments and Obligations:					
Deobligations/Recoveries (Disc)	(54,080)	(13,000)	(13,000)	(13,000)	0
Collections	(18)	0	0	0	0
Unobligated balance, Expiring end of year Disc	1,455	0	0	0	0
Unobligated Balance, EOY Disc	868,207	0	0	0	0
Unobligated Balance Adj. SOY Disc	(609,906)	0	0	0	0
Unobligated Balance, SOY Mandatory	(802,315)	(654,672)	(648,105)	(648,105)	0
Unobligated Balance, EOY Mandatory	654,672	648,105	638,925	638,925	0
Deobligations/Recoveries (Mand)	(2,103)	0	0	0	0
Unobligated Balance, Transferred	0	0	0	0	0
Rescission	0	0	0	0	0
Total Budget Authority	**2,097,718**	**1,762,468**	**1,745,903**	**2,121,418**	**375,515**
Financing from Transfers and Other:					
Transfer from PAC to ORF	3,951	0	0	0	0
Transfer from ORF to PAC	(5,400)	0	0	0	0
Transfer to OIG	0	0	0	0	0
Spectrum Relocation Fund (Mand)	(6,100)	0	0	0	0
Unobligated Balance, Rescission	0	0	0	0	0
Net Appropriation	**2,090,169**	**1,762,468**	**1,745,903**	**2,121,418**	**375,515**

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Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
ADJUSTMENTS TO BASE
(Dollar amounts in thousands)

	FTE	Amount
Transfers	1	(16,565)
Adjustment	0	13,000
Financing	0	(13,000)
Total, adjustments to base	1	(16,565)

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Exhibit 16

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
SUMMARY OF REQUIREMENTS BY OBJECT CLASS
(Dollar amounts in thousands)

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/Decrease from 2025 Base
11.1	Full-time permanent compensation	53,935	60,714	60,558	60,558	0
11.3	Other than full-time permanent	114	119	119	119	0
11.5	Other personnel compensation	1,501	1,513	1,513	1,513	0
11.7	Military Personnel	0	0	0	0	0
11.9	**Total personnel compensation**	55,550	62,346	62,190	62,190	0
12.1	Civilian personnel benefits	22,477	25,113	25,063	25,063	0
12.2	Military personnel benefits	0	0	0	0	0
13	Benefits for former personnel	11	8	8	8	0
21	Travel and transportation of persons	2,676	2,510	2,510	2,566	56
22	Transportation of things	375	44	44	95	51
23.1	Rental payments to GSA	5,914	5,613	5,613	5,613	0
23.2	Rental payments to others	202	202	202	202	0
23.3	Communications, utilities, and misc. charges	2,641	2,439	2,439	2,439	0
24	Printing and reproduction	122	105	105	105	0
25.1	Advisory and assistance services	404,720	401,437	401,437	287,871	(113,566)
25.2	Other services from non-Federal sources	591,703	348,418	351,031	305,973	(45,058)
25.3	Other goods and services from Federal sources	803,704	803,175	787,216	1,330,471	543,255
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	9,842	10,203	10,203	10,203	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
26	Supplies and materials	26,754	20,065	20,065	19,866	(199)

Exhibit 16

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
SUMMARY OF REQUIREMENTS BY OBJECT CLASS
(Dollar amounts in thousands)

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/Decrease from 2025 Base
31	Equipment	30,245	11,415	11,415	10,313	(1,102)
32	Lands and structures	7,645	9,605	9,605	9,605	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	77,114	79,246	78,846	70,924	(7,922)
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	111	91	91	91	0
44	Refunds	0	0	0	0	0
99.9	Total obligations	**2,041,806**	**1,782,035**	**1,768,083**	**2,143,598**	**375,515**
	Less Mandatory Obligations	(155,846)	(6,567)	(9,180)	(9,180)	0
	Total Discretionary Obligations	**1,885,960**	**1,775,468**	**1,758,903**	**2,134,418**	**375,515**
	Personnel Data					
	Full-time Equivalent Employment					
	Full-time permanent	361	401	400	400	0
	Other than full-time permanent	0	0	0	0	0
	Total	361	401	400	400	0
	Authorized Positions:					
	Full-time permanent	374	462	461	461	0
	Other than full-time permanent	0	0	0	0	0
	Total	374	462	461	461	0

*Totals and deltas may not add due to rounding

Exhibit 16A

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
National Ocean Service
SELECT ACTIVITIES BY OBJECT CLASS
(Dollar amounts in thousands)

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/Decrease from 2025 Base
11.1	Full-time permanent compensation	77	67	67	67	0
11.3	Other than full-time permanent	0	0	0	0	0
11.5	Other personnel compensation	2	2	2	2	0
11.7	Military Personnel	0	0	0	0	0
11.9	**Total personnel compensation**	79	69	69	69	0
12.1	Civilian personnel benefits	28	25	25	25	0
12.2	Military personnel benefits	0	0	0	0	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	26	27	27	27	0
22	Transportation of things	1	1	1	1	0
23.1	Rental payments to GSA	6	5	5	5	0
23.2	Rental payments to others	13	14	14	14	0
23.3	Communications, utilities, and misc. charges	0	0	0	0	0
24	Printing and reproduction	0	0	0	0	0
25.1	Advisory and assistance services	179	182	182	182	0
25.2	Other services from non-Federal sources	2,738	2,878	2,878	2,878	0
25.3	Other goods and services from Federal sources	0	0	0	0	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
26	Supplies and materials	84	88	88	88	0

Exhibit 16A

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
National Ocean Service
SELECT ACTIVITIES BY OBJECT CLASS
(Dollar amounts in thousands)

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/Decrease from 2025 Base
31	Equipment	3	3	3	3	0
32	Lands and structures	1,487	210	210	210	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	10,004	10,498	10,498	3,500	(6,998)
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	0	0	0	0	0
44	Refunds	0	0	0	0	0
99.9	Total obligations	**14,648**	**14,000**	**14,000**	**7,002**	**(6,998)**
	Personnel Data					
	Full-time Equivalent Employment					
	Full-time permanent	1	1	1	1	0
	Other than full-time permanent	0	0	0	0	0
	Total	1	1	1	1	0
	Authorized Positions:					
	Full-time permanent	1	1	1	1	0
	Other than full-time permanent	0	0	0	0	0
	Total	1	1	1	1	0

*Totals and deltas may not add due to rounding

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
National Marine Fisheries Service
SELECT ACTIVITIES BY OBJECT CLASS
(Dollar amounts in thousands)

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/Decrease from 2025 Base
11.1	Full-time permanent compensation	11	0	0	0	0
11.3	Other than full-time permanent	0	0	0	0	0
11.5	Other personnel compensation	0	0	0	0	0
11.7	Military Personnel	0	0	0	0	0
11.9	**Total personnel compensation**	12	0	0	0	0
12.1	Civilian personnel benefits	4	0	0	0	0
12.2	Military personnel benefits	0	0	0	0	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	5	0	0	0	0
22	Transportation of things	0	0	0	0	0
23.1	Rental payments to GSA	1	0	0	0	0
23.2	Rental payments to others	0	0	0	0	0
23.3	Communications, utilities, and misc. charges	0	0	0	0	0
24	Printing and reproduction	0	0	0	0	0
25.1	Advisory and assistance services	5	0	0	0	0
25.2	Other services from non-Federal sources	1,187	0	0	0	0
25.3	Other goods and services from Federal sources	0	0	0	0	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
26	Supplies and materials	0	0	0	0	0

Exhibit 16A

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
National Marine Fisheries Service
SELECT ACTIVITIES BY OBJECT CLASS
(Dollar amounts in thousands)

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/Decrease from 2025 Base
31	Equipment	0	0	0	0	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	0	0	0	0	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	0	0	0	0	0
44	Refunds	0	0	0	0	0
99.9	Total obligations	**1,214**	**0**	**0**	**0**	**0**
	Personnel Data					
	Full-time Equivalent Employment					
	Full-time permanent	0	0	0	0	0
	Other than full-time permanent	0	0	0	0	0
	Total	0	0	0	0	0
	Authorized Positions:					
	Full-time permanent	0	0	0	0	0
	Other than full-time permanent	0	0	0	0	0
	Total	0	0	0	0	0

*Totals and deltas may not add due to rounding

Exhibit 16A

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
Office of Oceanic and Atmospheric Research
SELECT ACTIVITIES BY OBJECT CLASS
(Dollar amounts in thousands)

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/Decrease from 2025 Base
11.1	Full-time permanent compensation	467	295	295	295	0
11.3	Other than full-time permanent	0	0	0	0	0
11.5	Other personnel compensation	10	9	9	9	0
11.7	Military Personnel	0	0	0	0	0
11.9	**Total personnel compensation**	477	304	304	304	0
12.1	Civilian personnel benefits	173	109	109	109	0
12.2	Military personnel benefits	0	0	0	0	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	16	12	12	12	0
22	Transportation of things	3	0	0	(6)	(6)
23.1	Rental payments to GSA	22	24	24	24	0
23.2	Rental payments to others	0	0	0	0	0
23.3	Communications, utilities, and misc. charges	378	525	525	525	0
24	Printing and reproduction	0	0	0	0	0
25.1	Advisory and assistance services	3,437	2,609	2,609	2,609	0
25.2	Other services from non-Federal sources	25,652	37,305	37,305	10,758	(26,547)
25.3	Other goods and services from Federal sources	60,048	35,346	35,346	33,846	(1,500)
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
26	Supplies and materials	1,518	1,714	1,714	1,158	(556)

Exhibit 16A

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
Office of Oceanic and Atmospheric Research
SELECT ACTIVITIES BY OBJECT CLASS
(Dollar amounts in thousands)

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/Decrease from 2025 Base
31	Equipment	3,720	1,973	1,973	6	(1,967)
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	20,055	20,078	20,078	19,154	(924)
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	3	0	0	0	0
44	Refunds	0	0	0	0	0
99.9	Total obligations	**115,505**	**100,000**	**100,000**	**68,500**	**(31,500)**
		(1,563)	0	0	0	0
		113,942	**100,000**	**100,000**	**68,500**	**(31,500)**
	Personnel Data					
	Full-time Equivalent Employment					
	Full-time permanent	4	4	4	4	0
	Other than full-time permanent	0	0	0	0	0
	Total	4	4	4	4	0
	Authorized Positions:					
	Full-time permanent	4	4	4	4	0
	Other than full-time permanent	0	0	0	0	0
	Total	4	4	4	4	0

*Totals and deltas may not add due to rounding

Exhibit 16A

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
National Weather Service
SELECT ACTIVITIES BY OBJECT CLASS
(Dollar amounts in thousands)

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/Decrease from 2025 Base
11.1	Full-time permanent compensation	5,441	6,762	6,762	6,762	0
11.3	Other than full-time permanent	7	8	8	8	0
11.5	Other personnel compensation	116	120	120	120	0
11.7	Military Personnel	0	0	0	0	0
11.9	**Total personnel compensation**	5,564	6,889	6,889	6,889	0
12.1	Civilian personnel benefits	2,894	3,576	3,576	3,576	0
12.2	Military personnel benefits	0	0	0	0	0
13	Benefits for former personnel	2	2	2	2	0
21	Travel and transportation of persons	458	451	451	451	0
22	Transportation of things	127	31	31	31	0
23.1	Rental payments to GSA	1,354	1,328	1,328	1,328	0
23.2	Rental payments to others	180	179	179	179	0
23.3	Communications, utilities, and misc. charges	1,833	1,491	1,491	1,491	0
24	Printing and reproduction	3	3	3	3	0
25.1	Advisory and assistance services	13,877	10,810	10,810	10,810	0
25.2	Other services from non-Federal sources	75,299	64,373	64,373	59,224	(5,149)
25.3	Other goods and services from Federal sources	2,228	720	720	720	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
26	Supplies and materials	14,268	9,177	9,177	9,177	0

Exhibit 16A

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
National Weather Service
SELECT ACTIVITIES BY OBJECT CLASS
(Dollar amounts in thousands)

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/Decrease from 2025 Base
31	Equipment	11,926	6,420	6,420	6,420	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	3,902	3,896	3,896	3,896	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	3	2	2	2	0
44	Refunds	0	0	0	0	0
99.9	Total obligations	**133,919**	**109,349**	**109,349**	**104,200**	**(5,149)**
	Personnel Data					
	Full-time Equivalent Employment					
	Full-time permanent	26	31	31	31	0
	Other than full-time permanent	0	0	0	0	0
	Total	26	31	31	31	0
	Authorized Positions:					
	Full-time permanent	32	32	32	32	0
	Other than full-time permanent	0	0	0	0	0
	Total	32	32	32	32	0

*Totals and deltas may not add due to rounding

Exhibit 16A

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
National Environmental Satellite, Data and Information Service
SELECT ACTIVITIES BY OBJECT CLASS
(Dollar amounts in thousands)

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/Decrease from 2025 Base
11.1	Full-time permanent compensation	39,191	45,465	45,309	45,309	0
11.3	Other than full-time permanent	96	100	100	100	0
11.5	Other personnel compensation	1,065	1,106	1,106	1,106	0
11.7	Military Personnel	0	0	0	0	0
11.9	**Total personnel compensation**	40,352	46,671	46,515	46,515	0
12.1	Civilian personnel benefits	15,973	18,531	18,481	18,481	0
12.2	Military personnel benefits	0	0	0	0	0
13	Benefits for former personnel	4	4	4	4	0
21	Travel and transportation of persons	1,666	1,729	1,729	1,729	0
22	Transportation of things	11	12	12	12	0
23.1	Rental payments to GSA	3,765	3,910	3,910	3,910	0
23.2	Rental payments to others	9	9	9	9	0
23.3	Communications, utilities, and misc. charges	390	405	405	405	0
24	Printing and reproduction	80	83	83	83	0
25.1	Advisory and assistance services	370,087	384,278	384,278	270,712	(113,566)
25.2	Other services from non-Federal sources	64,041	66,497	66,497	62,470	(4,027)
25.3	Other goods and services from Federal sources	731,223	751,546	735,587	1,280,342	544,755
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	9,812	10,188	10,188	10,188	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
26	Supplies and materials	740	769	769	769	0

Exhibit 16A

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
National Environmental Satellite, Data and Information Service
SELECT ACTIVITIES BY OBJECT CLASS
(Dollar amounts in thousands)

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/Decrease from 2025 Base
31	Equipment	(316)	672	672	672	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	43,094	44,747	44,347	44,347	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	67	69	69	69	0
44	Refunds	0	0	0	0	0
99.9	Total obligations	**1,280,997**	**1,330,119**	**1,313,554**	**1,740,716**	**427,162**
	Personnel Data					
	Full-time Equivalent Employment					
	Full-time permanent	266	297	296	296	0
	Other than full-time permanent	0	0	0	0	0
	Total	266	297	296	296	0
	Authorized Positions:					
	Full-time permanent	273	354	353	353	0
	Other than full-time permanent	0	0	0	0	0
	Total	273	354	353	353	0

*Totals and deltas may not add due to rounding

Exhibit 16A

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
Mission Support
SELECT ACTIVITIES BY OBJECT CLASS
(Dollar amounts in thousands)

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/Decrease from 2025 Base
11.1	Full-time permanent compensation	913	241	241	241	0
11.3	Other than full-time permanent	0	0	0	0	0
11.5	Other personnel compensation	28	19	19	19	0
11.7	Military Personnel	0	0	0	0	0
11.9	**Total personnel compensation**	941	260	260	260	0
12.1	Civilian personnel benefits	337	89	89	89	0
12.2	Military personnel benefits	0	0	0	0	0
13	Benefits for former personnel	1	1	1	1	0
21	Travel and transportation of persons	174	139	139	139	0
22	Transportation of things	231	0	0	0	0
23.1	Rental payments to GSA	65	47	47	47	0
23.2	Rental payments to others	0	0	0	0	0
23.3	Communications, utilities, and misc. charges	1	1	1	1	0
24	Printing and reproduction	0	0	0	0	0
25.1	Advisory and assistance services	9,483	1,362	1,362	1,362	0
25.2	Other services from non-Federal sources	78,228	64,360	66,973	66,973	0
25.3	Other goods and services from Federal sources	10,201	15,561	15,561	15,561	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
26	Supplies and materials	3,947	5,347	5,347	5,347	0

Exhibit 16A

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
Mission Support
SELECT ACTIVITIES BY OBJECT CLASS
(Dollar amounts in thousands)

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/Decrease from 2025 Base
31	Equipment	25	4	4	4	0
32	Lands and structures	6,158	9,394	9,394	9,394	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	0	0	0	0	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	5	3	3	3	0
44	Refunds	0	0	0	0	0
99.9	Total obligations	**109,797**	**96,567**	**99,180**	**99,180**	**0**
	Less Mandatory Obligations	(50,801)	(6,567)	(9,180)	(9,180)	0
	Total Discretionary Obligations	**58,996**	**90,000**	**90,000**	**90,000**	**0**
	Personnel Data					
	Full-time Equivalent Employment					
	Full-time permanent	5	2	2	2	0
	Other than full-time permanent	0	0	0	0	0
	Total	5	2	2	2	0
	Authorized Positions:					
	Full-time permanent	2	2	2	2	0
	Other than full-time permanent	0	0	0	0	0
	Total	2	2	2	2	0

*Totals and deltas may not add due to rounding

Exhibit 16A

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
Office of Marine and Aviation Operations
SELECT ACTIVITIES BY OBJECT CLASS
(Dollar amounts in thousands)

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/Decrease from 2025 Base
11.1	Full-time permanent compensation	7,834	7,885	7,885	7,885	0
11.3	Other than full-time permanent	11	11	11	11	0
11.5	Other personnel compensation	279	257	257	257	0
11.7	Military Personnel	0	0	0	0	0
11.9	**Total personnel compensation**	8,124	8,152	8,152	8,152	0
12.1	Civilian personnel benefits	3,067	2,784	2,784	2,784	0
12.2	Military personnel benefits	0	0	0	0	0
13	Benefits for former personnel	3	1	1	1	0
21	Travel and transportation of persons	332	152	152	208	56
22	Transportation of things	2	1	1	58	57
23.1	Rental payments to GSA	701	301	301	301	0
23.2	Rental payments to others	0	0	0	0	0
23.3	Communications, utilities, and misc. charges	38	18	18	18	0
24	Printing and reproduction	38	18	18	18	0
25.1	Advisory and assistance services	7,653	2,195	2,195	2,195	0
25.2	Other services from non-Federal sources	344,559	113,004	113,004	103,669	(9,335)
25.3	Other goods and services from Federal sources	4	2	2	2	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	31	15	15	15	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
26	Supplies and materials	6,195	2,970	2,970	3,327	357

Exhibit 16A

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
Office of Marine and Aviation Operations
SELECT ACTIVITIES BY OBJECT CLASS
(Dollar amounts in thousands)

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/Decrease from 2025 Base
31	Equipment	14,887	2,343	2,343	3,208	865
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	58	28	28	28	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	33	16	16	16	0
44	Refunds	0	0	0	0	0
99.9	Total obligations	**385,726**	**132,000**	**132,000**	**124,000**	**(8,000)**
	Personnel Data					
	Full-time Equivalent Employment					
	Full-time permanent	59	66	66	66	0
	Other than full-time permanent	0	0	0	0	0
	Total	59	66	66	66	0
	Authorized Positions:					
	Full-time permanent	62	69	69	69	0
	Other than full-time permanent	0	0	0	0	0
	Total	62	69	69	69	0

*Totals and deltas may not add due to rounding

Department of Commerce
National Oceanic and Atmospheric Administration
National Ocean Service
Budget Estimates, Fiscal Year 2025

Executive Summary

For FY 2025, NOAA requests a total of $624,010,000 and 1,277 FTE/ 1,342 positions for the National Ocean Service (NOS), including a net decrease of $148,808,000 and an increase of 7 FTE/ 11 positions in program changes.

NOS enables the safe, sustainable, and efficient use of marine and coastal resources across the range of significant U.S. economic sectors. Those sectors include maritime commerce and marine transportation, fishing and aquaculture, energy development, coastal recreation, and inland export and import industries, which depend on the flow of goods through seaports. NOS's products and services sustain livelihoods, reduce risk, and facilitate adaptation to change. Its earth observations and navigation products are used daily by ship pilots, port managers, surveyors, resource managers, and airports. When oil spills, chemical releases, and marine debris damage coastal resources, NOS's scientific expertise is essential to emergency response and long-term recovery.

While coastal and Great Lakes counties represent less than 10 percent of the land area of the U.S., they are home to over 40 percent of our country's population[1]. Supporting them and other communities across the Nation, the U.S. oceans and Great Lakes economy consists of over 164,000 business establishments, employing 2.9 million people, paying $132 billion in wages, and producing $258 billion in goods and services[2]. While these communities and their economies depend on marine resources, they also face unique environmental threats:

- Coastal storms threaten lives and destroy property
- Tidal flooding damages infrastructure and forces costly adaptations
- Ecological hazards, such as harmful algal blooms, disrupt fishing, water supplies, and tourism
- Production and transport of fossil fuels, while essential to the U.S. economy, creates a constant risk of spills, including catastrophic ones like the Deepwater Horizon oil spill
- The same coastal industries that are the engines of thriving ocean economies also generate port congestion, marine pollution, and navigation hazards

[1] https://oceanservice.noaa.gov/facts/population.html

[2] National Oceanic and Atmospheric Administration (NOAA), Office for Coastal Management. 2023. "NOAA Report on the U.S. Marine Economy." Charleston, SC: NOAA Office for Coastal Management. Available at http://coast.noaa.gov/digitalcoast/training/econreport.html.

As a result, coastal communities, governments, and businesses need reliable data and tools to help make informed decisions in the face of climate threats. NOS helps people and places prepare for, respond to, and recover from these coastal disasters. NOS provides communities with data, observations, modeling, tools, and training to understand, forecast and respond to the local impacts of climate change, sea level change and coastal flooding, harmful algal blooms, extreme natural events, and changing ecosystem conditions. NOS promotes smart resource management through technical assistance, applied research, and partnership building. NOS also plays a leading role in protecting the Nation's special marine places, including the National Marine Sanctuaries System, the National Estuarine Research Reserve System, and the National System of Marine Protected Areas.

Significant Adjustments:

Inflationary Adjustments
NOAA's FY 2025 Base includes a net increase of $8,381,000 and 0 FTE/ 0 positions to account for the full funding requirement for certain inflationary adjustments to current programs for NOS activities. This includes inflationary increases for labor and non-labor activities including benefits and rent charges from the General Services Administration.

Department of Commerce
National Oceanic and Atmospheric Administration
PROGRAM AND PERFORMANCE: DIRECT OBLIGATIONS
(Dollar amounts in thousands)

		2023 Actuals		2024 Annualized CR		2025 Base		2025 Estimate		Increase/Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
NATIONAL OCEAN SERVICE											
Navigation, Observations and	Pos/BA	580	317,031	647	259,702	647	263,855	641	207,657	(6)	(56,198)
Positioning	FTE/OBL	571	345,247	613	259,702	613	263,855	607	207,657	(6)	(56,198)
Coastal Science and Assessment	Pos/BA	258	157,108	302	119,000	302	120,917	304	106,117	2	(14,800)
	FTE/OBL	236	172,701	283	119,000	283	120,917	285	106,117	2	(14,800)
Ocean and Coastal Management	Pos/BA	313	464,204	349	300,720	349	303,031	364	269,892	15	(33,139)
and Services	FTE/OBL	324	491,005	341	300,720	341	303,031	352	269,892	11	(33,139)
NOAA Community Project	Pos/BA	0	37,673	0	37,673	0	37,673	0	0	0	(37,673)
Funding/NOAA Special Projects	FTE/OBL	0	44,154	0	37,673	0	37,673	0	0	0	(37,673)
TOTAL NOS - ORF	**Pos/BA**	**1,151**	**976,016**	**1,298**	**717,095**	**1,298**	**725,476**	**1,309**	**583,666**	**11**	**(141,810)**
	FTE/OBL	**1,131**	**1,053,107**	**1,237**	**717,095**	**1,237**	**725,476**	**1,244**	**583,666**	**7**	**(141,810)**
NOS Construction	Pos/BA	1	13,787	1	14,000	1	14,000	1	7,002	0	(6,998)
	FTE/OBL	1	13,335	1	14,000	1	14,000	1	7,002	0	(6,998)
TOTAL NOS - PAC	**Pos/BA**	**1**	**13,787**	**1**	**14,000**	**1**	**14,000**	**1**	**7,002**	**0**	**(6,998)**
	FTE/OBL	**1**	**13,335**	**1**	**14,000**	**1**	**14,000**	**1**	**7,002**	**0**	**(6,998)**
Damage Assessment and	**Pos/BA**	**30**	**5,964**	**30**	**7,884**	**30**	**8,000**	**30**	**8,000**	**0**	**0**
Restoration Revolving Fund	**FTE/OBL**	**48**	**108,655**	**30**	**129,112**	**30**	**120,382**	**30**	**120,382**	**0**	**0**
Sanctuaries Enforcement Asset	**Pos/BA**	**0**	**1,084**	**0**	**1,277**	**0**	**640**	**0**	**640**	**0**	**0**
Forfeiture Fund	**FTE/OBL**	**0**	**249**	**0**	**2,689**	**0**	**660**	**0**	**660**	**0**	**0**
Gulf Coast Ecosystem	**Pos/BA**	**2**	**0**	**2**	**0**	**2**	**0**	**2**	**0**	**0**	**0**
Restoration Fund	**FTE/OBL**	**3**	**8,482**	**2**	**10,958**	**2**	**14,842**	**2**	**14,842**	**0**	**0**
NOS Inflation Reduction Act	**Pos/BA**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
(ORF)	**FTE/OBL**	**1**	**87,263**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
NOS Inflation Reduction Act	**Pos/BA**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
(PAC)	**FTE/OBL**	**0**	**1,313**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
TOTAL NOS	**Pos/BA**	**1,186**	**996,851**	**1,331**	**740,256**	**1,331**	**748,116**	**1,342**	**599,308**	**11**	**(148,808)**
	FTE/OBL	**1,184**	**1,272,404**	**1,270**	**873,854**	**1,270**	**875,360**	**1,277**	**726,552**	**7**	**(148,808)**

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
NOAA Community Project Funding/ NOAA Special Projects	Pos./BA	0	37,673	0	0	0	(37,673)
	FTE/OBL	0	37,673	0	0	0	(37,673)

Terminate NOAA Community Project Funding/NOAA Special Projects (-$37,673, 0 FTE/0 Positions) – This program change removes funding for one-time congressionally directed projects provided in the FY 2023 enacted bill.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Activity: Navigation, Observations and Positioning

Goal Statement

Provides foundational navigational, geodetic, and oceanographic data to the public and private sectors to inform decisions that protect life, property and the environment, and ensures the flow of commerce to support growth of the American Blue Economy.

Base Program

The following NOS Offices are responsible for conducting the activities held within Navigation, Observations and Positioning:

- **Office of Coast Survey (OCS)** – is responsible for surveying U.S. waters, establishing maritime boundaries for the U.S. Exclusive Economic Zone (EEZ), and delivering navigation products, services, and marine geospatial data to the Nation. The OCS Director serves as the U.S. National Hydrographer representing the U.S. interests in international fora. https://nauticalcharts.noaa.gov/
- **National Geodetic Survey (NGS)** – manages the National Spatial Reference System (NSRS), delineates the National Shoreline for nautical charts, and sets guidelines for all foundational positioning, geodesy, and coastal mapping activities. https://geodesy.noaa.gov/
- **Center for Operational Oceanographic Products and Services (CO-OPS)** – is the authoritative source for accurate, reliable, and timely tides, water level and currents information. CO-OPS provides the framework for vertical tidal datums across the U.S. and maintains long-term sea level trends for the Nation. https://tidesandcurrents.noaa.gov/
- **Integrated Ocean Observing System (IOOS)** – is an integrated network of people and technology gathering observing data, developing tracking and predictive tools, and delivering tailored products to regional stakeholders to benefit the economy, the environment, and public safety. https://ioos.noaa.gov/

The data and services provided by these Offices support applications across many NOAA mission areas, including safe and efficient navigation and transportation, coastal resilience, climate readiness, infrastructure, emergency planning and response, place-based conservation and restoration, recreation and tourism, and living marine resource management, among others.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Statement of Operating Objectives

Schedule and Milestones:

OCS

- Conduct 145 hydrographic surveys that provide data for use in electronic navigational charts (annually)
- Complete the build out of the National Bathymetric Source (NBS) database for Alaska and the Pacific Islands in support of the BlueTopo database that was launched in FY 2022 (FY 2025)
- Complete 1650 newly reschemed electronic navigational chart cells (FY 2025 – FY 2026)

NGS

- Update 7 percent of the National Shoreline and 33 percent of ports identified as having high priority shoreline mapping needs to support Precision Marine Navigation
- Release a new geoid model that includes all available Gravity for the Redefinition of the American Vertical Datum (GRAV-D) data (FY 2025)
- Enhance coverage for Vdatum for Alaska (FY 2025 – FY 2029)

CO-OPS

- Establish one new Physical Oceanographic Real-Time System (PORTS ®) in Seattle, WA (FY 2025)
- Conduct comprehensive annual NWLON maintenance including precise leveling to ensure station accuracy and stability at 160 of 210 NWLON stations
- Conduct the first year of a two-year tidal current survey in Newport, OR to support safe and efficient maritime commerce (FY 2025)
- Complete an Advanced Circulation Model coastal water level reanalysis of the east and gulf coasts (FY 2025)

IOOS

- Partner with OAR's Ocean Acidification Program to deploy and operate ocean acidification sensors (buoys, shore stations, gliders) on regional Integrated Ocean Observing System (IOOS) platforms (ongoing)
- Transition demonstrated marine sensor tools and technologies into operations (ongoing)
- Maintain existing levels of glider-based subsurface monitoring in every IOOS regional coastal observing system (ongoing)

- Maintain the network of surface current observing platforms producing real time observations and informing forecasts along the U.S. coastline (ongoing)
- Continue the development of a National Harmful Algal Bloom (HAB) Observing Network (NHABON) via ten pilot projects and a HAB testbed. Coordinate pilots with the National Centers for Coastal Ocean Science (NCCOS) research goals and activities (ongoing)

Deliverables:

- 2,950 square nautical miles of hydrographic data collected annually
- 2,000 new source data applications added to the suite of electronic navigational charts
- High quality real-time oceanographic and meteorological observations provided 24 hours per day, 365 days per year, for 38 existing NOAA PORTS® systems to support safe and efficient maritime commerce in our Nation's seaports
- Deliver 2,000 square nautical miles of nearshore topographic-bathymetric (topobathy) data from lidar (FY 2025)
- 3D coastal modeling in the west coast and Great Lakes regions developed and implemented to support marine transportation
- Over 95 percent of water level data made available to the public annually
- Official U.S. Tidal Current Predictions maintained and provided to the public
- 2,000 square nautical miles of nearshore topographic-bathymetric (topobathy) lidar data for the Digital Coast.
- Integrate weather hazard polygons (S-412) into Precision Marine Navigation dissemination system and expand high-resolution bathymetry (S-102) and water level (S-104) forecast guidance (FY 2026)
- Comprehensive data management and cyberinfrastructure system utilized to enable the dissemination of diverse and distributed ocean observing data, products and services by IOOS
- At least one regional mapping summit
- A U.S. mapping collaboration platform to share mapping plans, progress, connect with partners, and identify priorities[3]

[3] http://Fedmap.seasketch.org

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

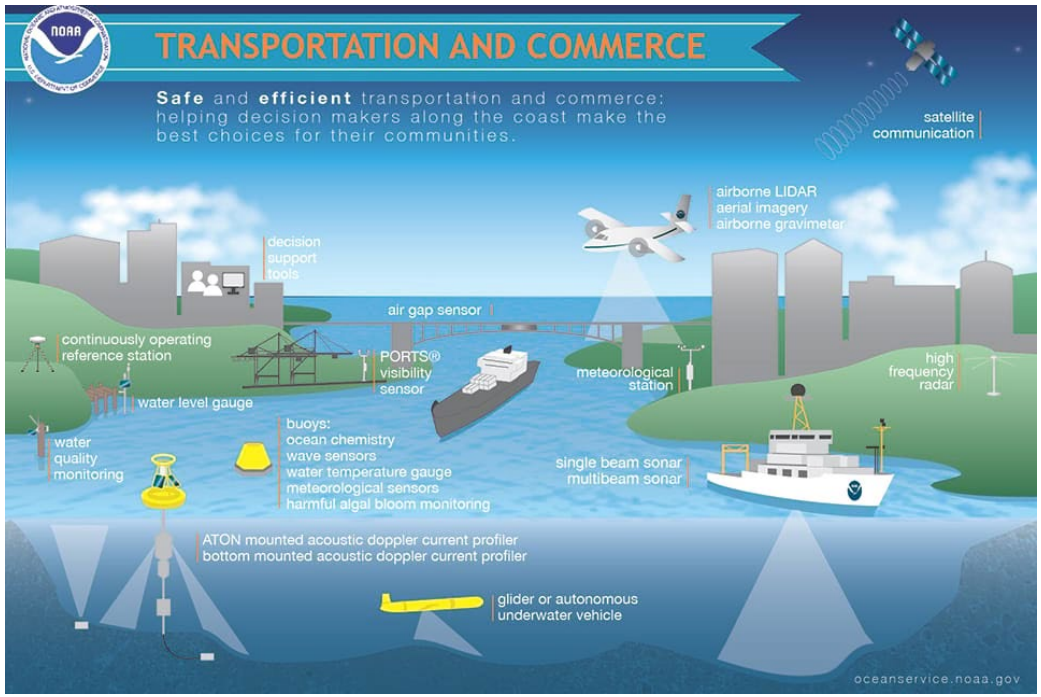
Explanation and Justification

		2023 Actual		2024 Annualized CR		2025 Base Program	
Comparison by subactivity		Personnel	Amount	Personnel	Amount	Personnel	Amount
Navigation, Observations and Positioning	Pos/BA	557	230,984	623	184,702	623	188,692
	FTE/OBL	551	252,761	589	184,702	589	188,692
Hydrographic Survey Priorities/Contracts	Pos/BA	23	32,394	24	32,500	24	32,663
	FTE/OBL	20	31,928	24	32,500	24	32,663
IOOS Regional Observations	Pos/BA	0	53,653	0	42,500	0	42,500
	FTE/OBL	0	60,558	0	42,500	0	42,500
Total Activity	Pos/BA	580	317,031	647	259,702	647	263,855
	FTE/OBL	571	345,247	613	259,702	613	263,855

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Navigation, Observations and Positioning

The Navigation, Observations and Positioning subactivity directly supports the American Blue Economy's commerce, transportation, and infrastructure, and enables the efficient transportation of over $1.5 trillion worth of products moving through U.S. ports each year[4]. Every ship moving in and out of U.S. ports relies on navigation charts and water level information that NOS alone provides. The value of electronic navigational charts to the Nation is estimated to be between $2 - 3.5 billion annually[5]. All mapping, charting, and transportation activities and infrastructure are founded on a reliable, accurate national coordinate system called the National Spatial Reference System[6]. NOS is solely responsible for maintaining that system, which provides more than $2.4 billion in potential annual benefits to the U.S. economy[7]. Businesses in the maritime community rely on NOS for a range of decisions, from how much cargo to load to choosing the safest and most efficient route between two points. They use NOS data, tools, and services to plan seasonally for ship schedules to service global trade more safely and efficiently.



Navigation, Observation and Positioning activities are grouped into three categories: Observations and Data Management, Products and Services, and Integration and Partnerships.

[4] https://coast.noaa.gov/states/fast-facts/ports.html
[5] https://www.nauticalcharts.noaa.gov/about/docs/about/Estimated+Gross+Benefits+Provided+by+Navigational+Charts+in+the+US.pdf
[6] https://oceanservice.noaa.gov/facts/nsrs.html
[7] https://www.ngs.noaa.gov/PUBS_LIB/Socio-EconomicBenefitsofCORSandGRAV-D.pdf

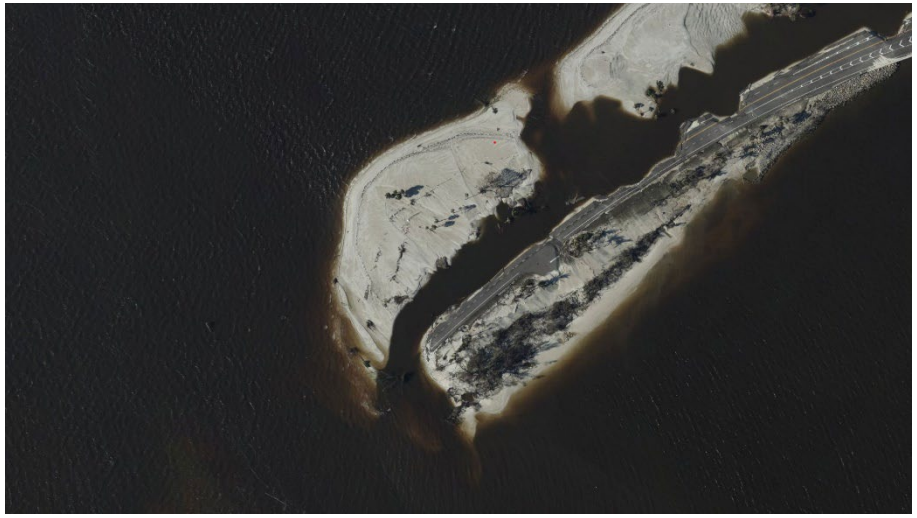
Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Observations and Data Management
Foundational data is essential to plan for and adapt to changing environmental conditions, enabling coastal decision-makers to make informed decisions to prepare their communities from the risks of coastal inundation and the consequences of sea level rise. It is relied upon by nearly every Federal agency, state, local, and Tribal government, academic, non-profit, or private sector actor working along our Nation's coasts. Ocean, coastal and geodetic observations and data are the foundation of built infrastructure and the blue economy, supporting safe and efficient transportation of air, land, and sea commerce.

Hydrographic Surveys and Data Management: Complete and up-to-date hydrographic data is central to developing accurate nautical charts and ensuring the safety of life at sea, and promoting efficient maritime commerce. OCS conducts hydrographic/seafloor surveys to understand the depth of and habitat features on the seafloor onboard NOAA survey vessels and survey contract vessels (https://nauticalcharts.noaa.gov/about/docs/about/ocean-mapping-capabilities.pdf). It acquires and processes the Nation's bathymetry, and is the authoritative source for all offshore depth information for U.S. waters. Using its National Ocean Mapping Strategy to guide the application of its expertise and capabilities, OCS uses smart management, strategic partnerships, and investment in force-multiplying technology to survey the Nation's coasts and oceans. Survey priorities are determined using a variety of inputs including the Hydrographic Health Model, and annual survey year plans are made publicly available, with real time updates as progress is made with each survey project (https://storymaps.arcgis.com/collections/ec779320c4a541a4bb76e226055c8e93?item=1). The data is used to update nautical charts and develop hydrographic models, following the "Map Once Use Many Times" principle, and the bathymetry collected serves many uses beyond nautical charting - see the Products and Services section below (NOS – 13).

Shoreline Mapping: NGS's Coastal Mapping Program maps and defines the Nation's 95,000-mile shoreline and near-shore bathymetry using tide coordinated, geo-referenced data from aerial photographs, high-resolution satellite imagery, and aerial topobathy lidar (https://geodesy.noaa.gov/RSD/cmp.shtml). These data are essential for nautical charts and the determination of U.S. maritime boundaries such as the EEZ, and are also used in applications such as inundation modeling, benthic habitat mapping, marine debris detection, and coastal zone management (https://oceanservice.noaa.gov/geodesy/aerialphotos/). Furthermore, airborne and satellite data used in shoreline mapping is made available in products that support coastal change analysis, inundation mapping, storm surge modeling and airport obstruction charts (https://www.ngs.noaa.gov/RSD/cmp_data.shtml). Post-incident data collection missions at the coast assist first responders in identifying critical coastal impacts and plan response actions to hurricanes, oil spills, and other extreme events (https://storms.ngs.noaa.gov/).

Following Hurricane Ian in 2022, NGS collected more than 13,000 post-storm images after flying 16,000 square kilometers, which NGS provided to the public on its hurricane aerial imagery viewer[8]. NOAA saw a sharp increase in website traffic during this time, as users regularly consulted NGS's aerial imagery to assess damages in the wake of Hurricane Ian.



Sanibel Causeway, National Geodetic Survey aerial assessment imagery collected on Sept. 29, 2022.

Continuously Operating Reference Station (CORS) Network: NGS serves as the U.S. authority in the management of public data from over 1,700 continuous-Global Navigation Satellite System (GNSS) receivers located throughout the U.S. and territories. This information is made publicly available for surveyors and engineers. NOAA has partnered with NASA and the National Science Foundation to establish a network of Federally-owned CORS (known as Foundation CORS) using the most modern GNSS receivers and antennas, to contribute to a more consistent worldwide spatial reference frame, improving forecasts of global sea level rise and informing climate resilience planning (https://geodesy.noaa.gov/CORS/).

Gravity Program: NGS observes and analyzes the Nation's gravity field to define a geoid height model - a model of global mean sea level that is used to measure precise surface elevations. Within the Gravity Program, GRAV-D is a long-term project to collect airborne gravity data and redefine the geoid height model for the Nation, ultimately reducing height errors in the current vertical reference frame. This system helps communities improve resilience by determining where water flows, allowing them to make accurate inundation models and floodplain maps. In 2019, a socio-economic study found that the NGS Gravity Program alone is worth between $4.2 billion and $13.3 billion over ten years (https://geodesy.noaa.gov/GRAV-D/).

National Water Level Observation Network (NWLON): The NWLON is the foundation of the comprehensive system for observing, communicating, and assessing the impact of changing water levels nationwide. With a network of 210 long-term, continuously operating water level stations throughout the Nation's Great Lakes (non-tidal), estuaries, oceans and U.S. territories, the NWLON is

[8] https://oceanservice.noaa.gov/news/sep22/ngs-storm-imagery-ian.html

the "go to" source for government and commercial sector navigation, recreation, and coastal ecosystem management. It maintains the Nation's water level reference framework to which all water elevations and marine boundaries are based on. From navigation to engineering to preservation, water levels are one of the most critical pieces of oceanographic data used to protect life, property, and the environment. NWLON water levels and meteorological information are integrated into NOAA PORTS® to support safe and efficient maritime commerce, and are also used by the NWS to meet its mission for coastal hazards and tsunami monitoring (https://tidesandcurrents.noaa.gov/water_level_info.html).

Physical Oceanographic Real Time System (PORTS®): PORTS® is an integrated system of sensors in and around U.S. seaports that provide commercial vessel operators with accurate and reliable real-time information about environmental conditions. PORTS® data is made available to promote navigation safety, improve the efficiency of U.S. ports and harbors, and ensure the protection of coastal marine resources. It has been proven to improve the safety and efficiency of maritime commerce and coastal resource management, as well as enhance navigational safety by reducing groundings and collisions for both commercial and recreational vessels. A study found that the utilization of the PORTS® decision support tool decreased groundings by 59 percent, reduced property damage by 37 percent, and reduced deaths by 60 percent[9] (https://tidesandcurrents.noaa.gov/ports_info.html).

IOOS Observations, Data Management and Cyberinfrastructure: The U.S. IOOS Office oversees the acquisition, integration, and distribution of ocean, coastal, and Great Lakes data sets including those from the 11 Federally-certified IOOS Regional Associations (RAs), and other interagency, private, academic, and nonprofit partners. IOOS ensures that the observations from its Federally-certified RAs meet the proper technical standards for data quality, user accessibility and interoperability, enabling modelers, researchers, meteorologists, and other stakeholders to develop new and value-added products. Through the integration of marine data streams, IOOS data management enhances the utility of ocean observations from across the distributed regional network and increases both the discovery and accessibility of ocean information to the public. This increased accessibility of ocean information supports a range of federal missions including maritime navigation, public health and safety, coastal resilience, fisheries, marine conservation and protected areas, and ocean and Great Lakes resource management.

Uncrewed Systems: OCS and NGS have been investigating the use of uncrewed systems to provide more efficient and effective hydrographic and lidar aerial survey operations for over 20 years, encompassing a wide variety of system types and environments. Current efforts focus on operational implementation of Uncrewed Surface Vessels (USVs) and Uncrewed Aerial Systems (UAS), as was done on the NOAA Ship Thomas Jefferson in August 2022[10]. USVs provide benefits over crewed launches, in particular with

[9] https://oceanservice.noaa.gov/facts/ports.html
[10] https://nauticalcharts.noaa.gov/updates/noaa-focuses-on-the-great-lakes-for-the-2022-field-season/

high endurance models that can survey independently for multiple days and in higher sea states (https://nauticalcharts.noaa.gov/learn/autonomous-systems.html).

Geospatial Data Management: NOAA provides access to a variety of environmental data products, tools, and models, including those from partner organizations. By storing information in databases and delivering it through open-access mapping applications NOAA ensures its stakeholders - as well as the general public - can easily access and process millions of data files every year. These databases include the National Bathymetric Source and Nautical Charting Database within OCS, the National Spatial Reference System (NSRS) database within NGS (https://geodesy.noaa.gov/NGSDataExplorer/), the robust Application Program Interfaces and GIS data portals containing real-time and historic CO-OPS data (https://tidesandcurrents.noaa.gov/web_services_info.html), and the IOOS.us National Data Portal (https://ioos.noaa.gov/data/access-ioos-data/).

Products and Services

Products and services within the Navigation, Observations and Positioning portfolio provide equitable access to foundational data. NOAA provides private and public stakeholders with the tools needed to help monitor and plan for changing coastal and inland conditions. These products and services support NOAA's investment in safe and efficient navigation, preparedness and risk reduction.

Navigational Charts and Precision Marine Navigation: Navigational charts and precision marine navigation data are critical to ensure safe and efficient maritime navigation. Once solely produced on paper, OCS now maintains a suite of over 5,000 electronic nautical charts (ENC) covering the entire 95,000 miles of the U.S. shoreline, and 3.6 million square nautical miles of U.S. waters. These ENCs enable full electronic navigation, providing real-time ship positioning as well as collision and grounding avoidance (https://nauticalcharts.noaa.gov/charts/noaa-enc.html). NOS aims further to seamlessly integrate high-resolution bathymetry, high accuracy positioning and shoreline data with forecast data—such as water levels, surface currents, salinity, temperature, waves, and weather forecasts through its Precision Marine Navigation program. In 2022, the International Maritime Organization decided to amend its Electronic Chart Display and Information System (ECDIS) standards to leverage S-100 based ENCs, to take effect beginning in 2026. NOS will provide enhanced precision marine navigation information in compliance with the internationally recognized standards (S-100) within the same timeframe. This will allow for efficient operation of and easier access to shipboard navigation systems (https://marinenavigation.noaa.gov/). These standards along with the additional data products produced under precision marine navigation will provide integrated navigational information on ship's navigation systems for better decision making. Because it involves many types of data sources, NOAA's Precision Marine Navigation efforts are a collaborative effort across OCS,

CO-OPS, NGS, IOOS and even NWS. NOS is working closely with industry partners throughout this entire process to ensure that the service NOAA develops is effective at disseminating precision navigation data[11].

BlueTopo: A public facing web service derived from the NBS that connects the non-navigation community with the best available bathymetry for use in offshore renewable energy development, identification of sensitive marine habitats and influence coastal models (https://www.nauticalcharts.noaa.gov/data/bluetopo.html).

Authoritative U.S. Tide and Tidal Current Predictions, and Water Levels: Accurate tide and tidal current predictions, and water level data are critical for safe and efficient marine navigation and for the protection of infrastructure along the coast. CO-OPS maintains and updates the official U.S. tide and tidal current predictions. Both products each contain predictions for over 3,000 locations. The predictions are available online and include the most accurate, up-to-date and location specific information. CO-OPS also measures local water levels along the coast and in the Great Lakes through the NWLON and related partnerships to determine boundaries for privately owned land, state owned land, the territorial sea, the EEZ, and the high seas (https://tidesandcurrents.noaa.gov/water_level_info.html). This information is critical to habitat restoration, lakes water level regulation, forecasting, and coastal resilience planning.

National Spatial Reference System (NSRS): The NSRS plays a critical role in seamlessly aligning our Nation's significant geospatial investments in mapping and resilient infrastructure. As the common reference framework that defines latitude, longitude, height, scale, and gravity for all geospatial data and positioning activities in the Nation, NSRS is undergoing a modernization effort, led by NGS, to improve its accuracy and accessibility throughout the country. The resulting improved accuracy and accessibility will enable stakeholders, including emergency managers, to better plan for rising sea levels with improved floodplain maps, resilient infrastructure, and evacuation routes for coastal disaster preparedness. Equitable access to the NSRS's coordinate and height data is provided through the Online Positioning User Service (OPUS) tool, which is commonly used by surveyors and engineers who are planning infrastructure projects (https://oceanservice.noaa.gov/facts/nsrs.html).

Coastal Resilience Planning Products: NOS provides coastal inundation data and sea level trends. Each year, CO-OPS recalculates relative sea level trends for more than 100 long-term water level stations, which is critical to mitigate the impacts of sea level rise (https://coast.noaa.gov/slr/). These updated sea level trends were highlighted in the 2022 Sea Level Rise Technical Report[12], which synthesized the most recent science related to sea level rise, and served as a key technical input for the Fifth National Climate

[11] https://marinenavigation.noaa.gov/
[12] https://oceanservice.noaa.gov/hazards/sealevelrise/sealevelrise-tech-report.html

Assessment. NOS's data and online tools and analyses, such as NOAA's Coastal Inundation Dashboard, help coastal communities to better plan for and mitigate risk from changing ocean conditions in order to protect people, land, and infrastructure from extreme events and sea level changes (https://tidesandcurrents.noaa.gov/sea_level_info.html).

Navigation Response Teams/Navigation Managers: Coast Survey's mobile navigation response teams (NRT) are strategically located around the country and remain on call to respond to emergencies, speeding the resumption of shipping after storms, and conducting routine nearshore hydrographic surveys for ports, harbors, and fairways. Regional navigation managers work directly with pilots, mariners, port authorities and recreational boaters to address local issues along the U.S. coast and Great Lakes (https://nauticalcharts.noaa.gov/customer-service/navigation-response.html, https://nauticalcharts.noaa.gov/customer-service/regional-managers/index.html,).

Regional Geodetic Advisor Program: NGS provides training, guidance and assistance throughout the entire Nation to state and local geodetic and survey programs, GIS users, and coastal managers. Advisors serve as a liaison between NOAA and its public, academic and private sector constituents within their assigned region. They provide expert guidance and assistance to constituents who manage geospatial activities tied to the NSRS. A 2018 study estimated the economic benefits of the Regional Geodetic Advisor Program to be between $18.6 million and $39.7 million annually (https://geodesy.noaa.gov/ADVISORS/index.shtml).

Standards and Product Specifications: NOS also develops national and international standards and guidelines for geodetic reference frames, bathymetry, electronic navigational charts, currents and water level data, and ocean and geodetic observations. In addition, NOS conducts research to improve the resilience of the U.S. positioning, navigation, and timing infrastructure.

Integration and Partnerships

NOAA partners with Federal and state agencies, academic institutions, the private sector, and other organizations to meet its mission mandates, improve its products and services, and deliver benefits to stakeholders. Integration of marine data streams across disciplines, institutions, time scales, and geographies allows for the development of advanced, innovative products and services for the public. NOAA partnerships also focus heavily on training, outreach, and an exchange of knowledge and expertise with its partners. NOAA conducts workshops, hosts constituent forums around the country, and directly engages with industry partners that build on base products to make data, tools, and science accessible to all users.

Integrated Ocean and Coastal Mapping (IOCM): IOCM coordinates the planning, acquisition, integration and sharing of ocean and coastal mapping data and related products for easy public access. "Map Once, Use Many Times" is the motto of IOCM, who strive to make the best use of collective resources maximizing Federal, state, local and academic investments in ocean mapping for

restoration, conservation, and coastal resilience. The IOCM team leads the development of guidance documents, like the Standard Ocean Mapping Protocol, to ensure that data acquired and processed are standardized to support wide availability, access, and use to minimize duplication of effort (https://iocm.noaa.gov/).

Ocean Mapping Centers of Excellence: OCS has two- cooperative agreements with the University of New Hampshire's Center for Coastal and Ocean Mapping/Joint Hydrographic Center, a 25-year partnership, and the newly established Center of Ocean Mapping and Innovative Technologies at the University of South Florida that began in FY 2021. These two centers have specialized expertise in the development of new technologies for ocean mapping, application of hydrographic data through tools and models, and training the next generation of hydrographers and ocean mappers. In 2023, NOAA established a Center of Excellence for Operational Ocean and Great Lake Mapping. The Center of Excellence leverages existing capabilities to operationalize newly developed technologies, including mapping platforms and sensors. This Center provides a focal point for applied training for mapping and surveying operations, providing agency-wide technical support for ocean mapping technologies to operators in the field; and leveraging public-private partnerships in advancing the Nation's ocean and Great Lakes mapping goals (http://ccom.unh.edu/; https://www.marine.usf.edu/comit/).

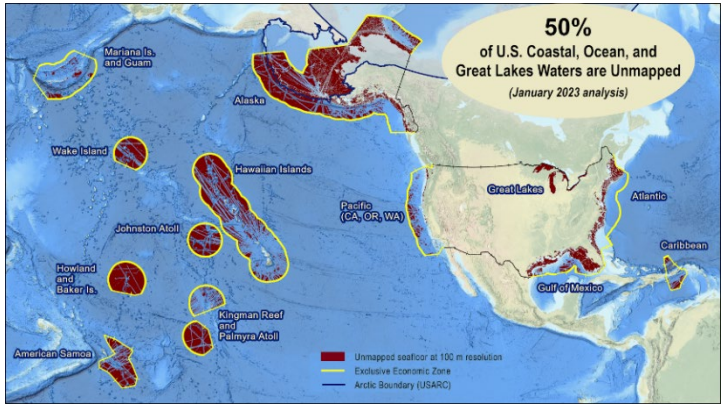
Geospatial Modeling Grants: NOS administers Geospatial Modeling grants to support research, education, modeling, data collection, data analysis, and data management in the geospatial sector. The funds are managed by the National Geodetic Survey and the Office of Coastal Management. NGS's portion of the funding is focused on research and education in the field of geodesy. https://geodesy.noaa.gov/grant-opportunities/index.shtml

IOOS Regional Data Integration: NOAA's U.S. IOOS Office provides technical and funding support for non-Federal regional observing systems and improves compatibility between Federal and regional observations. By enhancing the accessibility and interoperability of ocean data, IOOS enables users of ocean data (resource managers, modelers, researchers, meteorologists, and others) to focus their resources on developing products. IOOS observing platforms, data management, data assimilation, and predictive systems include observations by NOS and NOAA assets, and partner networks, which are improving operational oceanography for the Nation (https://ioos.noaa.gov/data/access-ioos-data/; https://ioos.noaa.gov/data/).

In addition to the above listed efforts, additional partnerships exist within the previously listed work with private sector companies, other Federal agencies, academic institutions, executive committees, and state and local governments.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Hydrographic Survey Priorities/Contracts
Knowledge of the depth, shape, and composition of the seafloor has far-reaching benefits, including safer navigation, hazard mitigation for coastal resilience, preservation of marine habitats and heritage, and a deeper understanding of natural resources for sustainable ocean economies. NOAA currently has four hydrographic ships, and also relies on hydrographic survey contractors to complement NOAA's surveys. OCS has set aside a small amount of funds for matching with states and non-Federal partners to increase collaboration and mapping coverage (https://iocm.noaa.gov/documents/mapping-progress-report2023.pdf).



Percentage of unmapped U.S. waters, as of March 2023

Much of the momentum behind these efforts is being driven by new and emerging technologies in areas such as uncrewed systems, artificial intelligence, machine learning, geographic information systems and cloud computing. These advances are enabling the ability to more efficiently, effectively and accurately map the seafloor and provide much needed data to inform decisions vital to resource conservation and our national and economic security. Mapping America's waters is vital to human and marine health, coastal resilience, safe navigation and national security. It is key to sustainable use of ocean resources and better understanding how the ocean influences climate.

IOOS Regional Observations
U.S. IOOS is a national-regional partnership working to provide critical data, models, and new tools and forecasts to capture the climate change signal in our oceans and Great Lakes, improve safety, enhance the economy, and protect our environment. Integrated ocean information is available to users and stakeholders in coastal communities in near real time, as well as retrospectively, in order to support local decision-making and management activities. Easier and better access to this information is improving our ability to understand and predict coastal events - such as storms, wave heights, and sea level change, and to support commerce, safety, environmental stewardship, and coastal resilience.

The 11 NOAA-certified IOOS Regional Associations (RAs) support observing requirements of local communities and complement Federal ocean observations and models. Data coming from all IOOS partners now adhere to common Federal collection, storage and management standards, meaning it can be integrated with other data, and help make "big data" research and development

possible. NOAA supports IOOS RAs through cooperative agreements for operations and maintenance, capital projects, and new sensor technology. IOOS RAs deploy observing assets in accordance with nationally coordinated build-out plans, which identify highest-priority gaps and needs. In the last five years priorities for investment included:

The 11 NOAA-certified IOOS Regional Associations

- Regional Ocean and Great Lakes Observing System infrastructure, including buoys, uncrewed underwater profiling gliders, coastal high frequency radar, animal telemetry tags, and sensors that provide the foundational data that informs our understanding of the ocean, coastal climate change, marine hazards, and safe and efficient marine navigation
- Operational ocean and Great Lakes models and predictions that inform mitigation strategies for coastal hazards and extreme weather, as well as resource management of protected areas and fisheries
- Advances in those ocean predictions through the Coastal and Ocean Modeling Testbed, an extramural program among the research community and IOOS RAs designed to develop, test, and transition advances in experimental and operational models and forecasts. The Coastal and Ocean Modeling Testbed supports integration, comparison, scientific analyses and archiving of data and model output needed to elucidate, prioritize, and resolve Federal and regional operational coastal ocean issues associated with a range of existing and emerging coastal oceanic, hydrologic, and ecological models
- Coordinating the collection of and access to marine life observations that were gathered by partners to support place-based and other resource management activities via the interagency-supported Marine Biodiversity Observation Network and Animal Telemetry Network
- The Ocean Technology Transition program to support research, development, testing, and evaluation of new sensor technology and observing strategies. This program sponsors the transition of emerging marine observing technologies, for which there is an existing operational requirement and a demonstrated commitment to integration and use by the ocean observing community, to operational mode

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Navigation, Observations and Positioning	Pos./BA	623	188,692	617	178,692	(6)	(10,000)
	FTE/OBL	589	188,692	583	178,692	(6)	(10,000)

Terminate the Center of Excellence for Operational Ocean and Great Lakes Mapping (-$10,000, -6 FTE/-6 Positions) – This program change eliminates congressionally directed funding and is requested to support other NOAA and Administration priorities. At this level of funding, NOAA will continue to develop foundational data and explore the value of uncrewed systems within existing resources.

This request will terminate the NOAA Center of Excellence for Operational Ocean and Great Lakes Mapping. Eliminating the Center will reduce training of experts in geospatial sciences. However, NOAA will provide technical support for its hydrographic vessels, and will continue to support the geospatial workforce through education, training, and experiences in partnership with the University of New Hampshire, other educational institutions, and industry.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

	2025	2026	2027	2028	2029
Outyear Costs:					
Direct Obligations	(10,000)	(10,000)	(10,000)	(10,000)	(10,000)
Capitalized	(858)	(858)	(858)	(858)	(858)
Uncapitalized	(9,142)	(9,142)	(9,142)	(9,142)	(9,142)
Budget Authority	(10,000)	(10,000)	(10,000)	(10,000)	(10,000)
Outlays	(6,100)	(8,900)	(9,400)	(9,800)	(10,000)
FTE	(6)	(6)	(6)	(6)	(6)
Positions	(6)	(6)	(6)	(6)	(6)

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE PERSONNEL DETAIL

Activity: Navigation, Observations and Positioning
Subactivity: Navigation, Observations and Positioning
Program Change: Terminate the Center of Excellence for Operational Ocean and Great Lakes Mapping

Title		Grade	Number	Annual Salary	Total Salaries
Director		ZA-05	(1)	183,500	(183,500)
Deputy Director		ZA-04	(1)	170,205	(170,205)
Physical Scientist Technician (1311)		ZT-2/3	(2)	91,984	(183,968)
Training Lead (Physical Scientist)		ZP-4	(1)	170,205	(170,205)
Systems Support (Physical Scientist)		ZP-3	(1)	121,128	(121,128)
Total			(6)		(829,006)
Less lapse	25.00%		0		0
Total full-time permanent (FTE)			(6)		(829,006)
2025 Pay Adjustment (2.0%)					(16,580)
					(845,586)

Personnel Data Summary	
Full-time Equivalent Employment (FTE)	
Full-time permanent	(6)
Total FTE	(6)
Authorized Positions:	
Full-time permanent	(6)
Total Positions	(6)

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Navigation, Observations and Positioning
Subactivity: Navigation, Observations and Positioning

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	75,074	80,474	82,627	81,781	(846)
11.3	Other than full-time permanent	86	86	86	86	0
11.5	Other personnel compensation	1,791	1,791	1,791	1,791	0
11.7	Military personnel compensation	5	5	5	5	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	76,956	82,356	84,509	83,663	(846)
12	Civilian personnel benefits	27,071	31,295	32,070	31,755	(315)
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	2,869	2,869	2,899	2,849	(50)
22	Transportation of things	497	497	507	507	0
23	Rent, communications, and utilitites	0	0	90	77	(13)
23.1	Rental payments to GSA	7,231	7,231	7,231	7,231	0
23.2	Rental Payments to others	97	97	97	97	0
23.3	Communications, utilities and misc charges	698	780	780	780	0
24	Printing and reproduction	12	12	14	14	0
25.1	Advisory and assistance services	59,697	0	0	0	0
25.2	Other services from non-Federal sources	28,864	19,241	20,032	19,689	(343)
25.3	Other goods and services from Federal sources	3,590	0	0	0	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	3,492	3,492	3,558	3,558	0
31	Equipment	3,855	3,855	3,928	3,478	(450)
32	Lands and structures	551	551	551	551	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	37,275	32,420	32,420	24,437	(7,983)
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	6	6	6	6	0
44	Refunds	0	0	0	0	0
99	Total obligations	252,761	184,702	188,692	178,692	(10,000)

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Navigation, Observations and Positioning	Pos./BA	623	188,692	623	180,692	0	(8,000)
	FTE/OBL	589	188,692	589	180,692	0	(8,000)

Terminate Geospatial Modeling Grants (-$8,000, 0 FTE/ 0 Positions) – This program change reduces Congressionally directed funding and is requested to support other NOAA and Administration priorities. At this level of funding, NOAA will continue to support a range of other geospatial requirements through NOS's Coastal Zone Management and Services and Navigation, Observations and Positioning subactivities. These activities include the development and provisioning of data, tools and training as well as defining, maintaining, and providing access to the National Spatial Reference System (NSRS).

This request will eliminate the competitive grants awarded through the Geospatial Modeling Grants program. This termination will reduce NOAA's efforts to address the nationwide deficiency of geodesists, which, according to the Federal Geographic Data Committee's (FGDC) Resolution on Geodesy, affects U.S. economic health and security by impacting international technological competitiveness in Earth and space science.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

	2025	2026	2027	2028	2029
Outyear Costs:					
Direct Obligations	(8,000)	(8,000)	(8,000)	(8,000)	(8,000)
Capitalized	0	0	0	0	0
Uncapitalized	(8,000)	(8,000)	(8,000)	(8,000)	(8,000)
Budget Authority	(8,000)	(8,000)	(8,000)	(8,000)	(8,000)
Outlays	(4,880)	(7,120)	(7,520)	(7,840)	(8,000)
FTE	0	0	0	0	0
Positions	0	0	0	0	0

Exhibit 15

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Navigation, Observations and Positioning
Subactivity: Navigation, Observations and Positioning

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	75,074	80,474	82,627	82,627	0
11.3	Other than full-time permanent	86	86	86	86	0
11.5	Other personnel compensation	1,791	1,791	1,791	1,791	0
11.7	Military personnel compensation	5	5	5	5	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	76,956	82,356	84,509	84,509	0
12	Civilian personnel benefits	27,071	31,295	32,070	32,070	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	2,869	2,869	2,899	2,899	0
22	Transportation of things	497	497	507	507	0
23	Rent, communications, and utilitites	0	0	90	90	0
23.1	Rental payments to GSA	7,231	7,231	7,231	7,231	0
23.2	Rental Payments to others	97	97	97	97	0
23.3	Communications, utilities and misc charges	698	780	780	780	0
24	Printing and reproduction	12	12	14	14	0
25.1	Advisory and assistance services	59,697	0	0	0	0
25.2	Other services from non-Federal sources	28,864	19,241	20,032	20,032	0
25.3	Other goods and services from Federal sources	3,590	0	0	0	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	3,492	3,492	3,558	3,558	0
31	Equipment	3,855	3,855	3,928	3,928	0
32	Lands and structures	551	551	551	551	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	37,275	32,420	32,420	24,420	(8,000)
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	6	6	6	6	0
44	Refunds	0	0	0	0	0
99	Total obligations	252,761	184,702	188,692	180,692	(8,000)

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Navigation, Observations and Positioning	Pos./BA	623	188,692	623	183,994	0	(4,698)
	FTE/OBL	589	188,692	589	183,994	0	(4,698)

Reduce NOAA Support for the Joint Hydrographic Centers for Coastal and Ocean Mapping: (-$4,698, 0 FTE/0 Positions) – This program change reduces congressionally directed funding and is requested to support other NOAA and Administration priorities. At this level of funding, NOAA will continue to develop tools for ocean mapping, hydrography, and the application of uncrewed systems, but at a reduced rate. This request will decrease funding for the Joint Hydrographic Centers for Ocean and Coastal Mapping, terminating NOAA's partnership with the University of South Florida for the Center for Ocean Mapping and Innovative Technologies (COMIT), and decreasing support for the Center for Coastal and Ocean Mapping/Joint Hydrographic Center (CCOM/JHC) at the University of New Hampshire.

Schedule and Milestones:
FY 2025 – FY 2029

- Terminate Center for Ocean Mapping and Innovation Technologies (COMIT) grant to University of South Florida (FY 2025)
- Continue to develop tools for ocean mapping, hydrography and better understand application of uncrewed systems at a reduced rate (FY 2025 – FY 2029)

Deliverables:

- Ongoing research and development of uncrewed systems supporting the ocean mapping mission
- Support for roughly 45 research projects that advance technology to map U.S. waters, digital navigation services, and marine geospatial expertise
- Optimized ocean mapping data processing and visualization technology
- Seven trained graduate level hydrographers eligible to be hired into NOAA or industry

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

Performance Measures	2025	2026	2027	2028	2029
Number of individual research projects supporting advanced technology to map U.S. waters, digital navigation services and marine geospatial expertise					
With Decrease	45	45	45	45	45
Without Decrease	82	82	82	82	82
Outyear Costs:					
Direct Obligations	(4,698)	(4,698)	(4,698)	(4,698)	(4,698)
Capitalized	0	0	0	0	0
Uncapitalized	(4,698)	(4,698)	(4,698)	(4,698)	(4,698)
Budget Authority	(4,698)	(4,698)	(4,698)	(4,698)	(4,698)
Outlays	(2,866)	(4,181)	(4,416)	(4,604)	(4,698)
FTE	0	0	0	0	0
Positions	0	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Dollar amounts in thousands)

Activity: Navigation, Observations and Positioning
Subactivity: Navigation, Observations and Positioning

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	75,074	80,474	82,627	82,627	0
11.3	Other than full-time permanent	86	86	86	86	0
11.5	Other personnel compensation	1,791	1,791	1,791	1,791	0
11.7	Military personnel compensation	5	5	5	5	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	76,956	82,356	84,509	84,509	0
12	Civilian personnel benefits	27,071	31,295	32,070	32,070	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	2,869	2,869	2,899	2,899	0
22	Transportation of things	497	497	507	507	0
23	Rent, communications, and utilitites	0	0	90	90	0
23.1	Rental payments to GSA	7,231	7,231	7,231	7,231	0
23.2	Rental Payments to others	97	97	97	97	0
23.3	Communications, utilities and misc charges	698	780	780	780	0
24	Printing and reproduction	12	12	14	14	0
25.1	Advisory and assistance services	59,697	0	0	0	0
25.2	Other services from non-Federal sources	28,864	19,241	20,032	20,032	0
25.3	Other goods and services from Federal sources	3.590	0	0	0	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	3,492	3,492	3,558	3,558	0
31	Equipment	3,855	3,855	3,928	3,928	0
32	Lands and structures	551	551	551	551	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	37,275	32,420	32,420	27,722	(4,698)
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	6	6	6	6	0
44	Refunds	0	0	0	0	0
99	Total obligations	252,761	184,702	188,692	183,994	(4,698)

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Navigation, Observations and Positioning	Pos./BA	623	188,692	623	187,692	0	(1,000)
	FTE/OBL	589	188,692	589	187,692	0	(1,000)

Enterprise Infrastructure Solutions (EIS) Decrease (-$1,000, 0 FTE/ 0 Positions) – NOAA requests a reduction for EIS. Funds provided to NOS through FY 2023 were sufficient to complete the transition of telecommunications services to GSA's EIS contract vehicle.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Navigation, Observations and Positioning
Subactivity: Navigation, Observations and Positioning

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	75,074	80,474	82,627	82,627	0
11.3	Other than full-time permanent	86	86	86	86	0
11.5	Other personnel compensation	1,791	1,791	1,791	1,791	0
11.7	Military personnel compensation	5	5	5	5	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	76,956	82,356	84,509	84,509	0
12	Civilian personnel benefits	27,071	31,295	32,070	32,070	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	2,869	2,869	2,899	2,899	0
22	Transportation of things	497	497	507	507	0
23	Rent, communications, and utilitites	0	0	90	90	0
23.1	Rental payments to GSA	7,231	7,231	7,231	7,231	0
23.2	Rental Payments to others	97	97	97	97	0
23.3	Communications, utilities and misc charges	698	780	780	0	(780)
24	Printing and reproduction	12	12	14	14	0
25.1	Advisory and assistance services	59,697	0	0	0	0
25.2	Other services from non-Federal sources	28,864	19,241	20,032	19,812	(220)
25.3	Other goods and services from Federal sources	3,590	0	0	0	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	3,492	3,492	3,558	3,558	0
31	Equipment	3,855	3,855	3,928	3,928	0
32	Lands and structures	551	551	551	551	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	37,275	32,420	32,420	32,420	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	6	6	6	6	0
44	Refunds	0	0	0	0	0
99	Total obligations	252,761	184,702	188,692	187,692	(1,000)

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
IOOS Regional Observations	Pos./BA	0	42,500	0	10,000	0	(32,500)
	FTE/OBL	0	42,500	0	10,000	0	(32,500)

Decrease IOOS Regional Observations (-$32,500, 0 FTE/0 Positions) – This program change is requested to support other NOAA and Administration priorities. At this level of funding, NOAA will prioritize national Data Management and Cyberinfrastructure (DMAC) capacity to integrate federal, academic, private sector and non-profit ocean data, and will continue to make that data accessible.

With this reduction, NOAA will not maintain the current level of function of the 11 Regional Coastal Observing Systems, including data management, product and service delivery, and stakeholder engagement and coordination, and will develop alternatives at a reduced level.

IOOS received BIL resources, and NOAA also allocated IRA funds to the program. NOAA will work closely with the RAs to execute IRA and BIL funds in ways that alleviate the impacts of these base funding reductions.

Schedule and Milestones:
FY 2025 – FY 2029

- Conduct national assessment of highest priority national DMAC requirements (FY 2025)
- Provide prioritized DMAC services (FY 2025 - FY 2029)
- Consolidate existing national Data Assembly Centers (DACs) into a national-level DMAC system (FY 2025 – FY 2029)
- Conduct annual system analysis to evaluate interdependencies between former IOOS observing networks and impacts to NOS/NWS operational products and services. (FY 2025 - FY 2029)
- Regional Associations will initiate staff reductions; decommission observing assets; and cease updates on historical time-series for county and state, and regional modeling, forecasting, visualization, and prediction products and services (FY 2025)

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

Deliverables:

- A reduced national-level data management and cyberinfrastructure service that provides data from non-federal partners in support of NOAA mission requirements for protection of life and property, climate resilience, marine transportation, conservation, and stewardship

Performance Measures	2025	2026	2027	2028	2029
Number of High-Frequency Radars (HFRs) Measuring Ocean or Lake Surface Currents for Search and Rescue, Oil Spill Response, Marine Navigation, and/or Harmful Algal Bloom Tracking					
With Decrease	50	0	0	0	0
Without Decrease	160	162	163	164	165
Number of wave and meteorological observations delivered with the Global Telecommunications System (GTS) to support weather and maritime safety missions (number of observations in millions)					
With Decrease	2.5	0	0	0	0
Without Decrease	11	11.5	12	12	12
Outyear Costs:					
Direct Obligations	(32,500)	(32,500)	(32,500)	(32,500)	(32,500)
Capitalized	0	0	0	0	0
Uncapitalized	(32,500)	(32,500)	(32,500)	(32,500)	(32,500)

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

Budget Authority	(32,500)	(32,500)	(32,500)	(32,500)	(32,500)
Outlays	(19,825)	(28,925)	(30,550)	(31,850)	(32,500)
FTE	0	0	0	0	0
Positions	0	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Navigation, Observations and Positioning
Subactivity: IOOS Regional Observations

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	1	0	0	0	0
11.3	Other than full-time permanent	0	0	0	0	0
11.5	Other personnel compensation	0	0	0	0	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	1	0	0	0	0
12	Civilian personnel benefits	0	0	0	0	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	1	1	1	1	0
22	Transportation of things	6	6	6	6	0
23	Rent, communications, and utilitites	0	0	0	0	0
23.1	Rental payments to GSA	0	0	0	0	0
23.2	Rental Payments to others	33	33	33	33	0
23.3	Communications, utilities and misc charges	4	4	4	4	0
24	Printing and reproduction	0	0	0	0	0
25.1	Advisory and assistance services	392	392	392	392	0
25.2	Other services from non-Federal sources	361	361	361	361	0
25.3	Other goods and services from Federal sources	49	49	49	49	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	117	117	117	117	0
31	Equipment	85	85	85	85	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	59,509	41,452	41,452	8,952	(32,500)
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	0	0	0	0	0
44	Refunds	0	0	0	0	0
99	Total obligations	60,558	42,500	42,500	10,000	(32,500)

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Activity: Coastal Science and Assessment

Goal Statement

Conduct applied research and deliver scientific information for disasters and pollution emergency response and management, protection, and restoration of ocean and coastal resources and communities. Provide coastal managers information and planning tools to guide communities in managing ocean space, anticipating and responding to climate change, and protecting people, fisheries, and drinking water from harmful algal blooms (HABs) and other contaminants.

Base Program

The work conducted within the Coastal Science and Assessment activity helps with understanding, forecasting, and mitigating the impacts of oil and chemical spills, marine debris, HABs, and climate change on coastal resources. It supports the blue economy and the advancement of climate resilience by developing tools for siting of wind energy and aquaculture development, green infrastructure, and habitat restoration. Through this activity, NOS provides coordination and support for coastal disasters and pollution incidents, including provision of a common operating picture that integrates spatial data from plans and real-time feeds in the online Environmental Response Management Application (ERMA®[13]), an online tool that integrates real-time data with mapping to coordinate emergency response to coastal disasters. NOS ecological forecasts enable communities and businesses to plan for and mitigate the impacts of HABs, hypoxia, pathogens, and other ecological threats. NOS maximizes investment in resilient coastal infrastructure by identifying vulnerable communities, incorporating nature-based features, and identifying best practices. Restoration after pollution enhances recovery of disadvantaged coastal communities, resilience and the Blue Economy.

The following offices are responsible for carrying out the work within the Coastal Science and Assessment activity:

- **National Centers for Coastal Ocean Science (NCCOS)** – builds the science foundation and applied tools to increase community and ecosystem resilience to climate change. Its products and services help the public understand, forecast and mitigate HABs, hypoxia, and pathogens. NCCOS science is critical to develop habitat and species forecasts, inform marine aquaculture, and help with offshore wind energy siting (https://coastalscience.noaa.gov/)
- **Office of Response and Restoration (OR&R)** – prepares for, evaluates, and responds to threats to coastal environments including oil and chemical spills, releases from hazardous waste sites, marine debris, and natural disasters. When coastal and marine natural resources are impacted, OR&R assesses the impacts and ensures that response, recovery, and

[13] https://response.restoration.noaa.gov/maps-and-spatial-data/environmental-response-management-application-erma

restoration actions maximize recovery of those resources and surrounding economies (https://response.restoration.noaa.gov/)

Statement of Operating Objectives

Schedule and Milestones:

- Complete all NOAA-led Save Our Seas 2.0 Act required studies, pilot projects, and reports (FY 2025)
- Finalize and begin implementation of new Marine Debris Action Plans for Southern New England, Alaska, and Puerto Rico (FY 2025)
- Release updates to three publicly available emergency response tools annually (FY 2025 – FY 2029)
- Train 1,000 emergency responders annually (FY 2025 – FY 2029)
- Reduce barriers to participation in citizen science marine debris shoreline monitoring through the development of tools, resources, and outreach projects (FY 2025 – FY 2029)
- Resolve liability for five natural resource damage assessment cases annually (FY 2025 – FY 2029)
- Timely response to 100 coastal pollution incidents annually, or total number of incidents in U.S. if less than 100 (FY 2025 – FY 2029)
- Conduct three preparedness exercises annually to enhance NOS, NOAA, and partner agencies response and recovery readiness for natural and human caused disasters (FY 2025 – FY 2029)
- Collaborate with Sea Grant to fund community preparedness research and/or projects that focus on innovation and underrepresented communities resulting in safer and more resilient coastal communities (FY 2025 – FY 2029)
- Provide comprehensive regional marine spatial modeling and characterization of natural and cultural resources, industries, oceanography and climate, and national security assets (FY 2025 – FY 2028)
- Develop, host, and disseminate regional high-resolution spatial data products for increased understanding, ecological modeling and conservation of NOAA-managed places and NOAA trust resources, including sensitive habitats and protected species; and other foundational data including ocean infrastructure and ocean uses, supporting regional marine spatial modeling and offshore wind planning and siting investments (FY 2025 – FY 2028)

- Develop operational whole-ecosystem spatial models to inform siting of offshore wind for all regions of the U.S. including the Northeast, Mid-Atlantic, Southeast, Gulf of Mexico, U.S. Caribbean, Northwest (Oregon and Washington), and Southwest (California), and the U.S. Pacific. (FY 2025 – FY 2028)
- Provide HAB, pathogen, and hypoxia forecasts that protect communities (drinking water) and support the blue economy (recreation and seafood) in the Gulf of Maine, Chesapeake Bay, Gulf of Mexico, Lake Erie, California, the Pacific Northwest, and Alaska (FY 2025 – FY 2029)
- Increase capacity for long-term coastal planning by improving tools and products for modeling impacts of sea-level rise and assessing vulnerabilities of marshes and beaches to sea level rise and coastal storms (FY 2025 – FY 2029)
- Protect communities from sea level rise and storm surge by using dredged sediment from nearby navigation channels to create wetlands (FY 2025 – FY 2029)
- Increase the number of underserved communities served with integrated socioeconomic and ecological vulnerability assessments (FY 2025 – FY 2029)
- Assess presence and impacts of perfluoroalkyl substances (PFAS) in coastal and Great Lakes ecosystems, including chronic and mixture effects (FY 2025 – FY 2029)
- Validate and transition HAB detection and monitoring products to provide identification and toxicity measurements for regional observing networks, states, municipalities and Tribal nations (FY 2025 – FY 2029)
- Accelerate repair and acquisition of scientific equipment to support research and modeling related to spatial planning, ecological forecasting, chemical contaminants, and coastal change (FY 2025 – FY 2029)
- Continue implementing the laboratory facilities disposition and attrition/workforce restructuring plan (FY 2025 and ongoing)

Deliverables:

- Three new Marine Debris Action Plans for Southern New England, Alaska and Puerto Rico completed
- 50 metric tons of marine debris removed annually
- 8,000 youth and adults engaged through formal and informal marine debris education and outreach efforts
- Restored habitats, resources, and the services they provide to compensate the public from pollution events
- Improved preparedness across NOAA through annual training and exercises
- NOAA-led Save Our Seas 2.0 Act required studies and reports delivered to the public

- Improved retention of long-term citizen scientists that assess the amount and types of marine debris on shorelines, in support of the Marine Debris Monitoring and Assessment Project
- Up to three regional Offshore Wind Energy Siting models that work to deconflict siting with NOAA trust resources (protected species, habitats, fisheries, etc.) and other ocean uses (transportation, military, etc.)
- Management plans for National Marine Sanctuaries, National Estuarine Research Reserves, and other NOAA-protected areas that consider the environmental and societal impacts of potential wind energy development
- 20 - 30 aquaculture operators at 15 new sites trained in early detection of algae that are harmful to shellfish, and guidelines for aquaculture monitoring that are consistent nationally, regionally appropriate and environmentally responsible
- Research grants supporting at least 31 coastal states or territories, delivering clear guidance on managing natural resources, community adaptation planning, and incorporating more natural habitat considerations into flood protection strategies
- Local tailored information and tools to update city planning, infrastructure plans, and/or natural resource management planning annually for at least four underserved coastal communities at risk from inundation impacts now or under sea level rise
- Interactive tools and applications to predict and mitigate sea level rise and inundation that are developed with and used by end-users in the region of the project, guiding decision making each year
- Improved estimates of the social and economic effects and costs of response to HABs in the U.S.
- Annual operational forecasts for HABs in Lake Erie, the Gulf of Maine, and the Gulf of Mexico, for pathogens in the Chesapeake Bay, and Pacific Northwest, and for hypoxia in the Gulf of Mexico
- Increased use of science-based predictions of marsh vulnerability, stakeholder input, and dredge sediment availability to identify options for beneficial use of dredged material to protect shorelines and create habitat

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Explanation and Justification

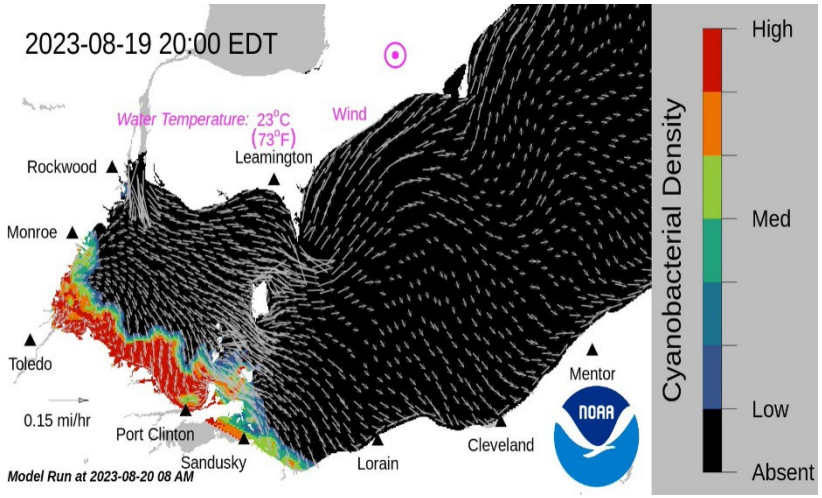
Comparison by subactivity		2023 Actual		2024 Annualized CR		2025 Base Program	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Coastal Science, Assessment, Response and Restoration	Pos/BA	254	134,675	298	96,500	298	98,390
	FTE/OBL	233	150,539	279	96,500	279	98,390
Competitive Research	Pos/BA	4	22,433	4	22,500	4	22,527
	FTE/OBL	3	22,162	4	22,500	4	22,527
Total Activity	Pos/BA	258	157,108	302	119,000	302	120,917
	FTE/OBL	236	172,701	283	119,000	283	120,917

Coastal Science and Monitoring

NOS conducts applied research, ecological assessments, and tool development that build the scientific foundation to plan for and manage environmental risks to coastal communities and economies. Its Coastal Science and Monitoring Programs have six focus areas:

- Advancing Ecosystem Science for Conservation and Sustainable Use: NOS provides information that communities, state and Federal stewards, and industries (such as aquaculture, energy and tourism) use to make decisions balancing the trade-offs between resource use and conservation
- Developing and Implementing Advanced Observation Technologies and Ecological Forecasts: NOS detects and delivers timely and actionable forecasts for harmful algal blooms, hypoxia, and pathogens for coastal habitats, allowing coastal resource managers and public health officers to mitigate impacts to coastal ecosystems and communities

- Detecting, Monitoring, and Mitigating Impacts of Chemical and Biological Stressors: NOS' research in stressor detection and understanding of stressor impacts on coastal resources help communities protect their water supplies, local fish and shellfish industries, public health, and coastal and lakefront tourism
- Facilitating Resilience and Adaptation to Inundation and Climate Impacts: NOS provides holistic scientific assessments, information, and tools to help coastal communities plan for and mitigate climate-related risks
- Advancing Social, Economic, and Behavioral Approaches to Coastal Stewardship: All coastal and marine management decisions affect multiple communities. NOS evaluates and measures a wide suite of ecosystem services and vulnerabilities to meet the diverse ways in which communities value, depend on, and interact with coastal resources



Modeled harmful algal bloom position and 3D movement using water current data from the Lake Erie Operational Forecast System (LEOFS) and satellite imagery.

- Communicating Science to the Public: NOS is committed to communicating science activities, findings, and products to the public, partners, and stakeholders, and gathering input from these groups to identify gaps in our efforts, identify opportunities, and ensure alignment with their ongoing or changing needs

NCCOS oversees activities that inform coastal management through research on wind energy and aquaculture siting, natural-infrastructure, habitat mapping and biogeographic assessments; and ecological forecasts and vulnerability assessments. Offshore wind efforts encompass expanded data collection for NOAA trust resources including seafloor mapping and biological assessments; in situ observations; predictive models for marine species distribution; and studies of human perceptions and attitudes towards offshore wind within and near potential wind energy areas. Ecological forecasts for hazards such as HABs and pathogens help communities safeguard drinking water and commercial and recreational fisheries, and forecasting climate impacts helps us plan for resilient infrastructure and protected areas. Research on contaminants (including PFAS oil, hazardous chemicals, and microplastics) improves disaster response and restoration. Vulnerability assessments and shoreline stabilization tools help communities prepare for inundation and storms. Increased use of artificial intelligence, machine learning, and remote sensing field observations is expanding

our capacity to map, model, and predict impacts of climate change on coastal communities and natural resources. NCCOS' research integrates a broad spectrum of physical, biological, and social sciences to inform and guide resource managers seeking a balance among resource use, economic development, restoration, and conservation.

NCCOS intramural research programs have long-standing expertise in key areas that assist critical partners in the emergency and resource management communities. For example, when natural resource damage occurs, NCCOS long-term monitoring datasets establish a baseline of ecosystem conditions that existed before the event for assessing the extent of damages. The research in these areas also enables NOS to develop resource protection strategies for National Marine Sanctuaries and other NOAA-managed areas.

One of Monterey Bay Aquarium Research Institute's long-range autonomous underwater vehicles makes its way through the green, algae-rich waters of Lake Erie to track the 2019 harmful algal bloom as part of a research collaboration with NOAA. (Credit: Ben Yair Raanan, Monterey Bay)

The Competitive Research Program funds regional-scale and targeted research and assessment activities through a competitive external grant process in support of NOAA's coastal mission areas (https://coastalscience.noaa.gov/about/funding-opportunities/). This program maintains the only national grant programs dedicated to research topics under the HAB and Hypoxia Research and Control Act (https://coastalscience.noaa.gov/science-areas/stressor-impacts-mitigation/habhrca/). Grantee developed detection tools and forecast models for HABs have helped to protect public health and prevent adverse economic impacts from contaminated, unsafe drinking water supplies, and beachgoer's exposure to algal toxins from red tides or other bloom events. The grants also address a variety of coastal resiliency issues, including coastal flooding, inundation, sea-level rise, ocean acidification, and the first national map showing how climate change will impact marsh location and health (https://coastalscience.noaa.gov/science-areas/coastal-change/ecological-effects-sea-level-rise-program/). While most research programs focus on understanding the impact of single stressors on species and ecosystems, the Competitive Research Program is also supporting research that increases our understanding of the combined impacts of multiple stressors on the function and health of marine ecosystems due to climate change (https://coastalscience.noaa.gov/project/science-to-support-a-climate-ready-dungeness-crab-fishery-in-the-northern-california-current/). This information will be used to improve place-based management of marine protected areas and enable the proactive protection of these critical ecosystems under future climate scenarios.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Coordination among NOAA, grantee researchers, and user communities ensures that research findings and new technologies developed through this program are applied to resource management decisions. For example, grantee research protects traditional and subsistence use of natural resources, and the health of Tribes and Alaska Native communities by communicating HAB risks and expanding the capacity for Tribes to detect HAB toxins in shellfish. Additionally, this research helps to understand how changing temperature and oxygen conditions in the California current system influence important fish and shellfish species, and supports development of portable toxin detection technology for Great Lakes decision support tools aimed at mitigating harmful algal blooms. The Gulf of Mexico states also use grantee research to assess coastal vulnerability to sea level rise and coastal storms, target land acquisition and habitat restoration projects, and to plan for building adaptation and infrastructure protection. Funding has resulted in the development of decision support tools that evaluate inundation risk (in Florida), determination of coastal sediment deficits (in California), and modeling to inform sand placement and holistic dune and beach management to reduce inundation risk (in North Carolina).

Increased support for research on vulnerability to and impacts of coastal inundation, flooding, and sea level rise provides information and predictive capabilities to inform community and infrastructure adaptation planning, particularly through expanded use of nature-based solutions and in underserved communities. Expanded partnerships with the Department of Transportation and Army Corps of Engineers are helping more communities evaluate their vulnerabilities and assess the effectiveness of mitigation solutions, resulting in clear guidance on incorporating natural habitat considerations into advanced flood protection strategies, locally tailored information and tools to update city planning, natural resource management, and infrastructure modernization.

The funding currently supports a diverse portfolio of six programs with approximately 395 experts across 158 institutions in 31 states and territories. Topics include:

- Predicting HABs and developing tools to prevent, detect, control, and mitigate HABs and their impacts
- Developing and evaluating the effectiveness of nature-based approaches to mitigate the effects of sea-level rise and inundation on roads and other surface transportation infrastructure
- Determining the causes and biological impacts of hypoxia (low oxygen) in coastal waters
- Managing coastal ecosystems to mitigate impacts from inundation and coastal storms, assessing the economic value of protecting the communities and infrastructure fusing natural habitats and nature-based approaches
- Understanding species' habitat usage and connectivity to increase the resilience of managed areas to climate and other impacts

- Sustaining partnerships across NOAA to assess the combined effects of ocean acidification, HABs, and hypoxia on economically and ecologically significant species and habitats

NCCOS extramural research grants are responsible for much of the regional-scale, integrated science that informs Marine Protected Area (MPA) management, coastal flooding and sea-level rise vulnerability and adaptation, and serves as the foundation for innovative HAB control and mitigation techniques.

Emergency Response, Assessment and Restoration of NOAA Trust Resources

NOS's OR&R is responsible for preparing for, evaluating, and responding to threats to coastal environments including oil and chemical spills, releases from hazardous waste sites, disasters, and marine debris. Activities conducted by OR&R include:

- Preparing for natural and man-made disasters
- Providing scientific and technical support to prepare for and respond to oil and chemical releases, including on-scene and off-site expertise to the U.S. Coast Guard, FEMA, EPA, or other Federal partners during oil spills and natural disasters
- Assessing and restoring natural resources damaged from marine pollution
- Investigating and preventing impacts from marine debris
- Contributing to resilient coastal communities, including those disproportionately impacted by pollution and disasters, which directly supports environmental justice initiatives

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Disaster Preparedness

The Disaster Preparedness Program (DPP) is responsible for intra-agency and intergovernmental responder training, preparedness and incident coordination related to NOS response and recovery services and coastal protection. The DPP includes, and continues to build on, the vision and activities at the NOAA Gulf of Mexico Disaster Response Center (DRC), to improve national preparedness for and response to all hazard types. During hurricane seasons, the DPP and the DRC coordinate across all NOS program offices to gather information on NOS mission support, logistical needs, and impacts to NOS personnel and infrastructure. The DPP is also charged with ensuring preparedness across NOS through simulated emergency response drills, training and evaluation for continuous improvement, management of long-term recovery operations, as well as ensuring effective continuity of operations in NOS. As such, the DPP is the central coordination body for NOS mission readiness and situational awareness during all emergencies. (https://response.restoration.noaa.gov/disaster-preparedness)

Research vessel at the Taylor Energy oil spill site offshore of Louisiana pre-containment.

Pollution Response

NOAA supports Emergency Support Function 10: Oil and Hazardous Materials Response for all U.S. incidents, in addition to other responsibilities required by Presidential Policy Directive (PPD)-8, which are outlined in the National Response Framework[14], the Oil and Hazardous Materials Response Annex[15], the National Oil and Hazardous Substances Pollution Contingency Plan (NCP)[16], and the Oil and Chemical Incident Annex[17]. Federal, state, and local agencies across the country depend on 24-hour availability of NOAA's scientific advice and training of OR&R responders to minimize harm to natural resources from anthropogenic and natural hazards. These hazards can include oil and chemical spills, vessel groundings, hazardous waste releases, hurricanes, and national security events. OR&R also addresses persistent coastal hazards such as marine debris and historic shipwrecks. Its emergency services include spill trajectory modeling, shoreline cleanup assessment, impacts identification, incident coordination, and information

[14] https://www.fema.gov/emergency-managers/national-preparedness/frameworks/response
[15] https://www.fema.gov/sites/default/files/2020-07/fema_ESF_10_Oil-Hazardous-Materials.pdf
[16] https://www.ecfr.gov/current/title-40/chapter-I/subchapter-J/part-300
[17] https://www.fema.gov/sites/default/files/documents/fema_incident-annex-oil-chemical.pdf

management. NOS further partners with the Environmental Protection Agency to support first responders with critical, on the ground decision support tools across the country and the world. In December 2020, the Great Lakes Environmental Sensitivity Index (ESI) Act of 2020 was signed into law. NOAA established Federal and state partnerships and contracts to work towards updates for the Great Lakes ESI products. (https://response.restoration.noaa.gov/oil-and-chemical-spills).

Restoration after Pollution

After the initial response to an acute or chronic pollution event or grounding, NOAA and other natural resource trustees are responsible for determining the extent of damages to natural resources and for seeking restoration on behalf of the public for the loss of ecosystem services. NOS' OR&R works with the NOAA Office of General Counsel, Natural Resources Section and the NMFS Office of Habitat Conservation to carry out the NOAA Damage Assessment, Remediation and Restoration Program (DARRP). OR&R activities include:

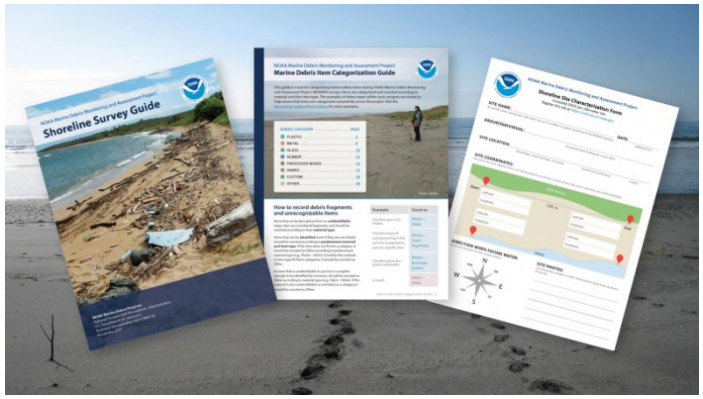
- Assessing environmental injury and reduced access to public natural resources from pollution events and ship groundings
- Ensuring that cleanup actions protect resources from further damage and promote faster recovery
- Compensating the public for lost recreational opportunities, which is a critical piece of ensuring a healthy Blue Economy
- Helping restore previously damaged habitats, fisheries, and protected resources, which contribute to resilient coastal communities, including those disproportionately impacted by pollution, which directly supports environmental justice initiatives

Through the DARRP, NOAA and co-trustees have secured $10.6 billion for restoration from responsible parties at 324 oil spills, Superfund sites and ship groundings, since 1998. From October 1, 2021 to May 30, 2023 alone, 23 settlements recovered $248.9 million for restoration in CA, DE, HI, IN, LA, MI, NJ, OR, PA, TX, and WA. These funds are reserved for ecosystem restoration and restoration of recreational use of the damaged resources. Funds are not associated with third party or private claims for property damage and lost business. In addition to securing resources for restoration, NOAA has also ensured that protection and restoration have been integrated into 500+ waste site cleanups to reduce further injuries and promote recovery. These restoration projects return what was lost, and provide economic benefits in the form of tourism, recreation (fishing, etc.), green jobs, coastal resiliency, property values and quality of life, including in indigenous and disadvantaged communities. There are currently 119 active cases in the DARRP docket; as of May 2023, 45 cases were in active injury assessment and restoration planning, while 74 are in restoration implementation or monitoring. Each case represents an oil spill, chemical spill, hazardous waste site, or ship grounding that may have damaged natural resources or reduced recreational opportunities. Restoration for pollution events benefits coastal communities by enhancing fisheries and wildlife, restoring protected species (e.g., sea turtles, dolphins) and sensitive habitats (wetlands, corals),

and providing economic benefits from recreation (fishing, boating, swimming), tourism, green jobs, coastal resiliency, property values and quality of life, including to underserved and disadvantaged communities.

Marine Debris Program

NOAA is the Federal lead for addressing marine debris affecting the ocean and coastal environment and navigation safety in the U.S., which is one of the most pervasive global threats to the health of the ocean and our waterways, and is an issue of growing local, regional, national, and international concern. Marine debris is an added stressor to the natural environment that impairs ecosystem services and thereby coastal and ocean resilience. Through the Marine Debris Act, NOS' Marine Debris Program (MDP), managed by OR&R, is mandated to lead national and regional coordination, and to assess, research, prevent, reduce, and remove marine debris. These mandates and authorities are the foundation for the six program areas of the MDP: marine debris prevention, removal, research, response, coordination, and monitoring and detection.



An updated Marine Debris Monitoring and Assessment Project Shoreline Survey Guide and other Monitoring Toolbox materials

The MDP supports activities across the country, in each of these six program areas, to address the adverse impacts of marine debris on the marine environment, navigation safety, human health, and the U.S. economy. The Program spearheads prevention, removal, and research efforts and provides funding towards impactful marine debris projects. Since its establishment in 2006, the MDP has fostered partnerships with hundreds of organizations and removed over 36,000 metric tons of marine debris from coastal areas. Its staff is strategically located around the country to lead region-specific approaches to addressing marine debris with state and local agencies, Tribes, nongovernmental organizations, academia, and industry. Currently there are 14 active Marine Debris Action Plans, at the state or regional level, that serve to provide a comprehensive framework for strategic action in coordination with stakeholders.

The MDP chairs the Interagency Marine Debris Coordinating Committee (IMDCC), which helps inform and coordinate action across the U.S. Government to more effectively address this issue. NOAA demonstrates international leadership in several key global efforts, including engagement through the State Department to provide technical expertise in the negotiation of a new global agreement on plastic pollution. The MDP works through partnerships such as the Global Partnership on Marine Litter and the Global Ghost Gear Initiative to coordinate action across governments, private industry, civil society and other stakeholders to holistically address marine debris (https://marinedebris.noaa.gov/).

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

The Marine Debris Program supports research projects that work to investigate many unanswered questions about marine debris so we can better understand it and quantify impacts to the economy, society, and better understand the long-term impacts of marine debris to ecosystem services and coastal resilience. NOAA research projects focus on knowledge gaps and produce relevant, practical, and applicable results that advance marine debris science with a focus on the social and economic cost of marine debris to communities.

The Save Our Seas 2.0 Act of 2020 provided additional authorities for NOAA to enhance the domestic marine debris response. The law requires several new studies and reports. The Act established a Marine Debris Foundation to augment NOAA's work to assess, prevent, reduce, and remove marine debris and directs the Department of Commerce to establish a Genius Prize for Save Our Seas Innovation. In April 2022, the MDP supported the launch of the inaugural Board of Directors of the new Marine Debris Foundation. This distinguished group will help the Foundation to begin operations and start augmenting Federal efforts to address marine debris[18]. That same year, through the National Academies of Sciences, NOAA completed the study to assess the United States contributions to global ocean plastic waste[19]. In addition, in 2023 NOAA completed the study to determine the feasibility of developing a nationwide derelict vessel recycling program[20].

[18] https://marinedebris.noaa.gov/who-we-are/marine-debris-foundation
[19] https://nap.nationalacademies.org/catalog/26132/reckoning-with-the-us-role-in-global-ocean-plastic-waste
[20] https://marinedebris.noaa.gov/adv-documents/recycling-opportunities-abandoned-derelict-and-end-life-recreational-vessels

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Increase from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Coastal Science, Assessment, Response and Restoration	Pos./BA	298	98,390	300	104,609	2	6,219
	FTE/OBL	279	98,390	281	104,609	2	6,219

Foundational Information for Expansion of Offshore Wind Energy (+$6,219, 2 FTE/2 Positions) – NOAA requests an increase in funding to develop the social and ecological science to plan and site offshore wind energy development in support of the Administration's goal to deploy 30 gigawatts of offshore wind energy by 2030.

This investment will facilitate and accelerate offshore wind development by advancing and sustaining dynamic operational models that incorporate new spatial data and changing ocean and socioeconomic conditions. The resulting data products and tools will represent the state of the ocean on the day they are generated or under modeled conditions rather than a snapshot with limited shelf-life. This is critical given the length of the permit and construction process, and the speed at which socioeconomic and biophysical conditions can shift. NOAA will expand data collection for NOAA trust resources including seafloor mapping and biological assessments; in situ observations; predictive models for marine species distribution; and studies of human perceptions and attitudes towards offshore wind within and near potential wind energy areas. In conjunction with the ongoing national mapping strategy, NOAA will work with agency partners and stakeholders to identify priority mapping and data needs, build upon the resources provided in FY 2023 to accelerate and expand the development of public-facing tools to address those needs (e.g., Marine Cadastre (https://marinecadastre.gov/), OceanReports (https://marinecadastre.gov/oceanreports/), and regional data portals), and inform the planning and siting of wind energy in and around special places managed by NOAA. Most important, the FY 2025 resources would enable development of operational whole-ecosystem spatial models to inform siting of offshore wind. These tools will be developed in consultation with and provided to the Bureau of Ocean Energy Management and others to improve regulatory coordination and stakeholder engagement.

The funding requested for this initiative will allow NOAA to routinely incorporate new data from the public and private sector into regional spatial models. The requested increase includes data integration, synthesis, processing, and accelerated development of

data products and tools to inform planning and siting of offshore wind energy with increased transparency. It also includes support for robust stakeholder engagement to identify and address potential use conflicts and increases NOAA's capacity for permitting and environmental review associated with these projects. The engagement will not only address activities in Federal waters, but focus on outreach to states, tribes, territories, and commonwealths with respect to energy transmission lines and viewsheds.

Schedule and Milestones:
FY 2025 – FY 2029

- Increased engagement with NOAA, BOEM and other Federal, state, Tribal territory, and commonwealth partners across all applicable regions to define and advance activities and products (FY 2025)
- Develop operational whole-ecosystem spatial models to inform siting of offshore wind for all regions of the U.S. including the Northeast, Mid-Atlantic, Southeast, Gulf of Mexico, U.S. Caribbean, Northwest (Oregon and Washington), Southwest (California), and the U.S. Pacific
- Deliver regional Offshore Wind Opportunity Atlases or assessments as needed that provide comprehensive regional marine spatial modeling and characterization of natural and cultural resources, industries, oceanography and climate, and national security assets for a region (e.g., Southern and Central CA, Northern CA/OR/WA, the US Caribbean, and/or Pacific Islands) (FY 2025 – FY 2029)
- Develop, host, and disseminate regional high-resolution spatial data products for increased understanding, ecological modeling and conservation of NOAA-managed places and NOAA trust resources, including sensitive habitats and protected species; and other foundational data including ocean infrastructure and ocean uses. In cooperation with NMFS, address spatial and temporal patterns of commercial and recreational fishing industries to support regional marine spatial modeling (FY 2025 – FY 2029)
- Implement the approach defined in FY 2023 to identify patterns and intensity of human activity to address potential use conflicts through a participatory GIS process, and to identify impacts on sensitive natural resources. Expand ecosystem service valuations, and develop standards to quantify citizen perceptions and attitudes towards offshore wind (FY 2025 – FY 2029)
- Organize stakeholder engagement meetings, including Tribal engagement and interagency coordination, to develop data and information products to minimize resource use conflicts in Federal and state waters (FY 2025 – FY 2029)
- Enhance and expand digital public-facing tools and ensure transparency of assessments and enable dissemination of products and associated data. Work with state, Tribal, and regional partners to continue to develop data and expand tools for

use in state waters through enhancements of Marine Cadastre, IOOS portals, and OceanReports and evaluate FY 2023 prototype “CoastalReports” that focuses on nearshore waters (FY 2025 - FY 2029)

Deliverables:

- Regionally synthesized fishing effort data, oceanographic and climatological trends, marine life, and ocean use data
- Operational whole-ecosystem regional ocean spatial models to inform regional wind energy siting along U.S. coast
- Developed process for ingesting in situ private sector data in and around wind energy areas through IOOS, Integrated Ocean and Coastal Mapping, and other coordination networks depending upon data types and user needs
- New and higher resolution oceanographic data, ocean use data, ocean infrastructure data and Tribal data (as appropriate) ingested into the Marine Cadastre data registry and OceanReports tool
- Expanded functionality and enhanced systems architecture for OceanReports and evaluate prototype of “CoastalReports” that focuses on state waters to enable custom shape upload, user briefcase, automated updates from Marine Cadastre, and new infographics
- Improved current observations, forecast models, and approaches through IOOS to reduce interference on high-frequency radar from wind turbines
- New and sustained agency and industry partnerships to leverage, ingest, and process private sector data
- Management plans for National Marine Sanctuaries, National Estuarine Research Reserves, and other NOAA-protected areas that consider the environmental and social impacts of potential wind energy development
- Improved relationships between BOEM task forces nationally and existing regional groups (e.g., Regional Ocean Partnerships, Fishery Management Councils, tribes, Sea Grant Consortia), improving resolution of contentious issues, and raising the level of understanding on emerging issues

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

Performance Measures	2025	2026	2027	2028	2029
Number of new authoritative data products made available to the public through the Marine Cadastre and OceanReports to inform ocean use planning and siting activities, including for wind energy (cumulative)					
With Increase	3	6	9	12	15
Without Increase	1	3	5	7	9
Number of new regional products that characterize human use patterns in the ocean and the bio-physical characteristics of ocean regions available to the public (cumulative)					
With Increase	2	4	5	6	7
Without Increase	0	0	0	0	0
Direct Obligations	6,219	6,219	6,219	6,219	6,219
Capitalized	0	0	0	0	0
Uncapitalized	6,219	6,219	6,219	6,219	6,219
Budget Authority	6,219	6,219	6,219	6,219	6,219
Outlays	3,794	5,535	5,846	6,095	6,219
FTE	2	2	2	2	2
Positions	2	2	2	2	2

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, Facilities
PROGRAM CHANGE PERSONNEL DETAIL

Activity: Coastal Science and Assessment
Subactivity: Coastal Science, Assessment, Response and Restoration
Program Change: Foundational Information for Expansion of Offshore Wind Energy

Title		Grade	Number	Annual Salary	Total Salaries
Geographer		ZP-3/4	1	135,000	135,000
Marine Biologist		ZP-04	1	135,000	135,000
Total			2		270,000
Less lapse	25.00%		0		(67,500)
Total full-time permanent (FTE)			2		202,500
2025 Pay Adjustment (2.0%)					4,050
					206,550

Personnel Data Summary	
Full-time Equivalent Employment (FTE)	
Full-time permanent	2
Total FTE	2
Authorized Positions:	
Full-time permanent	2
Total Positions	2

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Coastal Science and Assessment
Subactivity: Coastal Science, Assessment, Response and Restoration

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase from 2025 Base
11.1	Full-time permanent compensation	34,792	38,079	39,098	39,305	207
11.3	Other than full-time permanent	332	332	332	332	0
11.5	Other personnel compensation	735	735	735	735	0
11.7	Military personnel compensation	8	8	8	8	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	35,867	39,154	40,173	40,380	207
12	Civilian personnel benefits	12,766	14,878	15,245	15,324	79
13	Benefits for former personnel	12	12	12	12	0
21	Travel and transportation of persons	1,323	1,323	1,337	1,337	0
22	Transportation of things	147	147	152	152	0
23	Rent, communications, and utilitites	0	0	43	43	0
23.1	Rental payments to GSA	1,936	1,936	1,936	1,936	0
23.2	Rental Payments to others	61	61	61	61	0
23.3	Communications, utilities and misc charges	1,826	1,826	1,826	1,826	0
24	Printing and reproduction	65	65	66	66	0
25.1	Advisory and assistance services	1,752	1,622	1,622	1,622	0
25.2	Other services from non-Federal sources	29,836	24,598	24,973	30,906	5,933
25.3	Other goods and services from Federal sources	407	376	376	376	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	285	285	285	285	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	1,599	1,599	1,630	1,630	0
31	Equipment	1,747	1,747	1,782	1,782	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	60,908	6,871	6,871	6,871	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	2	0	0	0	0
44	Refunds	0	0	0	0	0
99	Total obligations	150,539	96,500	98,390	104,609	6,219

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Coastal Science, Assessment, Response and Restoration	Pos./BA	298	98,390	298	96,787	0	(1,603)
	FTE/OBL	279	98,390	279	96,787	0	(1,603)

Decrease Disaster Preparedness Program (DPP) Funding (-$1,603, 0 FTE/0 Positions) – This program change is requested to support other NOAA and Administration priorities. At this level of funding, NOAA will prioritize the continuity of operations and disaster response in coastal areas, to the greatest extent possible, to address the frequency and severity of natural disasters that continue to increase each year. NOAA will continue to support disaster readiness through preparedness exercises and trainings. Activities that will be impacted include the Disaster Preparedness for Coastal Communities grants, the annual Lagniappe Funding that enhances internal NOAA preparedness posture, and ongoing collaborations with the Coastal Response Research Center, which delivers preparedness-focused workshops and research.

Schedule and Milestones:

- Terminate the Disaster Preparedness for Coastal Communities grants (FY 2025)
- Terminate the Lagniappe Funding (FY 2025)
- Plan and execute trainings and preparedness exercises for NOAA staff and partners in the response community (FY 2025 – FY 2029)

Deliverables:

- Sustained current readiness levels for disaster response in coastal areas
- 750 internal and external partners trained annually

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

- One exercise per year to build response capacity and improve overall response posture to natural and human-caused disasters

Performance Measures	2025	2026	2027	2028	2029
Number of Disaster Preparedness for Coastal Communities grants awarded					
With Decrease	0	0	0	0	0
Without Decrease	5	5	5	5	5
Number of responders trained in technical and scientific elements and tools of incident response					
With Decrease	750	750	750	750	750
Without Decrease	1,000	1,000	1,000	1,000	1,000
Outyear Costs:					
Direct Obligations	(1,603)	(1,603)	(1,603)	(1,603)	(1,603)
Capitalized	0	0	0	0	0
Uncapitalized	(1,603)	(1,603)	(1,603)	(1,603)	(1,603)
Budget Authority	(1,603)	(1,603)	(1,603)	(1,603)	(1,603)
Outlays	(978)	(1,427)	(1,507)	(1,571)	(1,603)
FTE	0	0	0	0	0
Positions	0	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Coastal Science and Assessment
Subactivity: Coastal Science, Assessment, Response and Restoration

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	34,792	38,079	39,098	39,098	0
11.3	Other than full-time permanent	332	332	332	332	0
11.5	Other personnel compensation	735	735	735	735	0
11.7	Military personnel compensation	8	8	8	8	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	35,867	39,154	40,173	40,173	0
12	Civilian personnel benefits	12,766	14,878	15,245	15,245	0
13	Benefits for former personnel	12	12	12	12	0
21	Travel and transportation of persons	1,323	1,323	1,337	1,337	0
22	Transportation of things	147	147	152	152	0
23	Rent, communications, and utilitites	0	0	43	43	0
23.1	Rental payments to GSA	1,936	1,936	1,936	1,936	0
23.2	Rental Payments to others	61	61	61	61	0
23.3	Communications, utilities and misc charges	1,826	1,826	1,826	1,826	0
24	Printing and reproduction	65	65	66	66	0
25.1	Advisory and assistance services	1,752	1,622	1,622	1,622	0
25.2	Other services from non-Federal sources	29,836	24,598	24,973	23,370	(1,603)
25.3	Other goods and services from Federal sources	407	376	376	376	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	285	285	285	285	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	1,599	1,599	1,630	1,630	0
31	Equipment	1,747	1,747	1,782	1,782	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	60,908	6,871	6,871	6,871	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	2	0	0	0	0
44	Refunds	0	0	0	0	0
99	Total obligations	150,539	96,500	98,390	96,787	(1,603)

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Coastal Science, Assessment, Response and Restoration	Pos./BA	298	98,390	298	97,370	0	(1,020)
	FTE/OBL	279	98,390	279	97,370	0	(1,020)

Terminate NCCOS Support to NOAA's Cooperative Institute for Research to Operations in Hydrology (-$1,020, 0 FTE/0 Positions) – NOAA requests the termination of the additional congressionally directed resources provided in the FY 2023 enacted budget that supported NOAA's Cooperative Institute for Research to Operations in Hydrology. NOS will work with the Cooperative Institute and with NWS to finalize its remaining grants and ensure their work furthers the missions of programs across NOAA, but will no longer be providing additional financial support.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Coastal Science and Assessment
Subactivity: Coastal Science, Assessment, Response and Restoration

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	34,792	38,079	39,098	39,098	0
11.3	Other than full-time permanent	332	332	332	332	0
11.5	Other personnel compensation	735	735	735	735	0
11.7	Military personnel compensation	8	8	8	8	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	35,867	39,154	40,173	40,173	0
12	Civilian personnel benefits	12,766	14,878	15,245	15,245	0
13	Benefits for former personnel	12	12	12	12	0
21	Travel and transportation of persons	1,323	1,323	1,337	1,337	0
22	Transportation of things	147	147	152	152	0
23	Rent, communications, and utilitites	0	0	43	43	0
23.1	Rental payments to GSA	1,936	1,936	1,936	1,936	0
23.2	Rental Payments to others	61	61	61	61	0
23.3	Communications, utilities and misc charges	1,826	1,826	1,826	1,826	0
24	Printing and reproduction	65	65	66	66	0
25.1	Advisory and assistance services	1,752	1,622	1,622	1,622	0
25.2	Other services from non-Federal sources	29,836	24,598	24,973	23,953	(1,020)
25.3	Other goods and services from Federal sources	407	376	376	376	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	285	285	285	285	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	1,599	1,599	1,630	1,630	0
31	Equipment	1,747	1,747	1,782	1,782	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	60,908	6,871	6,871	6,871	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	2	0	0	0	0
44	Refunds	0	0	0	0	0
99	Total obligations	150,539	96,500	98,390	97,370	(1,020)

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Coastal Science, Assessment, Response and Restoration	Pos./BA	298	98,390	298	97,490	0	(900)
	FTE/OBL	279	98,390	279	97,490	0	(900)

Enterprise Infrastructure Solutions (EIS) Decrease (-$900, 0 FTE/0 Positions) – NOAA requests a reduction for EIS. Funds provided to NOS through FY 2023 were sufficient to complete the transition of telecommunications services to GSA's EIS contract vehicle.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Coastal Science and Assessment
Subactivity: Coastal Science, Assessment, Response and Restoration

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	34,792	38,079	39,098	39,098	0
11.3	Other than full-time permanent	332	332	332	332	0
11.5	Other personnel compensation	735	735	735	735	0
11.7	Military personnel compensation	8	8	8	8	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	35,867	39,154	40,173	40,173	0
12	Civilian personnel benefits	12,766	14,878	15,245	15,245	0
13	Benefits for former personnel	12	12	12	12	0
21	Travel and transportation of persons	1,323	1,323	1,337	1,337	0
22	Transportation of things	147	147	152	152	0
23	Rent, communications, and utilitites	0	0	43	43	0
23.1	Rental payments to GSA	1,936	1,936	1,936	1,936	0
23.2	Rental Payments to others	61	61	61	61	0
23.3	Communications, utilities and misc charges	1,826	1,826	1,826	1,076	(750)
24	Printing and reproduction	65	65	66	66	0
25.1	Advisory and assistance services	1,752	1,622	1,622	1,622	0
25.2	Other services from non-Federal sources	29,836	24,598	24,973	24,823	(150)
25.3	Other goods and services from Federal sources	407	376	376	376	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	285	285	285	285	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	1,599	1,599	1,630	1,630	0
31	Equipment	1,747	1,747	1,782	1,782	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	60,908	6,871	6,871	6,871	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	2	0	0	0	0
44	Refunds	0	0	0	0	0
99	Total obligations	150,539	96,500	98,390	97,490	(900)

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Competitive Research	Pos./BA	4	22,527	4	5,031	0	(17,496)
	FTE/OBL	4	22,527	4	5,031	0	(17,496)

Decrease Competitive Research (-$17,496, 0 FTE/ 0 Positions) – This program change is requested to support other NOAA and Administration priorities. At this level of funding, NOAA will maintain its Monitoring and Event Response of Harmful Algal Blooms (MERHAB) Research Program. The MERHAB Research Program provides states, tribes, and other monitoring agencies with proven detection technologies, the validation of these technologies, and the development of predictive models and operational harmful algal bloom (HAB) forecasts. In addition, NOAA will retain, at a reduced rate, one non-HAB research program, specifically the Effects of Sea Level Rise (ESLR) Program. The ESLR Program provides a suite of science products to inform coastal managers of local coastal vulnerability and solutions to mitigate flood risk.

With this reduction, all other HABHRCA programs will be terminated, resulting in decreased support for efforts to improve the capacity of local, state, and tribal governments, and the private sector to monitor, respond to, and manage HAB and hypoxia events. NOAA will also terminate all other non-HAB and hypoxia research, resulting in delayed tool development and technical support for communities attempting to plan for, mitigate, and adapt to sea level rise and coastal inundation.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

Schedule and Milestones:
FY 2025- FY 2029

- Through the MERHAB Program, support the Alaska Harmful Algal Bloom Network and the Pacific Northwest early warning program for the mitigation of shellfish-killing HABs, at a reduced rate
- Continue to fund interagency Effects of Sea Level Rise Program projects, at a reduced rate
- Terminate the US Harmful Algal Bloom Control Technologies Incubator, which started in FY 2022, and three long-term investments advancing promising technologies that will halt efforts to accelerate the validation and cost-benefit analysis of HAB control technologies
- Terminate validation of new methods for simultaneous detection of multiple HAB toxins in both water and shellfish in New England; eliminate New England HAB information for aquaculture, fisheries and tourism as a result of decreased support of the New England HAB Observing System; and reduce funding for final stage field testing of remote autonomous detection and identification of HABs in the Gulf of Maine
- Terminate research on causes and impacts of HABs across the U.S., including synergistic impacts of HABs, acidification, temperature, total alkalinity, nutrients, and hypoxia. Seminal work on mapping the transfer and impact of HAB toxins in Alaskan food webs will be lost late in the project lifespan, impacting future predictions/mitigation of HAB impacts to subsistence food safety and security

Deliverables:

- Federal funding provided to 106 Principal Investigators at 43 U.S. institutions for ongoing projects
- Funding for up to five projects through the MERHAB program in FY 2028 to advance HAB forecasting and observations, and up to four projects funded through the ESLR program in FY 2029 to support community adaptation to flood inundation risks
- Improved models provided to the U.S. Department of Transportation and the Virginia Department of Transportation demonstrating how concrete pavement will structurally respond to increased flooding, and the state of the science on the effectiveness of various flood mitigation approaches to protect surface transportation networks from compound flooding
- High-resolution predictions of future marsh evolution and wave attenuation under varying sea level rise scenarios to inform land acquisition and marsh restoration alternatives in South Carolina, Georgia, and Florida
- Improved and accelerated implementation of nature-based coastal protection projects by providing models and technical guidance to the federal, state, and local agencies that provide flood protective measures to communities, infrastructure, and ecosystems in North-central California
- Preliminary development of up to two advanced coupled coastal models in rural Alaska areas to contribute to evaluation of coastal resilience management options

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

Performance Measures	2025	2026	2027	2028	2029
Estimated number of projects supporting research for coastal management decisions					
With Decrease	20	20	20	20	20
Without Decrease	87	87	87	90	93
Number of Principal Investigators funded					
With Decrease	106	106	106	106	106
Without Decrease	250	250	250	250	250
Number of U.S. Institutions represented by Principal Investigators					
With Decrease	43	43	43	43	43
Without Decrease	100	100	100	100	100
Outyear Costs:					
Direct Obligations	(17,496)	(17,496)	(17,496)	(17,496)	(17,496)
Capitalized	0	0	0	0	0
Uncapitalized	(17,496)	(17,496)	(17,496)	(17,496)	(17,496)
Budget Authority	(17,496)	(17,496)	(17,496)	(17,496)	(17,496)
Outlays	(10,673)	(15,571)	(16,446)	(17,146)	(17,496)
FTE	0	0	0	0	0
Positions	0	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Coastal Science and Assessment
Subactivity: Competitive Research

	Object Class	2023 Actuals	2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	453	544	559	559	0
11.3	Other than full-time permanent	0	0	0	0	0
11.5	Other personnel compensation	0	0	0	0	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	453	544	559	559	0
12	Civilian personnel benefits	145	207	212	212	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	68	68	68	68	0
22	Transportation of things	25	25	25	25	0
23	Rent, communications, and utilitites	0	0	1	1	0
23.1	Rental payments to GSA	0	0	0	0	0
23.2	Rental Payments to others	37	37	37	37	0
23.3	Communications, utilities and misc charges	116	116	116	116	0
24	Printing and reproduction	2	2	2	2	0
25.1	Advisory and assistance services	156	154	154	154	0
25.2	Other services from non-Federal sources	2,067	1,915	1,921	1,921	0
25.3	Other goods and services from Federal sources	4	4	4	4	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	507	507	507	507	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	484	484	484	484	0
31	Equipment	117	117	117	117	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	17,981	18,320	18,320	824	(17,496)
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	0	0	0	0	0
44	Refunds	0	0	0	0	0
99	Total obligations	22,162	22,500	22,527	5,031	(17,496)

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Activity: Ocean and Coastal Management and Services

Goal Statement

Use place-based, community, and regional approaches to effectively manage coastal and marine resources. Manage our special resources, and empower coastal states and communities with actionable information and resources needed to understand risk and increase resilience of coastal ecosystems and communities. Emphasize collaboration and partnerships across multiple levels of public and private organizations.

Base Program

NOS manages National Marine Sanctuaries and other Marine Protected Areas (MPAs) that conserve and facilitate sustainable use of special places along our coasts, oceans, and Great Lakes. NOS also equips coastal planners with the scientific tools and skills to better manage the Nation's coastal resources and communities. This includes the interactive Digital Coast web platform, which provides data, tools, and training to inform coastal decisions by both resource managers and local leaders. NOS also works in partnership with and provides funding to local governments, states, non-profit organizations, and other partners to advance coastal management, research, education, and engagement through the national Coastal Zone Management (CZM) Program, the Coral Reef Conservation Program (CRCP), the National Estuarine Research Reserves (NERRs), the National Coastal Resilience Fund (NCRF), and Regional Ocean Partnerships (ROPs)[21].

The following program offices carry out the activities within the Ocean and Coastal Management and Services activity:

- **Office for Coastal Management (OCM)** – Enables and guides implementation of the CZM Program and the NERRs System authorized under the Coastal Zone Management Act (CZMA). It delivers useful tools, training, and technical assistance through NOAA's Digital Coast, as defined in the Digital Coast Act. The office also administers the CRCP, and supports ROPs of coastal states. In partnership with the National Fish and Wildlife Foundation (NFWF), OCM administers the NCRF, which provides grants that increase natural infrastructure to protect coastal communities, while enhancing habitats for fish and wildlife. These activities and programs connect NOAA data and expertise to actions that advance the Executive Order on Tackling the Climate Crisis at Home and Abroad[22]. The office also supports activities under the Ocean Thermal Energy Conversion Act and the Deep Seabed Hard Mineral Resources Act (https://coast.noaa.gov/)

[21] The CZM Program and Grants, NERRS, NCRF and ROPs all received additional funding through the FY 2022 Bipartisan Infrastructure Law (BIL), which will provide them with dedicated funding through FY 2026.
[22] https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/27/executive-order-on-tackling-the-climate-crisis-at-home-and-abroad/

- **Office of National Marine Sanctuaries (ONMS)** – Responsible for the stewardship and management of a network of underwater parks encompassing more than 620,000 square miles of marine and Great Lakes waters from Washington state to the Florida Keys, and from Lake Huron to American Samoa. The network includes a system of 15 National Marine Sanctuaries and Papahānaumokuākea and Rose Atoll marine national monuments. Within ONMS, the national MPAs Center is responsible for developing and coordinating a national system of MPAs to advance national conservation goals and to identify additional areas in need of protection (https://sanctuaries.noaa.gov/)

Statement of Operating Objectives

Schedule and Milestones:

- Collect and deliver additional economic data in U.S. coastal states and territories to update the Economics: National Ocean Watch product (FY 2025)
- Support designation of new NERR sites in Wisconsin, Louisiana, and the U.S. Virgin Islands (FY 2025 – FY 2026)
- Fund additional Digital Coast Partnership projects with a focus on inundation and equity (FY 2025)
- Complete valuation studies for ecosystem services provided by U.S. coral reefs (FY 2025)
- Conduct research and data collection on Stony Coral Tissue Loss Disease and build capacity for disease detection, prevention and response efforts (FY 2025 - FY 2027)
- Lead the development of state- and local-level policies and plans that enhance coastal community resilience; provide improved access to the public; protect or restore coastal habitat, through the national CZM Program (FY 2025 – FY 2029)
- Conduct research and monitoring of climate change impacts and provide management and adaptation training and technical assistance to local and state officials at 30 NERRs nationwide (FY 2025 – FY 2029)
- Continue efforts to uncover and address barriers and constraints to serving underserved and minority communities and implement specific and systemic changes to OCM engagement, service delivery, and training (FY 2025 - FY 2029)
- Deliver decision-support tools, training, and technical assistance that enable coastal communities to understand inundation risk and sea level rise scenarios for state and local resilience planning (FY 2025 - FY 2029)
- Develop and disseminate products that translate natural and social science data to inform climate adaptation strategies and related management decisions (FY 2025 – FY 2029)

- Continue to implement the Coastal Management Fellowship, the Margaret A. Davidson Fellowship, the Digital Coast Fellowship, and National Coral Reef Management Fellowship programs to grow the next generation of coastal leaders (FY 2025 – FY 2029)
- Support projects that restore or expand natural ecosystems to increase protection for communities from coastal hazards while enhancing fish and wildlife habitats through the NCRF, in partnership with NFWF (FY 2025 – FY 2029)
- Implement best practices to reduce pollutant loadings in U.S. Coral Reef Task Force priority watershed sites and NOAA Habitat Focus Areas and NOAA CRCP key watersheds (FY 2025 - FY 2029)
- Conduct coral reef assessment and monitoring cruises in the Pacific and Atlantic/Caribbean (FY 2025 – FY 2029)
- Publish final environmental impact statement, final management plan and final rule for the proposed Pacific Remote Islands and Chumash Heritage National Marine Sanctuaries (FY 2025)
- Publish final environmental impact statement, draft management plan and final rule for the proposed Papahānaumokuākea National Marine Sanctuary (FY 2025)
- Publish draft environmental impact statement, draft management plan and draft rule for the proposed Hudson Canyon National Marine Sanctuary and proposed Lake Erie National Marine Sanctuary (FY 2025 – FY 2026)
- Initiate increased management structures to allow for staffing increases and Sanctuary Advisory Councils at proposed Lake Ontario and Chumash Heritage National Marine Sanctuaries (FY 2025 – FY 2027)
- Assess and document status and trends of natural and cultural resources through management plan review processes (FY 2025 – FY 2029)
- Invest in meaningful engagement with Tribal and Indigenous communities that rely on the ocean and Great Lakes as an integral part of their identity, culture, and well-being (FY 2025 – FY 2029)
- Implement recommendations from a national two-year Working Toward Racial Equity program to emphasize diversity, inclusion, and representation as central to the ONMS as an organization and to be representative of the communities that national marine sanctuaries serve (FY 2025 - FY 2029)
- Increase educational resources and engagement opportunities in underserved communities (FY 2025 – FY 2029)

Deliverables:

- Updated Economics: National Ocean Watch data product, including new data for each of the U.S. territories, characterizing the businesses and jobs dependent on the ocean and coastal areas
- Two additional Digital Coast Partnership projects, with a focus on inundation and equity, for a total of six partnerships
- Improved local decision-making from applied research results covering habitat conserved and restored, training and tools developed, and science standards for education
- Improved coastal resiliency through a collaborative process that engages stakeholders by funding projects on: impacts of climate change on estuaries and coastal communities; mitigation of land use change, ecosystem valuation; and shoreline stabilization
- Priority data and mapping gaps filled, and tools and training resources made accessible to all through Digital Coast to help state and local communities, including underserved communities, plan for the effects of coastal flooding, sea level rise, and climate change
- Training or job aids that advance approaches and best practices to understand risk, increase resilience, and adapt to current and future risks from a changing climate
- Improved coral bleaching forecasts and ocean acidification models
- Management strategies for coral reef protection to understand the impacts of stressors to coral reefs
- Lake Ontario and Chumash Heritage National Marine Sanctuaries management structure in place
- Final environmental impact statement, final management plan and final rule for the proposed Pacific Remote Islands National Marine Sanctuary
- Site Condition Reports, Climate Vulnerability Assessments and Updated Management Plans
- Native and indigenous community knowledge and needs integrated into sanctuary management plans
- Improved, sustained engagement with Tribes and indigenous peoples across the National Marine Sanctuary system

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Explanation and Justification

Comparison by subactivity		2023 Actual Personnel	2023 Actual Amount	2024 Annualized CR Personnel	2024 Annualized CR Amount	2025 Base Program Personnel	2025 Base Program Amount
Coastal Zone Management and Services	Pos/BA	119	62,143	128	51,220	128	52,074
	FTE/OBL	122	73,777	126	51,220	126	52,074
Coastal Zone Management Grants	Pos/BA	1	122,766	0	81,500	0	81,500
	FTE/OBL	3	132,618	0	81,500	0	81,500
National Oceans and Coastal Security Fund	Pos/BA	0	130,381	0	34,000	0	34,000
	FTE/OBL	2	130,658	0	34,000	0	34,000
Coral Reef Program	Pos/BA	24	33,091	33	33,500	33	33,710
	FTE/OBL	34	33,092	31	33,500	31	33,710
National Estaurine Research Reserves	Pos/BA	0	47,792	0	32,500	0	32,500
	FTE/OBL	0	53,541	0	32,500	0	32,500
Sanctuaries and Marine Protected Areas	Pos/BA	169	68,031	188	68,000	188	69,247
	FTE/OBL	163	67,319	184	68,000	184	69,247
Total Activity	Pos/BA	313	464,204	349	300,720	349	303,031
	FTE/OBL	324	491,005	341	300,720	341	303,031

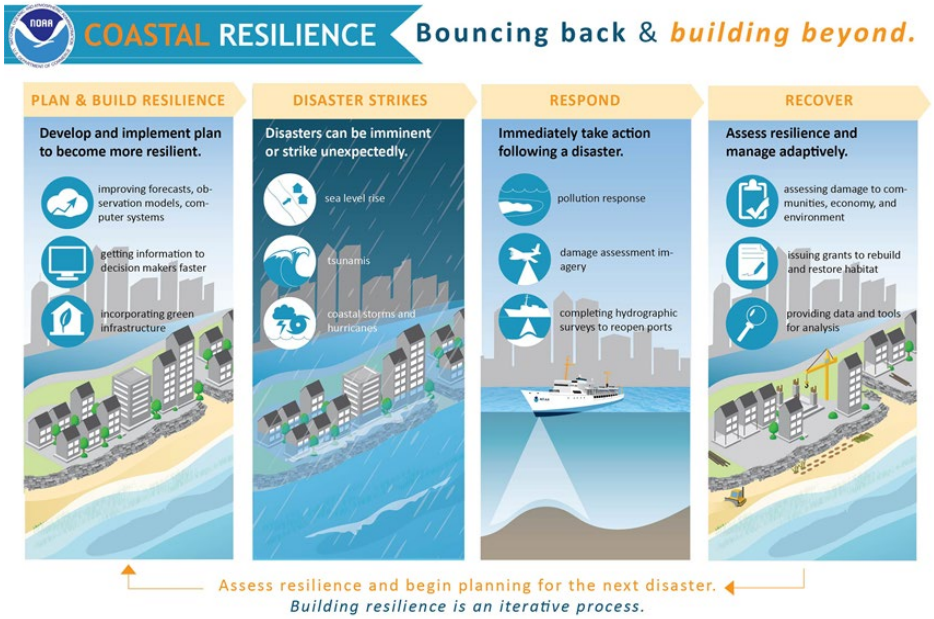
Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Coastal Zone Management and Services

NOAA and other agencies possess significant science and data capabilities to support coastal resource management; most decisions that affect the resilience of coastal communities occur at state and local levels. NOAA provides national leadership for the CZM Program, NERRS, the CRCP, and the National Oceans and Coastal Security Fund; and makes significant scientific expertise, data capabilities, tools, and training available to decision-makers to support state and local decision-making.

National Coastal Zone Management Program

The Nation's coasts are managed through coastal and Great Lakes states' and territories' voluntary partnerships with NOAA. Authorized by the CZMA of 1972, the national CZM Program provides the basis for protecting, restoring, responsibly developing, and managing the use of the Nation's diverse coastal zone. The 34 participating states' comprehensive programs balance competing demands of resource use, economic development, and conservation for approximately 62,000 miles of coastline. This includes developing and implementing strategies to increase coastal community resilience to coastal hazards and climate impacts, managing and conserving valuable coastal ecosystems and their services, and planning and developing coastal access to support community recreation and tourism.



State coastal management programs consider current and future uses in coastal areas, weighing economic, environmental and social considerations. NOAA provides data policy guidance and technical assistance to help states, businesses, and stakeholders navigate complex and interwoven sets of laws and regulations that govern our coastal areas. NOAA also routinely assesses the performance of each state program, measuring progress toward individual state and national program goals and recommending or requiring improvements to those programs. Under CZMA, participating states have the authority to review all Federal activities that have reasonably foreseeable

effects on any coastal use or natural resource of their coastal zone towards ensuring that they are consistent with enforceable policies of their state programs.

The Digital Coast Act enables NOAA to provide the training, geospatial resources and decision support tools which provide actionable information and skills needed by the CZM Program and coastal communities to ensure that they continue to thrive and serve as engines for economic growth. The Digital Coast provides easy access to data, information, tools, and training to help communities address coastal issues, including 30 trillion points of lidar, 196 terabytes of imagery, 800,000 square miles of land cover, over 80 tools with nearly 160 use examples, and over 170 training opportunities[23]. OCM trained more than 3,387 coastal professionals in 2021 and continued to meet the unique needs of users throughout the pandemic, with a 28 percent increase in the number of online instructor-led training deliveries and a 31 percent increase in the number of online instructor-led training participants[24].

A 2015 NOAA study estimated a cost-benefit ratio of 1:3 for Digital Coast, with net benefits of $25 million[25]. Tools like the Coastal County Snapshots[26] that depict flood risk and economic impact of the ocean economy contribute to this benefit. A 2019 study by the Congressional Budget Office estimates that losses to the U.S. economy caused by hurricane winds and storm-related flooding, result in annual costs of $54 billion[27]. In February 2021, Resources for the Future, a non-governmental organization, documented the "Societal Value of NOAA's Digital Coast," estimating the value of the Digital Coast Academy at $1.8 to $9.7 million annually[28]. One of the tools evaluated in this study was the Sea Level Rise Viewer[29], which integrates flood projection maps, digital elevation models, and realistic visualizations to show planners and engineers how flooding affects landmarks and infrastructure. The study estimated the economic value of using the Sea Level Rise Viewer and Coastal Flood Exposure Mapper in Jackson, Mississippi, to relocate wastewater treatment plants, treating 13 millions of gallons of wastewater daily and serving five cities including 80 percent of Jackson County's population, and move them to higher ground to avoid the impacts of future flood risks. The estimated one-time benefit of using the Sea Level Rise Viewer and Coastal Flood Exposure Mapper in this case was $1.1 million to $2.2 million in 2014 dollars.

[23] https://coast.noaa.gov/data/docs/digitalcoast/digitalcoast.pdf
[24] 2021 Digital Coast Academy Annual Report (Summary: https://coast.noaa.gov/data/digitalcoast/pdf/dca-annual-report.pdf)
[25] https://coast.noaa.gov/data/digitalcoast/pdf/benefits-costs.pdf
[26] https://coast.noaa.gov/digitalcoast/tools/snapshots.html
[27] https://www.cbo.gov/system/files/2019-04/55019-ExpectedCostsFromWindStorm.pdf
[28] https://media.rff.org/documents/RFF_WP_21-03.pdf
[29] https://coast.noaa.gov/digitalcoast/tools/slr.html

Digital Coast resources are also instrumental in understanding risk to Federal facilities. In 2022, the Office of Management and Budget used NOAA's Sea Level Rise Viewer to identify 10,250 individual Federal buildings and structures, with a combined replacement cost of $32.3 billion, that would be inundated or severely affected by typical high tide under an eight-foot sea level rise scenario[30]. In coordination with other Federal agencies, NOAA is now supporting interagency efforts to reduce the risk of flooding to federally funded facilities through implementation of the Federal Flood Risk Management Standard. Support for these data and tools is provided by regular appropriations with additional support from the Bipartisan Infrastructure Law (BIL).

NOAA's technical assistance resources help states to protect economically significant infrastructure, which is increasingly at risk. In California, the CZM Program worked with NOAA to assess flood and seismic vulnerabilities of transportation assets in Alameda and Contra Costa counties. A similar plan developed by Texas coastal management agencies with NOAA assistance will protect critical energy infrastructure and waterborne commerce passing through the Gulf Intracoastal Waterway valued at $25 billion annually[31]. The Georgia CZM program raised a causeway — the only road to Tybee Island — to mitigate flood risks that it identified using NOAA tools. The road is essential to recreation and tourism in the area.

To ensure equitable delivery of its products and services, OCM assesses its own engagement, service delivery, and training efforts to ensure they enable all coastal communities, especially those with underserved populations, to have the capacity to address coastal hazards. These improvement efforts lead to changes and enhancements that increase the capacity of a wider swath of coastal communities and decision-makers to assess risk, reduce vulnerabilities, and adapt to change with easily accessible coastal data, mapping and visualization, education, and practitioner training.

NOAA's regional efforts complement its state focused partnership programs. Facilitating regional networks of technical experts, decision-makers, and community stakeholders accelerates the development and implementation of science-based climate adaptation strategies. These regional efforts build the skills and capacity needed to address coastal resilience and promote innovation in areas such as resilience finance, risk communication, and the development of equitable resilience solutions that meet local needs.

NOAA's support for regional data sharing and integration will continue to provide ocean-related Federal data and information to the public to inform regional, coastal, and ocean management decision making across the U.S.

[30] https://www.whitehouse.gov/wp-content/uploads/2022/04/OMB_Climate_Risk_Exposure_2022.pdf
[31] https://www.glo.texas.gov/coastal-grants/projects/files/Master-Plan.pdf

Coastal Zone Management Grants

U.S. coastal communities are home to over 128 million people, support 58.3 million jobs, and contribute more than $9.5 trillion to the U.S. economy[32]. CZM Grants assist states with planning and managing uses in coastal areas, including preparing for and responding to coastal hazards. Over the history of the Program, participating states and territories have partnered to enhance coastal community resilience, support vibrant coastal economies, and address the multiple uses of coastal areas in a way that maximizes benefits for all. Since FY 2012, states participating in the national CZM Program have completed over 2,500 projects that enhance resilience to coastal hazards; worked with over 2,500 communities to grow in a balanced way that protects coastal community character; protected over 80,000 acres of habitat and restored an additional 67,000 acres; created more than 700 new sites for the public to access coastal areas; and enhanced over 2,000 additional access sites to improve the visitor experience[33]. State accomplishments in FY 2024 contribute to these totals, involved management and administration of large restoration or conservation projects funded under the Bipartisan Infrastructure Law, and continued to expand the positive impact of the National CZM Program on the Nation.

National Oceans and Coastal Security Fund

The National Oceans and Coastal Security Fund PPA supports the National Coastal Resilience Fund (NCRF), which is a partnership between the NFWF and NOAA that enhances the resilience of coastal communities to flooding and inundation by restoring or expanding natural ecosystems, while enhancing fish and wildlife habitats and increasing protection for communities from coastal hazards. These investments will lead to the restoration of hundreds to thousands of acres of habitat, protection of critical infrastructure from flooding, and job creation in communities across the country. The NCRF provides a means to address the climate crisis and chronic environmental changes such as sea level rise by investing in natural solutions that are in many cases able to adapt to those changes. Hard structural solutions, in contrast, have a finite life and an increasing susceptibility to the risks of the climate crisis.

Coral Reef Conservation Program (CRCP)

NOAA's CRCP brings together multidisciplinary expertise from across NOAA to conserve and restore coral reefs. The program has partnerships with state, jurisdictional and international coastal resource managers. Coral reefs are among the most biologically

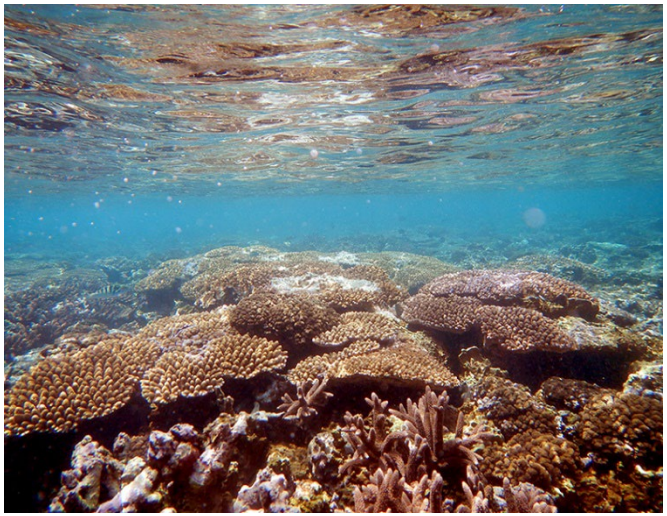
[32] https://coast.noaa.gov/states/fast-facts/economics-and-demographics.html
[33] https://coast.noaa.gov/data/czm/media/funding-summary.pdf

diverse ecosystems in the world, providing a range of economic benefits and vital ecosystem services such as food, recreation, marine habitat, medicines, coastal protection, climate regulation, and biodiversity. Tropical coral reefs occur in more than 100 countries and contribute an estimated $2.7 trillion per year in goods and services[34]. It is estimated that U.S. coral reefs annually prevent flooding to more than 33 critical infrastructure facilities, including utilities and transportation systems, and avoid direct flood damages of more than $825 million to more than 5,694 buildings. In addition, U.S. coral reefs avoid indirect damages of more than $699 million in economic activity of individuals and more than $272 million in avoided business interruption annually[35]. Rapid declines in coral reefs have dire consequences for approximately one billion people who depend on coral reefs for their food and livelihoods. Climate change is the main global threat to coral reefs and exacerbates more locally-based threats including water quality decline and unsustainable fishing practices that make corals more susceptible to becoming diseased. No matter how remote, climate change threatens every U.S. coral reef.

CRCP integrates coral protection efforts across NOAA and other agencies to address overfishing, harmful fishing practices, ocean temperature changes, ocean acidification, land-based sources of pollution, and other threats. The CRCP strategic plan is predicated on resilience-based management and the following three concepts: an understanding of past, present, and projected future impacts to coral reefs caused by a changing climate; likely social and ecological responses to climate change; and identification and prioritization of management actions to support ecosystem resilience and human well-being. The program's approaches include ecosystem-based management initiatives to build MPA management capacity; monitoring and forecasting of threats to coral reefs; advancing coral restoration research and ecosystem-scale restoration implementation; and partnerships to address and reduce impacts of land-based sources of pollution. Land-based sources of pollution are major threats to coral reef ecosystems. NOAA works with jurisdictions that are upstream of coral reefs to develop 'ridge-to-reef' watershed management plans. These plans ensure that coral reef ecosystems are integrated into watershed planning processes.

In FY 2022, the United States Coral Reef Task Force graduated the Faga'alu watershed in American Samoa, making it the first watershed to graduate from the Watershed Partnership Initiative[36]. CRCP also awarded over $18 million in grants in FY 2022, which

[34] https://gcrmn.net/2020-report/
[35] https://pubs.er.usgs.gov/publication/ofr20191027
[36] https://www.coralreef.noaa.gov/aboutcrcp/news/featuredstories/dec22/fagaalu-watershed.html



The coral reef along the shore of the Faga'alu Watershed in American Samoa is recovering after years of polluted runoff from the watershed.

strongly supported work of academic partners and of non-governmental organizations. NOAA also released a plan, NOAA Strategy for Stony Coral Tissue Loss Disease: An Implementation Plan for Response and Prevention, in FY 2022, which aimed to build on goals and agency priorities identified in the NOAA Strategy for Stony Coral Tissue Loss Disease Response and Prevention. The implementation plan joins a growing number of publications that represent useful tools and information for the public, Congress, managers, and researchers about stony coral tissue loss disease[37].

In December 2022, the Coral Reef Conservation Act of 2000 was reauthorized as part of the FY 2023 National Defense Authorization Act. In response to this reauthorization, investments will be made to continue to manage watersheds, support sustainable fishing practices, research climate change effects and management responses, and restore coral reefs, including building capacity for Stony Coral Tissue Loss Disease detection, prevention, and response and advance partnerships to prevent spread from Florida's coral reef, at least 28 Caribbean countries and territories, and the Gulf of Mexico to the Pacific Ocean.

National Estuarine Research Reserve System (NERRS)

The NERRS is a national network of state-managed protected areas established under the CZMA, and in partnership with participating states. Per program regulations, NOAA provides 70 percent of the funding and states provide the remaining 30 percent of the funding for reserve operations, research, monitoring, training and education. NOAA provides national guidance, program oversight, and technical assistance while state agencies and universities perform day-to-day operations and management of individual reserves with input from local partners.

[37] https://www.coris.noaa.gov/activities/stony_coral_tissue_loss_disease/

The network of 30 reserves, representative of the variety of estuaries across the country, protects over 1.4 million acres of state-owned estuarine lands and waters. Currently, reserves are located in 24 states and territories. They are economically significant areas that attract recreation and tourism activity, support commercial and recreational fisheries, and provide natural infrastructure for coastal protection and water quality. The NERRS have contributed billions of dollars to the shellfish and seafood industry in participating states and tens of billions of dollars in ocean-dependent industries[38]. Coastal wetlands, such as those protected by the NERRS, provide $447 billion in global storm protection each year[39]. Additionally, the reserves help communities plan for current and future hazards, ultimately protecting life, property and economy. According to a study by the National Institute of Building Sciences, for each dollar spent on mitigation activities and planning, communities can save six dollars in future recovery costs[40].

This estuary photo, which depicts the Lord Cove Wildlife Area, features a section of the newest addition to the National Estuarine Research Reserve System - the Connecticut Research Reserve.

The NERRS conducts research and monitoring of coastal habitats through the Davidson Fellowship Program, the NERRS Science Collaborative Program, and the System-Wide Monitoring Program. The System-Wide Monitoring Program generates long-term datasets on water quality, weather, and habitat conditions and extends to support local and state decision-makers and Federal agencies. The NERRS Science Collaborative and the Davidson Fellowship Program are competitive grant programs supporting projects that contribute to improving coastal resilience to natural and man-made disasters. NOAA awards an average of $4.0 million each year in competitive grants that fund user-driven collaborative research, assessment, and transfer activities that address coastal management needs identified by the reserves. Additionally, the NERRS brings the scientific and technical capacity to local and state decision-makers through training, tools, and technical assistance to address management challenges, as well as to teachers and students through instructional and experiential education programs that engage them in their local communities' coastal challenges.

[38] https://www.laseagrant.org/deltanerr/faqs/
[39] Robert Costanza, Sharolyn J. Anderson, Paul Sutton, Kenneth Mulder, Obadiah Mulder, Ida Kubiszewski, Xuantong Wang, Xin Liu, Octavio Pérez-Maqueo, M. Luisa Martinez, Diane Jarvis, Greg Dee, The global value of coastal wetlands for storm protection, Global Environmental Change, Volume 70, 2021, 102328, ISSN 0959-3780
[40] https://www.nibs.org/files/pdfs/NIBS_MMC_MitigationSaves_2019.pdf

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Sanctuaries and Marine Protected Areas

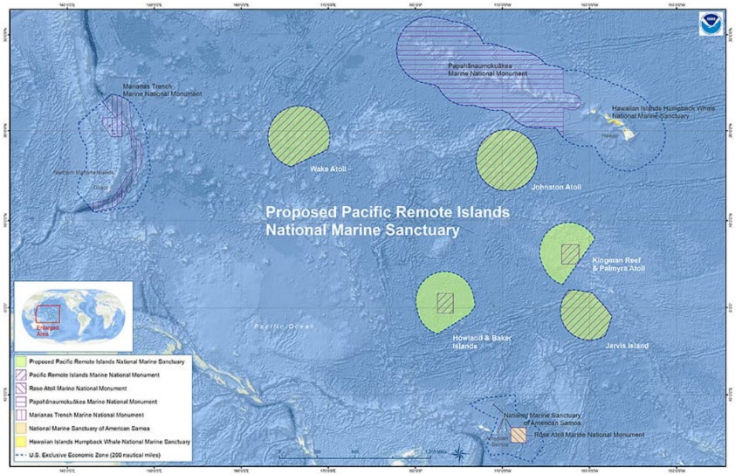
National Marine Sanctuaries
NOAA's Sanctuaries and Marine Protected Areas program was born with the passage of the Marine Protection, Research, and Sanctuaries Act of 1972 (MPRSA), and has grown into a vibrant network of 15 National Marine Sanctuaries and two Marine National Monuments that protect some of our Nation's most treasured seascapes, wildlife, and maritime heritage resources. Since then, science has been central to the creation and management of National Marine Sanctuaries, and in 1984 Congress added a mandate to the MPRSA for NOAA to conduct research as necessary to meet the purposes of the Act. From these beginnings, the sanctuary system has developed an outstanding science legacy. One measure of its achievements is the half-century of new discoveries – such as shipwrecks, artifacts, species, habitats, and natural processes – that inspire, amaze, and awe. (www.sanctuaries.noaa.gov/50/)

The underwater parks that make up the system of sanctuaries range in size from the one square mile Monitor National Marine Sanctuary near Cape Hatteras, North Carolina, to the 582,000 square mile Papahānaumokuākea Marine National Monument along the northwestern portion of the Hawaiian Archipelago.

Together these areas encompass over 622,000 square miles of ecologically significant marine habitats and maritime heritage assets (such as shipwrecks and cultural landscapes). National marine sanctuaries support local coastal and ocean dependent economic activities such as commercial fishing, research and recreation/tourism-related activities.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

AREA OF PROPOSED DESIGNATION



NOAA is working with communities across the Nation on a number of other potential sanctuary designations. On April 17, 2023, NOAA issued a Notice of Intent to Conduct Scoping and to Prepare an Environmental Impact Statement for the Proposed Designation of a National Marine Sanctuary in the Pacific Remote Islands (https://sanctuaries.noaa.gov/pacific-remote-islands/), launching the designation process. A sanctuary here would include the marine areas within the existing Pacific Remote Islands Marine National Monument (https://www.fisheries.noaa.gov/pacific-islands/habitat-conservation/pacific-remote-islands-marine-national-monument) as well as the currently unprotected submerged lands and waters to the full extent of the U.S. Exclusive Economic Zone, an area totaling about 770,000 square miles. In addition, on May 18, 2023, NOAA issued a Notice of Intent to begin the public scoping process to consider designating a national marine sanctuary in Lake Erie (https://sanctuaries.noaa.gov/lake-erie), which would encompass the 759 square miles of Pennsylvania's Lake Erie waters. The 76.6 miles of proposed sanctuary shoreline are located along Erie County, Pennsylvania, contain six townships, two boroughs and the City of Erie. The area nominated includes an expansive shipwreck graveyard present in the Lake Erie Quadrangle. The results received from these scoping processes will assist NOAA in determining whether and how to designate the areas as national marine sanctuaries. In addition, NOAA continues to work with interested local communities on other proposed sites, including the proposed Lake Ontario National Marine Sanctuary, the proposed Chumash Heritage National Marine Sanctuary, and the proposed Hudson Canyon National Marine Sanctuary.

NOAA is making continued progress on the sanctuary designation of Papahānaumokuākea Marine National Monument (https://www.papahanaumokuakea.gov/sanctuary-designation/), as directed by Congress. Since receiving this direction, NOAA published its Notice of Intent in November 2021 and received approximately 75 public comments through January 2022. Since the public comment period closed, NOAA has been working on developing the draft environmental impact statement, draft regulations, and draft management plan. As part of the development of these documents, NOAA has been coordinating with the Western Pacific Fishery Management Council (WESPAC) on the development of fishing regulations for the proposed sanctuary as part of the process defined in section 304(a)(5) of the National Marine Sanctuaries Act. These efforts and next steps, such as the development of an environmental impact statement, management plan, and regulations, and further public comment on these documents, play a vital role in completing this designation in the next several years pending available funding, staffing, and Congress' review period once

final documents are prepared. Though this area is already protected as a monument, a sanctuary designation would expand management activities in Papahānaumokuākea. New sanctuaries designated with program funds will have broad-based community support, protect and celebrate the Nation's maritime cultural heritage and natural resources, and expand economic development, recreation and tourism, and educational opportunities.

NOAA protects these ecological and cultural assets through community engagement, applied resource protection and management, research and monitoring, education, and public outreach activities. It develops and implements comprehensive management plans to ensure the protection and sustainable use of resources. NOAA tailors each plan to the specific goals of each national marine sanctuary, which in turn reflect the unique resources and needs of each sanctuary's respective community. NOAA's partnerships facilitate research and monitoring and enforce the laws and regulations that protect sanctuary resources. For example, NOAA recently released an FY 2023 Channel Islands National Marine Sanctuary Management Plan (https://channelislands.noaa.gov/manage/plan/) and a Marine Protected Area Climate Vulnerability Assessment Guide (https://nmssanctuaries.blob.core.windows.net/sanctuaries-prod/media/docs/2023-mpa-climate-vulnerability-assessment-guide.pdf) with more site-specific and national plans and guidance slated to be released in FY 2025 and beyond. Additionally, NOAA and partners are also continuing a decades-long coral reef restoration effort that started in FY 2021–Mission: Iconic Reefs– to restore seven iconic reefs in Florida Keys National Marine Sanctuary. The groundbreaking approach aims to revitalize the Florida Keys' highly diverse and economically valuable marine ecosystem on an unprecedented scale, and represents one of the largest ever investments in coral restoration. This effort is collaborative across Federal, state, and local entities and complements NOAA's ongoing Florida Keys Restoration Blueprint and management plan review. Community engagement is a cornerstone of a site's management. Sites build and rely on education partnerships, volunteer participation, and community input to build support for and manage the resource. For example, the NOAA Ocean Guardian Schools (https://sanctuaries.noaa.gov/education/ocean_guardian/) are now in eight states. These schools receive grants to work with students on local conservation projects, and in turn these partnerships build awareness and support for, and stewardship of, the resources NOAA is entrusted to protect.

NOAA is using technology in new ways to deepen understanding of sanctuaries, protect these special marine places, and share that knowledge broadly and more equitably. In order to better track and predict conditions and trends within national marine sanctuaries, NOAA recently developed Condition Reports for Channel Islands, Stellwagen Bank, and Olympic Coast National Marine Sanctuaries that documented the status and trends of natural and cultural resources in conjunction with management plan review processes. Along with the traditional publications, NOAA launched web-enabled versions of the report (https://sanctuarywatch.ioos.us/), which pairs artwork with data to make it easy to explore the changing conditions within National Marine Sanctuaries. Low resolution versions of the site allow for communities with bandwidth challenges to be able to access the data as well. In early 2022, the Office of National Marine Sanctuaries and partners launched a new web portal (https://sanctuaries.noaa.gov/news/apr22/new-sanctsound-

Scientist Taylor Williams surveys algal growth at Kamole (Laysan). Credit: Kimberly Jeffries/NOAA

portal.html) that allows users to learn about and listen to underwater sounds throughout the National Marine Sanctuary System. Understanding underwater sounds helps NOAA track and predict conditions within National Marine Sanctuaries to better protect these special places. NOAA will continue to expand its network of data collection systems to inform management practices and enable the public to use these data as well. For example, NOAA is in the process of developing the ONMS Sound Monitoring Program to deploy and manage at least 25 listening stations. In FY 2025 and beyond, our goal is to integrate more listening stations and create a more robust data portal that will include other information useful to NOAA and the Nation. Potential additions could include data from partnerships with the US Integrated Ocean Observing System (IOOS) (https://ioos.noaa.gov/), and vessel tracking and satellite data.

MPA Coordination

NOAA's MPA Center develops and delivers science, policy, and management tools to advance the effective use of MPAs for national conservation and management objectives. It coordinates Federal, state, and Tribal MPA programs to connect and strengthen the Nation's system of MPAs, including NERR and National Marine Sanctuaries. This coordination focuses on developing curricula, training, and virtual tools to improve management capacity of MPA programs in the U.S. and around the world. MPAs are being increasingly recognized as a key tool for maintaining and restoring ecosystem resilience in a changing climate. They can also provide long-term protection for "blue carbon" - coastal habitats including salt marshes, seagrasses, mangroves, and kelp forests provide long-term storage for atmospheric carbon as well as other benefits such as coastal protection. The MPA Center coordinates the ONMS Climate Team to implement the ONMS Climate Resilience Plan, integrating climate into all aspects of sanctuary management. The MPA Center also focuses on partnerships with Indigenous Peoples, recognizing their stewardship, homelands, and holistic approaches. The MPA Center meets with Indigenous leaders to explore opportunities for co-stewardship and engagement with MPA programs. It serves as the focal point within NOAA for international MPA partnerships, working globally with MPA agencies on joint actions for common conservation priorities, including shared species and habitats. The MPA Center also serves as the authoritative source for geospatial information on U.S. MPAs.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Coastal Zone Management and Services	Pos./BA	128	52,074	128	53,074	0	1,000
	FTE/OBL	126	52,074	126	53,074	0	1,000

Natural Capital Accounting (+$1,000, 0 FTE/ 0 Positions) – NOAA requests additional funding to support the implementation of the Marine Natural Capital component of the National Strategy to Develop Statistics for Environmental-Economic Decisions (also known as the National Strategy)[41]. This request is part of a multi-agency initiative, and will further develop statistics to measure the contribution of environmental resources and environmental-economic activities to the U.S. as valuable efforts that directly support employment, income, productivity, and growth. As a result of this work NOAA will develop the methodology to expand the Marine Economy Satellite Account (MESA) to include a natural capital component that builds toward a comprehensive and integrated accounting of ecosystem usage by industry, contributing to ocean intelligence.

In FY 2023, NOAA began the research necessary for the development of a pilot Marine Natural Capital accounting effort, which, in its first year, researched ecosystem values, methods, and availability of data for the offshore minerals (oil and gas) and living resources (fisheries) sectors within MESA. Efforts in these sectors are continuing in FY 2024, with additional research being done on the tourism and recreation sector (with a focus on beach recreational activities). With this $1 million increase, NOAA will be able to research and gather data for all 10 sectors of the US economy represented in MESA[42], and develop pilot accounts. The investment will also enable transitioning from pilot accounts to prototype accounts in the outyears, per the schedule in the National Strategy.

Schedule and Milestones:
FY 2025 – FY 2029

- Research and develop experimental regional statistics in the Marine Economy Satellite Account (MESA)

[41] https://www.whitehouse.gov/wp-content/uploads/2023/01/Natural-Capital-Accounting-Strategy-final.pdf
[42] https://www.noaa.gov/news-release/marine-economy-bolsters-american-prosperity

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

- Develop methodology and guidance for including the marine natural capital account into the MESA and to fully comply with the Systems of National Accounts boundaries
- Gather data and develop valuation methods for priority sectors such as fisheries, minerals and tourism and recreation
- Standardize accounting and valuation methodology at National and International levels
- Integrate research with other satellite accounts developed by other agencies in the National Strategy
- Develop pilot accounts and transition pilot accounts to prototype accounts per the schedule in the National Strategy

Deliverables:

- Development of prototype account for fisheries (for selected species), marine minerals (offshore oil and gas), tourism and recreation (beaches)
- Regional marine economy statistics
- Comprehensive guidance on developing marine natural capital accounts including data requirements, availability, gaps and well as the source, granularity, and the spatial and time dimension of the data

Performance Measures	2025	2026	2027	2028	2029
Number of MESA sectors with necessary with data standards required for pilot account integration (cumulative)					
With Increase	3	5	7	9	10
Without Increase	1	2	2	2	2
Number of MESA sectors with prototype accounts (cumulative)					
With Increase	0	2	5	7	10
Without Increase	0	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

Outyear Costs:					
Direct Obligations	1,000	1,000	1,000	1,000	1,000
Capitalized	1,000	1,000	1,000	1,000	1,000
Uncapitalized	0	0	0	0	0
Budget Authority	1,000	1,000	1,000	1,000	1,000
Outlays	610	890	940	980	1,000
FTE	0	0	0	0	0
Positions	0	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Ocean and Coastal Zone Management and Services
Subactivity: Coastal Zone Management and Services

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase from 2025 Base
11.1	Full-time permanent compensation	17,206	17,275	17,736	17,736	0
11.3	Other than full-time permanent	112	112	112	112	0
11.5	Other personnel compensation	329	329	329	329	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	17,647	17,716	18,177	18,177	0
12	Civilian personnel benefits	6,449	6,732	6,898	6,898	0
13	Benefits for former personnel	4	4	4	4	0
21	Travel and transportation of persons	529	529	535	535	0
22	Transportation of things	18	18	20	20	0
23	Rent, communications, and utilitites	0	0	19	19	0
23.1	Rental payments to GSA	1,655	1,655	1,655	1,655	0
23.2	Rental Payments to others	49	49	49	49	0
23.3	Communications, utilities and misc charges	218	300	300	300	0
24	Printing and reproduction	13	13	14	14	0
25.1	Advisory and assistance services	6,803	6,453	6,453	6,453	0
25.2	Other services from non-Federal sources	19,505	15,308	15,308	15,808	500
25.3	Other goods and services from Federal sources	61	57	226	726	500
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	493	493	507	507	0
31	Equipment	298	298	314	314	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	20,035	1,595	1,595	1,595	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	0	0	0	0	0
44	Refunds	0	0	0	0	0
99	Total obligations	73,777	51,220	52,074	53,074	1,000

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Coastal Zone Management and Services	Pos./BA	128	52,074	128	49,574	0	(2,500)
	FTE/OBL	126	52,074	126	49,574	0	(2,500)

Terminate Funding Support for Existing Regional Ocean Data Portals (-$2,500, 0 FTE/ 0 Positions) - This program change is requested to support other NOAA and Administration priorities. At this level of funding, NOAA will continue to administer Bipartisan Infrastructure Law funding for established Regional Ocean Partnerships to support the coordinated management of priority ocean use and coastal resilience actions, including associated data management and integration efforts. NOAA will allocate limited investments to support highest priority actions in established regions based on input from ocean industries, tribes and stakeholders. This includes efforts to enhance data portals or products that inform management decisions on ocean infrastructure and ocean health changes.

Although this termination will eliminate one source of support, Federal support will remain in the form of BIL funding for the Regional Ocean Partnerships to plan, analyze and site coastal and ocean infrastructure, such as offshore wind, and improve access to and utility of authoritative data for users nationwide.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

	2025	2026	2027	2028	2029
Outyear Costs:					
Direct Obligations	(2,500)	(2,500)	(2,500)	(2,500)	(2,500)
Capitalized	0	0	0	0	0
Uncapitalized	(2,500)	(2,500)	(2,500)	(2,500)	(2,500)
Budget Authority	(2,500)	(2,500)	(2,500)	(2,500)	(2,500)
Outlays	(1,525)	(2,225)	(2,350)	(2,450)	(2,500)
FTE	0	0	0	0	0
Positions	0	0	0	0	0

Exhibit 15

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Ocean and Coastal Zone Management and Services
Subactivity: Coastal Zone Management and Services

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	17,206	17,275	17,736	17,736	0
11.3	Other than full-time permanent	112	112	112	112	0
11.5	Other personnel compensation	329	329	329	329	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	17,647	17,716	18,177	18,177	0
12	Civilian personnel benefits	6,449	6,732	6,898	6,898	0
13	Benefits for former personnel	4	4	4	4	0
21	Travel and transportation of persons	529	529	535	535	0
22	Transportation of things	18	18	20	20	0
23	Rent, communications, and utilitites	0	0	19	19	0
23.1	Rental payments to GSA	1,655	1,655	1,655	1,655	0
23.2	Rental Payments to others	49	49	49	49	0
23.3	Communications, utilities and misc charges	218	300	300	300	0
24	Printing and reproduction	13	13	14	14	0
25.1	Advisory and assistance services	6,803	6,453	6,453	6,453	0
25.2	Other services from non-Federal sources	19,505	15,308	15,308	14,158	(1,150)
25.3	Other goods and services from Federal sources	61	57	226	226	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	493	493	507	507	0
31	Equipment	298	298	314	314	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	20,035	1,595	1,595	245	(1,350)
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	0	0	0	0	0
44	Refunds	0	0	0	0	0
99	Total obligations	73,777	51,220	52,074	49,574	(2,500)

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Coastal Zone Management and Services	Pos./BA	128	52,074	128	51,774	0	(300)
	FTE/OBL	126	52,074	126	51,774	0	(300)

Enterprise Infrastructure Solutions (EIS) Decrease (-$300, 0 FTE/0 Positions) – NOAA requests a reduction for EIS. Funds provided to NOS through FY 2023 were sufficient to complete the transition of telecommunications services to GSA's EIS contract vehicle.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Ocean and Coastal Management and Services
Subactivity: Coastal Zone Management and Services

	Object Class	2023 Actuals	2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	17,206	17,275	17,736	17,736	0
11.3	Other than full-time permanent	112	112	112	112	0
11.5	Other personnel compensation	329	329	329	329	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	17,647	17,716	18,177	18,177	0
12	Civilian personnel benefits	6,449	6,732	6,898	6,898	0
13	Benefits for former personnel	4	4	4	4	0
21	Travel and transportation of persons	529	529	535	535	0
22	Transportation of things	18	18	20	20	0
23	Rent, communications, and utilitites	0	0	19	19	0
23.1	Rental payments to GSA	1,655	1,655	1,655	1,655	0
23.2	Rental Payments to others	49	49	49	49	0
23.3	Communications, utilities and misc charges	218	300	300	0	(300)
24	Printing and reproduction	13	13	14	14	0
25.1	Advisory and assistance services	6,803	6,453	6,453	6,453	0
25.2	Other services from non-Federal sources	19,505	15,308	15,308	15,308	0
25.3	Other goods and services from Federal sources	61	57	226	226	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	493	493	507	507	0
31	Equipment	298	298	314	314	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	20,035	1,595	1,595	1,595	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	0	0	0	0	0
44	Refunds	0	0	0	0	0
99	Total obligations	73,777	51,220	52,074	51,774	(300)

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
National Oceans and Coastal Security Fund	Pos./BA	0	34,000	0	0	0	(34,000)
	FTE/OBL	0	34,000	0	0	0	(34,000)

Terminate Base Funding for the National Coastal Resilience Fund (-$34,000, 0 FTE/0 Positions) –This program change is requested to support other NOAA and Administration priorities. This request terminates funding for the National Coastal Resilience Fund (NCRF), a partnership with the National Fish and Wildlife Foundation (NFWF). NOAA will continue to maintain its partnership with NFWF using the $492 million received under the BIL and $46 million allocated through IRA funds. This will allow NOAA to continue administering new and existing cooperative agreements to support restoration as well as increase and strengthen nature-based infrastructure projects to protect coastal communities from flooding and related hazards while enhancing habitats for fish and wildlife through FY 2026. The NCRF will continue to provide support for communities most vulnerable to climate impacts, including those who have historically been underserved and often lack access to resources.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Ocean and Coastal Management and Services
Subactivity: National Oceans and Coastal Security Fund

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	214	0	0	0	0
11.3	Other than full-time permanent	0	0	0	0	0
11.5	Other personnel compensation	0	0	0	0	0
11.7	Military personnel compensation	0	0	0	0	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	214	0	0	0	0
12	Civilian personnel benefits	77	0	0	0	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	16	16	16	0	(16)
22	Transportation of things	0	0	0	0	0
23	Rent, communications, and utilitites	0	0	0	0	0
23.1	Rental payments to GSA	0	0	0	0	0
23.2	Rental Payments to others	0	0	0	0	0
23.3	Communications, utilities and misc charges	0	0	0	0	0
24	Printing and reproduction	0	0	0	0	0
25.1	Advisory and assistance services	472	472	472	0	(472)
25.2	Other services from non-Federal sources	366	366	366	0	(366)
25.3	Other goods and services from Federal	2	2	2	0	(2)
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	0	0	0	0	0
31	Equipment	0	0	0	0	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	129,511	33,144	33,144	0	(33,144)
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	0	0	0	0	0
44	Refunds	0	0	0	0	0
99	Total obligations	130,658	34,000	34,000	0	(34,000)

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Coral Reef Program	Pos./BA	33	33,710	33	19,431	0	(14,279)
	FTE/OBL	31	33,710	31	19,431	0	(14,279)

Reduce Support for Coral Reef Conservation Program Grants (-$14,279, 0 FTE/ 0 Positions) – This program change is requested to support other NOAA and Administration priorities. At this level of funding, NOAA will prioritize continuing to monitor the Nation's coral reefs, and will prioritize NOAA-led coral research projects on resilience and coral disease. NOAA will continue to support the basic operation of Mission Iconic Reefs, updating our understanding of the economic value (return on investment) of the nation's corals, and continue working on the highest priority new provisions of the Reauthorized Coral Reef Conservation Act. Coral restoration and protection projects will continue to be eligible for BIL and IRA funding; to date, coral projects have received over $134 million through the BIL and IRA.

At this level of funding, NOAA's ability to conduct coral research, produce timely bleaching forecasts, and deliver technical assistance to prevent and treat Stony Coral Tissue Loss Disease will also be reduced. As the CRCP is a matrixed program, the impacts to NOAA's capacity will be distributed across NOS, NMFS, OAR and NESDIS.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

Schedule and Milestones:

- Initiate progress on Mission: Iconic Reefs (FY 2025)
- Improve understanding of the status of U.S. reefs (FY 2025 - FY 2029)
- Maintain ecological forecasting for coral bleaching via the coral reef watch program (FY 2025 - FY 2029)
- Gather and analyze data associated with the National Coral Reef Monitoring Program, at a reduced rate (FY 2025)
- Eliminate CRCP grants and cooperative agreements (FY 2025)
- Postpone completion of efforts to quantify the economic and societal value of coral ecosystem services to the Nation (FY 2025)
- Perform NOAA-funded coral restoration and restoration innovation science at a reduced rate (FY 2025)

Deliverables:

- Improved understanding of coral threats and resilience to change, including examining topics such as ocean acidification, coral disease, thermal resilience, and coral reproduction
- Advancement of Mission Iconic Reefs by supporting basic operations and monitoring needs
- Updated and refined understanding of the economic value of the ecosystem functions provided by the nation's corals reefs, including quantifying the economic value of coral reefs to each coral state and territory
- Reauthorized Coral Reef Conservation Act requirements met, including creating Coral Reef Actions Plans, developing Coral Reef Stewardship Partnerships, establishing the two new Coral Reef Coordinating Institutes, and writing the first Report to Congress under the new statute
- Coral bleaching forecasts
- Highest priority Stony Coral Tissue Loss Disease observations, monitoring of bleaching events, and reporting of the status of US coral reefs and observed trends
- Highest priority needs of the National Coral Reef Monitoring Program to meet data management, archiving and dissemination requirements; and to continue climate resilience responses and studies.
- Highest priority research and technical assistance to prevent and treat Stony Coral Tissue Loss Disease
- Support the operation of the U.S. Coral Reef Task Force
- Highest priority technical assistance to state and territorial partners

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

Performance Measures	2025	2026	2027	2028	2029
Percentage of National Coral Reef Monitoring Program planned annual data collected					
With Decrease	50%	50%	50%	50%	50%
Without Decrease	100%	100%	100%	100%	100%
Outyear Costs:					
Direct Obligations	(14,279)	(14,279)	(14,279)	(14,279)	(14,279)
Capitalized	0	0	0	0	0
Uncapitalized	(14,279)	(14,279)	(14,279)	(14,279)	(14,279)
Budget Authority	(14,279)	(14,279)	(14,279)	(14,279)	(14,279)
Outlays	(8,710)	(12,708)	(13,422)	(13,993)	(14,279)
FTE	0	0	0	0	0
Positions	0	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Ocean and Coastal Management and Services
Subactivity: Coral Reef Program

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	5,459	4,314	4,426	4,426	0
11.3	Other than full-time permanent	0	0	0	0	0
11.5	Other personnel compensation	105	105	105	105	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	5,564	4,419	4,531	4,531	0
12	Civilian personnel benefits	2,015	1,679	1,720	1,720	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	300	300	302	302	0
22	Transportation of things	8	8	9	9	0
23	Rent, communications, and utilitites	0	0	5	5	0
23.1	Rental payments to GSA	120	120	120	120	0
23.2	Rental Payments to others	2	2	2	2	0
23.3	Communications, utilities and misc charges	18	18	18	18	0
24	Printing and reproduction	12	12	12	12	0
25.1	Advisory and assistance services	2,975	3,218	3,218	3,218	0
25.2	Other services from non-Federal sources	4,330	5,976	6,018	6,018	0
25.3	Other goods and services from Federal sources	2	2	2	2	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	18	18	18	18	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	474	474	477	477	0
31	Equipment	236	236	240	240	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	17,018	17,018	17,018	2,739	(14,279)
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	0	0	0	0	0
44	Refunds	0	0	0	0	0
99	Total obligations	33,092	33,500	33,710	19,431	(14,279)

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Increase from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Sanctuaries and Marine Protected Areas	Pos./BA	188	69,247	203	86,987	15	17,740
	FTE/OBL	184	69,247	195	86,987	11	17,740

Increasing Conservation and Protection Across the National Marine Sanctuary System (+$17,740, 11 FTE/ 15 Positions) – NOAA requests an increase to expand the conservation and management of an expanded National Marine Sanctuary System. Funds will allow NOAA to strengthen its research, monitoring, restoration, permitting, community engagement, and interagency partnerships, all for informing NOAA's locally-driven management decisions. NOAA will increase engagement with communities of color, underrepresented groups, and indigenous and native peoples, in conservation, planning, and outreach across the system, work to identify gaps in marine protection, and train the next generation of Marine Protected Area (MPA) professionals. NOAA will also be able to expand technology use in sanctuaries to support management priorities, including conservation and research activities, and increased active restoration of natural habitats in national marine sanctuaries and marine national monuments.

Resources will be allocated as follows:

- $7.3 million to enhance NOAA's management capacity across an expanded National Marine Sanctuary System, including sanctuaries currently proposed for designation. NOAA's efforts in advancing conservation and protection across the National Marine Sanctuary System supports the national goal of conserving at least 30 percent of U.S. lands and waters by 2030, as outlined in the America the Beautiful Initiative (E.O. 14008[43])
- $10.4 million to increase NOAA's capacity for large-scale restoration and conservation inside existing national marine sanctuaries and other MPAs, focusing on measurable and long-term conservation and restoration of key habitats that support wildlife populations, key ecosystem parameters, and preservation of key cultural or heritage assets

[43] https://www.whitehouse.gov/ceq/news-updates/2021/05/06/biden-harris-administration-outlines-america-the-beautiful-initiative/

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

Schedule and Milestones:
FY 2025 – FY 2029

- Increase capacity for conservation, restoration, education, diversity and inclusion initiatives, Indigenous community engagement, and designations (FY 2025)
- Advance designation and protection efforts for the 6 proposed national marine sanctuaries (FY 2025 - FY 2029)
- Conduct spatial analysis of gaps in marine protection (FY 2025 – FY 2029)
- Complete National Environmental Protection Act reviews, rulemaking, stakeholder engagement, and community meetings as part of designation process (FY 2027)
- Provide grants or paid internships for underrepresented students to work with the Sanctuaries (FY 2025 – FY 2029)
- Provide ocean literacy grants to local schools (FY 2025 – FY 2029)
- Expand, plan, and test technology use in sanctuaries for enforcement, monitoring, research, disentanglement, and other management priorities (FY 2025 – FY 2029)
- Increase direct restoration of key habitats and species across the National Marine Sanctuary system (FY 2025 – FY 2029)
- Expand enforcement through agreements and new technology (FY 2025 – FY 2029)

Deliverables:

- Updated site management plans, integrating practices to include undeserved communities, traditional knowledge and Indigenous community needs
- Improved user compliance with regulations within sanctuary boundaries via education
- Improved sustained engagement with tribes and Indigenous people across the National Marine Sanctuary System
- GIS analysis of U.S. marine waters for various possible protections
- Increased testing and operation of innovative technology to meet National Marine Sanctuary needs

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

Performance Measures	2025	2026	2027	2028	2029
Cumulative annual growth rate of system-wide sanctuaries observing and reporting capabilities over five years					
With Increase	15%	25%	32%	38%	43%
Without Increase	0%	0%	0%	0%	0%
Number of formal community- and Indigenous-led partnerships that inform locally-driven management decisions necessary to improve conservation and sustainability of sanctuary resources (cumulative)					
With Increase	10	12	14	16	18
Without Increase	8	8	8	8	8
Outyear Costs:					
Direct Obligations	17,740	17,740	17,740	17,740	17,740
Capitalized	750	750	750	750	750
Uncapitalized	17,008	17,008	17,008	17,008	17,008
Budget Authority	17,740	17,740	17,740	17,740	17,740
Outlays	10,821	15,789	16,676	17,385	17,740
FTE	11	15	15	15	15
Positions	15	15	15	15	15

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE PERSONNEL DETAIL

Activity: Ocean and Coastal Management and Services
Subactivity: Sanctuaries and Marine Protected Areas
Program Change: Increasing Conservation and Protection Across the National Marine Sanctuary System

Title		Grade	Number	Annual Salary	Total Salaries
Management and Program Analyst		ZA-03	2	78,592	157,184
Program Operations Coordinator		ZA-03	2	85,508	171,016
Cultural Resources Coordinator		ZP-03	2	85,508	171,016
Sanctuaries Resource Specialist		ZP-03	3	85,508	256,524
Management and Program Analyst		ZA-04	2	112,015	224,030
Program Analyst		ZA-04	1	112,015	112,015
Data Officer		ZA-04	1	112,015	112,015
Maritime Heritage Specialist		ZP-04	2	121,873	243,746
Total			15		1,447,546
Less lapse	25.00%		(4)		(361,887)
Total full-time permanent (FTE)			11		1,085,660
2025 Pay Adjustment (2.0%)					21,713
					1,107,373

Personnel Data Summary	
Full-time Equivalent Employment (FTE)	
Full-time permanent	11
Total FTE	11
Authorized Positions:	
Full-time permanent	15
Total Positions	15

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Ocean and Coastal Management and Services
Subactivity: Sanctuaries and Marine Protected Areas

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase from 2025 Base
11.1	Full-time permanent compensation	23,259	25,129	25,802	26,909	1,107
11.3	Other than full-time permanent	0	0	0	0	0
11.5	Other personnel compensation	564	564	564	564	0
11.7	Military personnel compensation	0	0	0	0	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	23,823	25,693	26,366	27,473	1,107
12	Civilian personnel benefits	8,778	9,764	10,006	10,427	421
13	Benefits for former personnel	1	1	1	1	0
21	Travel and transportation of persons	827	827	836	986	150
22	Transportation of things	206	206	209	229	20
23	Rent, communications, and utilitites	0	0	28	28	0
23.1	Rental payments to GSA	1,472	1,472	1,472	1,472	0
23.2	Rental Payments to others	519	519	519	519	0
23.3	Communications, utilities and misc charges	641	800	800	800	0
24	Printing and reproduction	57	57	58	58	0
25.1	Advisory and assistance services	3,114	2,875	2,875	2,875	0
25.2	Other services from non-Federal sources	17,133	15,128	15,375	25,339	9,964
25.3	Other goods and services from Federal sources	22	20	20	20	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	922	922	943	1,693	750
31	Equipment	860	860	883	1,633	750
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	8,942	8,856	8,856	13,434	4,578
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	2	0	0	0	0
44	Refunds	0	0	0	0	0
99	Total obligations	67,319	68,000	69,247	86,987	17,740

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Sanctuaries and Marine Protected Areas	Pos./BA	188	69,247	188	68,447	0	(800)
	FTE/OBL	184	69,247	184	68,447	0	(800)

Enterprise Infrastructure Solutions (EIS) Decrease (-$800, 0 FTE/0 Positions) – NOAA requests a reduction for EIS. Funds provided to NOS through FY 2023 were sufficient to complete the transition of telecommunications services to GSA's EIS contract vehicle.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Ocean and Coastal Management and Services
Subactivity: Sanctuaries and Marine Protected Areas

	Object Class	2023 Actuals	2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	23,259	25,129	25,802	25,802	0
11.3	Other than full-time permanent	0	0	0	0	0
11.5	Other personnel compensation	564	564	564	564	0
11.7	Military personnel compensation	0	0	0	0	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	23,823	25,693	26,366	26,366	0
12	Civilian personnel benefits	8,778	9,764	10,006	10,006	0
13	Benefits for former personnel	1	1	1	1	0
21	Travel and transportation of persons	827	827	836	836	0
22	Transportation of things	206	206	209	209	0
23	Rent, communications, and utilitites	0	0	28	28	0
23.1	Rental payments to GSA	1,472	1,472	1,472	1,472	0
23.2	Rental Payments to others	519	519	519	519	0
23.3	Communications, utilities and misc charges	641	800	800	0	(800)
24	Printing and reproduction	57	57	58	58	0
25.1	Advisory and assistance services	3,114	2,875	2,875	2,875	0
25.2	Other services from non-Federal sources	17,133	15,128	15,375	15,375	0
25.3	Other goods and services from Federal sources	22	20	20	20	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	922	922	943	943	0
31	Equipment	860	860	883	883	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	8,942	8,856	8,856	8,856	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	2	0	0	0	0
44	Refunds	0	0	0	0	0
99	Total obligations	67,319	68,000	69,247	68,447	(800)

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Activity: Construction

Goal Statement

The NOS Construction activity provides construction and acquisition in the National Estuarine Research Reserve System (NERRS) and the National Marine Sanctuaries System.

Base Program

The NERRS is a Federal-state partnership established under the Coastal Zone Management Act designed to protect and understand valuable estuarine resources through research and education. NOAA funds NERRS construction and land acquisition projects on a competitive basis. Facilities investments at the reserves align with system-wide construction plans that consider requirements for implementing core NERRS programs and external opportunities for partnerships. Construction projects are funded that enhance or sustain opportunities for public access and to increase public understanding of estuarine ecosystems, as well as fund infrastructure that supports reserve programs and staff. States also use these grants to acquire critical habitat within, or adjacent to, reserve boundaries to increase protection, connect habitats to allow for species or habitat migration, maintain system diversity, and provide places for conducting long-term science, education, and demonstration programs. NERRS PAC funds have been matched 70:30 (Federal: state) for facilities construction, and 1:1 for land acquisition. By providing funding to conduct land acquisition and construction projects that support the NERRS mission, NOAA strengthens the protection of key land and water areas, enhances long-term protection of reserve areas for research and education, and provides funding for facilities and exhibit construction that meet sustainable design standards.

NOS also administers the Nation's system of 15 Marine Sanctuaries and two Marine National Monuments. PAC funding supports capital costs of maintaining the Sanctuary System's facilities and small boat fleet. Vessels for research, monitoring, enforcement and emergency response are essential to site management, especially in areas such as Florida Keys National Marine Sanctuary. Capital funding is critical to ensure these assets are safe, remain mission effective and to keep their life cycle costs under control and operationally effective.

NOS maintains and repairs a fleet of small boats to access sanctuaries and protected areas for research, monitoring, outreach, and emergency support. Periodic assessments help to determine whether any repairs, refurbishments or upgrades are needed to maintain boat safety and legal compliance, mission effectiveness, or extend a boat's service life. Projects include hull form modification, propulsion system revision and replacement, and upgrades of scientific, navigational, load handling, and auxiliary

systems. NOS periodically performs large-scale maintenance, refurbishments, replacements or upgrades to maintain fleet safety, longevity, and mission effectiveness.

The National Marine Sanctuary System's comprehensive facilities plan prioritizes capital investment in facilities, exhibits and collaborative education and visibility projects. In order to establish better understanding and appreciation for sanctuary and other ocean resources by the public, the program develops and maintains a network of exhibits and signage. Whenever possible NOAA develops facilities partnerships with existing aquaria, museums and other entities to engage the public and environmental decision-makers on conservation issues. Capital requirements for sanctuary facilities include safety improvements, Americans with Disabilities Act upgrades, and capital maintenance.

Statement of Operating Objectives

Schedule and Milestones:

- Fund approximately 10-15 construction and land acquisition projects (e.g., visitor center and laboratories, dormitories, green upgrades, public access, and critical habitats) across the NERRS (FY 2025 – FY 2029)
- Conduct major construction and repair activities for owned and leased facilities for the Office of National Marine Sanctuaries (FY 2025 – FY 2029)
- Conduct critical capital construction and acquisition activities for the sanctuary fleet, as well as emergency and required major small boat repairs (FY 2025 – FY 2029)
- Conduct construction of new and updated exhibits and signage across sanctuary system, including with partners (FY 2025 – FY 2029)

Deliverables:

- Construction of NERRS projects and facilities enhancements
- Construction of priority projects at sites across the National Marine Sanctuary system
- Increased public awareness as to the value of National Marine Sanctuaries through construction of new and updated exhibits and signage
- Prioritized maintenance and service life extensions for NOAA's sanctuary vessel fleet

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Explanation and Justification

		2023 Actual		2024 Annualized CR		2025 Base Program	
Comparison by subactivity		Personnel	Amount	Personnel	Amount	Personnel	Amount
National Estuarine Research	Pos/BA	0	8,457	0	8,500	0	8,500
Reserve Constrution	FTE/OBL	0	8,524	0	8,500	0	8,500
Marine Sanctuaries	Pos/BA	1	5,330	1	5,500	1	5,500
Construction	FTE/OBL	1	4,687	1	5,500	1	5,500
Other NOS Construction	Pos/BA	0	0	0	0	0	0
	FTE/OBL	0	124	0	0	0	0
Total Activity	Pos/BA	1	13,787	1	14,000	1	14,000
	FTE/OBL	1	13,335	1	14,000	1	14,000

National Estuarine Research Reserve Construction
NERRSs are state-owned lands and onsite facilities operated and managed by the states. They provide opportunities for researchers as well as the public to better understand the estuarine areas where these NERRs reside. As the reserve system continues to grow, with a 30th reserve recently designated in Connecticut (2022) and two additional reserve designations pending in Louisiana and Wisconsin, NOAA has been focusing on how to plan for additional facilities to ensure these reserves have visitors' centers, dormitories, laboratories, and other resources. Facilities investments at the reserves are aligned with system-wide construction plans that consider requirements for implementing core NERRS programs and external opportunities for partnerships, including dorm and facilities investments, recapitalizing infrastructure like boardwalks that

ensure public access, and increasing resilience of existing infrastructure to reduce future storm losses. States also use these grants to acquire critical habitat within, or adjacent to, reserve boundaries to increase protection and conduct long-term science, education, and demonstration programs.

The Goodland Field Station at the Rookery Bay NERR provides dormitory space for students and visiting scientists

Marine Sanctuaries Construction

Boats for research, monitoring, and emergency response are essential to site management. NOS maintains and repairs a fleet of small boats to access protected areas for research, monitoring, outreach, and emergency support. Periodic assessments help to determine whether any refurbishments or upgrades are needed to maintain boat safety and legal compliance, mission effectiveness, or extend a boat's service life. Upgrades can include hull form modification, propulsion system revision and replacement, and upgrades of scientific, navigational, load handling, and auxiliary systems. NOS periodically performs large-scale maintenance, refurbishments, or upgrades to maintain craft safety, mission effectiveness, or to extend a boat's service life. In FY 2023, the Office of National Marine Sanctuaries continued the ongoing efforts to recapitalize the aging fleet and is currently conducting sea trials in preparation for the delivery of RV Minke, the newest vessel for the Channel Islands National Marine Sanctuary.

RV Minke to join the fleet as the new class II vessel for Channel Islands National Marine Sanctuary

NOAA vessels are critical in understanding, monitoring, and protecting sanctuaries. NOAA recently acquired the RV Hawksbill based in Key Largo for the Florida Keys National Marine Sanctuary's upper Keys buoy team. These vessels maintain the buoy systems of more than 800 boundary, mooring and informational buoys spanning over 100 miles that are internationally recognized as a way to protect coral reefs from vessel anchors.

In order to establish better understanding and appreciation for sanctuary and other ocean resources by the public, NOAA develops and maintains a network of exhibits and signage. Whenever possible, NOAA develops content and exhibits as cooperative centers at existing aquaria, museums and other entities to engage the public and environmental decision makers on conservation issues. These visitor centers and exhibits are the gateways to the National Marine Sanctuaries, allowing visitors to explore hands-on

exhibits, attend an educational and engaging program, and investigate the science and history of these special places. NOAA also maintains a network of administration buildings and facilities at the sanctuary sites. In FY 2023, the ribbon cutting ceremony for the new Gray's Reef NMS visitor center, the *Gray's Reef Ocean Discovery Center* was held. NOAA is investing in the construction and acquisition of outreach materials and exhibitry for the new Center.

RV Hawksbill in action at Carysfort Reef in the upper Keys. Eleven boundary buoys at Carysfort Reef Sanctuary Preservation Area (SPA) were replaced following the vessel's maiden voyage.

The Gray's Reef Ocean Discovery Center was dedicated on October 15th, 2022.

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
National Estuarine Research Reserve Construction	Pos./BA	0	8,500	0	3,002	0	(5,498)
	FTE/OBL	0	8,500	0	3,002	0	(5,498)

Reduce National Estuarine Research Reserve Construction (-$5,498, 0 FTE/0 Positions) – This program change is requested to support other NOAA and Administration priorities. NOAA will continue to fund small scale construction projects, site planning and building design, land acquisition, and construction of new facilities, including dormitories, laboratories, and visitor centers to support the expanding system of 30 NERRS. At this level, NOAA will be unable to support more costly facilities investments such as visitor centers at newer reserves.

Schedule and Milestones:

- Fund approximately 5-9 construction and land acquisition projects (e.g., visitor centers and laboratories, dormitories, green upgrades, public access, and critical habitats) across the NERRS (FY 2025 – FY 2029)

Deliverables:

- Construction of NERRS projects and facilities enhancements

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

Performance Measures	2025	2026	2027	2028	2029
Number of construction and land acquisition projects (e.g., visitors center and laboratories, dormitories, green upgrades, public access, and critical habitats) –(cumulative)					
With Decrease	5	12	18	25	31
Without Decrease	12	25	37	50	63
Outyear Costs:					
Direct Obligations	(5,498)	(5,498)	(5,498)	(5,498)	(5,498)
Capitalized	0	0	0	0	0
Uncapitalized	(5,498)	(5,498)	(5,498)	(5,498)	(5,498)
Budget Authority	(5,498)	(5,498)	(5,498)	(5,498)	(5,498)
Outlays	(3,354)	(4,893)	(5,168)	(5,388)	(5,498)
FTE	0	0	0	0	0
Positions	0	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

Outyear Funding Estimates:

National Estuarine Research Reserve Construction	2024 & Prior	2025	2026	2027	2028	2029	CTC*	Total
Change from 2025 Base	N/A	(5,498)	TBD	TBD	TBD	TBD	N/A	TBD
Total Request	65,947**	3,002	TBD	TBD	TBD	TBD	N/A	TBD

* NERR Construction funding is an ongoing activity.
**This calculation for this estimate is effective FY 2008 for National Estuarine Research Reserve Construction. The FY 2024 & Prior column does not reflect any funding prior to FY 2008.

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: NOS Construction
Subactivity: National Estuarine Research Reserve Construction

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	0	0	0	0	0
11.3	Other than full-time permanent	0	0	0	0	0
11.5	Other personnel compensation	0	0	0	0	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	0	0	0	0	0
12	Civilian personnel benefits	0	0	0	0	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	0	0	0	0	0
22	Transportation of things	0	0	0	0	0
23	Rent, communications, and utilitites	0	0	0	0	0
23.1	Rental payments to GSA	0	0	0	0	0
23.2	Rental Payments to others	0	0	0	0	0
23.3	Communications, utilities and misc charges	0	0	0	0	0
24	Printing and reproduction	0	0	0	0	0
25.1	Advisory and assistance services	0	0	0	0	0
25.2	Other services from non-Federal sources	0	0	0	0	0
25.3	Other goods and services from Federal sources	0	0	0	0	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	0	0	0	0	0
31	Equipment	0	0	0	0	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	8,524	8,500	8,500	3,002	(5,498)
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	0	0	0	0	0
44	Refunds	0	0	0	0	0
99	Total obligations	8,524	8,500	8,500	3,002	(5,498)

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Marine Sanctuaries Construction	Pos./BA	1	5,500	1	4,000	0	(1,500)
	FTE/OBL	1	5,500	1	4,000	0	(1,500)

Reduce Marine Sanctuaries Construction (-$1,500, 0 FTE/0 Positions) – This program change is requested to support other NOAA and Administration priorities. At this level of funding, NOAA will continue to fund existing vessel maintenance, exhibits and educational displays, and visitor centers and offices for the sanctuaries, while delaying some projects to future years. NOAA is strategically addressing sanctuaries' infrastructure needs to provide a solid platform for the current sanctuary system and new sites coming on line. The Inflation Reduction Act provided $50 million for Marine Sanctuaries facilities that will help ensure the highest priority construction needs are addressed.

Schedule and Milestones:
FY 2025 - FY 2029

- Conduct major construction and repair activities for owned and leased facilities for the Office of National Marine Sanctuaries (FY 2025 – FY 2029)
- Conduct critical capital construction and acquisition activities for the sanctuary fleet, as well as emergency and required major small boat repairs (FY 2025 – FY 2029)
- Conduct construction of new and updated exhibits and signage across sanctuary system, including with partners (FY 2025 – FY 2029)

Deliverables:

- Construction of priority projects at sites across the National Marine Sanctuary system
- Increased public awareness as to the value of National Marine Sanctuaries through construction of new and updated exhibits and signage
- Prioritized maintenance and service life extensions for NOAA's sanctuary vessel fleet

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

	2025	2026	2027	2028	2029
Outyear Costs:					
Direct Obligations	(1,500)	(1,500)	(1,500)	(1,500)	(1,500)
Capitalized	0	0	0	0	0
Uncapitalized	(1,500)	(1,500)	(1,500)	(1,500)	(1,500)
Budget Authority	(1,500)	(1,500)	(1,500)	(1,500)	(1,500)
Outlays	(510)	(1,230)	(1,395)	(1,485)	(1,500)
FTE	0	0	0	0	0
Positions	0	0	0	0	0

Outyear Funding Estimates:

Marine Sanctuaries Construction	**2024 & Prior**	**2025**	**2026**	**2027**	**2028**	**2029**	**CTC**	**Total**
Change from 2025 Base	N/A	(1,500)	TBD	TBD	TBD	TBD	N/A	TBD
Total Request	*84,730	4,000	TBD	TBD	TBD	TBD	N/A	TBD

*The calculation for this estimate is effective FY 2008 for Marine Sanctuaries Construction. The FY 2024 & Prior column does not reflect any funding prior to FY 2008

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: NOS Construction
Subactivity: Marine Sanctuaries Construction

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	131	144	144	144	0
11.3	Other than full-time permanent	0	0	0	0	0
11.5	Other personnel compensation	0	0	0	0	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	131	144	144	144	0
12	Civilian personnel benefits	50	46	46	46	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	24	27	27	27	0
22	Transportation of things	1	0	0	0	0
23	Rent, communications, and utilitites	13	0	0	0	0
23.1	Rental payments to GSA	0	0	0	0	0
23.2	Rental Payments to others	0	0	0	0	0
23.3	Communications, utilities and misc charges	0	0	0	0	0
24	Printing and reproduction	0	0	0	0	0
25.1	Advisory and assistance services	144	0	0	0	0
25.2	Other services from non-Federal sources	2,558	0	0	0	0
25.3	Other goods and services from Federal sources	0	0	0	0	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	83	0	0	0	0
31	Equipment	3	0	0	0	0
32	Lands and structures	200	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	1,480	5,283	5,283	3,783	(1,500)
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	0	0	0	0	0
44	Refunds	0	0	0	0	0
99	Total obligations	4,687	5,500	5,500	4,000	(1,500)

Department of Commerce
National Oceanic and Atmospheric Administration
Damage Assessment and Restoration Revolving Fund
SUMMARY OF RESOURCE REQUIREMENTS
(Dollar amounts in thousands)

	Positions	FTE	Budget Authority	Direct Obligations
2024 Annualized CR	30	30	7,884	129,112
2025 Adjustments to base:				
less: Obligations from prior year balances	0	0	0	0
plus: Technical ATBs	0	0	116	(8,730)
2025 Base	30	30	8,000	120,382
plus: program changes	0	0	0	0
2025 Estimate	30	30	8,000	120,382

		2023 Actual		2024 Annualized CR		2025 Base		2025 Estimate		Increase/Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
Damage Assessment and Restoration Revolving Fund	Pos/BA	30	5,964	30	7,884	30	8,000	30	8,000	0	0
	FTE/OBL	48	108,665	30	129,112	30	120,382	30	120,382	0	0
Total: Damage Assessment and Restoration Revolving Fund	Pos/BA	30	5,964	30	7,884	30	8,000	30	8,000	0	0
	FTE/OBL	48	108,665	30	129,112	30	120,382	30	120,382	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Damage Assessment and Restoration Revolving Fund
SUMMARY OF RESOURCE REQUIREMENTS
(Dollar amounts in thousands)

	2023 Actual		2024 Annualized CR		2025 Base		2025 Estimate		Increase/Decrease from 2025 Base	
	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount
Direct Mandatory Obligation	48	108,665	30	129,112	30	120,382	30	120,382	0	0
Total Obligations	48	108,665	30	129,112	30	120,382	30	120,382	0	0
Adjustments to Obligations:										
Federal funds	0	0	0	0	0	0	0	0	0	0
Offsetting collections, mandatory	0	(38,271)	0	(158,000)	0	(10,000)	0	(10,000)	0	0
Change in uncollected payments, Fed	0	0	0	0	0	0	0	0	0	0
Recoveries	0	(4,209)	0	(20,000)	0	(20,000)	0	(20,000)	0	0
Unobligated balance, adj. SOY	0	(202,833)	0	(213,661)	0	(331,032)	0	(331,032)	0	0
Unobligated balance transferred (from DOI)	0	(71,049)	0	(60,000)	0	(60,000)	0	(60,000)	0	0
Unobligated balance, transferred (to ORF)	0	0	0	0	0	0	0	0	0	0
Unobligated balance, unapportioned	0	0	0	0	0	0	0	0	0	0
Unobligated balance, EOY	0	213,661	0	331,032	0	308,650	0	308,650	0	0
Total Budget Authority	48	5,964	30	7,884	30	8,000	30	8,000	0	0
Financing from Transfers:										
Appropriation (previously unavailable)	0	(339)	0	(340)	0	(456)	0	(456)	0	0
Transfer from DOI	0	(5,965)	0	(8,000)	0	(8,000)	0	(8,000)	0	0
Appropriation temporarily reduced	0	340	0	456	0	456	0	456	0	0
Net Appropriation	48	0	30	0	30	0	30	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Damage Assessment and Restoration Revolving Fund
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Activity: Damage Assessment and Restoration Revolving Fund

Goal Statement

The Damage Assessment and Restoration Revolving Fund facilitates the spill response, damage assessment, and natural resource restoration activities of the National Oceanic and Atmospheric Administration.

Base Program

A National Oceanic and Atmospheric Administration (NOAA) Damage Assessment and Restoration Revolving Fund was established under Section 1012(a) of the Oil Pollution Act for the deposit of sums provided by any party or governmental entity for response to discharges of oil or releases of hazardous substances, for assessment of damages to NOAA trust resources resulting from those discharges and releases, and for the restoration of the injured natural resources.

Through the Revolving Fund, NOAA does the following:

- Retains funds that are recovered through settlement or awarded by a court for restoration of injured natural resources and retains reasonable costs of conducting spill response and damage assessments that are recovered by NOAA through negotiated settlement, court award, or other reimbursement
- Ensures funds deposited shall remain available to the trustee, without further appropriation, until expended to pay costs associated with response, damage assessment, and restoration of natural resources

The NOAA Damage Assessment and Restoration Revolving Fund facilitates and sustains: (1) natural resource damage assessment while the Departments of Commerce and Justice seek full reimbursement from potentially responsible parties; and (2) restoration, replacement, or acquisition of the equivalent of injured or lost natural resources, including resources of National Marine Sanctuaries and National Estuarine Research Reserves, tidal wetlands and other habitats, for which NOAA is trustee. These program functions are conducted jointly within NOAA by the Office of General Counsel, NOS, and NMFS.

Department of Commerce
National Oceanic and Atmospheric Administration
Damage Assessment and Restoration Revolving Fund
SUMMARY OF REQUIREMENTS BY OBJECT CLASS
(Dollar amounts in thousands)

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/Decrease from 2025 Base
11.1	Full-time permanent	6,008	3,924	4,002	4,002	0
11.3	Other than full time permanent	8	8	8	8	0
11.5	Other personnel compensation	212	216	220	220	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	**Total personnel compensation**	6,228	4,148	4,230	4,230	0
12.1	Civilian personnel benefits	2,320	1,515	1,545	1,545	0
12.2	Military personnel benefits	0	0	0	0	0
21	Travel and transportation of persons	389	397	404	404	0
22	Transportation of things	28	29	30	30	0
23.1	Rental payments to GSA	39	40	41	41	0
23.2	Rental payments to others	3	3	3	3	0
23.3	Comm., util., misc. charges	29	30	31	31	0
24	Printing and reproduction	13	13	13	13	0
25.1	Advisory and assistance services	1,468	2,997	3,057	3,057	0
25.2	Other services from non-Federal sources	42,717	62,071	54,991	54,991	0
25.3	Other goods and services from Federal sources	5,133	5,236	5,341	5,341	0
26	Supplies and materials	1,321	1,347	1,374	1,374	0
31	Equipment	320	326	333	333	0
41	Grants, subsidies and contributions	34,348	50,951	48,980	48,980	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	9	9	9	9	0
44	Refunds	14,300	0	0	0	0
99.9	**Total Obligations**	108,665	129,112	120,382	120,382	0

Department of Commerce
National Oceanic and Atmospheric Administration
Damage Assessment and Restoration Revolving Fund
SUMMARY OF REQUIREMENTS BY OBJECT CLASS
(Dollar amounts in thousands)

	2023 Actual	2024 Annualized CR	2025 Base Program	2025 Estimate	Increase/ Decrease from 2025 Base
Federal Funds	0	0	0	0	0
Offsetting Collections Mandatory	(38,271)	(158,000)	(10,000)	(10,000)	0
Recoveries	(4,209)	(20,000)	(20,000)	(20,000)	0
Change in uncollected payments, Fed	0	0	0	0	
Less unobligated balance, SOY	(202,833)	(213,661)	(331,032)	(331,032)	0
Plus unobligated balance transferred	(71,049)	(60,000)	(60,000)	(60,000)	0
Plus unobligated balance, EOY	213,661	331,032	308,650	308,650	0
Total Budget Authority	5,964	7,884	8,000	8,000	0
Transfers:					
Appropriation previously unavailable	(339)	(340)	(456)	(456)	
Transfer from DOI	(5,965)	(8,000)	(8,000)	(8,000)	0
Appropriation temporarily reduced	340	456	456	456	0
Net Appropriation	0	0	0	0	0
Personnel Data					
Full-Time equivalent Employment:					
Full-time permanent	48	30	30	30	0
Other than full time permanent	0	0	0	0	0
Total	48	30	30	30	0
Authorized Positions:					
Full-time permanent	30	30	30	30	0
Other than full time permanent	0	0	0	0	0
Total	30	30	30	30	0

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DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
Sanctuaries Enforcement Asset Forfeiture Fund
SUMMARY OF RESOURCE REQUIREMENTS
(Dollar amounts in thousands)

	Positions	FTE	Budget Authority	Direct Obligations
2024 Annualized CR	0	0	1,277	2,689
2025 Adjustments to base:				
less: Obligations from prior year balances	0	0	0	0
plus: Technical ATBs	0	0	(637)	(2,029)
2025 Base	0	0	640	660
plus: program changes	0	0	0	0
2025 Estimate	0	0	640	660

		2023 Actual		2024 Annualized CR		2025 Base		2025 Estimate		Increase/ Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
Sanctuaries Enforcement Asset Forfeiture Fund	Pos/BA	0	1,084	0	1,277	0	640	0	640	0	0
	FTE/OBL	0	249	0	2,689	0	660	0	660	0	0
Total: Sanctuaries Enforcement Asset Forfeiture Fund	Pos/BA	0	1,084	0	1,277	0	640	0	640	0	0
	FTE/OBL	0	249	0	2,689	0	660	0	660	0	0

DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
Sanctuaries Enforcement Asset Forfeiture Fund
SUMMARY OF RESOURCE REQUIREMENTS
(Dollar amounts in thousands)

	2023 Enacted		2024 Annualized CR		2025 Base		2025 Estimate		Increase/ Decrease from 2025 Base	
	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount
Direct Mandatory Obligation	0	249	0	2,689	0	660	0	660	0	0
Total Obligations	0	249	0	2,689	0	660	0	660	0	0
Adjustments to Obligations:										
New offsetting collections	0	0	0	0	0	0	0	0	0	0
Recoveries	0	(2)	0	0	0	(10)	0	(10)	0	0
Unobligated balance, SOY	0	(565)	0	(1,402)	0	0	0	0	0	0
Unobligated balance, adj. SOY	0	0	0	0	0	0	0	0	0	0
Unobligated balance, transferred	0	0	0	0	0	0	0	0	0	0
Unobligated balance, EOY	0	1,402	0	0	0	0	0	0	0	0
Unobligated balance, unapportioned	0	0	0	0	0	0	0	0	0	0
Collections	0	0	0	(10)	0	(10)	0	(10)	0	0
Total Budget Authority	0	1,084	0	1,277	0	640	0	640	0	0
Financing from Transfers:										
Appropriation previously unavailable	0	(25)	0	(51)	0	(74)	0	(74)	0	0
Appropriation temporarily reduced	0	51	0	74	0	34	0	34	0	0
Net Appropriation	0	1,110	0	1,300	0	600	0	600	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Sanctuaries Enforcement Asset Forfeiture Fund
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Activity: Sanctuaries Enforcement Asset Forfeiture Fund

Goal Statement

The Sanctuaries Enforcement Asset Forfeiture Fund receives proceeds from civil penalties and forfeiture claims against responsible parties, as determined through court settlements or agreements, for violations of NOAA sanctuary regulations.

Base Program

Penalties received are held in sanctuary site-specific accounts from year to year, as the funds are spent on resource protection within the sanctuary site where the penalty or forfeiture occurred. Funds are expended for resource protection purposes which may include all aspects of law enforcement (from equipment to labor), community oriented policing programs, and other resource protection and management measures such as the installation of mooring buoys or restoration of injured resources.

DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
Sanctuaries Enforcement Asset Forfeiture Fund
SUMMARY OF REQUIREMENTS BY OBJECT CLASS
(Dollar amounts in thousands)

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/ Decrease from 2025 Base
11.1	Full-time permanent	0	0	0	0	0
11.3	Other than full time permanent	0	0	0	0	0
11.5	Other personnel compensation	0	0	0	0	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	**Total personnel compensation**	0	0	0	0	0
12.1	Civilian personnel Benefits	0	0	0	0	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	0	0	0	0	0
22	Transportation of things	0	0	0	0	0
23.1	Rental payments to GSA	0	0	0	0	0
23.2	Rental payments to others	0	0	0	0	0
24	Printing and reproduction	0	0	0	0	0
25.1	Advisory and assistance services	0	0	0	0	0
25.2	Other services from non-Federal sources	242	2,673	604	604	0
25.3	Other goods and services from Federal sources	0	0	0	0	0
26	Supplies and materials	7	16	16	16	0
31	Equipment	0	0	0	0	0
41	Grants, subsidies and contributions	0	0	0	0	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	0	0	0	0	0
99.9	**Total Obligations**	249	2,689	660	660	0

DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
Sanctuaries Enforcement Asset Forfeiture Fund
SUMMARY OF REQUIREMENTS BY OBJECT CLASS
(Dollar amounts in thousands)

	2023 Actual	2024 Annualized CR	2025 Base Program	2025 Estimate	Increase/ Decrease from 2025 Base
Less recoveries	(2)	0	(10)	(10)	0
Less unobligated balance, SOY	(565)	(1,402)	0	0	0
Less unobligated balance, adj SOY	0	0	0	0	0
New offsetting collections	(50)	(10)	(10)	(10)	0
Plus unobligated balance, EOY	1,402	0	0	0	0
Plus unobligated balance, transferred	0	0	0	0	0
Total Budget Authority	1,084	1,277	640	640	0
Transfers:					
Appropriation previously unavailable	(25)	(51)	(74)	(74)	0
Appropriation temporarily reduced	51	74	34	34	0
Mandatory Appropriation	1,110	1,300	600	600	0

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DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
Gulf Coast Ecosystem Restoration Science, Observation, Monitoring and Technology Fund
SUMMARY OF RESOURCE REQUIREMENTS
(Dollar amounts in thousands)

	Positions	FTE	Budget Authority	Direct Obligations
2024 Annualized CR	2	2	0	10,958
2025 Adjustments to base:				
less: Obligations from prior year balances	0	0	0	0
plus: Technical ATBs	0	0	0	3,884
2025 Base	2	2	0	14,842
plus: program changes	0	0	0	0
2025 Estimate	2	2	0	14,842

		2023 Actual		2024 Annualized CR		2025 Base		2025 Estimate		Increase/ Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
Gulf Coast Restoration Fund	Pos/BA	2	0	2	0	2	0	2	0	0	0
	FTE/OBL	3	8,482	2	10,958	2	14,842	2	14,842	0	0
Total: Gulf Coast Restoration Fund	Pos/BA	2	0	2	0	2	0	2	0	0	0
	FTE/OBL	3	8,482	2	10,958	2	14,842	2	14,842	0	0

DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
Gulf Coast Ecosystem Restoration Science, Observation, Monitoring and Technology Fund
SUMMARY OF RESOURCE REQUIREMENTS
(Dollar amounts in thousands)

	2023 Actual		2024 Annualized CR		2025 Base		2025 Estimate		Increase/ Decrease from 2024 Base	
	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount
Direct Mandatory Obligation	3	8,482	2	10,958	2	14,842	2	14,842	0	0
Total Obligations	3	8,482	2	10,958	2	14,842	2	14,842	0	0
Adjustments to Obligations:										
New offsetting collections	0	(7,066)	0	(10,391)	0	(14,692)	0	(14,692)	0	0
Change in Uncollected Payments	0	0	0	0	0	0	0	0	0	0
Recoveries	0	(67)	0	(150)	0	(150)	0	(150)	0	0
Unobligated balance, adj. SOY	0	(1,766)	0	(417)	0	0	0	0	0	0
Unobligated balance, EOY	0	417	0	0	0	0	0	0	0	0
Total Budget Authority	3	0	2	0	2	0	2	0	0	0
Financing from Transfers:										
Transfer from Other Accounts	0	0	0	0	0	0	0	0	0	0
Appropriation temporarily reduced	0	0	0	0	0	0	0	0	0	0
Net Appropriation	3	0	2	0	2	0	0	0	0	0

DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
Gulf Coast Ecosystem Restoration Science, Observation, Monitoring and Technology Fund
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Activity: Gulf Coast Ecosystem Restoration Science, Observation, Monitoring and Technology Fund

Goal Statement

The Gulf Coast Ecosystem Restoration Science, Observation, Monitoring and Technology Fund provides funding for the NOAA RESTORE Act Science Program. The purpose of this program is to initiate and sustain an integrative, holistic understanding of the Gulf of Mexico ecosystem and support, to the maximum extent practicable, restoration efforts and the long-term sustainability of the ecosystem, including its fish stocks, fishing industries, habitat, and wildlife through ecosystem research, observation, monitoring, and technology development.

Base Program

To ensure the best use of resources the Program will coordinate with existing Federal and state science and technology programs, including other activities funded under the RESTORE Act. Section 1604 of the RESTORE Act authorized funding for the Program using 2.5 percent of the Gulf Coast Restoration Trust Fund.

DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
Gulf Coast Ecosystem Restoration Science, Observation, Monitoring and Technology Fund
SUMMARY OF REQUIREMENTS BY OBJECT CLASS
(Dollar amounts in thousands)

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/ Decrease from 2025 Base
11.1	Full-time permanent	376	262	267	267	0
11.3	Other than full time permanent	0	0	0	0	0
11.5	Other personnel compensation	54	55	56	56	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	**Total personnel compensation**	430	317	323	323	0
12.1	Civilian personnel Benefits	144	100	102	102	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	56	57	58	58	0
22	Transportation of things	1	1	1	1	0
23.1	Rental payments to GSA	0	0	0	0	0
23.3	Communications, utilities, and miscellaneous charges	1	1	1	1	
24	Printing and reproduction	0	0	0	0	0
25.1	Advisory and assistance services	0	0	0	0	0
25.2	Other services from non-Federal sources	463	472	481	481	0
25.3	Other goods and services from Federal sources	0	0	0	0	0
26	Supplies and materials	93	5	97	97	0
31	Equipment	21	21	21	21	0
41	Grants, subsidies and contributions	7,273	9,984	13,758	13,758	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	0	0	0	0	0
99.9	**Total Obligations**	8,482	10,958	14,842	14,842	0

DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
Gulf Coast Ecosystem Restoration Science, Observation, Monitoring and Technology Fund
SUMMARY OF REQUIREMENTS BY OBJECT CLASS
(Dollar amounts in thousands)

	2023 Enacted	2024 Annualized CR	2025 Base	2025 Estimate	Increase/ Decrease from 2025 Base
Federal Funds	0	0	0	0	0
Less offsetting collections	(7,066)	(10,391)	(14,692)	(14,692)	0
Change in uncollected payments	0	0	0	0	0
Recoveries	(67)	(150)	(150)	(150)	0
Less unobligated balance, SOY	(1,766)	(417)	0	0	0
Plus unobligated balance, EOY	417	0	0	0	0
Plus unobligated balance transferred	0	0	0	0	0
Total Budget Authority	0	0	0	0	0
Transfers:					
Transfers from Other Accounts	0	0	0	0	0
Appropriation temporarily reduced	0	0	0	0	0
Mandatory Budget Authority	0	0	0	0	0

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Department of Commerce
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
Budget Estimates, Fiscal Year 2025

Executive Summary

For FY 2025, NOAA requests a total of $1,228,531,000 and 3,114 FTE/ 3,511 positions for National Marine Fisheries Service, including a net decrease of $45,939,000 and a net increase of 25 FTE/34 positions in program changes.

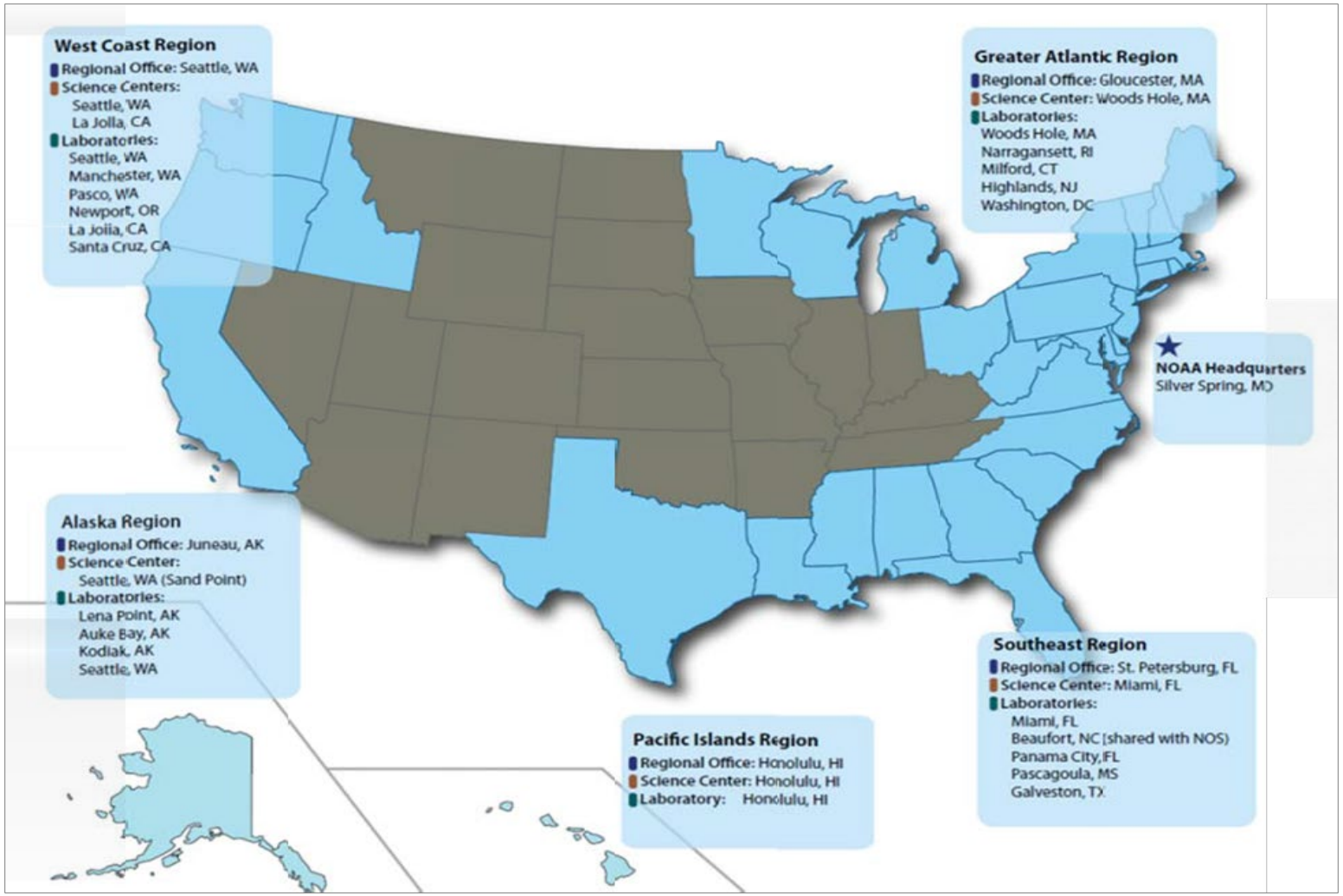
NOAA's National Marine Fisheries Service (NMFS) is responsible for the management and conservation of living marine resources within the U.S. Exclusive Economic Zone (EEZ) – the area extending from three to 200 nautical miles offshore. NMFS provides critical support to commercial and recreational marine fisheries, which generate $253 billion in sales impact, and support 1.7 million jobs economy-wide[1], and aquaculture industries, which contribute $1.5 billion worth of seafood or 24 percent of total U.S. seafood production by value.[2] NMFS also provides scientific and policy leadership in the international arena, and plays a key role in the management of living marine resources in coastal areas under state jurisdiction.

NMFS implements science-based conservation and management actions aimed at sustaining long-term use and promoting the health of coastal and marine ecosystems for the Nation's benefit. Programmatic authority for fisheries management, species protection, and habitat conservation activities is derived primarily from the Magnuson-Stevens Fishery Conservation and Management Act (MSA), Marine Mammal Protection Act (MMPA), and Endangered Species Act (ESA). Other acts provide additional authority for enforcement, seafood safety, habitat restoration, and cooperative efforts with states, Tribes, interstate fishery commissions, and other countries. All of these activities rely on strong scientific and research capabilities to support the challenging public policy decision process associated with NMFS' stewardship responsibilities.

NMFS consists of Headquarters offices in Silver Spring, MD and five Regional Offices as well as six Science Centers in significant coastal areas around the country. Major NMFS facilities and laboratories are located at the following sites:

[1] National Marine Fisheries Service. 2023. Fisheries Economics of the United States, 2020. U.S. Dept. of Commerce, NOAA Tech. Memo. NMFS-F/SPO-236, 231 p. Available at: https://www.fisheries.noaa.gov/national/sustainable-fisheries/fisheries-economics-united-states.
[2] National Marine Fisheries Service (2022) Fisheries of the United States, 2020. U.S. Department of Commerce, NOAA Current Fishery Statistics No. 2020. Available at: https://www.fisheries.noaa.gov/national/sustainable-fisheries/fisheries-united-states

Department of Commerce
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
Budget Estimates, Fiscal Year 2025



Department of Commerce
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
Budget Estimates, Fiscal Year 2025

Significant Adjustments:

Inflationary Adjustments
NOAA's FY 2025 Base includes a net increase of $17,872,000 and 0 FTE/ 0 positions to account for the full funding requirement for certain inflationary adjustments to current programs for NMFS activities. This includes inflationary increases for labor and non-labor activities including benefits and rent charges from the General Services Administration (GSA).

Department of Commerce
National Oceanic and Atmospheric Administration
PROGRAM AND PERFORMANCE: DIRECT OBLIGATIONS
(Dollar amounts in thousands)

		2023 Actual		2024 Annualized CR		2025 Base		2025 Estimate		Increase/Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
NATIONAL MARINE FISHERIES SERVICE (NMFS)											
Protected Resources Science and	Pos/BA	775	286,974	916	261,255	916	265,664	925	256,738	9	(8,926)
Management	FTE/OBL	744	275,257	775	261,255	775	265,664	783	256,738	8	(8,926)
Fisheries Science and	Pos/BA	1,651	690,696	1,940	693,408	1,940	704,429	1,966	714,152	26	9,723
Management	FTE/OBL	1,617	638,861	1,747	693,408	1,747	704,429	1,765	714,152	18	9,723
Enforcement	Pos/BA	229	80,928	259	82,000	259	83,405	259	82,455	0	(950)
	FTE/OBL	224	77,639	226	82,000	226	83,405	226	82,455	0	(950)
Habitat Conservation &	Pos/BA	195	233,871	191	56,684	191	57,721	191	50,721	0	(7,000)
Restoration	FTE/OBL	198	298,851	183	56,684	183	57,721	183	50,721	0	(7,000)
NOAA Community Project	Pos/BA	0	38,486	0	38,486	0	38,486	0	0	0	(38,486)
Funding/NOAA Special Projects	FTE/OBL	0	38,659	0	38,486	0	38,486	0	0	0	(38,486)
TOTAL NMFS - ORF	**Pos/BA**	**2,850**	**1,330,955**	**3,306**	**1,131,833**	**3,306**	**1,149,705**	**3,341**	**1,104,066**	**35**	**(45,639)**
	FTE/OBL	**2,783**	**1,329,267**	**2,931**	**1,131,833**	**2,931**	**1,149,705**	**2,957**	**1,104,066**	**26**	**(45,639)**
TOTAL NMFS - PAC	**Pos/BA**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	FTE/OBL	**0**	**1,214**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Pacific Coastal Salmon	Pos/BA	1	99,301	2	65,000	2	65,000	2	65,000	0	0
Recovery Fund	FTE/OBL	3	99,240	2	65,000	2	65,000	2	65,000	0	0
Fisheries Disaster	Pos/BA	0	300,000	1	300	1	300	0	0	(1)	(300)
Assistance Fund	FTE/OBL	0	107,135	1	300	1	300	0	0	(1)	(300)
Fishermen's Contingency Fund	Pos/BA	0	26	0	349	0	349	0	349	0	0
	FTE/OBL	0	150	0	349	0	349	0	349	0	0
Foreign Fishing Observer Fund	Pos/BA	0	0	0	0	0	0	0	0	0	0
	FTE/OBL	0	0	0	0	0	0	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
PROGRAM AND PERFORMANCE: DIRECT OBLIGATIONS
(Dollar amounts in thousands)

		2023 Actual		2024 Annualized CR		2025 Base		2025 Estimate		Increase/Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
NATIONAL MARINE FISHERIES SERVICE (NMFS)											
Fisheries Finance Program	Pos/BA	0	5,722	0	202	0	0	0	0	0	0
Account	FTE/OBL	0	5,722	0	202	0	0	0	0	0	0
Federal Ship Financing	Pos/BA	0	0	0	0	0	0	0	0	0	0
	FTE/OBL	0	0	0	0	0	0	0	0	0	0
Promote and Develop Fisheries	Pos/BA	0	11,500	0	31,621	0	0	0	0	0	0
Products	FTE/OBL	0	11,958	0	32,012	0	0	0	0	0	0
Environmental Improvement and	Pos/BA	0	6,083	0	8,448	0	15,064	0	15,064	0	0
Restoration Fund	FTE/OBL	0	6,083	0	8,448	0	15,064	0	15,064	0	0
Limited Access System	Pos/BA	40	11,334	40	14,133	40	14,428	40	14,428	0	0
Administration Fund	FTE/OBL	29	13,990	40	15,713	40	14,455	40	14,455	0	0
Marine Mammal Unusual Mortality	Pos/BA	0	1	0	0	0	0	0	0	0	0
Event Fund	FTE/OBL	0	0	0	0	0	0	0	0	0	0
Western Pacific Sustainable	Pos/BA	0	734	0	750	0	750	0	750	0	0
Fisheries Fund	FTE/OBL	0	395	0	750	0	750	0	750	0	0
Fisheries Enforcement Asset	Pos/BA	0	2,374	0	2,298	0	2,294	0	2,294	0	0
Forfeiture Fund	FTE/OBL	0	2,722	0	3,558	0	3,558	0	3,558	0	0
	Pos/BA	0	4,183	0	4,674	0	4,700	0	4,700	0	0
North Pacific Observer Fund	FTE/OBL	0	4,104	0	4,700	0	4,700	0	4,700	0	0
Seafood Inspection Program Trust	Pos/BA	125	0	128	0	128	0	128	0	0	0
Fund	FTE/OBL	59	12,187	110	20,547	115	21,880	115	21,880	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
PROGRAM AND PERFORMANCE: DIRECT OBLIGATIONS
(Dollar amounts in thousands)

		2023 Actual		2024 Annualized CR		2025 Base		2025 Estimate		Increase/Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
NATIONAL MARINE FISHERIES SERVICE (NMFS)											
	Pos/BA	0	0	0	0	0	0	0	0	0	0
NMFS Inflation Reduction Act (ORF)	FTE/OBL	1	175,987	0	0	0	0	0	0	0	0
NMFS Inflation Reduction Act (PCSRF)	Pos/BA	0	0	0	0	0	0	0	0	0	0
	FTE/OBL	0	7,500	0	0	0	0	0	0	0	0
	Pos/BA	**3,016**	**1,772,213**	**3,477**	**1,259,608**	**3,477**	**1,252,590**	**3,511**	**1,206,651**	**34**	**(45,939)**
TOTAL NMFS	**FTE/OBL**	**2,875**	**1,777,654**	**3,084**	**1,290,912**	**3,089**	**1,275,761**	**3,114**	**1,229,822**	**25**	**(45,939)**

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
NOAA Community Project Funding/ NOAA Special Projects	Pos./BA	0	38,486	0	0	0	(38,486)
	FTE/OBL	0	38,486	0	0	0	(38,486)

Terminate NOAA Community Project Funding/NOAA Special Projects (-$38,486, 0 FTE/0 Positions) - This program change removes funding for one-time congressionally directed projects provided in the FY 2023 enacted bill.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Activity: Protected Resources Science and Management

Goal Statement

The mission of the Protected Resources Science and Management activity is to assess, understand, and conserve the health of protected species, the ecosystems that sustain them, and the communities that value and depend on them.

Base Program

NMFS, in partnership with internal and external stakeholders, uses best available science to develop and implement best practices and conservation actions to reduce threats to protected species and their marine and coastal ecosystems. Protected species include those listed under the Endangered Species Act (ESA) and marine mammals covered by the Marine Mammal Protection Act (MMPA). NMFS Programs funded within this activity operate under the legislative authority of the ESA and MMPA. NMFS implements the ESA and MMPA with the U.S. Fish and Wildlife Service (USFWS). In general, USFWS is responsible for the conservation of terrestrial and freshwater aquatic organisms, some marine mammals, and marine turtles on their nesting beaches. NMFS is responsible for the conservation of most marine mammals, most marine and anadromous fish (i.e., fish that migrate from the sea to freshwater to spawn), marine turtles at sea, marine invertebrates (including corals), and marine plants. In addition, the Marine Mammal Commission provides oversight and makes recommendations to NMFS on priority marine mammal issues, and three regional Scientific Review Groups provide independent review of our marine mammal stock assessments.

Statement of Operating Objectives

Schedule and Milestones:
FY 2025 – FY 2029:

- Review listing petitions and issue 90-day findings, conduct ESA status reviews and issue 12-month findings, and promulgate ESA protective regulations
- Prepare recovery plans and implement recovery actions identified in the plans to improve the status of ESA-listed species
- Designate critical habitat
- Provide technical assistance, consultation, and authorization services for all Federal agencies' proposed actions (ESA Section 7)

- Work with Take Reduction Teams (TRTs) to achieve MMPA goals through increased compliance monitoring and bycatch assessments
- Evaluate effectiveness and recommend enforcement measures, modify existing regulations, and add protective measures to reduce marine mammal bycatch in fisheries
- Research the effects of human activities on the conservation and recovery of protected species
- Analyze protected species survey data to determine population trends
- Solicit proposals and award Species Recovery Grants to states and Tribes for conservation and recovery activities with a focus on Species in the Spotlight
- Participate in international and regional agreements to further the U.S. policy on protected species conservation

Deliverables:

FY 2025 – FY 2029:

- ESA proposed and final listing regulations, Section 4(d) rules, and critical habitat regulations
- Formal and informal consultation with other Federal agencies
- New and updated recovery plans for recently listed species with specific actions to prevent species extinction
- Timely issuance of MMPA and ESA permits, including scientific research permits and incidental harassment authorizations
- Improved or newly developed abundance and fishery mortality estimates for stocks
- MMPA List of Fisheries classifying U.S. commercial fisheries into one of three Categories according to the level of incidental mortality or serious injury of marine mammals
- Marine Mammal Stock Assessment Reports

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Explanation and Justification

Comparison by subactivity		2023 Actual Personnel	2023 Actual Amount	2024 Annualized CR Personnel	2024 Annualized CR Amount	2025 Base Program Personnel	2025 Base Program Amount
Marine Mammals, Sea Turtles, and Other Species	Pos/BA	477	201,308	549	175,255	549	177,867
	FTE/OBL	455	192,464	465	175,255	465	177,867
Species Recovery Grants	Pos/BA	3	7,241	4	7,250	4	7,264
	FTE/OBL	2	7,343	2	7,250	2	7,264
Atlantic Salmon	Pos/BA	18	6,678	23	6,750	23	6,866
	FTE/OBL	21	6,709	19	6,750	19	6,866
Pacific Salmon	Pos/BA	277	71,747	340	72,000	340	73,667
	FTE/OBL	266	68,741	289	72,000	289	73,667
Total Protected Resources Science and Management	Pos/BA	775	286,974	916	261,255	916	265,664
	FTE/OBL	744	275,257	775	261,255	775	265,664

Marine Mammals, Sea Turtles, and Other Species

Under the legislative authority of the ESA and MMPA, this budget line supports activities that conserve and recover species threatened or endangered with extinction, as well as most marine mammals. The programs under this budget line aim to sustain marine and anadromous species and the ecosystems on which they depend, and to enable economic development in a manner compatible with species conservation and recovery.

In addition to work supporting all ESA-listed species, NOAA continues to focus on the “Species in the Spotlight: Survive to Thrive” initiative, an innovative approach to marshal public and private support to slow, halt, and reverse the population decline of ten of our

most endangered species—Hawaiian monk seals, Southern Resident killer whales, white abalone, Cook Inlet beluga whales, North Atlantic right whales, Atlantic salmon, Pacific leatherback turtles, Sacramento River winter-run Chinook, Central California Coast coho, and Rice's whales (https://www.fisheries.noaa.gov/topic/endangered-species-conservation#species-in-the-spotlight). NMFS added Rice's whales to the "Species in the Spotlight" list in 2023.

In 2023, we launched the Advanced Sampling and Technology for Extinction Risk Reduction and Recovery (ASTER^3) program to advance our mission to prevent extinction and promote recovery of protected species. Through collaborations and strategic planning, this program aims to accelerate transformational technological advancements that help conserve the Nation's at-risk species and their habitats. The program's projects fall under one or more of its advanced technology strategic themes:

- Uncrewed systems
- Artificial Intelligence and Machine Learning
- Acoustics: monitoring and quieting
- Advanced sampling and Omics
- Advanced statistical methods
- Imagery

These advanced technologies generate innovative solutions for NMFS' conservation and management of protected species.

Major components of this budget line include:

Listing (ESA Section 4): Any U.S. citizen or organization may petition NMFS to list a species as threatened or endangered, reclassify an already listed species, or revise designated critical habitat under the ESA. Once a petition is received, NMFS has 90 days to make an initial determination and 12 months for determining whether the listing or reclassification is warranted. Details of the listing process can be found at https://www.fisheries.noaa.gov/national/endangered-species-conservation/listing-species-under-endangered-species-act.

Recovery (ESA Section 4): The ESA requires NMFS to use all methods and procedures to bring listed species to the point where the protections of the ESA are no longer necessary. NMFS oversees and conducts these methods and procedures to allow the species and its ecosystems to recover, as well as to ensure that listed species remain functioning members of the ecosystems we all depend upon. Details on the recovery actions can be found at https://www.fisheries.noaa.gov/national/endangered-species-conservation/recovery-species-under-endangered-species-act. These actions are important to provide communities with healthier ecosystems, cleaner water, greater opportunities for recreation, and the opportunity for current and future generations to share the benefits of diverse and healthy natural resources.

Species Stock Assessment and Monitoring (ESA Section 4, MMPA Sections 115 and 117): This program supports protected species stock assessment and monitoring activities using a variety of observation and survey methods, including use of marine acoustics, unmanned systems, surveys (ship, aerial, and shore-based), and telemetry. To adequately support management decisions, assessments are comprehensive and include estimates of abundance and distribution, as well as analysis of historical trends, serious injury and mortality levels, life history and demographics, and impacts of human activities (e.g., noise, climate, habitat, and ecosystem change). NMFS collects this basic assessment data so it can be as targeted as possible in prescribing mitigation measures that affect commercial and recreational activities. Details on marine mammal stock assessments can be found at https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-stock-assessments.

Research (ESA Section 4, MMPA Sections 115 and 117): NMFS conducts research to inform conservation and management actions, focusing on the biology, behavior, and health of marine mammal species; genetic differentiation; ecosystem interactions; and effects of human activities on the recovery and conservation of protected species. Effective conservation requires understanding how human and natural factors influence the viability of marine species and their ecosystems.

Interagency Consultation (ESA Section 7): ESA Section 7 requires Federal agencies to ensure that any action they fund, authorize, or undertake is not likely to jeopardize the continued existence of threatened or endangered species or result in the destruction or adverse modification of critical habitat that has been designated for these species. This consultation with Federal action agencies enables authorization for lawful activities—such as construction of roads and bridges, commercial fishing, energy development, or defense readiness training—in a manner that is compatible with species conservation and recovery.

Permits and Authorizations (ESA Section 10 and MMPA Sections 101 and 104): Under the ESA and MMPA, NMFS issues permits and authorizations (often with required mitigation measures) to allow activities that may result in the direct and indirect take of a protected species. Permits and take authorizations cover scientific research and the incidental take and harassment of marine mammals by otherwise lawful activities such as seismic surveys, construction activities, or military readiness training exercises when those activities are deemed to have negligible impact on the species. Details on permits and authorizations of protected species can be found at https://www.fisheries.noaa.gov/insight/understanding-permits-and-authorizations-protected-species.

Conservation Planning (ESA Section 10): When non-Federal entities—such as states, counties, local governments, and private landowners—wish to conduct an otherwise lawful activity that might incidentally, but not intentionally, "take" a listed species, an incidental take permit must first be obtained from NMFS. NMFS reviews the Conservation Plans submitted by permit applicants that are designed to offset harmful effects that a proposed activity might have on listed species and issues permits accordingly.

Bycatch Reduction (ESA Section 4, MMPA Section 118): Fishing gear can accidentally capture protected species, such as marine mammals, seabirds, and sea turtles. NMFS works with the fishing industry and others through Take Reduction Teams or other means to modify fishing gear or practices to minimize bycatch and its impact.

Co-Management with Alaska Native Organizations (MMPA Section 119): Co-management promotes full and equal participation by Alaska Natives in decisions affecting the subsistence management of marine mammals (to the maximum extent allowed by law) as a tool for conserving marine mammal populations in Alaska. NMFS has entered into agreements with Alaska Native groups to manage harvested marine mammal stocks, and will continue to actively engage in activities to support the cooperative management of these stocks under the agreements.

Marine Mammal Health and Stranding Response Program (MMPA Title IV): NMFS is the lead Federal agency to coordinate marine mammal stranding networks, responses, and investigations of marine mammal mortality events. The Marine Mammal Health and Stranding Response Program (MMHSRP) has also been highly successful in developing public-private partnerships that provide emergency response to live or dead marine mammals and investigate the health of marine mammal populations in the wild. The more than 100 stranding network partners are volunteers and trained professionals from nonprofit organizations; aquaria; universities; and coastal state, local, and Tribal governments. Each member plays an important role in helping NMFS meet our congressional mandates. Data collected from stranded animals are valuable for informing marine mammal stock assessment reports, identifying key species recovery activities, monitoring ocean health, and identifying natural and manmade causes of stranding, illness, and death in marine mammals around the United States. Details on the MMHSRP can be found at https://www.fisheries.noaa.gov/national/marine-life-distress/marine-mammal-health-and-stranding-response-program.

The Prescott Grants Program provides competitive grants to stranding network organizations to rescue, rehabilitate, or investigate sick, injured, or distressed live marine mammals and to determine the cause of death or disease of dead marine mammals. To date the program has led to significant improvements within the stranding network, enabling members to expand response coverage over wider geographic areas; enhance capabilities and data collection; upgrade rehabilitation facilities; evaluate rehabilitation success; increase understanding of the causes of disease and mortality; and provide safer operations for both animals and people.

Species Recovery Grants (ESA Section 6, Fish and Wildlife Coordination Act)
Recovery and conservation actions for listed species under NMFS jurisdiction are implemented through Species Recovery Grants, which are awarded to states and Tribes. Details on Species Recovery Grants can be found at https://www.fisheries.noaa.gov/grant/species-recovery-grants-states and https://www.fisheries.noaa.gov/grant/species-recovery-grants-tribes. For listed species, funding supports activities such as reducing or removing significant sources of mortality and injury,

assessing and monitoring species status and trends, developing conservation plans, conserving habitat, and engaging the public in conservation efforts. Funding may also support monitoring of candidate species and recently delisted species.

Atlantic Salmon (ESA Sections 4, 7, 10)
These programs provide funding for the conservation and recovery of ESA-listed Atlantic salmon in the Northeast. Gulf of Maine Atlantic salmon are co-managed by NMFS, USFWS, the Maine Department of Marine Resources, and the Penobscot Indian Nation. Under the ESA, the Essential Fish Habitat provisions under Magnuson-Stevens Act, and a joint Statement of Cooperation with the co-managers, NMFS is responsible for marine stock assessments, designating critical habitat, estuary and marine interagency Section 7 consultations and habitat conservation planning, and minimizing dam impacts.

Pacific Salmon (ESA, All Sections)
Under the legislative authority of the ESA, NMFS conducts interagency Section 7 consultations, habitat conservation planning, and listing and recovery actions to recover threatened and endangered Pacific salmon and steelhead. NMFS also conducts research, monitoring, and analysis to provide managers and regional stakeholders the tools and information necessary to advance salmonid recovery to ensure biological sustainability of Pacific salmonids and the ecosystems on which they depend. Partnerships among Federal, state, local, and Tribal entities, together with non-governmental and private organizations, are key to restoring healthy salmon.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Increase from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Marine Mammals, Sea Turtles, and Other Species	Pos./BA	549	177,867	562	183,412	13	5,545
	FTE/OBL	465	177,867	475	183,412	10	5,545

Wind Energy: Protected Species Environmental Reviews and Science (+$5,545, 10 FTE/ 13 Positions) – This request will allow NMFS to assess the effects of planned offshore energy activities on Endangered Species Act (ESA) listed species and critical habitat; coordinate Marine Mammal Protection Act (MMPA) incidental take authorizations; and conduct review of environmental impact statements (EIS) analyzing the impacts to living marine resources and affected communities under the National Environmental Policy Act (NEPA). These funds would support NOAA in using the best available science to support the Administration's goal of deploying 30 gigawatts of offshore energy by 2030 while protecting biodiversity and promoting sustainable ocean co-use.

Offshore wind development continues to rapidly expand and represents a significant use of our marine waters, requiring substantial scientific and regulatory review. NMFS is requesting a total of $43.9 million in four complementary areas to address the rapid expansion and the impacts of offshore energy projects. The other components can be found in Fisheries Ecosystem Science Programs and Services (NMFS-50); Fisheries Data Collections, Surveys, and Assessments (NMFS-57); and Fisheries Management Programs and Services (NMFS-68). This effort complements the $8.7 million total requested in the NOS proposal, Foundational Information for Expansion of Offshore Wind Energy.

NMFS requests an additional $5.5 million increase for offshore energy assessment related to protected resources. Funds will allow NMFS to efficiently and effectively carry out increased ESA section 7 consultation and MMPA authorization work associated with new BOEM activities, and support early engagement with BOEM and project proponents. The increase will also enable NMFS to minimize impacts and delays to existing workload carried by consultation biologists and authorization analysts. In addition, this funding supports the review of comprehensive and complex EIS's to ensure that NMFS can provide BOEM reasonable alternatives with sufficient analysis to assess the impacts to protected resources and their habitats. These tasks routinely require dedicated

engagement with BOEM staff and contractors to allow NMFS to conduct sufficient assessments and consultation as a cooperating agency and as an adopting agency for NMFS-issued MMPA Incidental Take Authorizations. Funds will also allow NMFS to research interactions of protected species and their habitats with offshore wind energy. These funds will focus on the operational needs associated with offshore wind projects in the Northeast and Mid-Atlantic regions, and also include investments in the West Coast, Gulf of Mexico, and South Atlantic. These funds will position NMFS to meet current and future challenges of regulatory and scientific review.

Schedule and Milestones:
FY 2025 – FY 2029:

- Provide information, expert advice, and guidance to BOEM to implement offshore wind development for at least 32 projects and leases over a four to five year period beginning in FY 2023 that considers impacts to protected species and their habitats, with a particular focus on the critically endangered North Atlantic right whale
- As a Cooperating Agency and Adopting Agency under NEPA, identify and share living marine resources expertise and make recommendations upon potential environmental, biological, and socio-economic impacts on trust resources for approximately 25 to 35 projects and leases over a four to five year period by 2027. This will allow regulators and developers to consider the full scope of impacts
- Complete thorough and timely ESA consultations and MMPA authorizations for project consultation and authorization requests that are based on the best available scientific information while fulfilling FAST-41[3] obligations
- Advance management's understanding of science-based evidence for the interactions of protected species and their habitats with offshore wind energy
- Establish and support regional collaborative ecosystem-scale research and monitoring programs across project/ecosystem scales to develop the necessary understanding of fisheries, habitat, and protected species interactions with wind development. In addition, asses the associated cumulative impacts to these resources and the habitats and ecosystems on which they rely, including potential changes in oceanographic conditions

Deliverables:
FY 2025 - FY 2029:

- NEPA reviews of the direct, indirect, short-term, long-term, and cumulative impacts to marine mammals, threatened and endangered species, ESA critical habitat, and resource users and associated communities

[3] P.L. 114-94 Title 41, Fixing America's Surface Transportation Act

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

- Input on planning, analysis, and leasing documents and notices during BOEM's initial phases of offshore wind develop and on project milestones and timelines, particularly MMPA and ESA milestones, Draft EIS, Final EIS, and Records of Decision structure, content, and appropriate methodology for impact analysis to BOEM to improve document quality
- Scientific manuscripts for publication in peer-reviewed journals to aid in establishing NMFS as a global leader on topics related to offshore wind and protected species science
- Regional scientific frameworks for protected species and wildlife research and monitoring, developed with regional partners State of the Science Symposia, in partnership with scientific and industry collaborators, on the status of protected species interactions with offshore wind energy

Performance Measures	2025	2026	2027	2028	2029
The number of wind energy projects where early and comprehensive coordination with BOEM and industry yields sufficient information and analysis to inform NMFS consultations and reviews, resulting in improved protection of NOAA Trust Resources					
With Increase	27	27	29	29	29
Without Increase	27	27	27	27	27
Outyear Costs:					
Direct Obligations	5,545	5,545	5,545	5,545	5,545
Capitalized	0	0	0	0	0
Uncapitalized	5,545	5,545	5,545	5,545	5,545
Budget Authority	5,545	5,545	5,545	5,545	5,545
Outlays	3,382	4,935	5,212	5,434	5,545
FTE	10	13	13	13	13
Positions	13	13	13	13	13

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE PERSONNEL DETAIL

Activity: Protected Resources Science and Management
Subactivity: Marine Mammals, Sea Turtles, and Other Species
Program Change: Wind Energy: Protected Species Environmental Reviews and Science

Title		Grade	Number	Annual Salary	Total Salaries
Fisheries Biologist (GARFO)		ZPIV	1	110,798	110,798
Fisheries Biologist (WCRO)		ZPIV	1	109,546	109,546
Fisheries Biologist (OPR)		ZPIV	1	112,015	112,015
Fisheries Biologist (SWFSC)		ZPIV	1	111,609	111,609
Fisheries Biologist (GARFO)		ZPIII	1	77,738	77,738
Fisheries Biologist (WCRO)		ZPIII	1	76,860	76,860
Fisheries Biologist (OPR)		ZPIII	2	78,592	157,184
Fisheries Biologist (NWFSC)		ZPIII	1	76,860	76,860
Fisheries Biologist (NEFSC)		ZPIII	1	77,738	77,738
Fisheries Biologist (SEFSC)		ZPIII	1	73,639	73,639
Fisheries Biologist (SERO)		ZPIII	2	69,107	138,214
Total			13		1,122,201
Less lapse	25.00%		(3)		(280,550)
Total full-time permanent (FTE)			10		841,651
2025 Pay Adjustment (2.0%)					16,833
					858,484

Personnel Data Summary	
Full-time Equivalent Employment (FTE)	
Full-time permanent	10
Total FTE	10
Authorized Positions:	
Full-time permanent	13
Total Positions	13

Exhibit 15

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Protected Resources Science and Management
Subactivity: Marine Mammals, Sea Turtles, and Other Species

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase from 2025 Base
11.1	Full-time permanent compensation	36,577	33,308	34,694	35,552	858
11.3	Other than full-time permanent	186	169	176	176	0
11.5	Other personnel compensation	987	899	936	936	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	37,750	34,376	35,806	36,664	858
12	Civilian personnel benefits	31,208	28,418	29,600	29,931	331
13	Benefits for former personnel	28	26	26	26	0
21	Travel and transportation of persons	3,585	3,264	3,264	3,573	309
22	Transportation of things	200	182	182	235	53
23	Rent, communications, and utilitites	0	0	0	0	0
23.1	Rental payments to GSA	1,013	922	922	922	0
23.2	Rental Payments to others	268	244	244	244	0
23.3	Communications, utilities and misc charges	212	193	193	193	0
24	Printing and reproduction	326	296	296	296	0
25.1	Advisory and assistance services	11,827	10,769	10,769	10,769	0
25.2	Other services from non-Federal sources	11,505	10,477	10,477	13,185	2,708
25.3	Other goods and services from Federal sources	1,596	1,453	1,453	1,453	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	7,901	7,194	7,194	8,189	995
31	Equipment	1,669	1,520	1,520	1,811	291
32	Lands and structures	64	59	59	59	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	83,306	75,857	75,857	75,857	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	6	5	5	5	0
44	Refunds	0	0	0	0	0
99	Total obligations	192,464	175,255	177,867	183,412	5,545

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Marine Mammals, Sea Turtles, and Other Species	Pos./BA	549	177,867	549	173,350	0	(4,517)
	FTE/OBL	465	177,867	465	173,350	0	(4,517)

Prescott Grant Program (-$4,517, 0 FTE/0 Positions) – This program change is requested to support other NOAA and Administration priorities. As part of the Marine Mammal Health and Stranding Response Program, NOAA will continue to support related activities such as the rescue of large whales entangled in fishing gear and the coordination network responses to unusual marine mammal mortality events through the Stranding and Entanglement Response Networks, the UME Response and other regional programs.

This Budget does not request funding for the Prescott Grant Program, however, some members may still operate on private funding. NOAA partners with the marine mammal stranding network to cooperatively mitigate the adverse impacts of marine mammal strandings. From 2001 through 2023, the program awarded more than $75.4 million in funding through competitive grants to stranding network members in 26 states, the District of Columbia, two territories, and two tribes.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

	2025	2026	2027	2028	2029
Outyear Costs:					
Direct Obligations	(4,517)	(4,517)	(4,517)	(4,517)	(4,517)
Capitalized	0	0	0	0	0
Uncapitalized	(4,517)	(4,517)	(4,517)	(4,517)	(4,517)
Budget Authority	(4,517)	(4,517)	(4,517)	(4,517)	(4,517)
Outlays	(2,755)	(4,020)	(4,246)	(4,427)	(4,517)
FTE	0	0	0	0	0
Positions	0	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Protected Resources Science and Management
Subactivity: Marine Mammals, Sea Turtles, and Other Species

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	36,577	33,308	34,694	34,694	0
11.3	Other than full-time permanent	186	169	176	176	0
11.5	Other personnel compensation	987	899	936	936	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	37,750	34,376	35,806	35,806	0
12	Civilian personnel benefits	31,208	28,418	29,600	29,600	0
13	Benefits for former personnel	28	26	26	26	0
21	Travel and transportation of persons	3,585	3,264	3,264	3,264	0
22	Transportation of things	200	182	182	182	0
23	Rent, communications, and utilitites	0	0	0	0	0
23.1	Rental payments to GSA	1,013	922	922	922	0
23.2	Rental Payments to others	268	244	244	244	0
23.3	Communications, utilities and misc charges	212	193	193	193	0
24	Printing and reproduction	326	296	296	296	0
25.1	Advisory and assistance services	11,827	10,769	10,769	10,769	0
25.2	Other services from non-Federal sources	11,505	10,477	10,477	10,477	0
25.3	Other goods and services from Federal sources	1,596	1,453	1,453	1,453	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	7,901	7,194	7,194	7,194	0
31	Equipment	1,669	1,520	1,520	1,520	0
32	Lands and structures	64	59	59	59	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	83,306	75,857	75,857	71,340	(4,517)
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	6	5	5	5	0
44	Refunds	0	0	0	0	0
99	Total obligations	192,464	175,255	177,867	173,350	(4,517)

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Marine Mammals, Sea Turtles, and Other Species	Pos./BA	549	177,867	549	175,177	0	(2,690)
	FTE/OBL	465	177,867	465	175,177	0	(2,690)

Marine Mammal Projects Reductions (-$2,690, 0 FTE/0 Positions) – This program change is requested to support other NOAA and Administration priorities. At this level of funding, NOAA will continue these programs at the following funding levels in FY 2025: Southern Resident Killer Whales at $1.7 million, Sea Turtles at $7.9 million, Hawaiian Monk Seals at $4.7 million, Hawaiian Sea Turtles at $5.7 million, False Killer Whales at approximately $1.0 million, and continued implementation Fish and Fisheries Product Import Provisions of the Marine Mammal Protection Act (Foreign Fisheries) at $0.4 million, for a total of $21.4 million. This request reduces the additional resources provided in FY 2023 appropriations for specific projects, including Southern Resident Killer Whales (-$0.69 million), Sea Turtles (-$0.50 million), Hawaiian Monk Seals, Hawaiian Sea Turtles, and False Killer Whales (-$0.75 million), and Foreign Fisheries (-$0.75 million).

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

	2025	2026	2027	2028	2029
Outyear Costs:					
Direct Obligations	(2,690)	(2,690)	(2,690)	(2,690)	(2,690)
Capitalized	0	0	0	0	0
Uncapitalized	(2,690)	(2,690)	(2,690)	(2,690)	(2,690)
Budget Authority	(2,690)	(2,690)	(2,690)	(2,690)	(2,690)
Outlays	(1,641)	(2,394)	(2,529)	(2,636)	(2,690)
FTE	0	0	0	0	0
Positions	0	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Protected Resources Science and Management
Subactivity: Marine Mammals, Sea Turtles, and Other Species

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	36,577	33,308	34,694	34,694	0
11.3	Other than full-time permanent	186	169	176	176	0
11.5	Other personnel compensation	987	899	936	936	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	37,750	34,376	35,806	35,806	0
12	Civilian personnel benefits	31,208	28,418	29,600	29,600	0
13	Benefits for former personnel	28	26	26	26	0
21	Travel and transportation of persons	3,585	3,264	3,264	3,264	0
22	Transportation of things	200	182	182	182	0
23	Rent, communications, and utilitites	0	0	0	0	0
23.1	Rental payments to GSA	1,013	922	922	922	0
23.2	Rental Payments to others	268	244	244	244	0
23.3	Communications, utilities and misc charges	212	193	193	193	0
24	Printing and reproduction	326	296	296	296	0
25.1	Advisory and assistance services	11,827	10,769	10,769	10,769	0
25.2	Other services from non-Federal sources	11,505	10,477	10,477	7,787	(2,690)
25.3	Other goods and services from Federal sources	1,596	1,453	1,453	1,453	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	7,901	7,194	7,194	7,194	0
31	Equipment	1,669	1,520	1,520	1,520	0
32	Lands and structures	64	59	59	59	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	83,306	75,857	75,857	75,857	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	6	5	5	5	0
44	Refunds	0	0	0	0	0
99	Total obligations	192,464	175,255	177,867	175,177	(2,690)

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Species Recovery Grants	Pos./BA	4	7,264	0	0	(4)	(7,264)
	FTE/OBL	2	7,264	0	0	(2)	(7,264)

Species Recovery Grants Program (-$7,264, -2 FTE /-4 Positions) – This program change is requested to support other NOAA and Administration priorities**.** NOAA will continue to support species recovery actions from base and other resources.

NMFS received over $1.3 billion from the Bipartisan Infrastructure Law and the Inflation Reduction Act for habitat restoration, fish passage activities, and Pacific Coastal salmon recovery, and prioritized the recovery and conservation of threatened and endangered species in the grant competitions. In addition, NOAA allocated $82.0 million in IRA funds to support North Atlantic Right Whales (NARW), which have received some funding from the Species Recovery Grant program in recent years.

Species Recovery Grants support recovery actions for species listed under the Endangered Species Act (ESA) and are awarded to states and tribes under the authority of ESA Section 6 and the Fish and Wildlife Coordination Act. Zeroing out this program will result in less implementation of recovery plan actions for ESA listed species, delaying species recovery and prolonging ESA regulatory measures.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

	2025	2026	2027	2028	2029
Outyear Costs:					
Direct Obligations	(7,264)	(7,264)	(7,264)	(7,264)	(7,264)
Capitalized	0	0	0	0	0
Uncapitalized	(7,264)	(7,264)	(7,264)	(7,264)	(7,264)
Budget Authority	(7,264)	(7,264)	(7,264)	(7,264)	(7,264)
Outlays	(4,431)	(6,465)	(6,828)	(7,119)	(7,264)
FTE	(2)	(2)	(2)	(2)	(2)
Positions	(4)	(4)	(4)	(4)	(4)

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE PERSONNEL DETAIL

Activity: Protected Resources Science and Management
Subactivity: Species Recovery Grants
Program Change: Species Recovery Grants

Title	Grade	Number	Annual Salary	Total Salaries
Fisheries Biologist - Silver Spring, MD	ZP-III	(3)	78,592	(235,776)
Fisheries Biologist - Silver Spring, MD	ZP-IV	(1)	112,015	(112,015)
Total		(4)		(347,791)
Less adjustment		2		157,184
Total full-time permanent (FTE)		(2)		(190,607)
2025 Pay Adjustment (2.0%)				(3,812)
				(194,419)

Personnel Data Summary	
Full-time Equivalent Employment (FTE)	
Full-time permanent	(2)
Total FTE	(2)
Authorized Positions:	
Full-time permanent	(4)
Total Positions	(4)

Exhibit 15

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Protected Resources Science and Management
Subactivity: Species Recovery Grants

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	394	184	194	0	(194)
11.3	Other than full-time permanent	0	0	0	0	0
11.5	Other personnel compensation	0	0	0	0	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	394	184	194	0	(194)
12	Civilian personnel benefits	155	70	74	0	(74)
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	6	9	9	0	(9)
22	Transportation of things	0	0	0	0	0
23	Rent, communications, and utilitites	0	0	0	0	0
23.1	Rental payments to GSA	0	0	0	0	0
23.2	Rental Payments to others	0	0	0	0	0
23.3	Communications, utilities and misc charges	0	0	0	0	0
24	Printing and reproduction	0	0	0	0	0
25.1	Advisory and assistance services	0	0	0	0	0
25.2	Other services from non-Federal sources	25	47	47	0	(47)
25.3	Other goods and services from Federal sources	0	0	0	0	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	0	0	0	0	0
31	Equipment	0	0	0	0	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	6,763	6,940	6,940	0	(6,940)
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	0	0	0	0	0
44	Refunds	0	0	0	0	0
99	Total obligations	7,343	7,250	7,264	0	(7,264)

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Activity: Fisheries Science and Management

Goal Statement

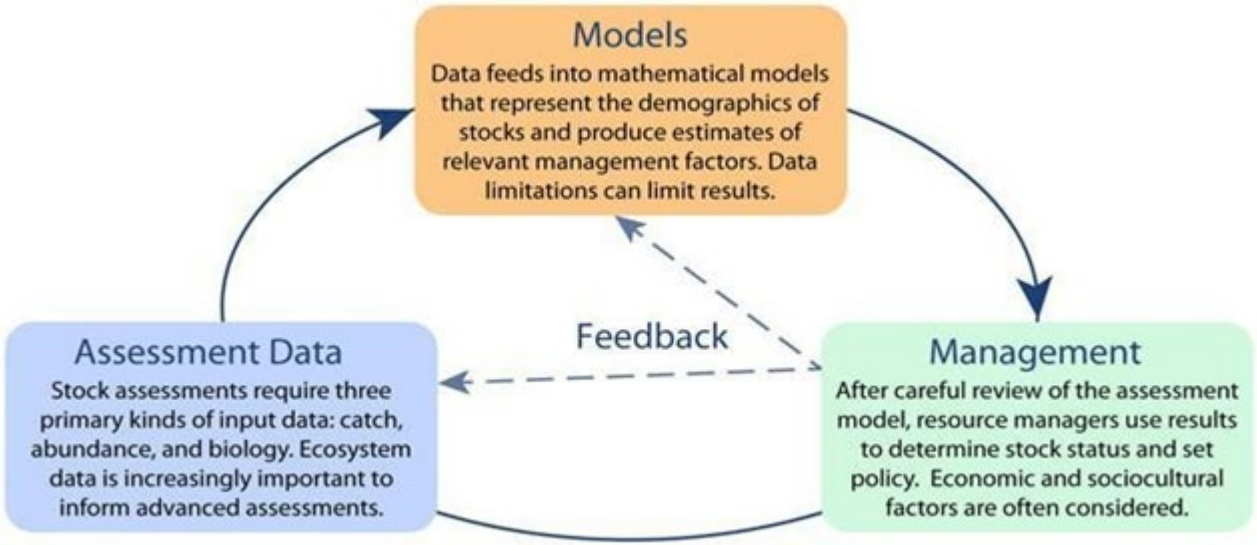
The Fisheries Science and Management activity encompasses scientific and management activities to ensure sustainability of the Nation's marine fishery resources.

Base Program

In partnership with the eight Regional Fishery Management Councils, state and Federal partners, and regional fishery management organizations for international fisheries; NMFS manages marine fisheries, including aquaculture, using the best available science. NMFS actions supported by the Fisheries Science and Management activity result in sustainable fisheries harvest and production, rebuilding of depleted fish stocks, conservation of essential fish habitats, and other support for fishing businesses and communities. NMFS' science, which is rigorously peer-reviewed, ensures management decisions are based on the highest-quality scientific information. NMFS conducts science on species' responses to environmental changes, such as climate change; impacts of fishing and other human activities on fisheries and their habitat; strategies for resilience and adaptation to changing oceans; and social, cultural, and economic behaviors that influence interactions between humans and marine fisheries.

This activity also supports the fisheries management regulatory process, which involves extensive opportunity for public input into management decisions, and thorough analysis of alternatives to meet statutory requirements and agency priorities. This work occurs in close coordination with Regional Fishery Management Councils, Interstate Marine Fisheries Commissions, the Atlantic Highly Migratory Species Advisory Panel, and states. It is a process where science informs management. Managers need high quality science to make important decisions to ensure sustainable fisheries, healthy ecosystems, and productive coastal communities. An example of this process is shown in the graphic below illustrating how data feeds into mathematical models to estimate stock biomass, fishing effort, and other reference points that are used to inform management actions.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)



Statement of Operating Objectives

Schedule and Milestones:

Fisheries and Ecosystem Science Programs and Services (FY 2025 – FY 2029):

- *Economics and Social Science*: Expand implementation of an integrated Bioeconomic Length-structured Angler Simulation Tool, the Social Indicator Toolbox, and FishSET—a spatial economics toolbox; assess the economic performance of fisheries; and predict the cost/benefits of stock rebuilding programs
- *Ecosystem Science*: Continue to work with resource managers to provide ecosystem-based science information and trade-off analyses to inform management decisions for evolving constituent-defined management issues in Integrated Ecosystem Assessment (IEA) regions; continue fisheries oceanography research programs to advance the understanding of climate change and other environmental impacts on living marine resources to improve stock and ecosystem assessments; continue

to advance understanding of best strategies for fisheries management and fishing-community adaptation with changing ocean conditions; and continue to incorporate long-term observations of climate-related impacts on the Bering Sea ecosystem, and other regions, to help living marine resource managers incorporate climate-related impacts into management decisions

- *Antarctic Research:* Conduct assessments for key stocks managed by the Commission for the Conservation of Antarctic Marine Living Resources
- *Information Analysis and Dissemination*: Improve population dynamics/assessment/ management model development and data analysis tools to support fisheries science programs and improve data dissemination and sharing of integrated data and analyses (climatology, socio-economic, ecosystem, fishery-dependent, and fishery-independent), both internally and externally

Fisheries Data Collections, Surveys, and Assessments (FY 2025 – FY 2029):

- *Fisheries Monitoring, Assessment, and Forecasting:* Conduct and expand fishery-independent surveys; develop advanced sampling technologies to enhance data collection for stock assessments; improve timely delivery of fish stock assessments to fishery managers; and further the implementation of the next-generation stock assessment framework
- *Cooperative Research*: Issue awards for cooperative research from the Northeast Research Set-Aside, and the Southeast Cooperative Research Program competitive grants; and conduct cooperative research surveys nationwide.
- *MARMAP*: Fishery-independent assessments of reef fish abundance and life history characteristics of economically and ecologically important reef fish species in shelf and upper slope waters from Cape Lookout to Cape Canaveral; resulting data provided for use in stock assessments and in support of other research and management needs
- *SEAMAP*: Fishery, habitat, biological, and environmental data collected from inshore and offshore surveys provided to Regional Councils for incorporation into regional species stock assessments and for development of effective fisheries and habitat management strategies

Observers and Training (FY 2025 – FY 2029):

- Provide safe and high-quality monitoring in fisheries nationwide, with a goal of maintaining high-priority observer programs and, as necessary, expanding observer coverage in existing fisheries and implementing new observer programs for fisheries identified with monitoring needs related to bycatch and protected species interactions
- Maintain monitoring for the fisheries with observer coverage to provide accurate catch and bycatch data

- Coordinate observer program activities at the national level by developing new standards, policies, and procedures to improve regional observer programs

Fisheries Management Programs and Services (FY 2025 – FY 2029):

- *Regional Fishery Management Councils Support*: Develop fishery management measures, using public input and the best available science and tools such as annual catch limits (ACLs) and accountability measures (AMs)
- *Atlantic Highly Migratory Species (HMS) Management Support*: Develop fishery management measures, using public input and the best available science and tools such as ACLs and AMs
- *Electronic Monitoring and Reporting*: Implement Electronic Monitoring (EM) and Electronic Reporting (ER) options in key fisheries
- *Reducing Bycatch:* Develop technological solutions and investigate changes in fishing practices designed to minimize bycatch of fish and protected species
- *Illegal, Unreported, and Unregulated (IUU) Fishing*: Address Magnuson-Stevens Fishery Conservation and Management Act (MSA) mandates to implement IUU/bycatch identification, monitoring, and certification procedures, and foreign nation capacity building. Submit biennial status reports to Congress. Review shipments of imported fishery products to monitor for IUU shipments and fraudulently labeled seafood
- *National Catch Share Program*: Work with interested Regional Councils to support catch share programs and the use of technology, when appropriate, to improve the cost-effectiveness of these programs
- *Product Quality and Safety:* Help ensure that the Nation's seafood industry is economically sustainable and complies with food regulations through the National Seafood Inspection Laboratory, which provides an analytical laboratory, data management, and regulatory compliance risk analysis.

Aquaculture (FY 2025 – FY 2029):

- Finalize and implement environmental reviews for the Nation's first two Aquaculture Opportunity Areas (AOAs); work with state partners to identify and conduct environmental reviews for a third AOA in Alaska state waters
- Work with the Western Pacific Fisheries Management Council to consider options for an offshore aquaculture management program, in part through Implementing the 2022 Programmatic Environmental Impact Statement for Aquaculture in the Pacific Islands Region

- Continue scientific and other support for coastal shellfish farming, including implementing a 2022 partnership with USDA for a Northeast Oyster Breeding Center
- Establish and expand regional research capacity to support aquaculture industry development (e.g., kelp and seaweed farming, offshore aquaculture, novel shellfish farming practices, disease management, genetics)
- Advance Science Center research to support environmentally sound aquaculture practices such as genetics and water quality modeling, and work with NOS to refine and apply aquaculture siting tools (e.g. Ocean Reports)
- Work with Federal partners to conduct aquaculture research related to climate-resilient fisheries and climate-smart agriculture
- Develop science-based tools for management and collaborate with Federal partners to facilitate the efficient review of aquaculture permit applications
- Explore use of Public Private Partnerships (in collaboration with Federal, state, and industry partners) to support sustainable aquaculture development (e.g., to expand hatchery capacity, technology transfer)
- Support sustainable aquaculture development (e.g., develop business planning tools, support workforce development and training programs)

Salmon Management Activities (FY 2025 – FY 2029):

- Support the operations and maintenance of Columbia River hatcheries to mitigate the loss of fish production due to hydropower dams
- Conduct a broad range of salmon stock assessment and fishery monitoring programs in the Snake and Columbia Rivers

Regional Councils and Fisheries Commissions (FY 2025 – FY 2029):

- Continue to revise Fishery Management Plans (FMPs) and amendments to prevent overfishing, rebuild overfished fisheries, and promote sustainability of commercial, recreational, and subsistence wild caught fisheries
- Complete socioeconomic analyses for fishery management actions
- Work with Councils to implement electronic technologies for fishery monitoring
- Complete necessary environmental analyses and support Council action to remove regulations determined to be outdated, unnecessary, or ineffective, to reduce the burden on commercial, recreational, and subsistence fishermen

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Deliverables:

Fisheries and Ecosystem Science Programs and Services (FY 2025 – FY 2029):

- *Economics and Social Science*: Assessments of the benefits/cost-effectiveness of fisheries rebuilding programs, habitat and protected species recovery programs, and decision support tools; and, improved quantitative models for conducting benefit-cost analyses and predicting how fishery participants will respond to changes in management measures
- *Ecosystem Science*: Updated ecosystem-status reports and risk and vulnerability assessments delivered to resource managers in the IEA regions; evaluation of best strategies for fisheries management and fishing-community adaptation for changing ocean conditions; and delivery of environmental indicators and predicted impacts on managed species to appropriate stock assessment scientists and Regional Fishery Management Councils
- *Antarctic Research*: Completed stock assessments for targeted stocks of krill, fishes, and crabs managed by the Commission for the Conservation of Antarctic Marine Living Resources
- *Information Analysis and Dissemination*: Technical expertise and capacity infrastructure for data collection, processing, sharing, and archiving for Integrated Ocean Observing System, NOAA Environmental Data Management Committee, NMFS Enterprise Data Management, NMFS Fisheries Information Systems, NMFS Marine Recreational Information Program, and Data.gov

Fisheries Data Collections, Surveys, and Assessments (FY 2025 – FY 2029):

- *Fisheries Monitoring, Assessment, and Forecasting*: Fishery-independent surveys to provide ongoing data for stock assessments; stock assessment reports based on a next-generation stock assessment framework for key stocks; and more precise estimates of recreational catch through improved surveys
- *Cooperative Research*: Documentation of final reports for individual cooperative research projects conducted in partnership with stakeholders, with corresponding data archived at the Fisheries Science Centers and added to the NMFS InPort Centralized documentation (metadata) repository
- *MARMAP*: Fishery-independent assessments of reef fish abundance and life history characteristics of economically and ecologically important reef fish species in shelf and upper slope waters from Cape Lookout to Cape Canaveral; resulting data provided for use in stock assessments and in support of other research and management needs

- *SEAMAP*: Fishery, habitat, biological, and environmental data collected from inshore and offshore surveys provided to Regional Councils for incorporation into regional species stock assessments and for development of effective fisheries and habitat management strategies

Observers and Training (FY 2025 – FY 2029):

- Information on catch, bycatch, discards, and biological data necessary for in-season monitoring and stock assessments; also information on fishing effort, fishing gear, and specific fishing techniques that minimize bycatch
- National Observer Program (NOP) reports and biennial updates to the U.S. National Bycatch Report (NBR)

Fisheries Management Programs and Services (FY 2025 – FY 2029):

- Development of fisheries regulations, FMPs, and amendments in order to maintain and restore productive stocks important to commercial, recreational, Tribal, and subsistence fisheries
- Analysis and research to identify, consult, and certify nations whose vessels engage in IUU fishing, and bycatch of Protected Living Marine Resources (PLMR) and certain shark catches on the high seas. May also result in recommendations to the Secretary of Commerce, after coordination with other Federal agencies, on possible fishery-product trade prohibitions and port restrictions on nations whose vessels engage in the above activities
- Collection of source data on fishery product imports tracing back to the harvest area and analysis of shipment documentation to verify accuracy and identify trends in import of IUU fishery products and fraudulently labeled seafood
- Improvements in fishing gear and fishing practices to reduce bycatch
- Implementation of cost-effective electronic technology applications that complement observer coverage, improve data collection and analysis, and ensure compliance with recordkeeping and reporting regulations
- Improved timeliness in the administration of fishery disaster relief contingent on available fishery disaster relief appropriations

Aquaculture (FY 2025 – FY 2029):

- Increased domestic aquaculture production and associated jobs
- More efficient aquaculture permitting systems in state and Federal waters
- Communications products to inform the public about sustainable aquaculture science and management topics

- Reports on three complementary, interagency efforts to support sustainable aquaculture development: (1) regulatory efficiency, (2) science collaboration, (3) and economic development
- Application of science-based tools for management that ensure the efficient review of aquaculture permit applications
- Application of science-based tools and science advice products for management that ensure the efficient review of aquaculture permit applications

Salmon Management Activities (FY 2025 – FY 2029):

- Maintenance of salmon smolt production as required under the Mitchell Act
- Broad range of salmon stock assessment and fishery monitoring programs in the Snake and Columbia Rivers

Regional Councils and Commissions (FY 2025 – FY 2029):

- Draft amendments to FMPs
- Collection and analysis of socioeconomic data on the impacts of fishery management actions
- Regulations removed that were determined to be outdated, unnecessary, or ineffective, to increase economic fisheries value or improve recreational activities and reduce burden on commercial and recreational fishermen

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Explanation and Justification

		2023 Actual		2024 Annualized CR		2025 Base Program	
Comparison by Subactivity		Personnel	Amount	Personnel	Amount	Personnel	Amount
Fisheries and Ecosystem Science Programs and Services	Pos/BA	573	160,497	668	161,500	668	164,591
	FTE/OBL	514	158,570	585	161,500	585	164,591
Fisheries Data Collections, Surveys, and Assessments	Pos/BA	436	203,882	511	203,851	511	206,753
	FTE/OBL	475	204,927	466	203,851	466	206,753
Observers and Training	Pos/BA	130	57,397	161	58,383	161	59,067
	FTE/OBL	119	56,410	149	58,383	149	59,067
Fisheries Management Programs and Services	Pos/BA	427	137,470	500	137,750	500	140,209
	FTE/OBL	418	131,451	458	137,750	458	140,209
Aquaculture	Pos/BA	36	18,730	43	19,000	43	19,244
	FTE/OBL	42	18,449	36	19,000	36	19,244
Salmon Management Activities	Pos/BA	37	65,090	42	65,250	42	65,470
	FTE/OBL	41	23,431	41	65,250	41	65,470
Regional Councils and Fisheries Commissions	Pos/BA	10	44,253	13	44,297	13	45,715
	FTE/OBL	7	42,704	11	44,297	11	45,715
Interjurisdictional Fisheries Grants	Pos/BA	2	3,377	2	3,377	2	3,380
	FTE/OBL	1	2,919	1	3,377	1	3,380
Total Fisheries Science and Management	Pos/BA	1,651	690,696	1,940	693,408	1,940	704,429
	FTE/OBL	1,617	638,861	1,747	693,408	1,747	704,429

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Sustainable fisheries play an important role in the Nation's economy by providing opportunities for commercial, recreational and subsistence fishing, and marine aquaculture, to increase our Nation's supply of seafood. In 2020, commercial and recreational saltwater fishing in the U.S. generated over $253 billion in sales impacts, contributed $117 billion to gross domestic product, and supported 1.7 million jobs in the U.S. marine fishing sector and across the broader economy[4]. The U.S. aquaculture industry produced $1.5 billion worth of seafood in 2019, which equals about 24 percent of total U.S. seafood production by value[5]. By ending overfishing, rebuilding stocks, applying an ecosystem-based management approach to the stewardship of fishery resources, and supporting development of marine aquaculture, we strengthen the near and long-term value of U.S. fisheries to commercial and recreational fishing businesses, fishing communities, and the national economy.

Fisheries and Ecosystem Science Programs and Services

This budget supports NMFS science to prevent and eliminate overfishing, rebuild overfished stocks, support sustainable aquaculture, conserve and restore habitats, and support fishing communities. The following are some of the major programs and activities funded within the budget line.

Fisheries Science Base Activities: NMFS conducts science used for the analysis and decision-making needed for ecosystem-based fisheries management, FMPs and regulatory implementation, and enforcement to ensure compliance with regulations. Funding supports:

- Regional Science and Operations - core survey and science work in the regional Science Centers (Centers) such as fishery catch monitoring, survey and stock assessments, charters for survey vessels, fuel, supplies, etc. This includes research projects at the Centers, including collaborative research with other institutions on topics such as pelagic fisheries and groundfish.
- Recreational Fisheries Information, such as the Marine Recreational Information Program https://www.fisheries.noaa.gov/topic/recreational-fishing-data

[4] National Marine Fisheries Service. 2023. Fisheries Economics of the United States, 2020. U.S. Dept. of Commerce, NOAA Tech. Memo. NMFS-F/SPO-236, 231 p. Available at: https://www.fisheries.noaa.gov/national/sustainable-fisheries/fisheries-economics-united-states.
[5] National Marine Fisheries Service (2022) Fisheries of the United States, 2020. U.S. Department of Commerce, NOAA Current Fishery Statistics No. 2020 p 16. Available at: https://www.fisheries.noaa.gov/national/sustainable-fisheries/fisheries-united-states. Note, due to data availability, aquaculture production data lags the rest of the publication by one year.

- Science and management activities in support of the Marine National Monuments https://www.fisheries.noaa.gov/pacific-islands/habitat-conservation/marine-national-monuments-pacific
- West Coast Groundfish Management and Research - key stock assessment science that supports management of more than 80 fish stocks along the coasts of Washington, Oregon, and California
- Development and implementation of EM and ER; working with industry to integrate technology into data collections and observations to improve the timeliness, quality, integration, cost effectiveness, and accessibility of fishery-dependent data (https://www.fisheries.noaa.gov/national/fisheries-observers/electronic-technologies)
- Science to substantially increase sustainable domestic aquaculture; enabling important contributions to the U.S. seafood supply, job creation in coastal communities, and reduced reliance on imported seafood (currently 70 to 85 percent of U.S. seafood is imported[6]). Marine aquaculture is also used to enhance commercial and recreational fisheries and restore habitats

Economics and Social Science Research (https://www.fisheries.noaa.gov/topic/socioeconomics)
NMFS economists and social scientists conduct legislatively mandated (e.g., NEPA, MSA) economic and social analysis for almost 300 rulemakings each year. Underpinning these assessments is a broad range of socioeconomic data collection, modeling, and, increasingly, a number of commercial and recreational fisheries decision support tools. This work addresses traditional fishery management issues (e.g. effects of rebuilding programs, catch share programs, aquaculture, and fishery allocation decisions on fishermen and communities) and emerging coastal and marine resource management issues such as ecosystem services trade-offs and valuation, and community resilience.

Ecosystem Science (https://www.fisheries.noaa.gov/topic/ecosystems#science)
NMFS implements ecosystem-based approaches to management, which rely upon research that integrates biological, socioeconomic, environmental, and oceanographic data into predictive models that improve NOAA's ability to manage resources over the long-term. This includes: the Integrated Ecosystem Assessment (IEA) program, which assesses ecosystem status and trends relative to ecosystem management goals, analyze risks and uncertainty, and evaluate trade-offs between management options (https://www.integratedecosystemassessment.noaa.gov/); the NOAA Climate, Ecosystems and Fisheries Initiative which will deliver the robust projections of future ecosystem conditions, risk assessments and management strategies decision makers need for climate-informed fisheries management and community adaptation; and the Climate Regimes & Ecosystem Productivity (CREP)

[6]National Marine Fisheries Service (2022) Fisheries of the United States, 2020. U.S. Department of Commerce, NOAA Current Fishery Statistics No. 2020, p. 24. Available at: https://www.fisheries.noaa.gov/resource/document/fisheries-united-states-2020

program, which provides decision-makers with information on how climate variability and change are impacting U.S. marine ecosystems and the communities and economies that depend on them. CREP provides observations, research, assessments, and projections of climate-related impacts on living marine resources of the Bering Sea and Gulf of Alaska. CREP also supports an array of sensors designed to detect changes in nutrients, productivity, and biological abundances and diversity along a latitudinal gradient extending from the northern Bering Sea to the Chukchi and Beaufort Seas. This area includes some of the Nation's richest commercial fishing grounds (5. billion pounds of seafood were landed in Alaska with a value of $1.5 billion in 2020[7]) as well as protected species and other resources that native communities depend on.

Antarctic Research
The U.S. Antarctic Marine Living Resources Convention Act requires that the Department of Commerce conduct directed scientific research to "achieve the United States goal of effective implementation of the objectives of the Convention [on the Conservation of Antarctic Marine Living Resources]." NOAA's Antarctic Ecosystem Research Program implements the U.S. AMLR program in support of U.S. policy interests related to Antarctic resource management. NMFS scientists operate land-based predator research (e.g., counting seals and penguins and monitoring their reproductive success, body condition, and diet) and ship-based research (e.g., conducting oceanographic, trawl surveys, acoustic surveys, and small boat operations) to describe the fundamental relationships between Antarctic krill, krill's predators, finfish, and key environmental variables under changing sea ice conditions. This program is NOAA's only dedicated, long-term ecological presence in the Antarctic, with observations dating back to 1986 (https://swfsc.noaa.gov/aerd/).

Information Analysis and Dissemination
Requirements and directives for data collection, management, and dissemination are included in the MSA, Marine Mammal Protection Act (MMPA), Endangered Species Act (ESA), Aquaculture Act of 1980, Data Quality Act, and other policies and directives. The information analysis and dissemination program supports the NMFS infrastructure and staff that process, analyze, and produce data and disseminate it to resource managers and other users.

[7] National Marine Fisheries Service (2022) Fisheries of the United States, 2020. U.S. Department of Commerce, NOAA Current Fishery Statistics No. 2020, p. 10 Available at: https://www.fisheries.noaa.gov/resource/document/fisheries-united-states-2020

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Fisheries Data Collections, Surveys, and Assessments

Funds in this budget line support data collection, data management, and fisheries stock assessment production. Providing accurate and timely assessments of fish and shellfish stocks that support commercial and recreational fisheries is one of NMFS' core functions. Stock assessments provide the technical basis for fishery management decisions, such as setting annual catch limits (ACLs) to achieve optimum yield from the fishery while avoiding overfishing and ecosystem harm. Stock assessment models estimate a stock's status over time and forecast future dynamics to advise fishery managers in their development of sustainable harvest levels. They are most reliable when they incorporate high quality data on fishery removals, stock abundance and biology, and ecosystem and environmental variability (https://www.fisheries.noaa.gov/topic/population-assessments#fish-stocks).

The following are some of the major programs and activities funded within the budget line:

Activities include: fishery dependent and independent data collection, surveys; data analysis and stock assessment modeling; advanced sampling technologies; habitat, climate and other ecosystem indicators; and stock assessment model improvements. In addition, NMFS addresses critical gaps in stock assessments as identified in program reviews and the implementation of the new stock assessment improvement plan and prioritization process. This process defines target frequency and assessment levels for each stock and facilitates the implementation of a next generation stock assessment framework. This framework includes assessments linked to climate, ecosystem, and habitat dynamics where appropriate, and provides baseline monitoring for all Federally-managed fish stocks (https://www.fisheries.noaa.gov/feature-story/updated-stock-assessment-improvement-plan-builds-past-success).

Fisheries Statistics
NMFS manages and conducts data collection, data processing, statistical analysis, information management, and statistical reporting activities for commercial and recreational fisheries. Accurate data and reliable statistics on fishing effort and catch are essential for assessing fish stocks, as well as for monitoring performance relative to wild fishery management targets and aquaculture objectives.

Fish Information Networks (FINs)
This program supports several state-Federal cooperative programs that coordinate data collection, data management, and information management activities, which are essential for accurate monitoring of commercial and recreational fishing impacts. These programs collect data and manage information on fishing participation, fishing effort, and catch. They also help collect fishery-

dependent biological data needed for stock assessments (https://www.fisheries.noaa.gov/national/commercial-fishing/fisheries-information-system-program).

Survey and Monitoring Projects
Projects include support for bluefin tuna tagging research, red snapper monitoring and research, West Coast groundfish surveys, Alaska extended jurisdiction programs, Maine and New Hampshire inshore trawl surveys, Bering Sea Pollock research, and Gulf of Maine groundfish assessment, to name a few. These targeted surveys and biological investigations improve the information available to conduct accurate stock assessments and directly contribute to the *Percentage of FSSI Stocks with Adequate Population Assessments and Forecasts* (*performance indicator 3.4*).

American Fisheries Act (AFA)
NMFS collects data to support the following management measures for the AFA: 1) regulations that limit access and allocate Bering Sea and Aleutian Islands (BSAI) pollock to the fishing and processing sectors of the BSAI pollock fishery, 2) regulations governing the formation and operation of fishery cooperatives in the BSAI pollock fishery, 3) regulations to protect other fisheries from spillover effects from the AFA, and 4) regulations governing catch measurement and monitoring in the BSAI pollock fishery.

Cooperative Research
NMFS conducts cooperative research to enable commercial and recreational fishermen to become involved in collecting fundamental fisheries information that supports management options. Through cooperative research, industry and other stakeholders can partner with NMFS and university scientists in all phases of the research program—planning the survey and statistical design, conducting research, analyzing data, and communicating results (https://www.fisheries.noaa.gov/sustainable-fisheries/national-cooperative-research-program).

Marine Resources Monitoring, Assessment, and Prediction Program (MARMAP)
MARMAP is a cooperative fisheries project of NMFS and the South Carolina Marine Resources Research Institute (MRRI). For more than 40 years, the MRRI has conducted fishery-independent surveys and research on groundfish, reef fish, and coastal pelagic fishes between Cape Lookout, North Carolina and Cape Canaveral, Florida.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Southeast Area Monitoring and Assessment Program (SEAMAP)
SEAMAP supports the collection of fishery-independent data through state, Federal, and university partnerships by way of cooperative agreements (https://www.fisheries.noaa.gov/southeast/funding-and-financial-services/southeast-area-monitoring-and-assessment-program-seamap).

Observers and Training

This budget line supports information and analyses on the biological, ecological, economic, and social aspects of the Nation's fisheries resources. The scientific data collected by observer programs provide critical inputs for population assessments of threatened and endangered species such as sea turtles, seabirds, and marine mammals, and for effective management of the Nation's fish stocks. The authority to place observers on commercial fishing and processing vessels is provided by the MSA, MMPA, and ESA. Fisheries observer programs are proven, unbiased, and valuable sources of information on the Nation's fisheries, and are a reliable and cost-effective means to collect fishery-dependent data.

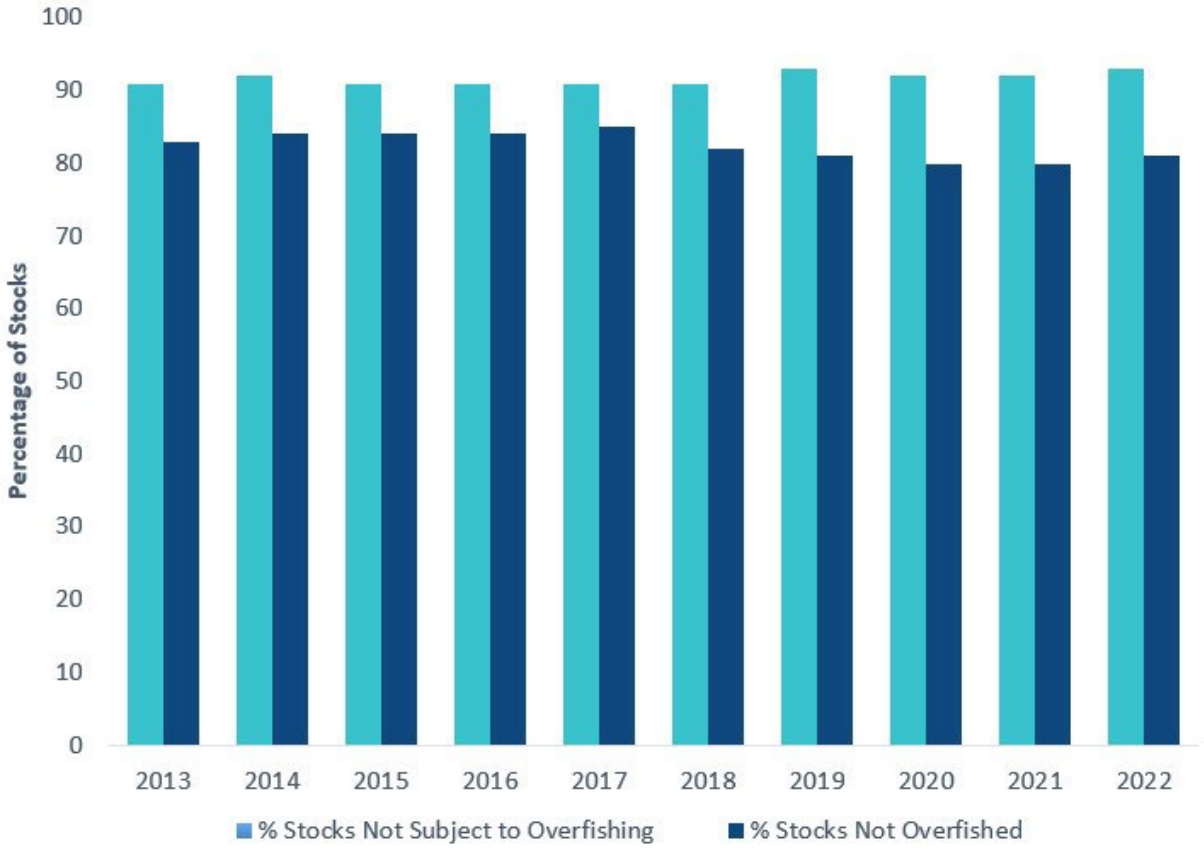
Observers monitor fishing activities across all five NMFS regions, and collect data for a range of conservation and management issues in various fisheries. This includes information on fishing practices, vessel and gear characteristics, fishing locations and times, environmental conditions within the fishing grounds, catch and bycatch, and socioeconomic data (https://www.fisheries.noaa.gov/topic/fishery-observers).

Fisheries Management Programs and Services

Under the MSA and other fisheries legislation, this budget line supports: management actions to effectively prevent and eliminate overfishing, rebuild overfished stocks, support sustainable aquaculture, develop and implement catch share programs, and implement ecosystem-based management to support sustainable fisheries, fishing businesses, and communities. As a result of this work 49 fish stocks since 2000 have been rebuilt and the number of stocks experiencing overfishing, or determined to be overfished are at near all-time lows.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Percentage of Stocks Not Subject to Overfishing and Not Overfished 2013-2022



(Annual Report to Congress: Status of Stocks 2022. https://www.fisheries.noaa.gov/sustainable-fisheries/status-stocks-2022)

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

The following are some of the major programs and activities funded within the budget line:

Fisheries Management Base
These funds support NMFS staff efforts to deliver the following services, including analysis and decision-making to support fisheries management and regulatory implementation:

- Develop, implement, monitor and adjust (if required) ACLs and AMs
- Implement international requirements of regional fishery management organizations (RFMOs) consistent with MSA and other laws applicable to respective RFMOs, for example, Atlantic Tunas Convention Act, etc.
- Combat IUU Fishing [Note: Enforcement actions required to prosecute and deter IUU fisheries actions are covered in the NMFS Enforcement Activity]
- Develop and promulgate National Standard Guidance
- Support Regional Fishery Management Councils, Interstate Marine Fishery Commissions, and the Atlantic Highly Migratory Species Program
- Incorporate Electronic Monitoring and Reporting technologies into fishery management

National Catch Share Program
NMFS supports the development, implementation, and improvement of catch share programs where determined appropriate by the regional fishery management councils and for Atlantic highly migratory species. These programs have numerous benefits including increased flexibility for fishermen to determine when and how they fish. “Catch share” programs are a market-based approach to fisheries management that allocate a specific portion of the total allowable fishery catch to individuals, cooperatives, communities, or other entities. Depending on the nature of the fishery, catch share programs can provide significant advantages including ensuring annual catch limits are not exceeded, reducing costs to produce seafood, market gluts, and bycatch, extending fishing seasons, and improving fishermen’s safety.

Reducing Bycatch
NMFS supports research on gear technologies that reduce bycatch and bycatch mortality. Reducing bycatch can save fishing jobs by preventing fishery closures due to interactions with endangered species or attainment of strict bycatch quotas. This funding supports the Bycatch Reduction Engineering Program external competitive grants program, which supports innovative gear designs and fishing techniques to minimize bycatch.

Product Quality and Safety
NMFS helps ensure that the Nation's seafood industry is economically sustainable and complies with food regulations. Funding supports the National Seafood Inspection Laboratory, which provides an analytical laboratory, data management, and regulatory compliance risk analysis. Analytical testing of seafood products and aquatic animal bi-products includes microbiological analysis of biological pathogens, non-pathogenic organisms, and chemical contaminants. Voluntary services are also part of the program, and include sanitation evaluation, product inspection and certification, auditing of food quality and safety programs, and training.

Aquaculture

NMFS is one of three NOAA Line Offices that support NOAA's Marine Aquaculture Program, whose mission is to provide science, services, and policies to support the significant expansion and sustainability of U.S. marine aquaculture. Each NOAA Line Office has distinct and complementary roles:

- NMFS leads the program and focuses on developing policies, regulations, and science-based tools for management to support streamlined permitting systems. (https://www.fisheries.noaa.gov/topic/aquaculture)
- The OAR National Sea Grant College Program supports industry development and extension with integrated research and technology transfers primarily through competitive grants. (https://seagrant.noaa.gov/Our-Work/Aquaculture)
- NOS supports development of coastal planning tools to inform siting decisions (for example: https://coastalscience.noaa.gov/science-areas/aquaculture/cass/)

This budget line supports efforts to increase aquaculture production as a critical part of NOAA's National Seafood Strategy[8] to support NOAA's Blue Economy goals. Benefits include increasing the Nation's seafood supply, improving our trade balance with other nations, and creating jobs. NMFS' aquaculture activities are led by the Office of Aquaculture (OAQ). NMFS' base funding supports the following priority areas, which are guided by NOAA's 2022 Aquaculture Strategic Plan[9]:

- Manage sustainably and efficiently: Improve regulatory processes for sustainable coastal and marine aquaculture through collaboration with state and Federal partners.
- Lead science for sustainability: Use world-class science expertise to meet management and industry needs for a thriving seafood production sector and share this knowledge broadly.

[8] National Marine Fisheries Service. 2023. NOAA's National Seafood Strategy. U.S. Department of Commerce. Available at: https://www.fisheries.noaa.gov/s3/2023-08/2023-07-NOAAFisheries-Natl-Seafood-Strategy-final.pdf
[9] National Marine Fisheries Service. 2022. Marine Aquaculture Strategic Plan FY 2023-2028. U.S. Department of Commerce. Available at: https://www.fisheries.noaa.gov/resource/document/noaa-aquaculture-strategic-plan-2023-2028

- Educate and exchange information: Build awareness and support for coastal, marine, and Great Lakes aquaculture through two-way communication with diverse stakeholders and partners.
- Support economic viability and growth: Facilitate a robust aquaculture industry that thrives as a key component of a resilient seafood sector.

The U.S. is a major consumer of aquaculture products, yet is a minor producer. The Nation imports 70 to 85 percent of its seafood[10], over half of which is from foreign-produced aquaculture. This reliance on foreign imports resulted in a near $17 billion seafood trade deficit in 2020[11], moves potential seafood jobs overseas, and poses a risk to food security. Given wild fish stocks are at or near maximum harvest levels, the single greatest opportunity to increase the seafood supply is through domestic aquaculture.

Salmon Management Activities

This budget line supports NMFS' research and management activities associated with salmon not listed under the ESA. Funding for the Mitchell Act component supports the operations and maintenance of Columbia River hatcheries through grants and contracts to the states of Washington, Oregon, and Idaho, and to the U.S. Fish and Wildlife Service, to mitigate the loss of salmon on the Columbia and Snake Rivers.

The Pacific Salmon Treaty component funds NMFS and the states of Alaska, Washington, Oregon, and Idaho to provide personnel support to the Pacific Salmon Commission's technical committees and conduct a broad range of salmon stock assessment and fishery monitoring programs required to implement the treaty provisions. These programs are carried out in fisheries and rivers located from southeast Alaska to Oregon, including the Columbia River. U.S. and Canadian Parties negotiated amendments to five Pacific Salmon Treaty fishing regimes contained in Annex IV. The current agreement, in force from 2019 through 2028, addresses conservation concerns through recommendations for reduced harvest of Chinook salmon in both United States and Canadian fisheries. NMFS collaborates closely with the state and Tribal representatives to the Pacific Salmon Commission to develop annual spend plans implementing the recommendations. Funds provided to date support these spend plans.

[10] National Marine Fisheries Service (2022) Fisheries of the United States, 2020. U.S. Department of Commerce, NOAA Current Fishery Statistics No. 2020, p. 24. Available at: https://www.fisheries.noaa.gov/national/sustainable-fisheries/fisheries-united-states. (Note: due to data availability, aquaculture production data lags the rest of the publication by one year.)
[11] Ibid, p. 20.

Base funds also support genetic stock identification research which includes the collection, analysis, and testing of methods that rely on genetics-based data to identify and track the location of Federally protected stocks in the wild. Genetic stock identification programs improve salmon management and avoid harvest of weak salmon stocks by identifying the movement and location of individual stocks.

Regional Councils and Fisheries Commissions

NOAA is the sole source of funding for the eight Regional Fishery Management Councils. The Councils were established by the MSA to prepare FMPs aimed at preventing and eliminating overfishing and rebuilding overfished stocks for the Nation's fisheries. Funding in this budget line is divided among the eight Councils and is used for their operating costs (e.g., staff, rent, public meetings, Council member salaries, and travel). Funding also supports the activities of the Interstate Marine Fisheries Commissions, and International Fisheries Commissions. Funds provide critical operational support to the commissions and states for development and implementation of sustainable fishery management measures.

Interjurisdictional Fisheries Grants

The Interjurisdictional Fisheries Act of 1986 (IFA) is a formula-based financial assistance program to promote state activities in support of the management of interjurisdictional fisheries resources. Any state, either directly or through an interstate commission, may submit a grant proposal that supports management of fishery resources that: 1) occur in waters under the jurisdiction of one or more states and in the U.S. EEZ; 2) are managed under an interstate FMP; or (3) migrate between the waters under the jurisdiction of two or more states bordering on the Great Lakes. Past examples of projects funded through these grants include research on: blue crab spawning in Florida; American lobster settlement in Maine; and, fishery catch statistics, stock status, and management actions for state of Alaska managed fisheries including sablefish, lingcod, black and blue rockfish, and Pacific cod.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Increase from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Fisheries and Ecosystem Science Programs and Services	Pos./BA	668	164,591	679	170,848	11	6,257
	FTE/OBL	585	164,591	593	170,848	8	6,257

Wind Energy: Fisheries Science and Technical Reviews (+$6,257, 8 FTE/ 11 Positions) – This request will assess the effects of planned offshore energy activities on fish, fisheries, and ecosystems. NOAA's expertise in managing and conserving fisheries, ocean species and habitats is critical to support the Administration's goal of deploying 30 gigawatts of offshore energy by 2030, by facilitating responsible renewable energy development while protecting ecosystems and ensuring ocean co-use.

Offshore wind development continues to rapidly expand and represents a significant use of our marine waters, requiring substantial scientific and regulatory review. NMFS is requesting a total of $43.9 million in four complementary areas to address the rapid expansion and the impacts of offshore energy projects. The other components can be found in Marine Mammals, Sea Turtles, and Other Species (NMFS-15); Fisheries Data Collections Surveys, and Assessments (NMFS-57); and Fisheries Management Programs and Services (NMFS-68). This effort complements the $8.7 million in total requested in the NOS proposal, Foundational Information for Expansion of Offshore Wind Energy.

NMFS requests $6.3 million to provide additional resources for offshore energy assessment to support the regulatory review process, including technical review, data analysis, and generation of recommendations for Essential Fish Habitat (EFH), Endangered Species Act (ESA), and National Environmental Policy Act (NEPA) consultation processes. This increase will also fund projects that advance scientific understanding on the interaction of offshore wind on NOAA trust resources. There are significant scientific questions regarding the interaction between wind development and fisheries. With these additional funds, NMFS will address these questions and mitigate impacts to fisheries by providing socio-economic analyses, application of integrated ecosystem assessments, and development of cooperative fisheries research studies. These funds will focus on the operational needs associated with offshore wind projects in the Northeast and Mid-Atlantic region, and also include initial investments in the West Coast, Gulf of Mexico, and South Atlantic. These funds will position NMFS to meet current and future challenges of regulatory and scientific review.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

Schedule and Milestones:
FY 2025 – FY 2029:

- Provide scientific information, expert advice, and guidance to BOEM to implement offshore wind development at least 32 projects over a four to five year period that considers impacts to:
    - Protected species and their habitats, with a particular focus on the critically endangered North Atlantic right whale;
    - Socio-economic impacts from offshore wind development; and,
    - Essential fish habitats, with particular focus on vulnerable complex habitats and life stages
- As a Cooperating Agency under NEPA, identify and share living marine resources expertise and make recommendations upon potential environmental, biological, and socio-economic impacts on trust resources on approximately 25 to 35 projects over a four to five year period by 2027. This will allow regulators and developers to consider the full scope of impacts
- Advance management's understanding of science-based evidence for the interactions of fisheries and their habitats with offshore wind energy
- Establish and support regional collaborative ecosystem-scale research and monitoring programs across project/ecosystem scales to develop the necessary understanding of fisheries, habitat, and protected species interactions with wind development. In addition, assess the associated cumulative impacts to these resources and the habitats and ecosystems on which they rely, including potential changes in oceanographic conditions

Deliverables:
FY 2025 - FY 2029:

- Scientific information for NEPA reviews of the direct, indirect, short-term, long-term, and cumulative impacts to marine mammals and their habitats, threatened and endangered species and their critical habitats, fisheries resources and essential fish habitats, and resource users and associated communities
- Input on planning and analysis and leasing documents and notices during BOEM's initial phases of offshore wind development and on Draft Environmental Impact Statements, Final Environmental Impact Statements, and Record of Decisions structure, content, and appropriate methodology for impact analysis to BOEM to improve document quality
- Scientific manuscripts for publication in peer-reviewed journals to aid in establishing NMFS as a global leader on topics related to offshore wind and fisheries science
- Enhanced commercial and recreational fishery and socio-economic data to improve BOEM decision-making and to improve the consideration of fishing industry considerations in the planning and development process

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

- Regional scientific frameworks for (1) fisheries research and monitoring and (2) protected species and wildlife research and monitoring, which were developed with regional partners
- Convene State of the Science Symposia, in partnership with scientific and industry collaborators, on the status of fisheries and protected species interactions with offshore wind energy (FY 2026)

Performance Measures	2025	2026	2027	2028	2029
Reducing uncertainty of wind and fisheries impacts within regulatory reviewing process – Number of independent peer reviewed literature documenting the effects and impacts of offshore wind development on fisheries and protected species recovery and conservation					
With Increase	5	6	8	7	7
Without Increase	3	3	4	4	4
Outyear Costs:					
Direct Obligations	6,257	6,257	6,257	6,257	6,257
Capitalized	0	0	0	0	0
Uncapitalized	6,257	6,257	6,257	6,257	6,257
Budget Authority	6,257	6,257	6,257	6,257	6,257
Outlays	3,817	5,569	5,882	6,132	6,257
FTE	8	11	11	11	11
Positions	11	11	11	11	11

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE PERSONNEL DETAIL

Activity: Fisheries Science and Management
Subactivity: Fisheries and Ecosystem Science Programs and Services
Program Change: Wind Energy: Fisheries Science and Technical Reviews

Title		Grade	Number	Annual Salary	Total Salaries
Fisheries Biologist (NWFSC)		ZPIV	1	109,546	109,546
Fisheries Biologist (NEFSC)		ZPIV	1	110,798	110,798
Fisheries Biologist (SEFSC)		ZPIV	1	104,955	104,955
Fisheries Biologist (SWFSC)		ZPIV	1	110,609	110,609
Fisheries Biologist (NWFSC)		ZPIII	2	76,860	153,720
Fisheries Biologist (NEFSC)		ZPIII	1	77,738	77,738
Fisheries Biologist (SEFSC)		ZPIII	2	73,639	147,278
Fisheries Biologist (SWFSC)		ZPIII	2	78,307	156,614
Total			11		971,258
Less lapse	25.00%		(3)		(242,815)
Total full-time permanent (FTE)			8		728,444
2025 Pay Adjustment (2.0%)					14,569
					743,012

Personnel Data Summary	
Full-time Equivalent Employment (FTE)	
Full-time permanent	8
Total FTE	8
Authorized Positions:	
Full-time permanent	11
Total Positions	11

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Fisheries Science and Management
Subactivity: Fisheries and Ecosystem Science Programs and Services

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase from 2025 Base
11.1	Full-time permanent compensation	68,569	69,836	71,978	72,721	743
11.3	Other than full-time permanent	455	463	477	477	0
11.5	Other personnel compensation	3,388	3,451	3,557	3,557	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	72,412	73,750	76,012	76,755	743
12	Civilian personnel benefits	26,548	27,038	27,867	28,144	277
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	2,639	2,688	2,688	3,012	324
22	Transportation of things	500	509	509	660	151
23	Rent, communications, and utilitites	0	0	0	0	0
23.1	Rental payments to GSA	2,256	2,298	2,298	2,298	0
23.2	Rental Payments to others	238	243	243	243	0
23.3	Communications, utilities and misc charges	2,537	2,584	2,584	2,584	0
24	Printing and reproduction	89	90	90	90	0
25.1	Advisory and assistance services	6,546	6,667	6,667	6,667	0
25.2	Other services from non-Federal sources	27,584	28,093	28,093	31,744	3,651
25.3	Other goods and services from Federal sources	606	617	617	617	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	3,164	3,223	3,223	4,129	906
31	Equipment	1,335	1,360	1,360	1,565	205
32	Lands and structures	439	447	447	447	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	11,673	11,889	11,889	11,889	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	4	4	4	4	0
44	Refunds	0	0	0	0	0
99	Total obligations	158,570	161,500	164,591	170,848	6,257

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Fisheries and Ecosystem Science Programs and Services	Pos./BA	668	164,591	668	164,391	0	(200)
	FTE/OBL	585	164,591	585	164,391	0	(200)

Enterprise Infrastructure Solutions (EIS) Decrease (-$200, 0 FTE/0 Positions) – NOAA requests a reduction for EIS. Funds provided to NMFS through FY 2023 were sufficient to complete the transition of telecommunications services to GSA's EIS contract vehicle.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Fisheries Science and Management
Subactivity: Fisheries and Ecosystem Science Programs and Services

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	68,569	69,836	71,978	71,978	0
11.3	Other than full-time permanent	455	463	477	477	0
11.5	Other personnel compensation	3,388	3,451	3,557	3,557	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	72,412	73,750	76,012	76,012	0
12	Civilian personnel benefits	26,548	27,038	27,867	27,867	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	2,639	2,688	2,688	2,688	0
22	Transportation of things	500	509	509	509	0
23	Rent, communications, and utilitites	0	0	0	0	0
23.1	Rental payments to GSA	2,256	2,298	2,298	2,298	0
23.2	Rental Payments to others	238	243	243	243	0
23.3	Communications, utilities and misc charges	2,537	2,584	2,584	2,584	0
24	Printing and reproduction	89	90	90	90	0
25.1	Advisory and assistance services	6,546	6,667	6,667	6,667	0
25.2	Other services from non-Federal sources	27,584	28,093	28,093	27,893	(200)
25.3	Other goods and services from Federal sources	606	617	617	617	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	3,164	3,223	3,223	3,223	0
31	Equipment	1,335	1,360	1,360	1,360	0
32	Lands and structures	439	447	447	447	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	11,673	11,889	11,889	11,889	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	4	4	4	4	0
44	Refunds	0	0	0	0	0
99	Total obligations	158,570	161,500	164,591	164,391	(200)

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Increase from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Fisheries Data Collections, Surveys, and Assessments	Pos./BA	511	206,753	528	216,743	17	9,990
	FTE/OBL	466	206,753	479	216,743	13	9,990

Wind Energy: Scientific Survey Mitigation (+$9,990 13 FTE/ 17 Positions) – This request will support the newly established national program to mitigate the effects of planned offshore energy activities on NMFS scientific surveys. NMFS' expertise in managing ocean species and habitats is critical to supporting the Administration's goal of deploying 30 gigawatts of offshore wind by 2030, by facilitating responsible renewable energy development while protecting ecosystems. This proposal would allow NMFS to expand capacity nationally as the Administration opens up new areas of the Outer Continental Shelf to offshore wind energy development and ensuring ocean co-use.

The goal of the survey mitigation program is to ensure the continuity of the important marine scientific investments in long-term data collection and to maintain scientific support for sustainable fisheries. Offshore wind development continues to rapidly expand and represents a significant use of our marine waters, requiring substantial scientific and regulatory review. NMFS is requesting a total of $43.9 million in four complementary areas to address the rapid expansion and the impacts of offshore energy projects. The other components can be found in Marine Mammals, Sea Turtles, and Other Species (NMFS-15); Fisheries Ecosystem Science Programs and Services (NMFS-50); and Fisheries Management Programs and Services (NMFS-68). This effort complements the $8.7 million in total requested in the NOS proposal, Foundational Information for Expansion of Offshore Wind Energy.

NMFS requests an additional $10 million to implement a national Federal survey mitigation program that will need to occur over the operational lifespan of offshore wind developments (33+ years). The survey mitigation program will address impacts from offshore wind development on NMFS surveys arising from: exclusion of NMFS sampling platforms from the wind development area due to operational and safety limitations; impacts on the random-stratified statistical design that is the basis for scientific assessments, advice and analysis; and alteration of benthic and pelagic habitats, and airspace in and around the wind energy development. With this funding, the program will evaluate existing survey designs, as well as identify and develop new survey approaches. Funds will

support the calibration of these new approaches to existing surveys, develop interim survey indices, and conduct monitoring efforts. This will begin to address regional scientific survey data needs over the life of offshore wind operations. Information and outcomes from these efforts will be shared with the public, industry, academia, and state and Federal partners to ensure an open and transparent process.

Schedule and Milestones:

FY 2025 – FY 2029:

- Advance management's understanding of science-based evidence for the interactions of protected species and their habitats and fisheries with offshore wind energy
- Establish and support regional collaborative ecosystem-scale research and monitoring programs across project/ecosystem scales to develop the necessary understanding of fisheries, habitat, and protected species interactions with wind development and the associated cumulative impacts to these resources and the habitats and ecosystems on which they rely, including potential changes in oceanographic conditions
- Implement requirements for all six elements of a Northeast and Mid-Atlantic Federal Survey Mitigation Program, to make progress towards mitigating known and expected impacts to at least seven core Northeast Fisheries Science Center fisheries and protected species surveys described in the Final Environmental Impact Statements for two projects approved and under construction and 11 projects planned for approval or substantial progress toward approval by 2025. Begin necessary work to assess survey impacts and prepare for identification of survey mitigation requirements to mitigate expected impacts to fishery and protected species surveys as a result of five additional projects expected to be in review

Deliverables:

FY 2025 - FY 2029:

- Scientific manuscripts for publication in peer-reviewed journals to aid in establishing NMFS as a global leader on topics related to offshore wind and fisheries science
- Regional scientific frameworks that are integrated into a Federal survey mitigation program for (1) fisheries research and monitoring, and (2) protected species and wildlife research and monitoring.
- Initial pilot testing of uncrewed vehicle as a possible alternative survey data collection method in wind farms
- Initial calibration of technical systems, automation methods, and flight procedures for some aerial surveys
- One calibration experiment to ensure continuity of the Northeast Fisheries Science Center core survey time series (FY 2025)
- Initiation of assessment and development of Federal Survey Mitigation Plans along the West Coast, Gulf of Mexico, and South Atlantic

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

Performance Measures	2025	2026	2027	2028	2029
Number of core Federal scientific surveys for which survey mitigation plans have been developed to assure the continuity of critical scientific time series (annual)					
With Increase	4	7	7	7	7
Without Increase	4	4	4	4	4
Outyear Costs:					
Direct Obligations	9,990	9,990	9,990	9,990	9,990
Capitalized	0	0	0	0	0
Uncapitalized	9,990	9,990	9,990	9,990	9,990
Budget Authority	9,990	9,990	9,990	9,990	9,990
Outlays	6,094	8,891	9,391	9,790	9,990
FTE	13	17	17	17	17
Positions	17	17	17	17	17

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE PERSONNEL DETAIL

Activity: Fisheries Science and Management
Subactivity: Fisheries Data Collections, Surveys, and Assessments
Program Change: Wind Energy: Scientific Survey Mitigation

Title		Grade	Number	Annual Salary	Total Salaries
Fisheries Biologist (SWFSC)		ZPIV	1	111,609	111,609
Fisheries Biologist (NEFSC)		ZPIV	1	110,798	110,798
Fisheries Biologist (NWFSC)		ZPIV	1	109,546	109,546
Fisheries Biologist (SEFSC)		ZPIII	3	73,639	220,917
Fisheries Biologist (SWFSC)		ZPIII	5	78,307	391,535
Fisheries Biologist (NEFSC)		ZPIII	2	77,738	155,476
Fisheries Biologist (NWFSC)		ZPIII	1	76,860	76,860
Fisheries Biologist (NEFSC)		ZPII	3	52,527	157,581
Total			17		1,334,322
Less lapse	25.00%		(4)		(333,581)
Total full-time permanent (FTE)			13		1,000,742
2025 Pay Adjustment (2.0%)					20,015
					1,020,756

Personnel Data Summary	
Full-time Equivalent Employment (FTE)	
Full-time permanent	13
Total FTE	13
Authorized Positions:	
Full-time permanent	17
Total Positions	17

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Fisheries Science and Management
Subactivity: Fisheries Data Collections, Surveys, and Assessments

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase from 2025 Base
11.1	Full-time permanent compensation	57,157	56,859	58,874	59,895	1,021
11.3	Other than full-time permanent	546	543	562	562	0
11.5	Other personnel compensation	2,380	2,367	2,451	2,451	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	60,083	59,769	61,887	62,908	1,021
12	Civilian personnel benefits	22,241	22,124	22,908	23,287	379
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	3,344	3,326	3,326	3,918	592
22	Transportation of things	569	566	566	770	204
23	Rent, communications, and utilitites	0	0	0	0	0
23.1	Rental payments to GSA	3,247	3,230	3,230	3,230	0
23.2	Rental Payments to others	217	215	215	215	0
23.3	Communications, utilities and misc charges	5,159	5,132	5,132	5,132	0
24	Printing and reproduction	95	94	94	94	0
25.1	Advisory and assistance services	11,580	11,519	11,519	11,519	0
25.2	Other services from non-Federal sources	28,914	28,764	28,764	34,247	5,483
25.3	Other goods and services from Federal sources	984	979	979	979	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	3,312	3,294	3,294	5,337	2,043
31	Equipment	1,630	1,621	1,621	1,889	268
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	63,548	63,214	63,214	63,214	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	4	4	4	4	0
44	Refunds	0	0	0	0	0
99	Total obligations	204,927	203,851	206,753	216,743	9,990

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Fisheries Data Collections, Surveys, and Assessments	Pos./BA	511	206,753	501	196,922	(10)	(9,831)
	FTE/OBL	466	206,753	456	196,922	(10)	(9,831)

Cooperative Research Program (-$9,831 -10 FTE/ -10 Positions) – This program change is requested to support other NOAA and Administration priorities. This request reduces funding for the Cooperative Research program, providing a total funding level of $3.7 million in FY 2025. At this level of funding, NMFS will focus on maintaining fisheries survey coverage by retaining current key cooperative fishery-independent surveys across the country, and leveraging recreational and commercial fishing vessels as survey platforms (in consultation with regional stakeholders, Fishery Management Councils, and Commissions). At this funding level, NMFS will transition approximately 10 FTEs into other positions, and will work diligently to mitigate any impact to affected employees.

NMFS is taking cooperative partnership approaches with the fishing industry, academia, and state partners, utilizing Inflation Reduction Act funds to improve our overall science and survey enterprise, and better address ecosystem changes associated with climate change.

At this funding level, Cooperative Research program priorities identified under MSA Section 318 would be discontinued, including: ongoing major fishery-dependent data collection efforts (e.g., the Northeast Study Fleet and the Southeast State/Federal Cooperative Statistics Program); conservation engineering; bycatch and post-release mortality studies; socio-economic surveys; and habitat characterization studies.

Schedule and Milestones (FY 2025 – FY 2029)**:**

- Issue awards to conduct ten cooperative research surveys nationwide annually

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

Deliverables (FY 2025 – FY 2029)**:**

- Completed cooperative survey results are documented in individual project final reports, with data archived at the Fisheries Science Centers and added to the NMFS InPort Centralized documentation (metadata) repository

	2025	2026	2027	2028	2029
Performance Measure: Number of Cooperative Research Projects funded (annual)					
With Decrease	10	10	10	10	10
Without Decrease	37	37	37	37	37
Outyear Costs:					
Direct Obligations					
Capitalized	0	0	0	0	0
Uncapitalized	(9,831)	(9,831)	(9,831)	(9,831)	(9,831)
Budget Authority	(9,831)	(9,831)	(9,831)	(9,831)	(9,831)
Outlays	(5,997)	(8,750)	(9,241)	(9,634)	(9,831)
FTE	(10)	(10)	(10)	(10)	(10)
Positions	(10)	(10)	(10)	(10)	(10)

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE PERSONNEL DETAIL

Activity: Fisheries Science and Management
Subactivity: Fisheries Data Collections, Surveys, and Assessments
Program Change: Cooperative Research Program

Title	Grade	Number	Annual Salary	Total Salaries
Fishery Biologist (Silver Spring)	ZP-IV	(1)	112,015	(112,015)
Grants Management Specialist (SERO)	ZA-III	(1)	69,107	(69,107)
Fishery Biologist (NEFSC)	ZP-III	(1)	77,738	(77,738)
Marine Resources Management Specialist (NEFSC)	ZP-II	(3)	52,527	(157,581)
Marine Resources Management Specialist (NEFSC)	ZP-III	(4)	77,738	(310,952)
Total		(10)		(727,393)
Less lapse		0		0
Total full-time permanent (FTE)		(10)		(727,393)
2025 Pay Adjustment (2.0%)				(14,548)
				(741,941)

Personnel Data Summary	
Full-time Equivalent Employment (FTE)	
Full-time permanent	(10)
Total FTE	(10)
Authorized Positions:	
Full-time permanent	(10)
Total Positions	(10)

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Fisheries Science and Management
Subactivity: Fisheries Data Collections, Surveys, and Assessments

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	57,157	56,859	58,874	58,132	(742)
11.3	Other than full-time permanent	546	543	562	562	0
11.5	Other personnel compensation	2,380	2,367	2,451	2,451	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	60,083	59,769	61,887	61,145	(742)
12	Civilian personnel benefits	22,241	22,124	22,908	22,723	(185)
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	3,344	3,326	3,326	3,276	(50)
22	Transportation of things	569	566	566	566	0
23	Rent, communications, and utilitites	0	0	0	0	0
23.1	Rental payments to GSA	3,247	3,230	3,230	3,230	0
23.2	Rental Payments to others	217	215	215	215	0
23.3	Communications, utilities and misc charges	5,159	5,132	5,132	5,132	0
24	Printing and reproduction	95	94	94	94	0
25.1	Advisory and assistance services	11,580	11,519	11,519	10,863	(656)
25.2	Other services from non-Federal sources	28,914	28,764	28,764	24,648	(4,116)
25.3	Other goods and services from Federal sources	984	979	979	979	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	3,312	3,294	3,294	2,934	(360)
31	Equipment	1,630	1,621	1,621	1,493	(128)
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	63,548	63,214	63,214	59,620	(3,594)
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	4	4	4	4	0
44	Refunds	0	0	0	0	0
99	Total obligations	204,927	203,851	206,753	196,922	(9,831)

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Fisheries Data Collections, Surveys, and Assessments	Pos./BA	511	206,753	511	205,553	0	(1,200)
	FTE/OBL	466	206,753	466	205,553	0	(1,200)

Fisheries Data Collection Projects Reduction (-$1,200, 0 FTE/ 0 Positions) – This program change is requested to support other NOAA and Administration priorities. Within base resources NMFS will continue, as directed in FY 2023, the Northwest Fisheries Ecosystem Monitoring System at $500. NMFS will also continue to consult with Gulf of Mexico Fishery Management Council and shrimp industry stakeholders on the requirements of Gulf of Mexico Shrimp Fishing Electronic Logbook program in FY 2025. This request reduces the additional resources provided in FY 2023 for specific projects, including the Northwest Fisheries Ecosystem Monitoring System (-$350) and the Gulf of Mexico Shrimp Fishing Effort (-$850).

	2025	2026	2027	2028	2029
Outyear Costs:					
Direct Obligations	(1,200)	(1,200)	(1,200)	(1,200)	(1,200)
Capitalized	0	0	0	0	0
Uncapitalized	(1,200)	(1,200)	(1,200)	(1,200)	(1,200)
Budget Authority	(1,200)	(1,200)	(1,200)	(1,200)	(1,200)
Outlays	(732)	(1,068)	(1,128)	(1,176)	(1,200)
FTE	0	0	0	0	0
Positions	0	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Fisheries Science and Management
Subactivity: Fisheries Data Collections, Surveys, and Assessments

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	57,157	56,859	58,874	58,874	0
11.3	Other than full-time permanent	546	543	562	562	0
11.5	Other personnel compensation	2,380	2,367	2,451	2,451	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	60,083	59,769	61,887	61,887	0
12	Civilian personnel benefits	22,241	22,124	22,908	22,908	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	3,344	3,326	3,326	3,326	0
22	Transportation of things	569	566	566	566	0
23	Rent, communications, and utilitites	0	0	0	0	0
23.1	Rental payments to GSA	3,247	3,230	3,230	3,230	0
23.2	Rental Payments to others	217	215	215	215	0
23.3	Communications, utilities and misc charges	5,159	5,132	5,132	5,132	0
24	Printing and reproduction	95	94	94	94	0
25.1	Advisory and assistance services	11,580	11,519	11,519	11,519	0
25.2	Other services from non-Federal sources	28,914	28,764	28,764	27,564	(1,200)
25.3	Other goods and services from Federal sources	984	979	979	979	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	3,312	3,294	3,294	3,294	0
31	Equipment	1,630	1,621	1,621	1,621	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	63,548	63,214	63,214	63,214	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	4	4	4	4	0
44	Refunds	0	0	0	0	0
99	Total obligations	204,927	203,851	206,753	205,553	(1,200)

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Increase from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Fisheries Management Programs and Services	Pos./BA	500	140,209	510	143,021	10	2,812
	FTE/OBL	458	140,209	466	143,021	8	2,812

Wind Energy: Fisheries Management (+$2,812, 8 FTE/ 10 Positions) – NOAA requests additional funds to assess the effects of planned offshore energy activities on fisheries environmental reviews including Essential Fish Habitat (EFH) consultations under the Magnuson Stevens Act (MSA) and review of environmental impact statements (EIS) analyzing the impacts to living marine resources and affected communities under the National Environmental Policy Act (NEPA). NOAA's expertise in managing and conserving fisheries, ocean species and habitats is critical to support the Administration's goal of deploying 30 gigawatts of offshore wind by 2030 by facilitating responsible renewable energy development while protecting ecosystems and ensuring ocean co-use.

Offshore wind development continues to rapidly expand and represents a significant use of our marine waters, requiring substantial scientific and regulatory review. NMFS is requesting a total of $43.9 million in four complementary areas to address the rapid expansion and the impacts of offshore energy projects. The other components can be found in Marine Mammals, Sea Turtles, and Other Species (NMFS-15); Fisheries Ecosystem Science Programs and Services (NMFS-50); and Fisheries Data Collections, Surveys, and Assessments (NMFS-57). This effort complements the $8.7 million in total requested in the NOS proposal, Foundational Information for Expansion of Offshore Wind Energy.

NMFS requests an additional $2.8 million to efficiently and effectively carry out increased consultation work associated with new BOEM activities, support early engagement with BOEM and project proponents, and to minimize impacts and delays to existing workload carried by consultation biologists. This funding will support staff needed to review environmental assessments that enables NMFS to conduct EFH consultations on offshore wind projects and provide conservation recommendations to mitigate the impacts to complex and important marine habitats. In addition, this funding will support the review of comprehensive and complex EISs. This work will ensure NMFS can provide BOEM reasonable alternatives with sufficient analysis to assess the impacts to living marine resources and their habitats, as well as socio-economic impacts to affected fishing and coastal communities. Both tasks routinely

require dedicated engagement with BOEM staff and contractors to allow NMFS to conduct assessments and consultations as a cooperating agency.

Schedule and Milestones:
FY 2025 – FY 2029:

- Provide information, expert advice, and guidance to BOEM to implement offshore wind development for at least 32 projects and leases over a four to five year period beginning in FY 2023 that considers impacts to fisheries and their habitats:
  - Socio-economic impacts from offshore wind development; and,
  - Essential fish habitats, with particular focus on vulnerable complex habitats and life stages
- As a Cooperating Agency under NEPA, identify and share living marine resources expertise and make recommendations upon potential environmental, biological, and socio-economic impacts on our trust resources on approximately 25 to 35 projects over a four to five year period by 2027. This will allow regulators and developers to consider the full scope of impacts
- Complete thorough and timely EFH consultations that are based on the best available scientific information while fulfilling FAST-41[12] obligations

Deliverables:
FY 2025 - FY 2029:

- EFH consultations and NEPA reviews of the direct, indirect, short-term, long-term, and cumulative impacts to essential fish habitats, fisheries, and resource users and associated communities
- Critical products developed with NMFS input, including: planning and analysis and leasing documents and notices during BOEM's initial phases of offshore wind development, as well as project milestones and timelines, Draft EIS, Final EIS, and Records of Decision structure, content, and appropriate methodology for impact analysis to BOEM to improve document quality

[12] P.L. 114-94 Title 41, Fixing America's Surface Transportation Act

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

Performance Measures	2025	2026	2027	2028	2029
The number of wind energy projects where early and comprehensive coordination with BOEM and industry yields sufficient information and analysis to inform NMFS consultations and reviews, resulting in improved protection of NOAA Trust Resources					
With Increase	27	27	29	29	29
Without Increase	27	27	27	27	27
Outyear Costs:					
Direct Obligations	2,812	2,812	2,812	2,812	2,812
Capitalized	0	0	0	0	0
Uncapitalized	2,812	2,812	2,812	2,812	2,812
Budget Authority	2,812	2,812	2,812	2,812	2,812
Outlays	1,715	2,503	2,643	2,756	2,812
FTE	8	10	10	10	10
Positions	10	10	10	10	10

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE PERSONNEL DETAIL

Activity: Fisheries Science and Management
Subactivity: Fisheries Management Programs and Services
Program Change: Wind Energy: Fisheries Management

Title		Grade	Number	Annual Salary	Total Salaries
Fisheries Biologist (WCRO)		ZPIII	4	76,860	307,440
Fisheries Biologist (SERO)		ZPIII	4	69,107	276,428
Fisheries Biologist (GARFO)		ZPIII	1	77,738	77,738
Fisheries Biologist (GARFO)		ZPIII	1	52,527	52,527
Total			10		714,133
Less lapse	25.00%		(2)		(178,533)
Total full-time permanent (FTE)			8		535,600
2025 Pay Adjustment (2.0%)					10,712
					546,312

Personnel Data Summary	
Full-time Equivalent Employment (FTE)	
Full-time permanent	8
Total FTE	8
Authorized Positions:	
Full-time permanent	10
Total Positions	10

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Facilities, and Research
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Fisheries Science and Management
Subactivity: Fisheries Management Programs and Services

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase from 2025 Base
11.1	Full-time permanent compensation	51,731	54,213	55,954	56,500	546
11.3	Other than full-time permanent	56	59	61	61	0
11.5	Other personnel compensation	1,220	1,279	1,320	1,320	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	53,007	55,551	57,335	57,881	546
12	Civilian personnel benefits	20,053	21,013	21,688	21,895	207
13	Benefits for former personnel	66	69	69	69	0
21	Travel and transportation of persons	2,613	2,738	2,738	2,823	85
22	Transportation of things	34	36	36	65	29
23	Rent, communications, and utilitites			0	0	0
23.1	Rental payments to GSA	2,071	2,170	2,170	2,170	0
23.2	Rental Payments to others	929	973	973	973	0
23.3	Communications, utilities and misc charges	477	499	499	499	0
24	Printing and reproduction	97	102	102	102	0
25.1	Advisory and assistance services	6,611	6,928	6,928	6,928	0
25.2	Other services from non-Federal sources	25,535	26,758	26,758	28,370	1,612
25.3	Other goods and services from Federal sources	1,095	1,147	1,147	1,147	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	555	581	581	875	294
31	Equipment	1,167	1,223	1,223	1,262	39
32	Lands and structures	27	29	29	29	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	17,106	17,925	17,925	17,925	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	8	8	8	8	0
44	Refunds	0	0	0	0	0
99	Total obligations	131,451	137,750	140,209	143,021	2,812

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Fisheries Management Programs and Services	Pos./BA	500	140,209	500	137,334	0	(2,875)
	FTE/OBL	458	140,209	458	137,334	0	(2,875)

Bycatch Reduction Engineering Program (-$2,875, 0 FTE/ 0 Positions) – This program change is requested to support other NOAA and Administration priorities. This Budget does not request funding for the Bycatch Reduction Engineering Program (BREP). NMFS will continue to work with its partners, including the regional fishery management councils, Take Reduction Teams, the fishing industry, states and interstate marine fisheries commissions, academic groups, environmental organizations, international partners, and others to better understand bycatch and to implement management measures.

As a result of terminating this program, NMFS will no longer be able to provide funding to support applied management projects and activities to reduce bycatch.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

	2025	2026	2027	2028	2029
Outyear Costs:					
Direct Obligations	(2,875)	(2,875)	(2,875)	(2,875)	(2,875)
Capitalized	0	0	0	0	0
Uncapitalized	(2,875)	(2,875)	(2,875)	(2,875)	(2,875)
Budget Authority	(2,875)	(2,875)	(2,875)	(2,875)	(2,875)
Outlays	(1,754)	(2,559)	(2,703)	(2,818)	(2,875)
FTE	0	0	0	0	0
Positions	0	0	0	0	0

Exhibit 15

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Facilities, and Research
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Fisheries Science and Management
Subactivity: Fisheries Management Programs and Services

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	51,731	54,213	55,954	55,954	0
11.3	Other than full-time permanent	56	59	61	61	0
11.5	Other personnel compensation	1,220	1,279	1,320	1,320	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	53,007	55,551	57,335	57,335	0
12	Civilian personnel benefits	20,053	21,013	21,688	21,688	0
13	Benefits for former personnel	66	69	69	69	0
21	Travel and transportation of persons	2,613	2,738	2,738	2,738	0
22	Transportation of things	34	36	36	36	0
23	Rent, communications, and utilitites			0	0	0
23.1	Rental payments to GSA	2,071	2,170	2,170	2,170	0
23.2	Rental Payments to others	929	973	973	973	0
23.3	Communications, utilities and misc charges	477	499	499	499	0
24	Printing and reproduction	97	102	102	102	0
25.1	Advisory and assistance services	6,611	6,928	6,928	6,928	0
25.2	Other services from non-Federal sources	25,535	26,758	26,758	26,358	(400)
25.3	Other goods and services from Federal sources	1,095	1,147	1,147	1,147	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	555	581	581	581	0
31	Equipment	1,167	1,223	1,223	1,223	0
32	Lands and structures	27	29	29	29	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	17,106	17,925	17,925	15,450	(2,475)
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	8	8	8	8	0
44	Refunds	0	0	0	0	0
99	Total obligations	131,451	137,750	140,209	137,334	(2,875)

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Fisheries Management Programs and Services	Pos./BA	500	140,209	500	138,359	0	(1,850)
	FTE/OBL	458	140,209	458	138,359	0	(1,850)

Fisheries Management Projects Reduction (-$1,850, 0 FTE/ 0 Positions) –This program change is requested to support other NOAA and Administration priorities. This request removes the additional resources provided in FY 2023 for Video Review of Electronic Monitoring Data (-$600), Observer Data Integration (-$500), Electronic Vessel Trip Reporting (-$250), and Highly Migratory Species research grants (-$500).

	2025	2026	2027	2028	2029
Outyear Costs:					
Direct Obligations	(1,850)	(1,850)	(1,850)	(1,850)	(1,850)
Capitalized	0	0	0	0	0
Uncapitalized	(1,850)	(1,850)	(1,850)	(1,850)	(1,850)
Budget Authority	(1,850)	(1,850)	(1,850)	(1,850)	(1,850)
Outlays	(1,129)	(1,647)	(1,739)	(1,813)	(1,850)
FTE	0	0	0	0	0
Positions	0	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Facilities, and Research
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Fisheries Science and Management
Subactivity: Fisheries Management Programs and Services

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	51,731	54,213	55,954	55,954	0
11.3	Other than full-time permanent	56	59	61	61	0
11.5	Other personnel compensation	1,220	1,279	1,320	1,320	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	53,007	55,551	57,335	57,335	0
12	Civilian personnel benefits	20,053	21,013	21,688	21,688	0
13	Benefits for former personnel	66	69	69	69	0
21	Travel and transportation of persons	2,613	2,738	2,738	2,738	0
22	Transportation of things	34	36	36	36	0
23	Rent, communications, and utilitites			0	0	0
23.1	Rental payments to GSA	2,071	2,170	2,170	2,170	0
23.2	Rental Payments to others	929	973	973	973	0
23.3	Communications, utilities and misc charges	477	499	499	499	0
24	Printing and reproduction	97	102	102	102	0
25.1	Advisory and assistance services	6,611	6,928	6,928	6,928	0
25.2	Other services from non-Federal sources	25,535	26,758	26,758	26,758	0
25.3	Other goods and services from Federal sources	1,095	1,147	1,147	1,147	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	555	581	581	581	0
31	Equipment	1,167	1,223	1,223	1,223	0
32	Lands and structures	27	29	29	29	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	17,106	17,925	17,925	16,075	(1,850)
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	8	8	8	8	0
44	Refunds	0	0	0	0	0
99	Total obligations	131,451	137,750	140,209	138,359	(1,850)

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Increase from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Salmon Management Activities	Pos./BA	42	65,470	42	75,470	0	10,000
	FTE/OBL	41	65,470	41	75,470	0	10,000

Mitchell Act Hatcheries (+$10,000, 0 FTE/ 0 Positions) – This increase to the Mitchell Act hatchery program will prioritize full funding for annual operations for the 60 Mitchell Act hatchery programs at the current facilities, enhancing fisheries in the Columbia Basin, along the West Coast, and in Alaska. The request will also resume support for addressing the annual maintenance needs for the Mitchell Act hatchery programs. This request is also complementary to the Inflation Reduction Act funding that will help address a portion of the deferred maintenance and repair needs for hatchery infrastructure funded through the Mitchell Act. This request supports the President's Memorandum on "Restoring Healthy and Abundant Salmon, Steelhead, and Other Native Fish Populations in the Columbia River Basin" to advance the conservation of salmon and steelhead fishery resources in the Columbia River Basin.

This request will also enable the production of roughly 42 million hatchery fish annually, which represents about 30 percent of the total hatchery salmon and steelhead released in the Columbia River Basin. Salmon smolts from hatchery programs funded through the Mitchell Act translate into the harvest of about 250,000 fish that add to commercial, recreational, and tribal fisheries. Fish from the Columbia River Basin also reflect an important component of Canadian and Alaskan ocean fisheries. Mitchell Act hatchery production supports tribal treaty fisheries in the mainstem Columbia River, its tributaries, and fisheries outside of the Columbia River Basin. These fisheries provide for ceremonial needs, subsistence, and economic benefit. Columbia River tribes use salmon in most ceremonies, celebrations, funerals, and other special events. Moreover, this increase would maintain compliance with Federal statutes (i.e., Endangered Species Act, National Environmental Policy Act, Tribal Trust and Treaty responsibilities, etc.).

Only 36 hatchery programs are currently funded. This $10 million increase will enable NMFS to fund the operations of 60 hatchery programs. The $60 million Inflation Reduction Act funds for Mitchell Act hatchery will help address deferred maintenance and repair backlogs. This requested increase will also begin to address some of the remaining deferred maintenance needs for hatchery programs funded through the annual Mitchell Act program.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

Schedule and Milestones:

- Support the operations and maintenance of Columbia River hatcheries to mitigate the loss of fish production due to hydropower dams
- Maintain compliance with Federal statues (i.e., Endangered Species Act, National Environmental Policy Act, Tribal Trust and Treaty responsibilities, etc.)
- Conduct monitoring programs associated with regulatory compliance under the Endangered Species Act

Deliverables:

- Fully fund the operation of 60 hatchery programs that enhance fisheries in the Columbia Basin funded by the Mitchell Act
- Further address deferred maintenance and repairs at 60 hatchery programs that enhance fisheries in the Columbia Basin.
- Maintain compliance with Federal statues (i.e., Endangered Species Act, National Environmental Policy Act, Tribal Trust and Treaty responsibilities, etc.)
- Conduct monitoring programs associated with regulatory compliance under the Endangered Species Act

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

Performance Measures	2025	2026	2027	2028	2029
Mitchell Act Operations and Maintenance: The number of hatchery facilities receiving full operational support, and resumed annual maintenance funding					
With Increase	60	60	60	60	60
Without Increase	36	36	36	36	36
Outyear Costs:					
Direct Obligations	10,000	10,000	10,000	10,000	10,000
Capitalized	0	0	0	0	0
Uncapitalized	10,000	10,000	10,000	10,000	10,000
Budget Authority	10,000	10,000	10,000	10,000	10,000
Outlays	6,100	8,900	9,400	9,800	10,000
FTE	0	0	0	0	0
Positions	0	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Facilities, and Research
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Fisheries Science and Management
Subactivity: Salmon Management Activities

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase from 2025 Base
11.1	Full-time permanent compensation	2,961	3,115	3,280	3,280	0
11.3	Other than full-time permanent	0	0	0	0	0
11.5	Other personnel compensation	27	28	29	29	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	2,988	3,143	3,309	3,309	0
12	Civilian personnel benefits	983	1,034	1,088	1,088	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	0	0	0	0	0
22	Transportation of things	14	14	14	14	0
23	Rent, communications, and utilitites	0	0	0	0	0
23.1	Rental payments to GSA	349	349	349	349	0
23.2	Rental Payments to others	0	0	0	0	0
23.3	Communications, utilities and misc charges	0	0	0	0	0
24	Printing and reproduction	0	0	0	0	0
25.1	Advisory and assistance services	0	0	0	0	0
25.2	Other services from non-Federal sources	160	160	160	160	0
25.3	Other goods and services from Federal sources	10,818	12,531	12,531	12,531	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	230	230	230	230	0
31	Equipment	22	22	22	22	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	7,867	47,767	47,767	57,767	10,000
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	0	0	0	0	0
44	Refunds	0	0	0	0	0
99	Total obligations	23,431	65,250	65,470	75,470	10,000

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Interjurisdictional	Pos./BA	2	3,380	0	0	(2)	(3,380)
Fisheries Grants	FTE/OBL	1	3,380	0	0	(1)	(3,380)

Interjurisdictional Fisheries Grants (-$3,380, -1 FTE/ -2 Positions) –This program change is requested to support other NOAA and Administration priorities. This Budget does not request funding for the Interjurisdictional Fisheries Grants program. NOAA will continue to work with states and territories to provide technical and other assistance for fisheries management, such as working with the Interstate Fishery Commissions on cross-state issues related to shared fishery resources. Grants are distributed under this program based on an established formula as authorized by the Interjurisdictional Fisheries Act. These funds support states' and territories' implementation of fisheries science and management programs. These grants help align state and Federal fishery management and data collection programs.

	2025	2026	2027	2028	2029
Outyear Costs:					
Direct Obligations	(3,380)	(3,380)	(3,380)	(3,380)	(3,380)
Capitalized	0	0	0	0	0
Uncapitalized	(3,380)	(3,380)	(3,380)	(3,380)	(3,380)
Budget Authority	(3,380)	(3,380)	(3,380)	(3,380)	(3,380)
Outlays	(2,062)	(3,008)	(3,177)	(3,312)	(3,380)
FTE	(1)	(1)	(1)	(1)	(1)
Positions	(2)	(2)	(2)	(2)	(2)

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE PERSONNEL DETAIL

Activity: Fisheries Science and Management
Subactivity: Interjurisdictional Fisheries Grants
Program Change: Interjurisdictional Fisheries Grants

Title	Grade	Number	Annual Salary	Total Salaries
Grants Management Specialist	ZAIII	(2)	78,592	(157,184)
Total		(2)	.	(157,184)
Less adjustment		1		39,296
Total full-time permanent (FTE)		(1)		(117,888)
2025 Pay Adjustment (2.0%)				(2,358)
				(120,246)
Personnel Data Summary				
Full-time Equivalent Employment (FTE)				
Full-time permanent		(1)		
Total FTE		(1)		
Authorized Positions:				
Full-time permanent		(2)		
Total Positions		(2)		

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Facilities, and Research
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Fisheries Science and Management
Subactivity: Interjurisdictional Fisheries Grants

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	112	112	120	0	(120)
11.3	Other than full-time permanent	0	0	0	0	0
11.5	Other personnel compensation	0	0	0	0	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	112	112	120	0	(120)
12	Civilian personnel benefits	29	29	30	0	(30)
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	0	0	0	0	0
22	Transportation of things	0	0	0	0	0
23	Rent, communications, and utilitites	0	0	0	0	0
23.1	Rental payments to GSA	0	0	0	0	0
23.2	Rental Payments to others	0	0	0	0	0
23.3	Communications, utilities and misc charges	0	0	0	0	0
24	Printing and reproduction	0	0	0	0	0
25.1	Advisory and assistance services	0	0	0	0	0
25.2	Other services from non-Federal sources	51	0	0	0	0
25.3	Other goods and services from Federal sources	0	0	0	0	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	0	0	0	0	0
31	Equipment	0	0	0	0	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	2,727	3,236	3,230	0	(3,230)
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	0	0	0	0	0
44	Refunds	0	0	0	0	0
99	Total obligations	2,919	3,377	3,380	0	(3,380)

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Facilities, and Research
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Activity: Enforcement

Goal Statement

NOAA's Office of Law Enforcement (OLE) strengthens domestic commerce by enforcing NOAA's natural resource protection laws and promoting compliance with Federal regulations to conserve and protect our Nation's living marine resources and their natural habitat.

Base Program

OLE protects and monitors the world's largest EEZ, including 16 National Marine Sanctuaries and five Marine National Monuments (Figure 1), and is the only enforcement program (Federal or state) exclusively dedicated to Federal fisheries and marine resource enforcement. An overview can be found at https://www.fisheries.noaa.gov/about/office-law-enforcement and https://www.fisheries.noaa.gov/topic/enforcement. OLE provides direct support for enforcement activities in the NMFS headquarters' Offices of Sustainable Fisheries and Protected Resources, NMFS Regional Offices, and the NOS Office of National Marine Sanctuaries.

Figure 1. NOAA OLE Jurisdiction

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Facilities, and Research
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

OLE supports critical collaborations and leverages 29 Joint Enforcement Agreements (JEAs) with 29 coastal states and territories, and partnerships with other Federal agencies such as the U.S. Coast Guard. OLE refers enforcement cases that document violations to NOAA's Office of General Counsel or the U.S. Department of Justice for review and potential prosecution.

NOAA cannot meet the mandate to end overfishing without OLE's efforts. These efforts ensure that the millions of people who enjoy and rely on these marine resources understand and comply with the regulations necessary to ensure their sustainability and allow fair competition now and for future generations. OLE supports two objectives:

1. Enforce laws and regulations that govern:
    a. commercial and recreational fisheries,
    b. international and interstate commerce in marine resources, and
    c. human interactions with marine mammals and threatened and endangered species.
2. Protect resources within designated sanctuaries, marine monuments, and protected areas.

To address these mission requirements, OLE implements four primary methods:

1. Traditional enforcement such as investigations and patrols,
2. Partnerships with state and Federal agencies,
3. Technological tools such as Vessel Monitoring Systems (VMS), and
4. Outreach and education strategies designed to increase and enhance voluntary compliance with environmental laws and regulations.

Statement of Operating Objectives

Schedule and Milestones:
FY 2025 – FY 2029:

- Continue to advance enforcement and compliance assistance efforts in support of NOAA's OLE Operational Priorities
- Continue with the hiring, training and deployment of enforcement personnel at strategic Ports of Entry
- Ensure consistent international IUU fishing enforcement training and technical assistance

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Facilities, and Research
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Deliverables:
FY 2025 – FY 2029:

- Monitoring of and compliance assistance to approximately 4,450 vessels under the VMS requirements of 23 Fishery Management Plans (FMPs), two international convention areas, and the Papahanaumokuakea National Monument
- Review of progress toward current and determination of next set of strategic five-year national and regional Operational Enforcement Priorities

Explanation and Justification

		2023 Actual		2024 Annualized CR		2025 Base Program	
Comparison by subactivity		Personnel	Amount	Personnel	Amount	Personnel	Amount
Enforcement	Pos/BA	229	80,928	259	82,000	259	83,405
	FTE/OBL	224	77,639	226	82,000	226	83,405
Total Enforcement	Pos/BA	229	80,928	259	82,000	259	83,405
	FTE/OBL	224	77,639	226	82,000	226	83,405

The following programs and activities are funded by the Enforcement budget line:

Enforcement and Surveillance:
NOAA special agents and enforcement officers work to deter, detect, investigate, and document any violations of Federal marine natural resource laws and regulations. NOAA's approach to fisheries enforcement emphasizes compliance assistance. OLE assists regulated parties in understanding and complying with fishery regulations through contact during monitoring and inspections, and increases public awareness and understanding of enforcement goals and objectives through participation in community meetings, trade shows, and on-the-dock informational visits. This approach has proven effective in maintaining dialog on often complex regulations, and allows NOAA's investigative efforts and subsequent prosecution to focus on cases that go beyond misunderstandings and/or clerical errors.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Facilities, and Research
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

This program responds to inquiries and requests for assistance from a variety of industry and public stakeholders, covering a broad range of issues related to fisheries, marine mammals, and endangered and other protected marine species. In recent years, additional investments in the Enforcement Program have been made to strengthen NOAA's efforts to detect and deter Illegal, Unreported and Unregulated (IUU) fishing and enforce restrictions on imports of illegally-harvested and improperly-documented seafood.

Cooperative Agreements with States:
The Cooperative Enforcement Program leverages the resources of coastal state and U.S. territorial marine conservation law enforcement agencies to provide direct support for the Federal enforcement mission. These partners execute Joint Enforcement Agreements (JEA) with NOAA to support Federal enforcement efforts near shore and at sea, as well as provide land-based monitoring and inspection activities. This approach addresses challenges associated with the geographic jurisdiction, the breadth of laws and regulations within NOAA's stewardship responsibilities, the amount of regulated commercial activity (fishing and both domestic and international trade), and the amount of recreational use of the marine environment. This cooperative program allows OLE to concentrate on the investigation and resolution of more serious violations by integrating monitoring and inspection activities for Federal requirements with the work of state/territorial enforcement partners and the U.S. Coast Guard. More information on the program can be found at https://www.fisheries.noaa.gov/topic/enforcement#cooperative-enforcement.

Technology and Domain Awareness:
OLE utilizes current and emerging technologies to enhance and maximize operational capabilities and effectiveness. The development, use, support, and management of these technologies is essential. One of the current technologies utilized is the VMS. VMS is a satellite or cellular-based technology program for remote monitoring of fishing vessels at sea. VMS is a cost-effective way to help enforce protected areas, fishing quotas, actual landings, and several Federal natural resource, environmental, and species conservation laws. OLE also utilizes digital and marine forensics capabilities to collect, process and analyze evidence, and employs other technologies in its efforts to promote compliance with, and investigate violations of, regulated activities.

Implementation of the High Seas Driftnet Fisheries Enforcement Act:
The High Seas Driftnet Fisheries Enforcement Act sets U.S. policy to enforce the United Nations' worldwide moratorium on large-scale driftnet fishing beyond the EEZ of any nation. Renegade large-scale high seas driftnet fishing indiscriminately kills massive amounts of fish and other marine life such as whales and turtles with enormous nets suspended for miles in open water. The practice is universally condemned because it is a significant threat to ocean ecosystems and to the food and economic security of nations that rely on fishery resources. The Act provides for denial of port privileges to and import sanctions against nations whose vessels and/or nationals are determined to be conducting illegal driftnet activities and who do not take corrective action. With these funds, OLE

conducts investigation and enforcement required to prosecute and deter these illegal actions. Additionally, NOAA participates in scientific research on driftnet-affected species. The results of this research reduce uncertainty in population assessments for these species and inform related fishery management and enforcement decisions.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Enforcement	Pos./BA	259	83,405	259	82,455	0	(950)
	FTE/OBL	226	83,405	226	82,455	0	(950)

Enforcement Projects Reduction (-$950, 0 FTE/ 0 Positions) – This program change is requested to support other NOAA and Administration priorities. At this level of funding, NOAA's Office of Law Enforcement (OLE) will continue the cooperative offshore lobster enforcement program using base funds ($750). While this request eliminates the congressionally directed funds provided for radio-frequency data collection for IUU tracking, OLE will continue efforts to detect and deter IUU fishing through its base resources. This request reduces the additional resources provided in the FY 2023 appropriations for specific projects, including the Northeast lobster enforcement (-$200) and commercial space-based radio frequency data collection testing and evaluation for illegal, unreported, and unregulated (IUU) fishing tracking (-$750).

	2025	2026	2027	2028	2029
Outyear Costs:					
Direct Obligations	(950)	(950)	(950)	(950)	(950)
Capitalized	0	0	0	0	0
Uncapitalized	(950)	(950)	(950)	(950)	(950)
Budget Authority	(950)	(950)	(950)	(950)	(950)
Outlays	(580)	(846)	(893)	(931)	(950)
FTE	0	0	0	0	0
Positions	0	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Enforcement
Subactivity: Enforcement

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	26,208	27,679	28,524	28,524	0
11.3	Other than full-time permanent	0	0	0	0	0
11.5	Other personnel compensation	3,159	3,337	3,439	3,439	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	29,367	31,016	31,963	31,963	0
12	Civilian personnel benefits	14,221	15,020	15,478	15,478	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	1,899	2,006	2,006	2,006	0
22	Transportation of things	462	488	488	488	0
23	Rent, communications, and utilitites	0	0	0	0	0
23.1	Rental payments to GSA	2,416	2,551	2,551	2,551	0
23.2	Rental Payments to others	375	396	396	396	0
23.3	Communications, utilities and misc charges	1,628	1,720	1,720	1,720	0
24	Printing and reproduction	19	21	21	21	0
25.1	Advisory and assistance services	4	4	4	4	0
25.2	Other services from non-Federal sources	23,701	25,033	25,033	24,083	(950)
25.3	Other goods and services from Federal sources	1,665	1,758	1,758	1,758	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	1,219	1,287	1,287	1,287	0
31	Equipment	567	599	599	599	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	96	101	101	101	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	0	0	0	0	0
44	Refunds	0	0	0	0	0
99	Total obligations	77,639	82,000	83,405	82,455	(950)

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Activity: Habitat Conservation and Restoration

Goal Statement

The Office of Habitat Conservation protects and restores habitat to sustain fisheries, recover protected species, and maintain resilient coastal ecosystems and communities.

Base Program

Activities within the Habitat Conservation and Restoration activity focus on three program areas including Sustainable Habitat Management, Fisheries Habitat Restoration, and Chesapeake Bay Protection and Restoration. The Magnuson-Stevens Fishery Conservation and Management Act (MSA); Federal Power Act; Energy Policy Act of 2005; Endangered Species Act; Oil Pollution Act; and Comprehensive Environmental Response, Compensation and Liability Act guide many of our efforts. NOAA works strategically across programs and with partner organizations toward shared goals to address the growing challenge of coastal and marine habitat loss and degradation. See https://www.fisheries.noaa.gov/insight/habitat-heroes-some-our-partners-habitat-conservation for additional information on our partners.

Through NOAA's Habitat Blueprint (https://www.habitatblueprint.noaa.gov/), NOAA and partners collaborate to increase the effectiveness of our habitat conservation efforts for the benefit of fisheries, coastal and marine life, and the coastal communities and economies they support.

Additional information on NMFS habitat conservation can be found at https://www.fisheries.noaa.gov/topic/habitat-conservation.

Statement of Operating Objectives

Schedule and Milestones:
FY 2025 – FY 2029:

- Develop management options for protecting deep-sea corals in partnership with the Regional Fishery Management Councils and National Marine Sanctuaries
- Participate in the licensing process for an estimated 125 hydroelectric projects
- Identify and protect essential fish habitat through consultations and partnerships

- Develop restoration plans, conduct habitat assessments, and implement priority restoration projects critical for NOAA trust resources
- Contribute to major ecosystem restoration efforts, including Chesapeake Bay, Puget Sound, Gulf of Mexico, Great Lakes, and San Francisco Bay/Delta

Deliverables:
FY 2025 – FY 2029:

- Accurate deep-sea coral habitat distribution maps that allow managers to better protect these biologically rich ecosystems
- Technical guidance and assistance provided to NOAA partners, Federal action agencies, and resource decision-makers to achieve protection and restoration of NOAA trust resources
- Restoration plans reviewed and approved through Natural Resource Damage Assessment (NRDA) public process
- Annual development of maps and habitat assessments to support oyster restoration in the Chesapeake Bay
- Acres of habitat restored for ocean, coastal, and Great Lakes resources
- Stream miles made accessible for ocean, coastal, and Great Lakes resources

Explanation and Justification

		2023 Actual		2024 Annualized CR		2025 Base Program	
Comparison by subactivity		Personnel	Amount	Personnel	Amount	Personnel	Amount
Habitat Conservation and Restoration	Pos/BA	195	233,871	191	56,684	191	57,721
	FTE/OBL	198	298,851	183	56,684	183	57,721
Total Habitat Conservation and Restoration	Pos/BA	195	233,871	191	56,684	191	57,721
	FTE/OBL	198	298,851	183	56,684	183	57,721

Healthy habitat provides significant and essential ecosystem, community, and economic benefits. Habitat is the foundation for resilient fisheries and fishing-based communities and industries, as well as key to supporting and recovering endangered and threatened species. In 2020, the U.S. commercial and recreational saltwater fishing industries generated more than $253 billion in sales and supported 1.7 million jobs.[13]

Coastal communities rely on healthy habitat for a wide variety of additional socio-economic needs including, recreation, tourism, and natural infrastructure that protects life and property by reducing effects of storm damage, erosion, and coastal flooding (https://www.fisheries.noaa.gov/national/habitat-conservation/value-habitat), The Nation's ocean and coastal resources annually provide non-market value (e.g. storm surge protection, wildlife viewing, beach visits, snorkeling) of over $100 billion.[14]

However, we are facing continued widespread loss and deterioration of vital habitats for managed fisheries, as well as threatened and endangered species. For example, we are losing coastal wetlands – prime nurseries for many species – at the rate of about 80,000 acres per year (https://www.fisheries.noaa.gov/coastal-wetlands-too-valuable-lose). This rate of loss is 20,000 more acres per year than was lost during the 6-year period of 1998– 2004.[15] NOAA is working to decrease the loss of priority coastal habitat through its habitat conservation programs.

Sustainable Habitat Management
When a Federal agency authorizes, funds, or undertakes an action that may adversely affect Essential Fish Habitat (EFH), they must consult with NMFS on that action, as required by Section 305(b) of the Magnuson-Stevens Act. NOAA works with Federal partners to guide coastal development in a manner that protects vital fish habitat without hindering economic development opportunities, including critical transportation and infrastructure improvements.

Each year, NOAA protects more than one hundred thousand acres of EFH by conducting thousands of consultations with Federal agencies to avoid, minimize, or compensate for any adverse impacts to coastal habitat that may result from proposed actions such as dredging and filling wetlands, and renewable energy proposals (https://www.fisheries.noaa.gov/national/habitat-

[13] National Marine Fisheries Service. 2023. Fisheries Economics of the United States, 2020. U.S. Dept. of Commerce, NOAA Tech. Memo. NMFS-F/SPO-236, 231 p. Available at: https://www.fisheries.noaa.gov/national/sustainable-fisheries/fisheries-economics-united-states.
[14] The National Ocean Economics Program and the Center for the Blue Economy. 2014. State of the U.S. Ocean and Coastal Economies. 84p. Available at: http://www.oceaneconomics.org/Download/
[15] T.E. Dahl and S.M. Stedman. 2013. Status and trends of wetlands in the coastal watersheds of the Conterminous United States 2004 to 2009. U.S. Department of the Interior, Fish and Wildlife Service and National Oceanic and Atmospheric Administration, National Marine Fisheries Service. (46 p.). Available at: https://coast.noaa.gov/digitalcoast/training/wetland-trends.html

conservation/essential-fish-habitat). Fish require healthy surroundings to survive and reproduce. EFH includes all types of aquatic habitat - wetlands, coral reefs, seagrasses, and rivers - where fish spawn, breed, feed, or grow to maturity. EFH is described and designated by each of the Regional Fishery Management Councils in their development of Fishery Management Plans for Federally-managed fish species. Our unique role and responsibility under the Federal Power Act to ensure fish passage at hydropower dams licensed by the Federal Energy Regulatory Commission (FERC) has resulted in opening passage of more than 2,100 miles of streams and rivers for species such as river herring that serve as important food sources for commercial and recreational fish stocks (https://www.fisheries.noaa.gov/national/habitat-conservation/improving-fish-migration-hydropower-dams). Since 2011, under its Deep Sea Coral Research and Technology program, NOAA has mapped more than 1,373,000 square kilometers of seafloor to identify locations and new species of deep-sea corals in coordination with other Federal agencies and research institutions (https://www.fisheries.noaa.gov/national/habitat-conservation/deep-sea-coral-habitat).

Fisheries Habitat Restoration
The NOAA Office of Habitat Conservation Restoration Center (RC) provides expert technical assistance to its many partners for the implementation of priority coastal habitat restoration nationwide (https://www.fisheries.noaa.gov/topic/habitat-conservation#how-we-restore). In addition, the NOAA RC leads restoration planning and implementation for oil spills and hazardous substance releases across the Nation through the Damage Assessment Remediation and Restoration program (DARRP) (https://darrp.noaa.gov/). Every year, NOAA responds to as many as 150 oil spills and hazardous substance releases (most notably the Deepwater Horizon oil spill (https://www.gulfspillrestoration.noaa.gov/). The Community-based Restoration Program (CRP) provides technical and financial assistance for the implementation of community-driven habitat restoration. Habitat restoration projects are selected through a competitive solicitation process that leverages substantial investments from partners (https://www.fisheries.noaa.gov/grant/coastal-and-marine-habitat-restoration-grants).

Chesapeake Bay Protection and Restoration
The NOAA Chesapeake Bay Office (NCBO) conducts work in fisheries, observations, education, and oyster restoration in support of the 2014 Chesapeake Bay Agreement (https://chesapeakebay.noaa.gov/). NCBO collects and integrates information about the Bay from buoys, satellites, shipboard mapping technologies, and other sources to improve fisheries and protected resource management, weather forecasts, on-the-water safety, and public health. NCBO is working closely with state, Federal, academic, and not-for-profit partners to provide technical assistance for restoring native oysters in ten tributaries of the Chesapeake Bay.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Habitat Conservation and Restoration	Pos./BA	191	57,721	191	50,721	0	(7,000)
	FTE/OBL	183	57,721	183	50,721	0	(7,000)

Habitat Restoration Program (-$7,000, 0 FTE/ 0 Positions) – This program change is requested to support other NOAA and Administration priorities. This request will reduce funding for the Habitat Restoration program by $7.0 million, leaving a total of $12.3 million in FY 2025. NMFS will continue to support habitat programs with the significant funds (over $1 billion) provided through the Bipartisan Infrastructure Law and Inflation Reduction Act for habitat restoration, fish passage, and Pacific Coastal Salmon Recovery.

NMFS will continue to provide technical expertise and leadership to states, Tribes, and local communities, as well as other programs and Federal agencies implementing fishery and coastal habitat restoration projects (e.g., NOAA's Coral Reef Conservation and Protected Species Programs, partner with the Environmental Protection Agency and U.S. Army Corp of Engineers). Technical expertise such as engineering and design, implementation support, and monitoring provided to external and internal partners allow NOAA to maximize the benefits for trust resources and habitats, including wetlands, rivers, coral reefs, and oysters.

Schedule and Milestones:

- Launch a competitive process open to non-Federal entities from communities across the country and complete a comprehensive technical review to select high priority restoration projects and partners
- Establish multi-year cooperative agreement grant awards that provide funding and expert technical assistance for large-scale habitat restoration projects
- Develop restoration plans, support design and permitting, and implement priority restoration projects that use an ecosystem-based approach to foster species recovery, increase fish populations under NOAA's jurisdiction, and build resilience to climate change
- Conduct targeted monitoring and evaluation of projects to quantify mid- and long-term economic and ecological outcomes

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

Deliverables:

- Technical restoration expertise delivered to partners to expedite planning and design, consider climate change and habitat adaptation, navigate permitting processes, and develop sustainable restoration solutions that maximize both resource benefits and community resilience
- Completed high-priority large-scale projects that restore coastal wetlands, coral reef, shellfish, and riverine habitat to benefit fisheries resources while also strengthening coastal resilience to climate change
- Community benefits such as reduced risk of flood damage, increased property values, and increased economic value of recreation

Performance Measures	2025	2026	2027	2028	2029
Number of habitat acres restored					
With Decrease	4,000	3,000	500	0	0
Without Decrease	4,000	4,000	4,000	4,000	4,000
Outyear Costs:					
Direct Obligations	(7,000)	(7,000)	(7,000)	(7,000)	(7,000)
Capitalized	0	0	0	0	0
Uncapitalized	(7,000)	(7,000)	(7,000)	(7,000)	(7,000)
Budget Authority	(7,000)	(7,000)	(7,000)	(7,000)	(7,000)
Outlays	(4,270)	(6,230)	(6,580)	(6,860)	(7,000)
FTE	0	0	0	0	0
Positions	0	0	0	0	0

Exhibit 15

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Habitat Conservation and Restoration
Subactivity: Habitat Conservation and Restoration

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	25,229	26,168	26,896	26,896	0
11.3	Other than full-time permanent	393	407	418	418	0
11.5	Other personnel compensation	560	581	597	597	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	26,182	27,156	27,911	27,911	0
12	Civilian personnel benefits	9,781	10,145	10,427	10,427	0
13	Benefits for former personnel	41	41	41	41	0
21	Travel and transportation of persons	913	913	913	913	0
22	Transportation of things	161	161	161	161	0
23	Rent, communications, and utilitites	0	0	0	0	0
23.1	Rental payments to GSA	731	731	731	731	0
23.2	Rental Payments to others	213	213	213	213	0
23.3	Communications, utilities and misc charges	376	376	376	376	0
24	Printing and reproduction	6	6	6	6	0
25.1	Advisory and assistance services	173	173	173	173	0
25.2	Other services from non-Federal sources	7,144	6,374	6,374	6,374	0
25.3	Other goods and services from Federal sources	153	153	153	153	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	749	749	749	749	0
31	Equipment	892	892	892	892	0
32	Lands and structures	1	1	1	1	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	251,335	8,600	8,600	1,600	(7,000)
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	0	0	0	0	0
44	Refunds	0	0	0	0	0
99	Total obligations	298,851	56,684	57,721	50,721	(7,000)

Department of Commerce
National Oceanic and Atmospheric Administration
Pacific Coastal Salmon Recovery Fund
SUMMARY OF RESOURCE REQUIREMENTS
(Dollar amounts in thousands)

	Positions	FTE	Budget Authority	Direct Obligations
2024 Annualized CR	2	2	65,000	72,500
Less: Obligations from Prior Year Balances	0	0	0	0
Less: Mandatory adjustment	0	0	0	(7,500)
2025 Base	2	2	65,000	65,000
Plus: 2025 Program Changes	0	0	0	0
2025 Estimate	2	2	65,000	65,000

		2023 Actual Personnel Amount		2024 Annualized CR Personnel Amount		2025 Base Personnel Amount		2025 Estimate Personnel Amount		Increase/ Decrease from 2025 Base Personnel Amount	
Pacific Coastal Salmon Recovery Fund	Pos/BA	1	99,301	2	65,000	2	65,000	2	65,000	0	0
	FTE/OBL	3	106,740	2	72,500	2	65,000	2	65,000	0	0
Total: Pacific Coastal Salmon Recovery Fund	Pos/BA	1	99,301	2	65,000	2	65,000	2	65,000	0	0
	FTE/OBL	3	106,740	2	72,500	2	65,000	2	65,000	0	0

Exhibit 5

Department of Commerce
National Oceanic and Atmospheric Administration
Pacific Coastal Salmon Recovery Fund
SUMMARY OF RESOURCE REQUIREMENTS
(Dollar amounts in thousands)

	2023 Actual		2024 Annualized CR		2025 Base		2025 Estimate		Increase/ Decrease from 2025 Base	
	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount
Direct Discretionary Obligation	3	99,240	2	65,000	2	65,000	2	65,000	0	0
Mandatory Obligations	0	7,500	0	7,500	0	0	0	0		
Total Obligations	**3**	**106,740**	**2**	**72,500**	**2**	**65,000**	**2**	**65,000**	**0**	**0**
Adjustments for:										
Recoveries	0	(2)	0	0	0	0	0	0	0	0
Unobligated balance, adjustment mandatory	0	(15,000)	0	0	0	0	0	0	0	0
Unobligated balance, adj. SOY	0	(68)	0	(7,631)	0	0	0	0	0	0
Unobligated balance, adj. EOY	0	7,631	0	131	0	0	0	0	0	0
Total Budget Authority	**3**	**99,301**	**2**	**65,000**	**2**	**65,000**	**2**	**65,000**	**0**	**0**
Financing from Transfers and Other:										
Transfer to ORF	0	99	0	0	0	0	0	0	0	0
Appropriation	**3**	**99,400**	**2**	**65,000**	**2**	**65,000**	**2**	**65,000**	**0**	**0**

* FY 2024 and FY 2025 amounts do not include funds received through the Infrastructure Investments and Jobs Act (IIJA) ($34.4 million each year in FY 2024 and FY 2025)
** Mandatory obligations ($7.5 million) are funds received through the Inflation Reduction Act (IRA) for PCSRF

Department of Commerce
National Oceanic and Atmospheric Administration
Pacific Coastal Salmon Recovery Fund
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Activity: Pacific Coastal Salmon Recovery Fund

For FY 2025, NMFS requests a total of $65,000 for this fund.

Goal Statement

The Pacific Coastal Salmon Recovery Fund (PCSRF) was established by Congress in FY 2000 to protect, restore, and conserve Pacific salmon and steelhead and their habitats through competitive funding to states and Tribes.

Base Program

Congressionally authorized activities include:

- Conserving salmon and steelhead populations that are listed as threatened or endangered, or identified by a state as at-risk to be so listed,
- Maintaining populations necessary for exercise of Tribal treaty fishing rights or native subsistence fishing, and
- Conserving Pacific coastal salmon and steelhead habitat.

Key accomplishments for PCSRF-funded activities from FY 2000 to FY 2023 include:

- More than 1,198,763 acres of habitat restored, and
- Passage restored to over 12,043 stream miles of salmon habitat.

Restoration projects have increased the quality and quantity of spawning and rearing habitat from stream headwaters to coastal estuaries. Upstream restoration activities have controlled erosion, enhanced in-stream flow and streambed conditions, and provided the habitat necessary for successful spawning and egg survival. Estuary and wetland restoration projects closer to the coast have protected and improved feeding and rearing habitat used by juvenile fish as they transition from freshwater to the open ocean. PCSRF restoration projects have also removed more than 4,000 barriers to fish passage along streams, restoring access to high-quality habitat. PCSRF projects provide a number of socio-economic benefits, including enhanced water quality, recreation opportunities, flood control, and coastline protection, as well as support for green jobs and local economies.

Department of Commerce
National Oceanic and Atmospheric Administration
Pacific Coastal Salmon Recovery Fund
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Statement of Operating Objectives

PCSRF awards to grantees remain active for up to five years with an estimated 1,289 active projects funded from FY 2017 through FY 2023.

Active projects span all project categories, but a select list of habitat projects include:

- Alaska: Neklason and Lynda Lakes Fish Passage Improvements (end date November 2025)
- Alaska: Resurrection Creek Salmon Habitat Restoration (end date November 2024)
- Washington: Kwoneesum Dam Removal (end date February 2025)
- Washington: Cispus-Yellowjacket Restoration Phase III (end date December 2026)
- Idaho: Sub-Reach 1 Implementation, Lower Lemhi Rehabilitation Project (June 2024)
- Oregon: McKay Creek Water Rights Switch (end date October 2024)
- California: North Fork Noyo River Tributary Complex – Large Wood Enhancement Project (end date March 2025)
- California: Dry Dock Gulch Alcove Habitat Enhancement and Fish Passage Project (end date February 2026)

Explanation and Justification

The PCSRF program provides competitive funding to states and Tribes of the Pacific Coast region to implement projects that restore and protect salmonid populations and their habitats. Eligible applicants include the States of Washington, Oregon, California, Idaho, Nevada, and Alaska and Federally recognized Tribes of the Columbia River and Pacific Coast (including Alaska). States are required to provide 33 percent matching funds, and PCSRF awards are supplemented further by significant private and local contributions at the project level. No match is required from the Federally recognized Tribes.

PCSRF habitat projects provide a number of benefits to the human community, including enhanced water quality, recreation opportunities, flood control, and coastline protection. Studies suggest that a $1.0 million investment in watershed restoration, of which PCSRF and state matching funds play a significant role, creates on average 16[16] to 17[17] new “green” jobs and averages $2.3

[16] Nielsen-Pincus, M., and C. Moseley. 2010. Economic and employment impacts of forest and watershed restoration in Oregon. University of Oregon, Institute for a Sustainable Environment, Ecosystem Workforce Program, Working Paper Number 24, Spring 2010.
[17] Edwards, P.E.T., A.E. Sutton-Grier and C.E. Coyle. 2013 Investing in nature: Restoring coastal habitat blue infrastructure and green job creation. Marine Policy 38:65-71.

million[18] in economic activity. Additionally, approximately 80 percent of habitat restoration investments are spent locally in the county in which the project is located, and over 90 percent is spent within the state[19], supporting local jobs and local economies, often in rural and economically distressed communities. More information is available at the program's website: https://www.fisheries.noaa.gov/grant/pacific-coastal-salmon-recovery-fund

[18] Nielsen-Pincus, M., and C. Moseley. 2010. Economic and employment impacts of forest and watershed restoration in Oregon. University of Oregon, Institute for a Sustainable Environment, Ecosystem Workforce Program, Working Paper Number 24, Spring 2010.
[19] Hibbard, M. and S. Lurie. 2006. Some community socio-economic benefits of watershed councils: A case study from Oregon. Journal of Environmental Planning and Management 49:891-908.

Department of Commerce
National Oceanic and Atmospheric Administration
Pacific Coastal Salmon Recovery Fund
SUMMARY OF REQUIREMENTS BY OBJECT CLASS
(Dollar amounts in thousands)

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/ Decrease from 2025 Base
11	Personnel compensation					
11.1	Full-time permanent	247	161	161	161	0
11.3	Other than full-time permanent	0	0	0	0	0
11.5	Other personnel compensation	1	0	0	0	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	248	161	161	161	0
12.1	Civilian personnel benefits	88	62	62	62	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	23	0	0	0	0
22	Transportation of things	0	0	0	0	0
23.1	Rental payments to GSA	0	0	0	0	0
23.2	Rental payments to others	0	0	0	0	0
23.3	Commun., util., misc. charges	0	0	0	0	0
24	Printing and reproduction	0	0	0	0	0
25.1	Advisory and assistance services	0	0	0	0	0
25.2	Other services from non-federal sources	271	264	264	264	0
26	Supplies and materials	0	0	0	0	0
31	Equipment	0	0	0	0	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	106,110	72,013	64,513	64,513	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	0	0	0	0	0
44	Refunds	0	0	0	0	0
99	**Total Obligations**	106,740	72,500	65,000	65,000	0

Exhibit 16

Department of Commerce
National Oceanic and Atmospheric Administration
Pacific Coastal Salmon Recovery Fund
SUMMARY OF REQUIREMENTS BY OBJECT CLASS
(Dollar amounts in thousands)

	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/ Decrease from 2025 Base
Less prior year recoveries	(2)	0	0	0	0
Less unobligated balance, SOY	(68)	(7,631)	0	0	0
Less unobligated balance, adjustment mandatory	(15,000)	0	0	0	0
Plus unobligated balance, EOY	7,631	131	0	0	0
Total Budget Authority	99,301	65,000	65,000	65,000	0
Personnel Data					
Full-Time equivalent Employment:					
Full-time permanent	3	2	2	2	0
Other than full time permanent	0	0	0	0	0
Total	3	2	2	2	0
Authorized Positions:					
Full-time permanent	1	2	2	2	0
Other than full time permanent	0	0	0	0	0
Total	1	2	2	2	0

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Exhibit 5

Department of Commerce
National Oceanic and Atmospheric Administration
Fisheries Disaster Assistance Fund
SUMMARY OF REQUIREMENTS
(Dollar amounts in thousands)

	Positions	FTE	Budget Authority	Direct Obligations
2024 Annualized CR	1	1	300	300
Plus: Obligations from prior year balances	0	0	0	0
Less: Other Adjustments-to-Base	0	0	0	0
2025 Base	1	1	300	300
Plus: 2025 Program Changes	(1)	(1)	(300)	(300)
2025 Estimate	0	0	0	0

		2023 Actual Personnel	Amount	2024 Annualized CR Personnel	Amount	2025 Base Personnel	Amount	2025 Estimate Personnel	Amount	Increase/ Decrease from 2025 Base Personnel	Amount
Fisheries Disaster Assistance Fund	Pos/BA	0	300,000	1	300	1	300	0	0	(1)	(300)
	FTE/OBL	0	107,135	1	300	1	300	0	0	(1)	(300)
Total: Fisheries Disaster Assistance Fund	Pos/BA	0	300,000	1	300	1	300	0	0	(1)	(300)
	FTE/OBL	0	107,135	1	300	1	300	0	0	(1)	(300)

* FY 2023 Obligation amount includes funds received through the FY 2023 Disaster Supplemental ($300 million).

Department of Commerce
National Oceanic and Atmospheric Administration
Fisheries Disaster Assistance Fund
SUMMARY OF REQUIREMENTS
(Dollar amounts in thousands)

	2023 Actual		2024 Annualized CR		2025 Base		2025 Estimate		Decrease from 2025 Base	
	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount
Direct Discretionary Obligation	0	107,135	1	300	1	300	0	0	(1)	(300)
Total Obligations	**0**	**107,135**	**1**	**300**	**1**	**300**	**0**	**0**	**(1)**	**(300)**
Adjustments for:										
Recoveries	0	0	0	0	0	0	0	0	0	0
Unobligated balance, adj. SOY	0	(307,227)	0	0	0	0	0	0	0	0
Unobligated balance, EOY	0	500,094	0	0	0	0	0	0	0	0
Total Budget Authority	**0**	**300,000**	**1**	**300**	**1**	**300**	**0**	**0**	**(1)**	**(300)**
Financing from Transfers and Other:										
Transfer to ORF	0	300	0	0	0	0	0	0	0	0
Net Appropriation	**0**	**300,300**	**1**	**300**	**1**	**300**	**0**	**0**	**(1)**	**(300)**

Department of Commerce
National Oceanic and Atmospheric Administration
Fisheries Disaster Assistance Fund
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Activity: Fisheries Disaster Assistance Fund

For FY 2025, NMFS requests a total of $0 for this fund.

Goal Statement

To enhance and expedite the review and analysis of fishery disaster requests, allocations, and spend plans, and support faster turnarounds and improved programs for recipients.

Base Program

Fishery disaster assistance is administered by NOAA's National Marine Fisheries Service within the Department of Commerce. Congress passed and the President signed the Fishery Resource Disasters Improvement Act in December 2022, as a result the Magnuson-Stevens Fishery Conservation and Management Act (MSA) has been revised and provides the authority for the fishery resource disaster assistance process. Under MSA, a request for a fishery disaster determination is generally made by the Governor of a State, or an elected leader of a fishing community, although the Secretary of Commerce may also initiate a review at their own discretion. The Secretary determines whether the circumstances are consistent with relevant statute and warrant a fishery disaster determination. If the Secretary determines that a fishery disaster has occurred, Congress may appropriate funds for disaster assistance, which are administered by the Secretary.

Statement of Operating Objectives

- MSA 312(a)(2) allows for disaster funds to be used for assessing the economic and social effects of the commercial fishery failure and for activities that restore the fishery or prevent a similar failure in the future and to assist a fishing community affected by such failure. Additionally, any such activity may not expand the size or scope of the commercial fishery failure in that fishery or into other fisheries or other geographic regions.

Explanation and Justification

NMFS is committed to quickly evaluating information from requestors for fishery disaster assistance to determine if a fishery disaster has occurred and getting assistance to fishers in a more timely way. If Congress appropriates funds, NOAA allocates the funding to positively determined fishery disasters and administers the funds through non-competitive awards consistent with spend plans

developed by the recipients and approved by the Administration. These funds will be used to support implementation of the new law to ensure NOAA meets the new statutory deadlines for each step in the disaster determination and funding processes.

Department of Commerce
National Oceanic and Atmospheric Administration
Fisheries Disaster Assistance Fund
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Fisheries Disaster	Pos./BA	1	300	0	0	(1)	(300)
Assistance Fund	FTE/OBL	1	300	0	0	(1)	(300)

Fisheries Disaster Assistance (-$300, -1 FTE/ -1 Positions) – This request will eliminate annual appropriations for program support in the Fisheries Disaster Assistance Fund. With the Fishery Resource Disasters Improvement Act (P.L. 117-328, Division S, Title II) enacted in FY 2023, NOAA now has the authority to direct up to three percent of fishery disaster assistance funds to administrative expenses, so a separate appropriation is no longer necessary. These funds support processing fisheries disaster determination requests, allocating available appropriations, and awarding grants. NOAA will continue to use this account to provide fisheries disaster assistance as fishery disaster determinations are made and funds are available.

	2025	2026	2027	2028	2029
Outyear Costs:					
Direct Obligations	(300)	(300)	(300)	(300)	(300)
Capitalized	0	0	0	0	0
Uncapitalized	(300)	(300)	(300)	(300)	(300)
Budget Authority	(300)	(300)	(300)	(300)	(300)
Outlays	(183)	(267)	(282)	(294)	(300)
FTE	(1)	(1)	(1)	(1)	(1)
Positions	(1)	(1)	(1)	(1)	(1)

Department of Commerce
National Oceanic and Atmospheric Administration
Fisheries Disaster Assistance Fund
PROGRAM CHANGE PERSONNEL DETAIL

Activity: Fisheries Disaster Assistance Fund
Subactivity: Fisheries Disaster Assistance Fund
Program Change: Fisheries Disaster Assistance

Title	Grade	Number	Annual Salary	Total Salaries
Grants Management Specialist	ZAIV	(1)	154,000	(154,000)
Total		(1)		(154,000)
Less adjustment		0		38,500
Total full-time permanent (FTE)		(1)		(115,500)
2025 Pay Adjustment (2.0%)				(2,310)
				(117,810)
Personnel Data Summary				
Full-time Equivalent Employment (FTE)				
Full-time permanent		(1)		
Total FTE		(1)		
Authorized Positions:				
Full-time permanent		(1)		
Total Positions		(1)		

Department of Commerce
National Oceanic and Atmospheric Administration
Fisheries Disaster Assistance Fund
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Fisheries Disaster Assistance Fund
Subactivity: Fisheries Disaster Assistance Fund

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	0	118	118	0	(118)
11.3	Other than full-time permanent	0	0	0	0	0
11.5	Other personnel compensation	0	0	0	0	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	0	118	118	0	(118)
12	Civilian personnel benefits	0	31	31	0	(31)
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	0	5	5	0	(5)
22	Transportation of things	0	0	0	0	0
23	Rent, communications, and utilitites	0	0	0	0	0
23.1	Rental payments to GSA	0	0	0	0	0
23.2	Rental Payments to others	0	0	0	0	0
23.3	Communications, utilities and misc charges	0	0	0	0	0
24	Printing and reproduction	0	0	0	0	0
25.1	Advisory and assistance services	0	0	0	0	0
25.2	Other services from non-Federal sources	300	131	131	0	(131)
25.3	Other goods and services from Federal sources	0	0	0	0	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	0	10	10	0	(10)
31	Equipment	0	5	5	0	(5)
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	106,835	0	0	0	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	0	0	0	0	0
44	Refunds	0	0	0	0	0
99	Total obligations	107,135	300	300	0	(300)

Department of Commerce
National Oceanic and Atmospheric Administration
Fisheries Disaster Assistance Fund
SUMMARY OF REQUIREMENTS BY OBJECT CLASS
(Dollar amounts in thousands)

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11	Personnel compensation					
11.1	Full-time permanent	0	118	118	0	(118)
11.3	Other than full-time permanent	0	0	0	0	0
11.5	Other personnel compensation	0	0	0	0	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	0	118	118	0	(118)
12.1	Civilian personnel benefits	0	31	31	0	(31)
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	0	5	5	0	(5)
22	Transportation of things	0	0	0	0	0
23.1	Rental payments to GSA	0	0	0	0	0
23.2	Rental payments to others	0	0	0	0	0
23.3	Comm., util., misc. charges	0	0	0	0	0
24	Printing and reproduction	0	0	0	0	0
25.1	Advisory and assistance services	0	0	0	0	0
25.2	Other services from non-federal sources	300	131	131	0	(131)
25.3	Other goods and services from Federal sources	0	0	0	0	0
26	Supplies and materials	0	10	10	0	(10)
31	Equipment	0	5	5	0	(5)
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	106,835	0	0	0	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	0	0	0	0	0
44	Refunds	0	0	0	0	0
99	**Total Obligations**	107,135	300	300	0	(300)

Department of Commerce
National Oceanic and Atmospheric Administration
Fisheries Disaster Assistance Fund
SUMMARY OF REQUIREMENTS BY OBJECT CLASS
(Dollar amounts in thousands)

	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
Less prior year recoveries	0	0	0	0	0
Plus unobligated balance, transferred	0	0	0	0	0
Unobligated balance, expired	0	0	0	0	0
Less unobligated balance, SOY	(307,227)	0	0	0	0
Plus unobligated balance, EOY	500,091	0	0	0	0
Total Budget Authority	300,000	300	300	0	(300)

*Resources available in FY 2023 includes FY 2023 Disaster Supplemental funding ($300 million).

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Department of Commerce
National Oceanic and Atmospheric Administration
Fishermen's Contingency Fund
SUMMARY OF RESOURCE REQUIREMENTS
(Dollar amounts in thousands)

	Positions	FTE	Budget Authority	Direct Obligations
2024 Annualized CR	0	0	349	349
Plus: Obligations from prior year balances	0	0	0	0
Plus: Other Adjustments-to-Base	0	0	0	0
2025 Base	0	0	349	349
Plus: 2025 Program Changes	0	0	0	0
2025 Estimate	0	0	349	349

		2023 Actual Personnel Amount		2024 Annualized CR Personnel Amount		2025 Base Personnel Amount		2025 Estimate Personnel Amount		Increase/ Decrease from 2025 Base Personnel Amount	
Fishermen's Contingency Fund	Pos/BA	0	26	0	349	0	349	0	349	0	0
	FTE/OBL	0	150	0	349	0	349	0	349	0	0
Total: Fishermen's Contingency Fund	Pos/BA	0	26	0	349	0	349	0	349	0	0
	FTE/OBL	0	150	0	349	0	349	0	349	0	0

Exhibit 5

Department of Commerce
National Oceanic and Atmospheric Administration
Fishermen's Contingency Fund
SUMMARY OF RESOURCE REQUIREMENTS
(Dollar amounts in thousands)

	2023 Actual		2024 Annualized CR		2025 Base		2025 Estimate		Increase/ Decrease from 2025 Base	
	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount
Direct Discretionary Obligation	0	150	0	349	0	349	0	349	0	0
Total Obligations	**0**	**150**	**0**	**349**	**0**	**349**	**0**	**349**	**0**	**0**
Adjustments for:										
Unobligated balance, adj. SOY	0	(1,154)	0	(930)	0	(930)	0	(930)	0	0
Unobligated balance, EOY	0	930	0	930	0	930	0	930	0	0
Total Budget Authority	**0**	**26**	**0**	**349**	**0**	**349**	**0**	**349**	**0**	**0**
Financing from Transfers and Other:										
Temporarily Reduced	0	0	0	0	0	0	0	0	0	0
Unapportioned	0	0	0	0	0	0	0	0	0	0
Discretionary Appropriation	0	0	0	0	0	0	0	0	0	0
Net Appropriation	**0**	**26**	**0**	**349**	**0**	**349**	**0**	**349**	**0**	**0**

Department of Commerce
National Oceanic and Atmospheric Administration
Fishermen's Contingency Fund
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Activity: Fishermen's Contingency Fund

For FY 2025, NMFS requests a total of $349 for this fund.

Goal Statement

This fund compensates U.S. commercial fishermen for damage or loss of fishing gear, vessels, and resulting economic loss caused by obstructions related to oil or gas exploration, development, and production in any area of the Outer Continental Shelf.

Base Program

The Fishermen's Contingency Fund is authorized under Section 402 of Title IV of the Outer Continental Shelf Lands Act Amendments of 1978. This fund minimizes financial instability of the fishing industry caused by competing uses of the OCS, and provides for timely resolution of claims by vessel owners.

Statement of Operating Objectives

Fishermen who can prove that they suffered losses in income due to inability or reduced capacity to fish as a result of the damage sustained may be eligible for compensation for economic loss and property loss or damage. Compensation for economic loss is based on 50 percent of gross income lost, rather than loss of profits.

Explanation and Justification

The funds used to provide this compensation are derived solely from fees collected on an annual basis by the Secretary of the Interior from the holders of leases, exploration permits, easements, or rights-of-way in areas of the OCS. Disbursements can be made only to the extent authorized in appropriation acts.

PROPOSED LEGISLATION:
For carrying out the provisions of Title IV of Public Law 95-372, not to exceed $349,000, to be derived from receipts collected pursuant to that Act, to remain available until expended.

Exhibit 16

Department of Commerce
National Oceanic and Atmospheric Administration
Fishermen's Contingency Fund
SUMMARY OF REQUIREMENTS BY OBJECT CLASS
(Dollar amounts in thousands)

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/ Decrease from 2025 Base
11	Personnel compensation					
11.1	Full-time permanent	0	0	0	0	0
11.3	Other than full-time permanent	0	0	0	0	0
11.5	Other personnel compensation	0	0	0	0	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	0	0	0	0	0
12.1	Civilian personnel benefits	0	0	0	0	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	0	0	0	0	0
22	Transportation of things	0	0	0	0	0
23.1	Rental payments to GSA	0	0	0	0	0
23.2	Rental payments to others	0	0	0	0	0
23.3	Commun., util., misc. charges	0	0	0	0	0
24	Printing and reproduction	0	0	0	0	0
25.2	Other services from non Federal sources	0	0	0	0	0
26	Supplies and materials	0	0	0	0	0
31	Equipment	0	0	0	0	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	0	0	0	0	0
42	Insurance claims and indemnities	150	349	349	349	0
43	Interest and dividends	0	0	0	0	0
44	Refunds	0	0	0	0	0
99	**Total Obligations**	150	349	349	349	0

Exhibit 16

Department of Commerce
National Oceanic and Atmospheric Administration
Fishermen's Contingency Fund
SUMMARY OF REQUIREMENTS BY OBJECT CLASS
(Dollar amounts in thousands)

	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/ Decrease from 2025 Base
Less prior year recoveries	0	0	0	0	0
Less unobligated balance, SOY	(1,154)	(930)	(930)	(930)	0
Less unapportioned	0	0	0	0	0
Plus unobligated balance, EOY	930	930	930	930	0
Unobligated balance, rescission	0	0	0	0	0
Total Budget Authority	26	349	349	349	0

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Exhibit 5

Department of Commerce
National Oceanic and Atmospheric Administration
Foreign Fishing Observer Fund
SUMMARY OF RESOURCE REQUIREMENTS
(Dollar amounts in thousands)

	Positions	FTE	Budget Authority	Direct Obligations
2024 Annualized CR	0	0	0	0
Less: Obligations from prior year balances	0	0	0	0
Plus: 2025 Adjustments to Base	0	0	0	0
2025 Base	0	0	0	0
Plus: 2025 Program Changes	0	0	0	0
2025 Estimate	0	0	0	0

		2023 Actual Personnel Amount		2024 Annualized CR Personnel Amount		2025 Base Personnel Amount		2025 Estimate Personnel Amount		Increase/ Decrease from 2025 Base Personnel Amount	
Foreign Fishing Observer Fund	Pos/BA	0	0	0	0	0	0	0	0	0	0
	FTE/OBL	0	0	0	0	0	0	0	0	0	0
Total: Foreign Fishing Observer Fund	Pos/BA	0	0	0	0	0	0	0	0	0	0
	FTE/OBL	0	0	0	0	0	0	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Foreign Fishing Observer Fund
SUMMARY OF RESOURCE REQUIREMENTS
(Dollar amounts in thousands)

	2023 Actual		2024 Annualized CR		2025 Base		2025 Estimate		Increase/ Decrease from 2025 Base	
	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount
Direct Discretionary Obligation	0	0	0	0	0	0	0	0	0	0
Total Obligations	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Adjustments for:										
Unobligated balance, adj. SOY	0	(522)	0	(522)	0	(522)	0	(522)	0	0
Unobligated balance, EOY	0	522	0	522	0	522	0	522	0	0
Total Budget Authority	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Financing from Transfers and Other:										
Unobligated balance, rescission	0	0	0	0	0	0	0	0	0	0
Net Appropriation	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Department of Commerce
National Oceanic and Atmospheric Administration
Foreign Fishing Observer Fund
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Activity: Foreign Fishing Observer Fund

For FY 2025, NMFS requests a total of $0 for this fund.

Goal Statement

The goals of this fund are to provide 100 percent observer coverage aboard foreign vessels fishing within the U.S. EEZ; increase compliance with fishery regulations and requirements; support balanced conservation and management measures to achieve and maintain the optimum use of living marine resources; collect data to determine foreign compliance with fishery regulations and the status of fish stocks within the U.S. EEZ; and administer the base and supplemental observer programs in a cost-effective manner.

Base Program

The Foreign Fishing Observer Fund is financed through fees collected from owners and operators of foreign fishing vessels fishing within the U.S. EEZ (such fishing requires a permit issued under the Magnuson-Stevens Fishery Conservation and Management Act). The fund is used by NOAA to pay salaries, administrative costs, data editing and entry, and other costs incurred in placing observers aboard foreign fishing vessels.

Statement of Operating Objectives

- Monitor foreign fishing for compliance with U.S. fishing regulations
- Collect biological data

Explanation and Justification

The observer program is conducted primarily through contracts with the private sector. This includes longline vessels fishing in the Atlantic billfish and shark fishery and other foreign vessels fishing in the EEZ. NOAA places these observers aboard foreign fishing vessels to monitor compliance with U.S. fishery laws and to collect fishery management data. Amounts available in the fund can be disbursed only to the extent and in amounts provided in appropriation acts. In FY 1985, Congress approved the establishment of a supplemental observer program. The program provided that foreign vessels without federally funded observers are required to obtain the services of private contractors certified by the Secretary of Commerce.

Department of Commerce
National Oceanic and Atmospheric Administration
Foreign Fishing Observer Fund
SUMMARY OF RESOURCE REQUIREMENTS BY OBJECT CLASS
(Dollar amounts in thousands)

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/ Decrease from 2025 Base
11	Personnel compensation					
11.1	Full-time permanent	0	0	0	0	0
11.3	Other than full-time permanent	0	0	0	0	0
11.5	Other personnel compensation	0	0	0	0	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	0	0	0	0	0
12.1	Civilian personnel benefits	0	0	0	0	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	0	0	0	0	0
22	Transportation of things	0	0	0	0	0
23.1	Rental payments to GSA	0	0	0	0	0
23.2	Rental payments to others	0	0	0	0	0
23.3	Commun., util., misc. charges	0	0	0	0	0
24	Printing and reproduction	0	0	0	0	0
25.2	Other services from non-Federal sources	0	0	0	0	0
26	Supplies and materials	0	0	0	0	0
31	Equipment	0	0	0	0	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	0	0	0	0	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	0	0	0	0	0
44	Refunds	0	0	0	0	0
99	**Total Obligations**	0	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Foreign Fishing Observer Fund
SUMMARY OF RESOURCE REQUIREMENTS BY OBJECT CLASS
(Dollar amounts in thousands)

	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/ Decrease from 2025 Base
Less prior year recoveries	0	0	0	0	0
Less unobligated balance, SOY	(522)	(522)	(522)	(522)	0
Plus unobligated balance, EOY	522	522	522	522	0
Unobligated balance, rescission	0	0	0	0	0
Total Budget Authority	0	0	0	0	0

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Department of Commerce
National Oceanic and Atmospheric Administration
Fisheries Finance Program Account
SUMMARY OF RESOURCE REQUIREMENTS
(Dollar amounts in thousands)

	Positions	FTE	Budget Authority	Direct Obligations
2024 Annualized CR	0	0	202	202
Less: 2025 Adjustments to Base	0	0	(202)	(202)
2025 Base	0	0	0	0
Plus: 2025 Program Changes	0	0	0	0
2025 Estimate	0	0	0	0

		2023 Actual		2024 Annualized CR		2025 Base		2025 Estimate		Increase/ Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
Fisheries Finance Program Account	Pos/BA	0	5,722	0	202	0	0	0	0	0	0
	FTE/OBL	0	5,722	0	202	0	0	0	0	0	0
Total: Fisheries Finance Program Account	Pos/BA	0	5,722	0	202	0	0	0	0	0	0
	FTE/OBL	0	5,722	0	202	0	0	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Fisheries Finance Program Account
SUMMARY OF RESOURCE REQUIREMENTS
(Dollar amounts in thousands)

	2023 Actual		2024 Annualized CR		2025 Base		2025 Estimate		Increase/ Decrease from 2025 Base	
	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount
Loan Modification	0	0	0	0	0	0	0	0	0	0
Credit Reestimates	0	5,722	0	202	0	0	0	0	0	0
Total Obligations	**0**	**5,722**	**0**	**202**	**0**	**0**	**0**	**0**	**0**	**0**
Adjustments for:										
Recoveries	0	0	0	0	0	0	0	0	0	0
Unobligated balance, adj. SOY	0	(2,781)	0	(2,781)	0	(2,781)	0	(2,781)	0	0
Unobligated balance, EOY	0	2,781	0	2,781	0	2,781	0	2,781	0	0
Total Budget Authority	**0**	**5,722**	**0**	**202**	**0**	**0**	**0**	**0**	**0**	**0**
Financing from Transfers and Other:										
Less: Permanent Indefinite Authority (Mandatory)	0	0	0	0	0	0	0	0	0	0
Net Appropriation	**0**	**5,722**	**0**	**202**	**0**	**0**	**0**	**0**	**0**	**0**

Department of Commerce
National Oceanic and Atmospheric Administration
Fisheries Finance Program Account
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Activity: Fisheries Finance Program Account

For FY 2025, NMFS requests a total of $0 for the Fisheries Finance Program Account.

Goal Statement

The Fisheries Finance Program (FFP) is a national loan program that makes long-term, fixed-rate financing available to U.S. citizens who otherwise qualify for financing or refinancing.

Base Program

NOAA's FFP offers financing to U.S. companies seeking to improve their commercial fisheries, aquaculture facilities, and fishing vessels. Vessel financing or refinancing that could contribute to overcapitalization by increasing harvesting capacity is prohibited by regulation.

Statement of Operating Objectives

The purpose of these loans is to provide affordable financing to support participants of the fishing and aquaculture industries.

Explanation and Justification

Types of activities for financing include the reconstruction, reconditioning, and, in some cases, the purchasing of fishing vessels, shoreside processing, aquaculture, mariculture facilities, purchase or refinance the purchase of harvesting rights in federally managed limited access systems, and the purchase of individual fishing quota (IFQ) in two Northwest fisheries. The FFP also provides fishery-wide financing to ease the transition to sustainable fisheries through its fishing capacity reduction programs and provides IFQ financing to fishermen who fish from small vessels and entry-level fishermen to promote stability and reduce consolidation in already rationalized fisheries. Additionally, FFP can provide loans for fisheries investments of Western Alaska Community Development Quota (CDQ) groups.

The FFP operates under the authority of Subtitle V of Title 46 of the U.S. Code, formerly known as "Title XI of the Merchant Marine Act of 1936," 46 U.S.C. 53701; Section 303(a) of the Sustainable Fisheries Act amendments to the Magnuson-Stevens

Department of Commerce
National Oceanic and Atmospheric Administration
Fisheries Finance Program Account
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Fishery Conservation and Management Act; and, from time to time FFP-specific legislation. FFP lending practices are guided by Title XI, general rules implementing Title XI (found at 50 CFR part 253, subpart B), and NOAA's sustainable fisheries policy. The overriding guideline for all FFP financings is that they cannot contribute or be construed to contribute to an increase in existing fish harvesting.

FFP authority is subject to the Federal Credit Reform Act of 1990 (FCRA) (2 U.S.C. 661), which requires the estimated loan losses (FCRA cost) be appropriated in cash at the time Congress authorizes annual credit ceilings. Some types of FFP loans require no FCRA subsidy appropriations because these types of loans have historically not required additional loan subsidy. However, specific loan ceilings for each type of loan authority must be included in appropriation language or other bill language regardless of the need for cash appropriations.

PROPOSED LEGISLATION:
Subject to section 502 of the Congressional Budget Act of 1974, during fiscal year 2025, obligations of direct loans may not exceed $24,000,000 for Individual Fishing Quota loans and not to exceed $100,000,000 for traditional direct loans as authorized by the Merchant Marine Act of 1936.

Department of Commerce
National Oceanic and Atmospheric Administration
Fisheries Finance Program Account
SUMMARY OF RESOURCE REQUIREMENTS BY OBJECT CLASS
(Dollar amounts in thousands)

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/ Decrease from 2025 Base
11	Personnel compensation					
11.1	Full-time permanent	0	0	0	0	0
11.3	Other than full-time permanent	0	0	0	0	0
11.5	Other personnel compensation	0	0	0	0	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	0	0	0	0	0
12.1	Civilian personnel benefits	0	0	0	0	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	0	0	0	0	0
22	Transportation of things	0	0	0	0	0
23.1	Rental payments to GSA	0	0	0	0	0
23.2	Rental payments to others	0	0	0	0	0
23.3	Commun., util., misc. charges	0	0	0	0	0
24	Printing and reproduction	0	0	0	0	0
25.2	Other services from non-Federal sources	0	0	0	0	0
26	Supplies and materials	0	0	0	0	0
31	Equipment	0	0	0	0	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	5,722	202	0	0	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	0	0	0	0	0
44	Refunds	0	0	0	0	0
99	**Total Obligations**	5,722	202	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Fisheries Finance Program Account
SUMMARY OF RESOURCE REQUIREMENTS BY OBJECT CLASS
(Dollar amounts in thousands)

	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/ Decrease from 2025 Base
Less prior year recoveries	0	0	0	0	0
Less unobligated balance, SOY	(2,781)	(2,781)	(2,781)	(2,781)	0
Plus unobligated balance, EOY	2,781	2,781	2,781	2,781	0
Unobligated balance, rescission	0	0	0	0	0
Total Budget Authority	5,722	202	0	0	0

Exhibit 5

Department of Commerce
National Oceanic and Atmospheric Administration
Promote and Develop Fisheries Products
SUMMARY OF RESOURCE REQUIREMENTS
(Dollar amounts in thousands)

	Positions	FTE	Budget Authority	Direct Obligations
2024 Annualized CR	0	0	31,621	32,012
Less: Obligations from prior year balances	0	0	0	0
Less: 2025 Adjustments to Base	0	0	(31,621)	(32,012)
2025 Base	0	0	0	0
Plus: 2025 Program Changes	0	0	0	0
2025 Estimate	0	0	0	0

		2023 Actual Personnel	Amount	2024 Annualized CR Personnel	Amount	2025 Base Personnel	Amount	2025 Estimate Personnel	Amount	Increase/ Decrease from 2025 Base Personnel	Amount
Promote and Develop Fisheries Products	Pos/BA	0	11,500	0	31,621	0	0	0	0	0	0
	FTE/OBL	0	11,958	0	32,012	0	0	0	0	0	0
Total: Promote and Develop Fisheries Products	Pos/BA	0	11,500	0	31,621	0	0	0	0	0	0
	FTE/OBL	0	11,958	0	32,012	0	0	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Promote and Develop Fisheries Products
SUMMARY OF RESOURCE REQUIREMENTS
(Dollar amounts in thousands)

	2023 Actual		2024 Annualized CR		2025 Base		2025 Estimate		Increase/ Decrease from 2025 Base	
	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount
Direct Discretionary Obligation	0	11,958	0	32,012	0	0	0	0	0	0
Total Obligations	**0**	**11,958**	**0**	**32,012**	**0**	**0**	**0**	**0**	**0**	**0**
Adjustments for:										
Unobligated balance, adj. SOY	0	(729)	0	(391)	0	0	0	0	0	0
Recoveries	0	(120)	0	0	0	0	0	0	0	0
Unobligated balance, adj. EOY	0	391	0	0	0	0	0	0	0	0
Total Budget Authority	**0**	**11,500**	**0**	**31,621**	**0**	**0**	**0**	**0**	**0**	**0**
Financing from Transfers and Other:										
Transfer from USDA	0	(362,611)	0	(377,363)	0	(377,363)	0	(377,363)	0	0
Appropriations previously unavailable	0	(14,459)	0	(20,669)	0	(21,510)	0	(21,510)	0	0
Permanently Reduced	0	0	0	0	0	0	0	0	0	0
Temporarily Reduced	0	20,669	0	21,510	0	21,510	0	21,510	0	0
Transfer to ORF	0	344,901	0	344,901	0	377,363	0	377,363	0	0
Net Appropriation	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Department of Commerce
National Oceanic and Atmospheric Administration
Promote and Develop Fisheries Products
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Activity: Promote and Develop Fisheries Products

For FY 2025, NOAA estimates that a total of $377,363 will be transferred from the Department of Agriculture to the Promote and Develop account, after accounting for sequestration and prior year recoveries. NOAA requests to transfer $377,363 from the Promote and Develop account to the Operations, Research, and Facilities (ORF) account, leaving $0 for the Saltonstall-Kennedy (S-K) grant program in FY 2025.

Goal Statement

To address the needs of fishing communities in optimizing economic benefits by building and maintaining sustainable fisheries and practices, dealing with the impacts of conservation and management measures, and increasing other opportunities to keep working waterfronts viable.

Base Program

NOAA will transfer $377,363 from the Promote and Develop account to offset appropriations in the NMFS ORF account. The transfer to ORF will support data collection, data management, and fisheries stock assessment production within the Fisheries Data Collections, Surveys, and Assessments budget line, which includes the Expand Annual Stock Assessments, Fish Information Networks, Survey and Monitoring Projects, Cooperative Research activities; Fisheries Management Programs and Services; and Interjurisdictional Fisheries Grants.

Statement of Operating Objectives

Applications should fall into one of two priorities:

- Promotion, Development, and Marketing
- Science or Technology that Promotes Sustainable U.S. Seafood Production and Harvesting

Department of Commerce
National Oceanic and Atmospheric Administration
Promote and Develop Fisheries Products
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Explanation and Justification

The Promote and Develop account funds are derived from a transfer of thirty percent of duties on imported fisheries products from Department of Agriculture. Any funds remaining in this account after the ORF transfer are available to carry out the purposes of the S-K program. The American Fisheries Promotion Act (AFPA) of 1980 amended the S-K Act to authorize a grants program for fisheries research and development projects. In FY 2023, approximately $11.0 million was recommended for 40 projects nationwide. The projects address either promotion, development and marketing and science or technology that promotes sustainable U.S seafood production and harvesting. More information on past accomplishments is available at the program's website http://www.nmfs.noaa.gov/mb/financial_services/skhome.htm.

Department of Commerce
National Oceanic and Atmospheric Administration
Promote and Develop Fisheries Products
SUMMARY OF REQUIREMENTS BY OBJECT CLASS
(Dollar amounts in thousands)

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/ Decrease from 2025 Base
11	Personnel compensation					
11.1	Full-time permanent	0	0	0	0	0
11.3	Other than full-time permanent	0	0	0	0	0
11.5	Other personnel compensation	0	0	0	0	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	0	0	0	0	0
12.1	Civilian personnel benefits	0	0	0	0	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	0	0	0	0	0
22	Transportation of things	0	0	0	0	0
23.1	Rental payments to GSA	0	0	0	0	0
23.2	Rental payments to others	0	0	0	0	0
23.3	Commun., util., misc. charges	0	0	0	0	0
24	Printing and reproduction	0	0	0	0	0
25.1	Advisory and assistance services	0	0	0	0	0
25.2	Other services from non-federal sources	408	0	0	0	0
25.3	Other goods and services from Federal sources	0	0	0	0	0
26	Supplies and materials	0	0	0	0	0
31	Equipment	0	0	0	0	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	11,550	32,012	0	0	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	0	0	0	0	0
44	Refunds	0	0	0	0	0
99	**Total Obligations**	11,958	32,012	0	0	0

Exhibit 16

Department of Commerce
National Oceanic and Atmospheric Administration
Promote and Develop Fisheries Products
SUMMARY OF REQUIREMENTS BY OBJECT CLASS
(Dollar amounts in thousands)

	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/ Decrease from 2025 Base
Less unobligated balance, SOY	(729)	(391)	0	0	0
Plus unobligated balance, EOY	391	0	0	0	0
Recoveries	(120)	0	0	0	0
Total Budget Authority	11,500	31,621	0	0	0
Personnel Data					
Full-Time equivalent Employment:					
Full-time permanent	0	0	0	0	0
Other than full time permanent	0	0	0	0	0
Total	0	0	0	0	0
Authorized Positions:					
Full-time permanent	0	0	0	0	0
Other than full time permanent	0	0	0	0	0
Total	0	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Federal Ship Financing Fund
SUMMARY OF RESOURCE REQUIREMENTS
(Dollar amounts in thousands)

	Positions	FTE	Budget Authority	Direct Obligations
2024 Annualized CR	0	0	0	0
2025 Base	0	0	0	0
Plus: 2025 Program Changes	0	0	0	0
2025 Estimate	0	0	0	0

		2023 Actual Personnel Amount		2024 Annualized CR Personnel Amount		2025 Base Personnel Amount		2025 Estimate Personnel Amount		Increase/ Decrease from 2025 Base Personnel Amount	
Federal Ship Financing Fund	Pos/BA	0	0	0	0	0	0	0	0	0	0
	FTE/OBL	0	0	0	0	0	0	0	0	0	0
Total: Federal Ship Financing Fund	Pos/BA	0	0	0	0	0	0	0	0	0	0
	FTE/OBL	0	0	0	0	0	0	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Federal Ship Financing Fund
SUMMARY OF RESOURCE REQUIREMENTS
(Dollar amounts in thousands)

	2023 Actual		2024 Annualized CR		2025 Base		2025 Estimate		Increase/ Decrease from 2025 Base	
	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount
Direct Discretionary Obligation	0	0	0	0	0	0	0	0	0	0
Total Obligations	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Adjustments for:										
Transfer to Treasury (mandatory)	0	0	0	0	0	0	0	0	0	0
Offsetting collections (mandatory)	0	0	0	0	0	0	0	0	0	0
Unobligated balance, adj. SOY	0	0	0	0	0	0	0	0	0	0
Unobligated balance, adj. EOY	0	0	0	0	0	0	0	0	0	0
Total Budget Authority	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Department of Commerce
National Oceanic and Atmospheric Administration
Federal Ship Financing Fund
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Activity: Federal Ship Financing Fund

For FY 2025, NMFS estimates a total of $0 for the Federal Ship Financing Fund Account.

Goal Statement

To provide for a liquidating account necessary for the collection of premiums and fees under the Fishing Vessel Obligations Guarantee program for loan commitments made prior to FY 1992.

Base Program

Administrative expenses for management of the loan guarantee portfolio were charged to the Federal Ship Financing Fund prior to the enactment of the Federal Credit Reform Act of 1990. Administrative expenses are charged to the ORF account.

Statement of Operating Objectives

- Collect repayments and interest
- Repay borrowings plus interest
- Pay default claims and interest

Explanation and Justification

These collections are for operations of this program, loans, and for use in case of default.

Department of Commerce
National Oceanic and Atmospheric Administration
Federal Ship Financing Fund
SUMMARY OF REQUIREMENTS BY OBJECT CLASS
(Dollar amounts in thousands)

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/ Decrease from 2025 Base
11	Personnel compensation					
11.1	Full-time permanent	0	0	0	0	0
11.3	Other than full-time permanent	0	0	0	0	0
11.5	Other personnel compensation	0	0	0	0	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	0	0	0	0	0
12.1	Civilian personnel benefits	0	0	0	0	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	0	0	0	0	0
22	Transportation of things	0	0	0	0	0
23.1	Rental payments to GSA	0	0	0	0	0
23.2	Rental payments to others	0	0	0	0	0
23.3	Commun., util., misc. charges	0	0	0	0	0
24	Printing and reproduction	0	0	0	0	0
25.2	Other services from non-Federal sources	0	0	0	0	0
26	Supplies and materials	0	0	0	0	0
31	Equipment	0	0	0	0	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	0	0	0	0	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	0	0	0	0	0
44	Refunds	0	0	0	0	0
99	**Total Obligations**	0	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Federal Ship Financing Fund
SUMMARY OF REQUIREMENTS BY OBJECT CLASS
(Dollar amounts in thousands)

	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/ Decrease from 2025 Base
Plus transfers to Treasury	0	0	0	0	0
Less unobligated balance, SOY	0	0	0	0	0
Plus unobligated balance, EOY	0	0	0	0	0
Less offsetting Collections	0	0	0	0	0
Total Budget Authority	0	0	0	0	0

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Exhibit 5

Department of Commerce
National Oceanic and Atmospheric Administration
Environmental Improvement and Restoration Fund
SUMMARY OF RESOURCE REQUIREMENTS
(Dollar amounts in thousands)

	Positions	FTE	Budget Authority	Direct Obligations
2024 Annualized CR	0	0	8,448	8,448
Less: Obligations from prior year balances	0	0	0	0
Less: 2025 Adjustments to Base	0	0	6,616	6,616
2025 Base	0	0	15,064	15,064
Plus: 2025 Program Changes	0	0	0	0
2025 Estimate	0	0	15,064	15,064

		2023 Actual Personnel Amount		2024 Annualized CR Personnel Amount		2025 Base Personnel Amount		2025 Estimate Personnel Amount		Increase/ Decrease from 2025 Base Personnel Amount	
Environmental Improvement and Restoration Fund	Pos/BA	0	6,083	0	8,448	0	15,064	0	15,064	0	0
	FTE/OBL	0	6,083	0	8,448	0	15,064	0	15,064	0	0
Total: Environmental Improvement and Restoration Fund	Pos/BA	0	6,083	0	8,448	0	15,064	0	15,064	0	0
	FTE/OBL	0	6,083	0	8,448	0	15,064	0	15,064	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Environmental Improvement and Restoration Fund
SUMMARY OF RESOURCE REQUIREMENTS
(Dollar amounts in thousands)

	2023 Actual		2024 Annualized CR		2025 Base		2025 Estimate		Increase/ Decrease from 2025 Base	
	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount
Direct Mandatory Obligation	0	6,083	0	8,448	0	15,064	0	15,064	0	0
Total Obligations	**0**	**6,083**	**0**	**8,448**	**0**	**15,064**	**0**	**15,064**	**0**	**0**
Adjustments for:										
Unobligated balance, adj. SOY	0	0	0	0	0	0	0	0	0	0
Recoveries	0	0	0	0	0	0	0	0	0	0
Unobligated balance, adjusted	0	0	0	0	0	0	0	0	0	0
Unobligated balance, EOY	0	0	0	0	0	0	0	0	0	0
Total Budget Authority	**0**	**6,083**	**0**	**8,448**	**0**	**15,064**	**0**	**15,064**	**0**	**0**
Financing from Transfers and Other:										
Appropriation previously unavailable	0	0	0	0	0	0	0	0	0	0
Permanently Reduced	0	368	0	511	0	911	0	911	0	0
Net Mandatory Appropriation	**0**	**6,451**	**0**	**8,959**	**0**	**15,975**	**0**	**15,975**	**0**	**0**

Department of Commerce
National Oceanic and Atmospheric Administration
Environmental Improvement and Restoration Fund
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Activity: Environmental Improvement and Restoration Fund

For FY 2025, NMFS estimates obligating $15,064 in the Environmental Improvement and Restoration Fund.

Goal Statement

The Environmental Improvement and Restoration Fund (EIRF) was created by the Department of Interior and Related Agencies Appropriations Act of 1998 for the purpose of carrying out marine research activities in the North Pacific.

Base Program

These funds will provide grants to Federal, state, private, or foreign organizations or individuals to conduct research activities on or relating to the fisheries or marine ecosystems in the North Pacific Ocean, Bering Sea, and Arctic Ocean.

Statement of Operating Objectives

- Improve understanding of North Pacific marine ecosystem dynamics and use of the resources
- Improve ability to forecast and respond to effects of changes through integration of various research activities including long-term monitoring
- Improve ability to manage and protect fish and wildlife populations of the North Pacific

Explanation and Justification

Each year NOAA's EIRF account is financed with a transfer from the Department of the Interior. NOAA grants these funds to the North Pacific Research Board (NPRB), which conducts an open, competitive process for gathering research proposals. Through this process, the NPRB recommends research projects relating to fisheries or marine ecosystems in the North Pacific Ocean, Bering Sea, and Arctic Ocean, with emphasis on cooperative research designed to address pressing fishery management or marine ecosystem information needs.

Exhibit 16

Department of Commerce
National Oceanic and Atmospheric Administration
Environmental Improvement and Restoration Fund
SUMMARY OF REQUIREMENTS BY OBJECT CLASS
(Dollar amounts in thousands)

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/ Decrease from 2025 Base
11	Personnel compensation					
11.1	Full-time permanent	0	0	0	0	0
11.3	Other than full-time permanent	0	0	0	0	0
11.5	Other personnel compensation	0	0	0	0	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	0	0	0	0	0
12.1	Civilian personnel benefits	0	0	0	0	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	0	0	0	0	0
22	Transportation of things	0	0	0	0	0
23.1	Rental payments to GSA	0	0	0	0	0
23.2	Rental payments to others	0	0	0	0	0
23.3	Commun., util., misc. charges	0	0	0	0	0
24	Printing and reproduction	0	0	0	0	0
25.2	Other services from non-Federal sources	0	0	0	0	0
26	Supplies and materials	0	0	0	0	0
31	Equipment	0	0	0	0	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	6,083	8,448	15,064	15,064	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	0	0	0	0	0
44	Refunds	0	0	0	0	0
99	**Total Obligations**	6,083	8,448	15,064	15,064	0

Department of Commerce
National Oceanic and Atmospheric Administration
Environmental Improvement and Restoration Fund
SUMMARY OF REQUIREMENTS BY OBJECT CLASS
(Dollar amounts in thousands)

	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/ Decrease from 2025 Base
Less unobligated balance, SOY	0	0	0	0	0
Plus unobligated balance, adjusted	0	0	0	0	0
Less unobligated balance, transferred	0	0	0	0	0
Plus unobligated balance, EOY	0	0	0	0	0
Recoveries	0	0	0	0	0
Total Budget Authority	6,083	8,448	15,064	15,064	0

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Exhibit 5

Department of Commerce
National Oceanic and Atmospheric Administration
Limited Access System Administration Fund
SUMMARY OF RESOURCE REQUIREMENTS
(Dollar amounts in thousands)

	Positions	FTE	Budget Authority	Direct Obligations
2024 Annualized CR	40	40	14,133	15,713
Plus: Adjustments to Base	0	0	295	(1,258)
Less: Obligations from Prior Year Balances	0	0	0	0
2025 Base	40	40	14,428	14,455
Plus: 2025 Program Changes	0	0	0	0
2025 Estimate	40	40	14,428	14,455

		2023 Actual Personnel	2023 Actual Amount	2024 Annualized CR Personnel	2024 Annualized CR Amount	2025 Base Personnel	2025 Base Amount	2025 Estimate Personnel	2025 Estimate Amount	Increase/ Decrease from 2025 Base Personnel	Increase/ Decrease from 2025 Base Amount
Limited Access System Administration Fund	Pos/BA	40	11,334	40	14,133	40	14,428	40	14,428	0	0
	FTE/OBL	29	13,990	40	15,713	40	14,455	40	14,455	0	0
Total: Limited Access System Administration Fund	Pos/BA	40	11,334	40	14,133	40	14,428	40	14,428	0	0
	FTE/OBL	29	13,990	40	15,713	40	14,455	40	14,455	0	0

Exhibit 5

Department of Commerce
National Oceanic and Atmospheric Administration
Limited Access System Administration Fund
SUMMARY OF RESOURCE REQUIREMENTS
(Dollar amounts in thousands)

	2023 Actual		2024 Annualized CR		2025 Base		2025 Estimate		Increase/ Decrease from 2025 Base	
	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount
Direct Discretionary Obligation	29	13,990	40	15,713	40	14,455	40	14,455	0	0
Total Obligations	**29**	**13,990**	**40**	**15,713**	**40**	**14,455**	**40**	**14,455**	**0**	**0**
Adjustments for:										
Recoveries	0	(401)	0	0	0	0	0	0	0	0
Unobligated balance, adj. SOY	0	(18,946)	0	(16,691)	0	(15,111)	0	(15,111)	0	0
Unobligated balance, unapportioned	0	0	0	0	0	0	0	0	0	0
Unobligated balance, EOY	0	16,691	0	15,111	0	15,084	0	15,084	0	0
Total Budget Authority	**29**	**11,334**	**40**	**14,133**	**40**	**14,428**	**40**	**14,428**	**0**	**0**
Financing from Transfers and Other:										
Appropriations previously unavailable	0	(648)	0	(847)	0	(803)	0	(803)	0	0
Temporarily Reduced	0	847	0	803	0	824	0	824	0	0
Net Appropriation	**29**	**11,533**	**40**	**14,089**	**40**	**14,449**	**40**	**14,449**	**0**	**0**

Department of Commerce
National Oceanic and Atmospheric Administration
Limited Access System Administration Fund
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Activity: Limited Access System Administration Fund

For FY 2025, NMFS estimates obligating $14,455 in the Limited Access System Administration account.

Goal Statement

To provide for the collection of fees to recover the incremental costs of management, data collection, and enforcement of Limited Access Privilege (LAP) programs.

Base Program

Under the authority of Magnuson-Stevens Fishery Conservation and Management Act (MSA) Section 304(d)(2)(A) funds collected are deposited into the "Limited Access System Administrative Fund" (LASAF). Fees cannot exceed three percent of the ex-vessel value of fish harvested under any such program, and shall be collected at either the time of the landing, filing of a landing report, or sale of such fish during a fishing season or in the last quarter of the calendar year in which the fish is harvested.

Statement of Operating Objectives

- Provide repository for fees collected from Limited Access Programs
- Fund incremental costs of management, data collection and analysis, and enforcement of limited access privilege programs

Explanation and Justification

The LASAF is available, without appropriation or fiscal year limitation, only for the purposes of administrating the central registry system; and administering and implementing the MSA in the fishery in which the fees were collected. Sums in the fund that are not currently needed for these purposes are kept on deposit or invested in obligations of, or guaranteed by, the United States. Also, in establishing a LAP program, a Regional Council can consider, and may provide, if appropriate, an auction system or other program to collect royalties for the initial or any subsequent distribution of allocations. If an auction system is developed, revenues from these royalties are deposited in the LASAF.

Department of Commerce
National Oceanic and Atmospheric Administration
Limited Access System Administration Fund
SUMMARY OF REQUIREMENTS BY OBJECT CLASS
(Dollar amounts in thousands)

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/ Decrease from 2025 Base
11	Personnel compensation					
11.1	Full-time permanent	3,163	4,157	4,157	4,157	0
11.3	Other than full-time permanent	0	0	0	0	0
11.5	Other personnel compensation	291	412	412	242	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	3,454	4,569	3,741	3,741	0
12.1	Civilian personnel benefits	1,667	1,927	1,927	1,927	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	90	141	141	141	0
22	Transportation of things	6	7	7	7	0
23.1	Rental payments to GSA	238	238	238	238	0
23.2	Rental payments to others	2	2	2	2	0
23.3	Commun., util., misc. charges	29	29	29	29	0
24	Printing and reproduction	17	23	23	23	0
25.1	Advisory and assistance services	0	0	0	0	0
25.2	Other services from non-Federal sources	4,783	5,052	3,794	3,794	0
25.3	Other goods and services from Federal sources	2	2	2	2	0
26	Supplies and materials	54	75	75	75	0
31	Equipment	4	4	4	4	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	3,644	3,644	3,644	3,644	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	0	0	0	0	0
44	Refunds	0	0	0	0	0
99	**Total Obligations**	13,990	15,713	14,455	14,455	0

Department of Commerce
National Oceanic and Atmospheric Administration
Limited Access System Administration Fund
SUMMARY OF REQUIREMENTS BY OBJECT CLASS
(Dollar amounts in thousands)

	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/ Decrease from 2025 Base
Recoveries	(401)	0	0	0	0
Less unobligated balance, SOY	(18,946)	(16,691)	(15,111)	(15,111)	0
Unobligated balance, unapportioned	0	0	0	0	0
Plus unobligated balance, EOY	16,691	15,111	15,084	15,084	0
Unobligated balance, rescission	0	0	0	0	0
Total Budget Authority	11,334	14,133	14,428	14,428	0
Personnel Data					
Full-Time equivalent Employment:					
Full-time permanent	29	40	40	40	0
Other than full time permanent	0	0	0	0	0
Total	29	40	40	40	0
Authorized Positions:					
Full-time permanent	40	40	40	40	0
Other than full time permanent	0	0	0	0	0
Total	40	40	40	40	0

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Department of Commerce
National Oceanic and Atmospheric Administration
Marine Mammal Unusual Mortality Event Fund
SUMMARY OF RESOURCE REQUIREMENTS
(Dollar amounts in thousands)

	Positions	FTE	Budget Authority	Direct Obligations
2024 Annualized CR	0	0	0	0
Plus: Adjustments to Base	0	0	0	0
2025 Base	0	0	0	0
Plus: 2025 Program Change	0	0	0	0
2025 Estimate	0	0	0	0

		2023 Actual Personnel Amount		2024 Annualized CR Personnel Amount		2025 Base Personnel Amount		2025 Estimate Personnel Amount		Increase/ Decrease from 2025 Base Personnel Amount	
Marine Mammal Unusual Mortality Event Fund	Pos/BA	0	1	0	0	0	0	0	0	0	0
	FTE/OBL	0	0	0	0	0	0	0	0	0	0
Total: Marine Mammal Unusual Mortality Event Fund	Pos/BA	0	1	0	0	0	0	0	0	0	0
	FTE/OBL	0	0	0	0	0	0	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Marine Mammal Unusual Mortality Event Fund
SUMMARY OF RESOURCE REQUIREMENTS
(Dollar amounts in thousands)

	2023 Actual		2024 Annualized CR		2025 Base		2025 Estimate		Increase/ Decrease from 2025 Base	
	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount
Direct Discretionary Obligation	0	0	0	0	0	0	0	0	0	0
Total Obligations	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Adjustments for:										
Recoveries	0	0	0	0	0	0	0	0	0	0
Collections	0	0	0	0	0	0	0	0	0	0
Unobligated balance, adj. SOY	0	(34)	0	(35)	0	(35)	0	(35)	0	0
Unobligated balance, unapportioned	0	0	0	0	0	0	0	0	0	0
Unobligated balance, EOY	0	35	0	35	0	35	0	35	0	0
Total Budget Authority	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Financing from Transfers and Other:										
Appropriation previously unavailable	0	0	0	0	0	0	0	0	0	0
Net Appropriation	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Department of Commerce
National Oceanic and Atmospheric Administration
Marine Mammal Unusual Mortality Event Fund
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Activity: Marine Mammal Unusual Mortality Event Fund

For FY 2025, NMFS estimates obligating $0 from the Marine Mammal Unusual Mortality Event Fund.

Provide funds to support investigations and responses to unusual marine mammal mortality events.

Base Program

An unusual mortality event (UME) is defined under the Marine Mammal Protection Act (MMPA) as “a stranding that is unexpected; involves a significant die-off of any marine mammal population; and demands immediate response.” In recent years, increased efforts to examine carcasses and live stranded animals have improved the knowledge of mortality rates and causes, allowing a better understanding of population threats and stressors and the ability to determine when a situation is “unusual.” Understanding and investigating marine mammal UMEs is important because they can serve as indicators of ocean health, giving insight into larger environmental issues, which may also have implications for human health.

Statement of Operating Objectives

MMPA Section 405 (16 U.S.C. 1421d) establishes the Marine Mammal Unusual Mortality Event Fund and describes its purposes and how donations can be made to the Fund. The Fund is an emergency response fund used to help cover expenses incurred by the volunteer Marine Mammal Stranding Network during a UME. Specifically, the fund: “shall be available only for use by the Secretary of Commerce, in consultation with the Secretary of the Interior: to compensate persons for special costs incurred in acting in accordance with the contingency plan issued under section 1421c(b) of this title or under the direction of an Onsite Coordinator for an unusual mortality event:

- for reimbursing any stranding network participant for costs incurred in preparing and transporting tissues collected with respect to an unusual mortality event for the Tissue Bank; and,
- for care and maintenance of marine mammal seized under section 1374(c)(2)(D) of this title.”

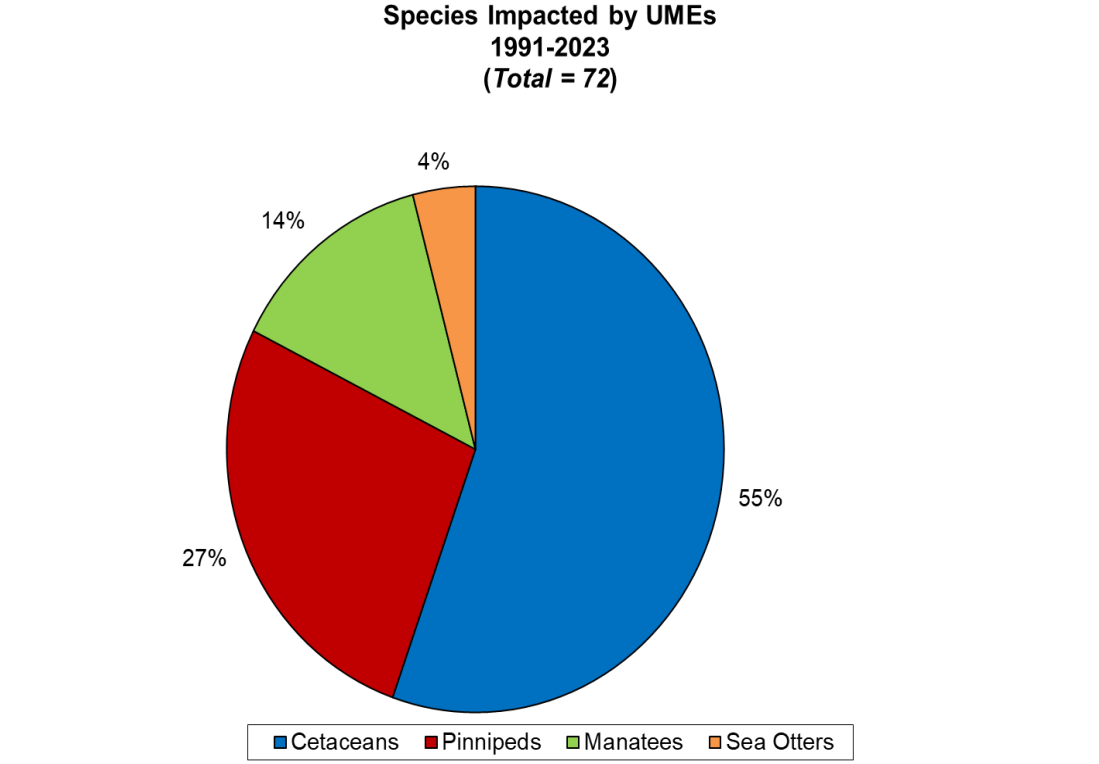
According to the MMPA, deposits can be made into Fund in the following ways:

- “amounts appropriated to the Fund;

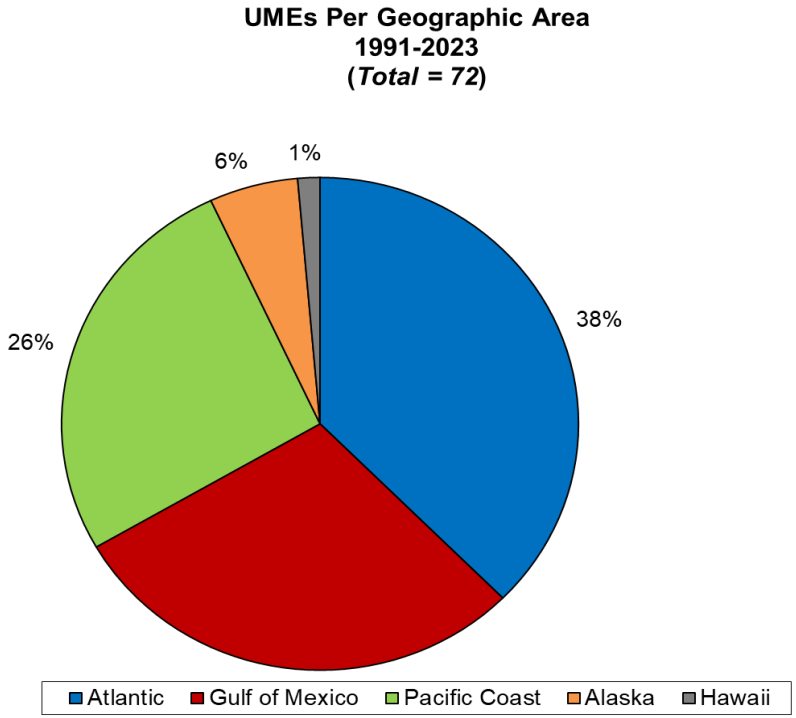
Department of Commerce
National Oceanic and Atmospheric Administration
Marine Mammal Unusual Mortality Event Fund
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

- other amounts appropriated to the Secretary for use with respect to unusual mortality events; and,
- amounts received by the United States in the form of gifts, devises, and bequests under subsection (d) of this section."

NOAA will continue to utilize the UME Contingency Fund to support the Marine Mammal Stranding Network's eligible work as needed.



Department of Commerce
National Oceanic and Atmospheric Administration
Marine Mammal Unusual Mortality Event Fund
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)



Explanation and Justification

Since UMEs are unpredictable emergency events caused by any number of circumstances (natural or human-caused), it is impossible to anticipate how many UMEs may occur in a given year or how much funding will be needed. During the past 32 years (1991– 2023), NOAA declared 72 UMEs, an average of ~2.4 UMEs per year. The highest number of UMEs declared in a year was five (in both 2006 and 2007). The costs associated with UMEs are highly variable and depend on the species involved, location, equipment, and laboratory needs. For example, a UME involving large whales offshore can cost well over several $100,000s in expenses because of the considerable logistical challenges and needs (e.g., ship time or aerial support, number of personnel, safety equipment, etc.)

Department of Commerce
National Oceanic and Atmospheric Administration
Marine Mammal Unusual Mortality Event Fund
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

To date, Congress has appropriated funding for UMEs on one occasion in 2005. Some of those funds were transferred to the National Fish and Wildlife Foundation (NFWF) since they have the ability to quickly distribute funds within 30 days of invoicing to our partners during a UME. At this time there are sufficient funds held at NFWF to meet most of our expected expenses in FY 2024, however, as this is an emergency fund NMFS may need to obligate available funding from the Marine Mammal Unusual Mortality Event Fund in late FY 2024 or FY 2025. Additionally, the UME Contingency fund is listed on Pay.gov allowing the public to donate to the fund year round.

Department of Commerce
National Oceanic and Atmospheric Administration
Marine Mammal Unusual Mortality Event Fund
SUMMARY OF REQUIREMENTS BY OBJECT CLASS
(Dollar amounts in thousands)

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/ Decrease from 2025 Base
11	Personnel compensation					
11.1	Full-time permanent	0	0	0	0	0
11.3	Other than full-time permanent	0	0	0	0	0
11.5	Other personnel compensation	0	0	0	0	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	0	0	0	0	0
12.1	Civilian personnel benefits	0	0	0	0	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	0	0	0	0	0
22	Transportation of things	0	0	0	0	0
23.1	Rental payments to GSA	0	0	0	0	0
23.2	Rental payments to others	0	0	0	0	0
23.3	Commun., util., misc. charges	0	0	0	0	0
24	Printing and reproduction	0	0	0	0	0
25.2	Other services from non-federal sources	0	0	0	0	0
26	Supplies and materials	0	0	0	0	0
31	Equipment	0	0	0	0	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	0	0	0	0	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	0	0	0	0	0
44	Refunds	0	0	0	0	0
99	**Total Obligations**	0	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Marine Mammal Unusual Mortality Event Fund
SUMMARY OF REQUIREMENTS BY OBJECT CLASS
(Dollar amounts in thousands)

	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/ Decrease from 2025 Base
Less prior year recoveries	0	0	0	0	0
Less unobligated balance, SOY	(34)	(35)	(35)	(35)	0
Plus unobligated balance, EOY	35	35	35	35	0
Less collections	0	0	0	0	0
Unobligated balance, unapportioned	0	0	0	0	0
Total Budget Authority	1	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Western Pacific Sustainable Fisheries Fund
SUMMARY OF RESOURCE REQUIREMENTS
(Dollar amounts in thousands)

	Positions	FTE	Budget Authority	Direct Obligations
2024 Annualized CR	0	0	750	750
Adjustments to Base	0	0	0	0
2025 Base	0	0	750	750
Plus: 2025 Program Changes	0	0	0	0
2025 Estimate	0	0	750	750

		2023 Actual		2024 Annualized CR		2025 Base		2025 Estimate		Increase/ Decrease from 2025 Base	
		Personnel Amount		Personnel Amount		Personnel Amount		Personnel Amount		Personnel Amount	
Western Pacific Sustainable Fisheries Fund	Pos/BA	0	734	0	750	0	750	0	750	0	0
	FTE/OBL	0	395	0	750	0	750	0	750	0	0
Total: Western Pacific Sustainable Fisheries Fund	Pos/BA	0	734	0	750	0	750	0	750	0	0
	FTE/OBL	0	395	0	750	0	750	0	750	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Western Pacific Sustainable Fisheries Fund
SUMMARY OF RESOURCE REQUIREMENTS
(Dollar amounts in thousands)

	2023 Actual		2024 Annualized CR		2025 Base		2025 Estimate		Increase/ Decrease from 2025 Base	
	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount
Direct Discretionary Obligation	0	395	0	750	0	750	0	750	0	0
Total Obligations	**0**	**395**	**0**	**750**	**0**	**750**	**0**	**750**	**0**	**0**
Adjustments for:										
Recoveries	0	0	0	0	0	0	0	0	0	0
Unobligated balance, adj. SOY	0	(55)	0	(394)	0	(394)	0	(394)	0	0
Unobligated balance, unapportioned	0	0	0	0	0	0	0	0	0	0
Unobligated balance, EOY	0	394	0	394	0	394	0	394	0	0
Total Budget Authority	**0**	**734**	**0**	**750**	**0**	**750**	**0**	**750**	**0**	**0**
Financing from Transfers and Other:										
Appropriation previously unavailable	0	(27)	0	(43)	0	(43)	0	(43)	0	0
Temporarily Reduced	0	43	0	43	0	43	0	43	0	0
Net Appropriation	**0**	**750**	**0**	**750**	**0**	**750**	**0**	**750**	**0**	**0**

Department of Commerce
National Oceanic and Atmospheric Administration
Western Pacific Sustainable Fisheries Fund
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Activity: Western Pacific Sustainable Fisheries Fund

For FY 2025, NMFS estimates obligating $750 in the Western Pacific Sustainable Fisheries Fund.

Goal Statement

The purpose of this fund is to allow foreign fishing within the U.S. Exclusive Economic Zone (EEZ) in the Western Pacific through a Pacific Insular Area Fishery Agreement.

Base Program

Section 204(e) of the 2006 amendments to the Magnuson-Stevens Fishery Conservation and Management Act (MSA) authorizes the establishment of the Western Pacific Sustainable Fisheries Fund. Before entering an Agreement, the Western Pacific Fishery Management Council must develop a Marine Conservation Plan that provides details on uses for any funds collected by the Secretary of Commerce. Marine Conservation Plans must also be developed by the Governors of the Territories of Guam and American Samoa and of the Commonwealth of the Northern Mariana Islands and approved by the Secretary or designee.

Statement of Operating Objectives

The conservation and management objectives for the Western Pacific Sustainable Fisheries Fund are listed in the four marine conservation plans:

- Hawaii and Pacific Insular Areas
- Guam
- American Samoa
- Commonwealth of the Northern Mariana Islands.

Department of Commerce
National Oceanic and Atmospheric Administration
Western Pacific Sustainable Fisheries Fund
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Explanation and Justification

The Western Pacific Sustainable Fisheries Fund serves as a repository for any permit payments received by the Secretary for foreign fishing within the U.S. EEZ around Johnston Atoll, Kingman Reef, Palmyra Atoll, and Jarvis, Howland, Baker and Wake Islands, sometimes known as the Pacific remote island areas (PRIA). Funds are available to:

- The Western Pacific Council for the purpose of carrying out implementation of a marine conservation plan (see below for more info on marine conservation plans).
- The Secretary of State for mutually agreed upon travel expenses for no more than two Federal representatives incurred as a direct result of negotiations and entering into a Pacific Insular Area fishery agreement. These fishery agreements authorize foreign fishing within the exclusive economic zone adjacent to a Pacific Insular Area other than American Samoa, Guam, or the Northern Mariana Islands, at the request of the Western Pacific Council.
- The Western Pacific Council to meet conservation and management objectives in the State of Hawaii if monies remain in the Western Pacific Sustainable Fisheries Fund after the funding requirements of Section 204(e) subparagraphs (A) and (B) of the 2006 amendments to the MSA have been satisfied.

In the case of violations by foreign vessels occurring in these areas, amounts received by the Secretary attributable to fines and penalties are deposited into the fund to be used for fisheries enforcement and for implementation of a marine conservation plan. Additionally, any funds or contributions received in support of conservation and management objectives under a Marine Conservation Plan for any Pacific Insular Area other than American Samoa, Guam, or the Northern Mariana Islands are deposited in the fund.

Department of Commerce
National Oceanic and Atmospheric Administration
Western Pacific Sustainable Fisheries Fund
SUMMARY OF REQUIREMENTS BY OBJECT CLASS
(Dollar amounts in thousands)

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/ Decrease from 2025 Base
11	Personnel compensation					
11.1	Full-time permanent	0	0	0	0	0
11.3	Other than full-time permanent	0	0	0	0	0
11.5	Other personnel compensation	0	0	0	0	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	0	0	0	0	0
12.1	Civilian personnel benefits	0	0	0	0	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	0	0	0	0	0
22	Transportation of things	0	0	0	0	0
23.1	Rental payments to GSA	0	0	0	0	0
23.2	Rental payments to others	0	0	0	0	0
23.3	Commun., util., misc. charges	0	0	0	0	0
24	Printing and reproduction	0	0	0	0	0
25.2	Other services from non-Federal sources	0	0	0	0	0
26	Supplies and materials	0	0	0	0	0
31	Equipment	0	0	0	0	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	395	750	750	750	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	0	0	0	0	0
44	Refunds	0	0	0	0	0
99	**Total Obligations**	395	750	750	750	0

Department of Commerce
National Oceanic and Atmospheric Administration
Western Pacific Sustainable Fisheries Fund
SUMMARY OF REQUIREMENTS BY OBJECT CLASS
(Dollar amounts in thousands)

	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/ Decrease from 2025 Base
Recoveries	0	0	0	0	0
Less unobligated balance, SOY	(55)	(394)	(394)	(394)	0
Plus unobligated balance, EOY	394	394	394	394	0
Unobligated balance, unapportioned	0	0	0	0	0
Total Budget Authority	734	750	750	750	0

Exhibit 5

Department of Commerce
National Oceanic and Atmospheric Administration
Fisheries Enforcement Asset Forfeiture Fund
SUMMARY OF RESOURCE REQUIREMENTS
(Dollar amounts in thousands)

	Positions	FTE	Budget Authority	Direct Obligations
2024 Annualized CR	0	0	2,298	3,558
Plus: Adjustments to Base			(4)	0
Less: Obligations from Prior Year Balances	0	0	0	0
2025 Base	0	0	2,294	3,558
Plus: 2025 Program Changes	0	0	0	0
2025 Estimate	0	0	2,294	3,558

		2023 Actual Personnel	2023 Actual Amount	2024 Annualized CR Personnel	2024 Annualized CR Amount	2025 Base Personnel	2025 Base Amount	2025 Estimate Personnel	2025 Estimate Amount	Increase/ Decrease from 2025 Base Personnel	Increase/ Decrease from 2025 Base Amount
Fisheries Enforcement Asset Forfeiture Fund	Pos/BA	0	2,374	0	2,298	0	2,294	0	2,294	0	0
	FTE/OBL	0	2,722	0	3,558	0	3,558	0	3,558	0	0
Total: Fisheries Enforcement Asset Forfeiture Fund	Pos/BA	0	2,374	0	2,298	0	2,294	0	2,294	0	0
	FTE/OBL	0	2,722	0	3,558	0	3,558	0	3,558	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Fisheries Enforcement Asset Forfeiture Fund
SUMMARY OF RESOURCE REQUIREMENTS
(Dollar amounts in thousands)

	2023 Actual		2024 Annualized CR		2025 Base		2025 Estimate		Increase/ Decrease from 2025 Base	
	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount
Direct Mandatory Obligation	0	2,722	0	3,558	0	3,558	0	3,558	0	0
Total Obligations	**0**	**2,722**	**0**	**3,558**	**0**	**3,558**	**0**	**3,558**	**0**	**0**
Adjustments for:										
Recoveries	0	0	0	0	0	0	0	0	0	0
Unobligated balance, adj. SOY	0	(6,524)	0	(6,176)	0	(4,916)	0	(4,916)	0	0
Unobligated balance, EOY	0	6,176	0	4,916	0	3,652	0	3,652	0	0
Total Budget Authority	**0**	**2,374**	**0**	**2,298**	**0**	**2,294**	**0**	**2,294**	**0**	**0**
Financing from Transfers and Other:										
Mandatory Appropriation										
Temporarily Reduced	0	135	0	131	0	131	0	131	0	0
Appropriations previously unavailable	0	(135)	0	(135)	0	(131)	0	(131)	0	0
Unobligated balance, Rescission	0	0	0	0	0	0	0	0	0	0
Net Appropriation	**0**	**2,374**	**0**	**2,294**	**0**	**2,294**	**0**	**2,294**	**0**	**0**

Department of Commerce
National Oceanic and Atmospheric Administration
Fisheries Enforcement Asset Forfeiture Fund
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Activity: Fisheries Enforcement Asset Forfeiture Fund

For FY 2025, NMFS estimates it will collect $2,294 in fines, penalties, and forfeitures proceeds.

Goal Statement

To pay certain enforcement-related expenses from fines, penalties, and forfeiture proceeds received for violations of the Magnuson-Stevens Fishery Conservation and Management Act (MSA), Marine Mammal Protection Act (MMPA), National Marine Sanctuaries Act, or any other marine resource law enforced by the Secretary.

Base Program

Pursuant to Section 311(e)(1) of the MSA, NOAA has established a Civil Monetary Penalty/Asset Forfeiture Fund (AFF) where these proceeds are deposited.

Statement of Operating Objectives

The objective of the AFF is to provide a repository for fines, penalties and forfeiture proceeds, which are only used to fund the authorized costs listed below.

Explanation and Justification

The proceeds held in the AFF may be used to offset in part the costs of administering the Enforcement program. Expenses funded through this source include: costs directly related to the storage, maintenance, and care of seized fish, vessels, or other property during a civil or criminal proceeding; expenditures related directly to specific investigations and enforcement proceedings such as travel for interviewing witnesses; enforcement-unique information technology infrastructure; and annual interagency agreement and contract costs for the administrative adjudication process, including Administrative Law Judges.

Department of Commerce
National Oceanic and Atmospheric Administration
Fisheries Enforcement Asset Forfeiture Fund
SUMMARY OF REQUIREMENTS BY OBJECT CLASS
(Dollar amounts in thousands)

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/ Decrease from 2025 Base
11	Personnel compensation					
11.1	Full-time permanent	0	0	0	0	0
11.3	Other than full-time permanent	0	0	0	0	0
11.5	Other personnel compensation	0	0	0	0	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	0	0	0	0	0
12.1	Civilian personnel benefits	0	0	0	0	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	100	100	100	100	0
22	Transportation of things	0	0	0	0	0
23.1	Rental payments to GSA	0	0	0	0	0
23.2	Rental payments to others	105	105	105	105	0
23.3	Commun., util., misc. charges	4	4	4	4	0
24	Printing and reproduction	0	0	0	0	0
25.1	Advisory and assistance services	0	0	0	0	0
25.2	Other services from non-Federal sources	1,869	2,691	2,691	2,691	0
25.3	Other goods and services from Federal sources	578	578	578	578	0
26	Supplies and materials	55	69	69	69	0
31	Equipment	11	11	11	11	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	0	0	0	0	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	0	0	0	0	0
44	Refunds	0	0	0	0	0
99	**Total Obligations**	**2,722**	**3,558**	**3,558**	**3,558**	**0**

Department of Commerce
National Oceanic and Atmospheric Administration
Fisheries Enforcement Asset Forfeiture Fund
SUMMARY OF REQUIREMENTS BY OBJECT CLASS
(Dollar amounts in thousands)

	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/ Decrease from 2025 Base
Less unobligated balance, SOY	(6,524)	(6,176)	(4,916)	(4,916)	0
Recoveries	0	0	0	0	0
Plus unobligated balance, EOY	6,176	4,916	2,652	2,652	0
Total Budget Authority	**2,374**	**2,298**	**2,294**	**2,294**	**0**

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Exhibit 5

Department of Commerce
National Oceanic and Atmospheric Administration
North Pacific Observer Fund
SUMMARY OF RESOURCE REQUIREMENTS
(Dollar amounts in thousands)

	Positions	FTE	Budget Authority	Direct Obligations
2024 Annualized CR	0	0	4,674	4,700
Plus: Adjustments to Base	0	0	26	0
Less: Obligations from Prior Year Balances	0	0	0	0
2025 Base	0	0	4,700	4,700
Plus: 2025 Program Changes	0	0	0	0
2025 Estimate	0	0	4,700	4,700

		2023 Actual Personnel	2023 Actual Amount	2024 Annualized CR Personnel	2024 Annualized CR Amount	2025 Base Personnel	2025 Base Amount	2025 Estimate Personnel	2025 Estimate Amount	Increase/ Decrease from 2025 Base Personnel	Increase/ Decrease from 2025 Base Amount
North Pacific Observer Fund	Pos/BA	0	4,183	0	4,674	0	4,700	0	4,700	0	0
	FTE/OBL	0	4,104	0	4,700	0	4,700	0	4,700	0	0
Total: North Pacific Observer Fund	Pos/BA	0	4,183	0	4,674	0	4,700	0	4,700	0	0
	FTE/OBL	0	4,104	0	4,700	0	4,700	0	4,700	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
North Pacific Observer Fund
SUMMARY OF RESOURCE REQUIREMENTS
(Dollar amounts in thousands)

	2023 Actual		2024 Annualized CR		2025 Base		2025 Estimate		Increase/ Decrease from 2025 Base	
	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount
Direct Mandatory Obligation	0	4,104	0	4,700	0	4,700	0	4,700	0	0
Total Obligations	**0**	**4,104**	**0**	**4,700**	**0**	**4,700**	**0**	**4,700**	**0**	**0**
Adjustments for:										
Recoveries	0	0	0	0	0	0	0	0	0	0
Unobligated balance, SOY	0	(1,609)	0	(1,688)	0	(1,622)	0	(1,662)	0	0
Unobligated balance, EOY	0	1,688	0	1,662	0	1,662	0	1,662	0	0
Total Budget Authority	**0**	**4,183**	**0**	**4,674**	**0**	**4,700**	**0**	**4,700**	**0**	**0**
Financing from Transfers and Other:										
Appropriation previously unavailable	0	(179)	0	(242)	0	(268)	0	(268)	0	0
Temporarily Reduced	0	242	0	268	0	268	0	268	0	0
Net Appropriation	**0**	**4,246**	**0**	**4,700**	**0**	**4,700**	**0**	**4,700**	**0**	**0**

Department of Commerce
National Oceanic and Atmospheric Administration
North Pacific Observer Fund
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Activity: North Pacific Observer Fund

For FY 2025, NMFS estimates obligating $4,700 for the North Pacific Observer Fund.

Goal Statement

To fund observer coverage on the vessels and processors in the partial coverage category within the North Pacific Groundfish Observer Program (NPGOP).

Base Program

On January 1, 2013, the restructured NPGOP went into effect and made important changes to how observers are deployed, how observer coverage is funded, and the vessels and processors that must have some or all of their operations observed.

Statement of Operating Objectives

- Collect catch data onboard fishing vessels and at onshore processing plants that is used for in-season management and scientific purposes such as stock assessments and ecosystem studies
- Ensure that the data collected by observers are of the highest quality possible by implementing rigorous quality control and quality assurance processes

Explanation and Justification

Coverage levels are no longer based on vessel length and processing volume; rather, NMFS now has the flexibility to decide when and where to deploy observers based on a scientifically defensible deployment plan. The new observer program places all vessels and processors in the groundfish and halibut fisheries off Alaska into one of two observer coverage categories: (1) full coverage category and (2) partial coverage Vessels and processors in the full coverage category (≥100 percent observer coverage) will obtain observers by contracting directly with observer providers. Vessels and processors in the full observer coverage category are required to have at least one observer at all times. This will represent no change from the status quo for participants in the full coverage category. Vessels and processors in the partial coverage category (<100 percent observer coverage) will no longer contract independently with an observer provider, and will be required to carry an observer when they are selected through the Observer

Declare and Deploy System (ODDS). Additionally, landings from all vessels in the partial coverage category will be assessed a 1.25 percent fee on standard ex-vessel prices of the landed catch weight of groundfish and halibut. The fee percentage is set in regulation and will be reviewed periodically by the North Pacific Council after the second year of the program. The money generated by this fee will be used to pay for observer coverage on the vessels and processors in the partial coverage category in the following year. NMFS expects approximately $4.7 million to be collected in fees from the FY 2023 season, to be used in FY 2024 for observer coverage.

Department of Commerce
National Oceanic and Atmospheric Administration
North Pacific Observer Fund
SUMMARY OF REQUIREMENTS BY OBJECT CLASS
(Dollar amounts in thousands)

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/ Decrease from 2025 Base
11	Personnel compensation					
11.1	Full-time permanent	0	0	0	0	0
11.3	Other than full-time permanent	0	0	0	0	0
11.5	Other personnel compensation	0	0	0	0	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	0	0	0	0	0
12.1	Civilian personnel benefits	0	0	0	0	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	0	0	0	0	0
22	Transportation of things	0	0	0	0	0
23.1	Rental payments to GSA	0	0	0	0	0
23.2	Rental payments to others	0	0	0	0	0
23.3	Commun., util., misc. charges	0	0	0	0	0
24	Printing and reproduction	0	0	0	0	0
25.2	Other goods and services from Federal sources	3,085	4,700	4,700	4,700	0
26	Supplies and materials	0	0	0	0	0
31	Equipment	0	0	0	0	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	1,019	0	0	0	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	0	0	0	0	0
44	Refunds	0	0	0	0	0
99	**Total Obligations**	4,104	4,700	4,700	4,700	0

Department of Commerce
National Oceanic and Atmospheric Administration
North Pacific Observer Fund
SUMMARY OF REQUIREMENTS BY OBJECT CLASS
(Dollar amounts in thousands)

	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/ Decrease from 2025 Base
Recoveries	0	0	0	0	0
Less unobligated balance, SOY	(1,609)	(1,688)	(1,662)	(1,662)	0
Plus unobligated balance, EOY	1,688	1,662	1,662	1,662	0
Unobligated balance, rescission	0	0	0	0	0
Total Budget Authority	4,183	4,674	4,700	4,700	0

Exhibit 5

Department of Commerce
National Oceanic and Atmospheric Administration
Seafood Inspection Program Trust Revolving Fund
SUMMARY OF RESOURCE REQUIREMENTS
(Dollar amounts in thousands)

	Positions	FTE	Budget Authority	Direct Obligations
2024 Annualized CR	128	110	0	20,547
Plus: Adjustments to Base	0	0	0	1,333
Less: Obligations from Prior Year Balances	0	0	0	0
2025 Base	128	115	0	21,880
Plus: 2025 Program Changes	0	0	0	0
2025 Estimate	128	115	0	21,880

		2023 Actual Personnel Amount		2024 Annualized CR Personnel Amount		2025 Base Personnel Amount		2025 Estimate Personnel Amount		Increase/ Decrease from 2025 Base Personnel Amount	
SIP Trust Revolving Fund	Pos/BA	125	0	128	0	128	0	128	0	0	0
	FTE/OBL	59	12,187	110	20,547	115	21,880	115	21,880	0	0
Total: SIP Trust Revolving Fund	Pos/BA	125	0	128	0	128	0	128	0	0	0
	FTE/OBL	59	12,187	110	20,547	115	21,880	115	21,880	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Seafood Inspection Program Trust Revolving Fund
SUMMARY OF RESOURCE REQUIREMENTS
(Dollar amounts in thousands)

	2023 Actual		2024 Annualized CR		2025 Base		2025 Estimate		Increase/ Decrease from 2025 Base	
	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount
Direct Mandatory Obligation	59	12,187	110	20,547	115	21,880	115	21,880	0	0
Total Obligations	**59**	**12,187**	**110**	**20,547**	**115**	**21,880**	**115**	**21,880**	**0**	**0**
Offsetting collection from:										
Federal funds	0	0	0	0	0	0	0	0	0	0
Trust funds	0	(18,264)	0	(14,470)	0	(21,880)	0	(21,880)	0	0
Non-Federal sources	0	0	0	0	0	0	0	0	0	0
Adjustments for:										
Recoveries	0	0	0	0	0	0	0	0	0	0
Unobligated balance, SOY	0	0	0	(6,077)	0	0	0	0	0	0
Unobligated balance, EOY	0	6,077	0	0	0	0	0	0	0	0
Total Budget Authority	**59**	**0**	**110**	**0**	**115**	**0**	**115**	**0**	**0**	**0**
Financing from Transfers and Other:										
Appropriation previously unavailable	0	0	0	0	0	0	0	0	0	0
Temporarily Reduced	0	0	0	0	0	0	0	0	0	0
Net Appropriation	**59**	**0**	**110**	**0**	**115**	**0**	**115**	**0**	**0**	**0**

Department of Commerce
National Oceanic and Atmospheric Administration
Seafood Inspection Program Trust Revolving Fund
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Activity: Seafood Inspection Program Trust Revolving Fund

For FY 2025, NMFS estimates obligating $21,880 in receipts and fees assessed to users of the Seafood Inspection Program.

Goal Statement

To cover expenses related to the delivery of inspection, auditing, and certification services of the Seafood Inspection Program (SIP) from fees assessed to program participants.

Base Program

The SIP is a fee-for-service program within the National Marine Fisheries Service authorized under the Agricultural Marketing Act of 1946 (7 USC Section 1622(h)). It provides inspection and auditing services to domestic seafood processors and distributors in order to provide health and catch certification for export of fish and fishery products to foreign countries, ensure compliance with food safety regulations, evaluate product quality and grading, and evaluate facility and systems compliance. SIP provides services to companies that export seafood and supply military, school lunch, and other Federal programs as well as consumer markets.

Statement of Operating Objectives

The purpose of the trust revolving fund is to provide a repository to credit receipts and collections from fees assessed to users of the SIP which are used to cover the cost of services provided.

Explanation and Justification

NOAA is authorized to assess, collect, and retain fees under the program. Fees are set with the goal of full cost recovery and the receipts and collections credited to the trust revolving fund are used to offset the total cost of operating the program. Expenses funded through this source include salary and benefits, travel, operation and maintenance of core business applications, rent, utilities, supplies, transportation, shipping, equipment, contractual services, and administrative overhead.

Department of Commerce
National Oceanic and Atmospheric Administration
Seafood Inspection Program Trust Revolving Fund
SUMMARY OF REQUIREMENTS BY OBJECT CLASS
(Dollar amounts in thousands)

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/ Decrease from 2025 Base
11	Personnel compensation					
11.1	Full-time permanent	6,649	11,701	12,670	12,670	0
11.3	Other than full-time permanent	0	0	0	0	0
11.5	Other personnel compensation	171	221	226	226	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	6,820	11,922	12,896	12,896	0
12.1	Civilian personnel benefits	2,434	4,494	4,757	4,757	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	618	899	920	920	0
22	Transportation of things	90	142	145	145	0
23.1	Rental payments to GSA	280	424	434	434	0
23.2	Rental payments to others	173	262	268	268	0
23.3	Commun., util., misc. charges	77	117	120	120	0
24	Printing and reproduction	1	6	6	6	0
25.1	Advisory and assistance services	263	375	384	384	
25.2	Other goods and services from Federal sources	1,250	1,784	1,825	1,825	0
26	Supplies and materials	118	119	122	122	0
31	Equipment	63	3	3	3	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	0	0	0	0	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	0	0	0	0	0
44	Refunds	0	0	0	0	0
99	**Total Obligations**	12,187	20,547	21,880	21,880	0

Department of Commerce
National Oceanic and Atmospheric Administration
Seafood Inspection Program Trust Revolving Fund
SUMMARY OF REQUIREMENTS BY OBJECT CLASS
(Dollar amounts in thousands)

	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/ Decrease from 2025 Base
Offsetting collection from:					
Less unobligated balance, SOY	0	(6,077)	0	0	0
Plus unobligated balance, EOY	6,077	0	0	0	0
Less: Trust funds	(18,264)	(14,470)	(21,880)	(21,880)	0
Total Budget Authority	0	0	0	0	0

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Department of Commerce
National Oceanic and Atmospheric Administration
Office of Oceanic and Atmospheric Research
Budget Estimates, Fiscal Year 2025

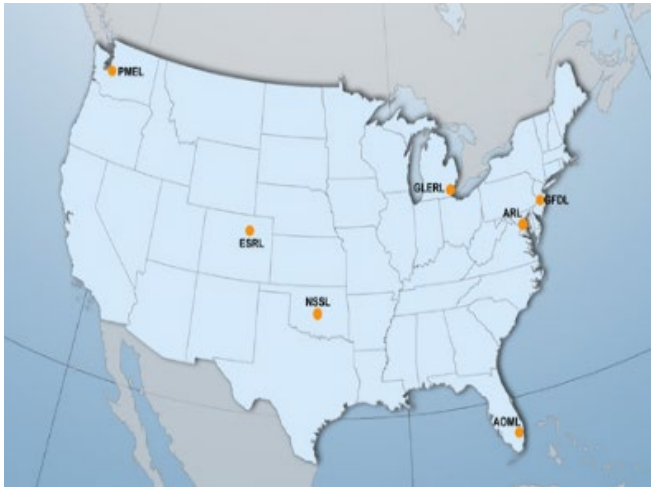
Executive Summary

For FY 2025, NOAA requests a total of $645,729,000 and 787 FTE/ 876 positions for the Office of Oceanic and Atmospheric Research, a net decrease of $142,533,000 and 4 FTE/ 3 positions in program changes.

Oceanic and Atmospheric Research (OAR) is NOAA's central research Line Office charged with improving the understanding of changes in the Earth's environment. OAR integrates and conducts research to advance NOAA's mission by providing better forecasts and improving understanding of the Earth and its processes. OAR conducts research on ocean acidification, aquaculture, severe weather, climate, and deep-sea environments. OAR also develops technology that is transitioned into operations at other NOAA Line Offices or that improves the scope and efficiency of our observing systems. OAR provides information to individuals, businesses, and communities to reduce vulnerability to extreme weather and climates, prepare for drought and water resource challenges, protect and preserve coasts and coastal infrastructure from inundation, and identify and manage risks to marine ecosystems and the services they provide.

OAR's Organizational Components:
OAR operates through a national network of laboratories, other university-based research institutes, and specialized programs. These centers of expertise collaborate across NOAA's weather, climate, and ocean research to apply an integrated approach to global and local scientific challenges. OAR consists of the following organizational components:

OAR Laboratories:
OAR has ten laboratories across the United States providing the research foundation for NOAA products and services that support decision making by policymakers and the public. These laboratories collaborate with numerous external partners, including NOAA-funded Cooperative Institutes at academic and scientific institutions.



Map displays the location of OAR's ten laboratories. There are four laboratories at the Earth System Research Laboratories location in Boulder, CO.

Department of Commerce
National Oceanic and Atmospheric Administration
Office of Oceanic and Atmospheric Research
Budget Estimates, Fiscal Year 2025

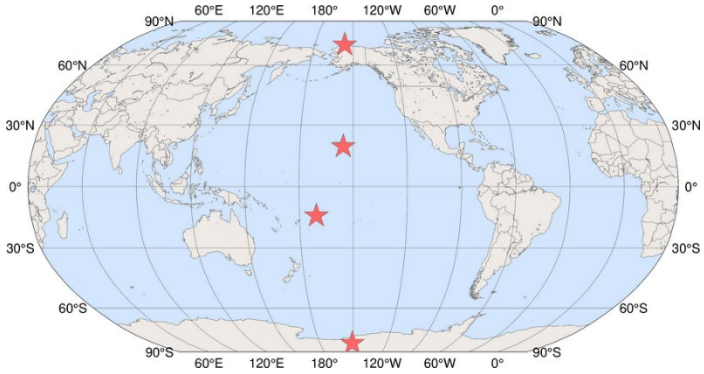
OAR's laboratories include:

Air Resources Laboratory, College Park, Maryland
Air Resources Laboratory conducts research on atmospheric dispersion, atmospheric chemistry, climate composition, and the complex behavior of the atmosphere near the Earth's surface, providing weather forecasters' direct access to dispersion estimates of airborne hazardous materials to predict the transport of acid rain, volcanic ash, wildfires, air chemistry, mercury contamination, and radioactive material.

Atlantic Oceanographic and Meteorological Laboratory, Miami, Florida
Atlantic Oceanographic and Meteorological Laboratory conducts research that protects coastal populations and ecosystems with more accurate forecasting of hurricanes, that creates a better understanding of the role of oceans in climate and protection from environmental degradation.

Chemical Sciences Laboratory, Boulder, Colorado
One of four laboratories within Earth System Research Laboratories that pursue a broad and comprehensive understanding of the Earth system, including the atmosphere, ocean, and the climate system, Chemical Sciences Laboratory focuses on quantifying manmade and natural emissions, understanding processes that alter the atmosphere's composition and the distribution of pollutants, and offering information and practical applications to local decision makers and the public.

Global Monitoring Laboratory, Boulder, Colorado
One of four laboratories within Earth System Research Laboratories that pursue a broad and comprehensive understanding of the Earth system, including the atmosphere, ocean, and the climate system, Global Monitoring Laboratory sustains the long-term observation of atmospheric compounds from over 100 sites around the world and identifies emerging trends in compound location and concentration. It also validates the NASA and NOAA satellite data of greenhouse gases, ozone, radiation, aerosols, and many other atmospheric compounds.



Among other observation networks, Global Monitoring Laboratory operates 4 Atmospheric Baseline Observatories, strategically located across the globe, that collect high quality, long-term atmospheric data used by more than 500 external partners and stakeholders.

Department of Commerce
National Oceanic and Atmospheric Administration
Office of Oceanic and Atmospheric Research
Budget Estimates, Fiscal Year 2025

Global Systems Laboratory, Boulder, Colorado
One of four laboratories within Earth System Research Laboratories that pursue a broad and comprehensive understanding of the Earth system, including the atmosphere, ocean, and the climate system, Global Systems Laboratory improves weather and water predictions by developing and integrating next-generation Earth System Models at storm-to-global scales and advances new modeling.

Physical Sciences Laboratory, Boulder, Colorado
One of four laboratories within Earth System Research Laboratories that pursue a broad and comprehensive understanding of the Earth system, including the atmosphere, ocean, and climate system, Physical Sciences Laboratory conducts physical science research that advances NOAA's abilities to observe, understand, and predict the physical behavior of the Earth system, improving forecasts and seasonal outlooks.

Geophysical Fluid Dynamics Laboratory, Princeton, New Jersey
Geophysical Fluid Dynamics Laboratory conducts comprehensive long-lead-time research and modeling that is fundamental to advancing the scientific understanding of the physical, dynamical, chemical, and biogeochemical processes governing the behavior of the atmosphere, oceans, land, and ice components as well as their interactions with the ecosystem.

Great Lakes Environmental Research Laboratory, Ann Arbor, Michigan
Great Lakes Environmental Research Laboratory develops information and tools for coastal decision makers managing 95 percent of our country's surface freshwater. Great Lakes Environmental Research Laboratory advances forecasts of environmental change in the Great Lakes through environmental observation, ecosystem process studies, and integrated modeling.

National Severe Storms Laboratory, Norman, Oklahoma
National Severe Storms Laboratory focuses on understating the causes of severe weather, such as tornadoes, flash floods, hail, damaging winds, and winter weather, in order to improve the lead time and accuracy of severe weather forecasts and warnings.

Pacific Marine Environmental Laboratory, Seattle, Washington
Pacific Marine Environmental Laboratory explores the complex physical and geochemical processes operating in the world's oceans, including the processes driving ocean circulation and the global climate system.

Department of Commerce
National Oceanic and Atmospheric Administration
Office of Oceanic and Atmospheric Research
Budget Estimates, Fiscal Year 2025

NOAA Cooperative Institutes:

NOAA Cooperative Institutes (CIs) are long-term collaborations between NOAA and academic and scientific institutions dedicated to advancing oceanic and atmospheric research. CIs are co-located with one or more NOAA facilities to promote scientific exchange and technology transfer. Each CI is competitively selected to address a specific research theme within NOAA's mission, such as weather forecast improvement or ecosystem forecasting. These partnerships help maximize scientific breadth, quality, productivity, and return on investment. NOAA currently supports 16 CIs. These CI's include a host institution, listed below, and over 80 partner universities and research institutions across 34 states, the District of Columbia, the U.S. Territories, and Canada.

NOAA's Cooperative Institutes and their host institutions are:

- CI for Climate, Ocean and Ecosystem Studies, University of Washington
- CI for Earth System Research and Data Science, University of Colorado, Boulder
- CI for Great Lakes Research, University of Michigan
- CI for Marine and Atmospheric Research, University of Hawaii
- CI for Marine and Atmospheric Studies, University of Miami
- CI for Marine, Earth, and Atmospheric Systems, Scripps Institution of Oceanography, University of California, San Diego
- CI for Marine Ecosystem Resources Studies, Oregon State University
- CI for Meteorological Satellite Studies, University of Wisconsin
- CI for Modeling the Earth System, Princeton University
- CI for Research in the Atmosphere, Colorado State University
- CI for Research to Operations in Hydrology, University of Alabama
- CI for Satellite Earth System Studies, University of Maryland, College Park
- CI for Severe and High-Impact Weather Research and Operations, University of Oklahoma
- CI for the North Atlantic Region, Woods Hole Oceanographic Institution
- Northern Gulf Institute, Mississippi State University
- Ocean Exploration Cooperative Institute, University of Rhode Island

Department of Commerce
National Oceanic and Atmospheric Administration
Office of Oceanic and Atmospheric Research
Budget Estimates, Fiscal Year 2025

OAR Programs:

OAR Programs manage competitive and noncompetitive awards for intramural and extramural research that focus on specific topics and emerging areas of research. They also foster collaboration across NOAA, with other agencies, and academic institutions. OAR's programs include:

Climate Program Office

Climate Program Office supports activities that advance our understanding of Earth's climate system and helps communities apply this knowledge to mitigate risks and improve community resilience and preparedness throughout the Nation.

Global Ocean Monitoring and Observing Program

Global Ocean Monitoring and Observing Program provides long-term, high quality, global ocean observations and information products to researchers, forecasters, and other stakeholders to inform and prepare society for environmental challenges.

National Sea Grant College Program

National Sea Grant College Program is a Federal-state partnership that focuses on maintaining resilient communities and economies, sustainable fisheries and aquaculture, healthy coastal ecosystems, and environmental literacy and workforce development.

Ocean Acidification Program

Ocean Acidification Program aims to improve understanding of how ocean chemistry is changing, how variable that change is by region, and how ocean acidification affects marine life, people, and the economy.

Ocean Exploration and Research

Ocean Exploration and Research, the only Federal program dedicated to ocean exploration, leads efforts to explore and characterize deep-water areas of the U.S. and other poorly known ocean areas so the Nation can successfully manage its oceanic resources.

Weather Program Office

Weather Program Office improves predictions and warnings for the public and weather sensitive U.S. industries by facilitating cutting-edge research and transitioning this research to NWS operations.

Department of Commerce
National Oceanic and Atmospheric Administration
Office of Oceanic and Atmospheric Research
Budget Estimates, Fiscal Year 2025

Significant Adjustments:

Inflationary Adjustments
NOAA's FY 2025 Base includes a net increase of $6,124,000 and 0 FTE/ 0 positions to account for the full funding requirement for certain inflationary adjustments to current programs for OAR activities. This includes inflationary increases for labor and non-labor activities including benefits and rent charges from the General Services Administration.

Department of Commerce
National Oceanic and Atmospheric Administration
PROGRAM AND PERFORMANCE: DIRECT OBLIGATIONS
(Dollar amounts in thousands)

		2023 Actual		2024 Annualized CR		2025 Base		2025 Estimate		Increase/Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
OCEANIC AND ATMOSPHERIC RESEARCH (OAR)											
Climate Research	Pos/BA	259	222,686	302	224,150	302	226,281	306	212,466	4	(13,815)
	FTE/OBL	261	223,943	281	224,150	281	226,281	284	212,466	3	(13,815)
Weather & Air Chemistry	Pos/BA	271	186,385	313	166,416	313	168,238	313	139,492	0	(28,746)
Research	FTE/OBL	285	230,495	270	166,416	270	168,238	270	139,492	0	(28,746)
Ocean, Coastal, and Great	Pos/BA	189	266,625	240	251,500	240	253,512	233	205,881	(7)	(47,631)
Lakes Research	FTE/OBL	213	279,190	218	251,500	218	253,512	211	205,881	(7)	(47,631)
Innovative Research &	Pos/BA	18	19,101	20	19,231	20	19,390	20	19,390	0	0
Technology	FTE/OBL	19	19,144	18	19,231	18	19,390	18	19,390	0	0
NOAA Community Project Funding/	Pos/BA	0	20,841	0	20,841	0	20,841	0	0	0	(20,841)
NOAA Special Projects	FTE/OBL	0	20,841	0	20,841	0	20,841	0	0	0	(20,841)
TOTAL OAR - ORF	**Pos/BA**	**737**	**715,638**	**875**	**682,138**	**875**	**688,262**	**872**	**577,229**	**(3)**	**(111,033)**
	FTE/OBL	**778**	**773,613**	**787**	**682,138**	**787**	**688,262**	**783**	**577,229**	**(4)**	**(111,033)**
Systems Acquisition	Pos/BA	4	99,775	4	100,000	4	100,000	4	68,500	0	(31,500)
	FTE/OBL	4	113,942	4	100,000	4	100,000	4	68,500	0	(31,500)
TOTAL OAR - PAC	**Pos/BA**	**4**	**99,775**	**4**	**100,000**	**4**	**100,000**	**4**	**68,500**	**0**	**(31,500)**
	FTE/OBL	**4**	**113,942**	**4**	**100,000**	**4**	**100,000**	**4**	**68,500**	**0**	**(31,500)**
OAR Inflation Reduction Act (ORF)	**Pos/BA**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	FTE/OBL	**4**	**36,774**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
OAR Inflation Reduction Act (PAC)	**Pos/BA**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	FTE/OBL	**0**	**1,563**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
TOTAL OAR	**Pos/BA**	**743**	**815,413**	**879**	**782,138**	**879**	**788,262**	**876**	**645,729**	**(3)**	**(142,533)**
	FTE/OBL	**786**	**925,892**	**791**	**782,138**	**791**	**788,262**	**787**	**645,729**	**(4)**	**(142,533)**

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
NOAA Community Project Funding/ NOAA Special Projects	Pos./BA	0	20,841	0	0	0	(20,841)
	FTE/OBL	0	20,841	0	0	0	(20,841)

Terminate NOAA Community Project Funding/NOAA Special Projects (-$20,841, 0 FTE/ 0 Positions) - This program change removes funding for one-time congressionally directed projects provided in the FY 2023 enacted bill.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Activity: Climate Research

Goal Statement

The mission of the Climate Research in OAR is to monitor and understand Earth's climate system to predict potential changes in global climate, as well as understand and communicate to the public and decision-makers near-term, regional climate variations that are of societal and economic importance. The long-term observing, monitoring, research, and modeling capabilities performed in OAR's Climate Research provide the science that Americans need to understand how, where, and when Earth's conditions are changing.

Base Program

OAR's climate research laboratories, programs, and partners are key contributors to advancing understanding of Earth's climate system through interdisciplinary, integrated scientific research, and leveraging the resulting knowledge, data, and systems to enhance society's ability to plan and respond to climate variability and climate change. NOAA's Climate Program Office (CPO) network of partners, specialists, and principal investigators work to integrate and transition research findings from CPO-sponsored research and development projects into applications designed to help communities and businesses build resilience to climate-related impacts and extreme events.

NOAA's competitive research programs fund climate science, assessments, decision support research, modeling improvements, and transition of research and capacity-building activities in four complementary and important areas:

- Observations and monitoring
- Process understanding and analysis
- Modeling, predictions, and projections
- Societal interactions and communications

The following three Subactivities support the Climate Research Portfolio:

- Climate Laboratories & Cooperative Institutes: OAR's Laboratories and Cooperative Institutes primarily support Earth system science research, modeling, and technology development and maintain long-term atmospheric observation networks and

infrastructure, including a network of tall towers and the Atmospheric Baseline Observatories that collect data on the atmosphere's composition.
- Regional Climate Data & Information: OAR supports activities that improve resilience and preparedness throughout the Nation with research that advances our understanding of climate-related risks and vulnerabilities across sectors and regions and with the development of tools to enable more informed decision making.
- Climate Competitive Research: OAR funds high-priority climate science through a competitive selection process to advance understanding of the Earth's climate system and climate impacts on society.

NOAA's climate research activities are authorized under the *National Climate Program Act* (15 U.S.C. §§ 2901-2908), the *Global Change Research Act* (15 U.S.C. §§ 2921-2961), the *Weather Research and Forecasting Innovation* Act (15 U.S.C. § 8501), and the *National Integrated Drought Information System Reauthorization Act* (P.L. 115-423; 15 U.S.C. § 8511-8521).

Statement of Operating Objectives

Schedule and Milestones:
FY 2025 – FY 2029
Climate Laboratories and Cooperative Institutes
- Publish updates on Annual Greenhouse and Ozone Depleting Gas Indices
- Apply new Earth system modeling for tipping point prediction in global estuarine, coastal, and benthic ecosystems
- Deploy and maintain an array of 1,200 surface drifters
- Maintain and augment 38 moorings that measure carbon dioxide and ocean acidification
- Complete one to two cruises that will collect important ocean chemistry data while servicing moorings and collecting information on coastal and deep ocean currents
- Maintain long-term global records of greenhouse gases (GHG), stratospheric ozone, and aerosols
- Increase NOAA's global geographic predictive capacity for extreme events, and improve predictive capabilities over the contiguous U.S.
- Expand GHG network in spatial and temporal extent and resolution through enhancements in ground, tower, aircraft and balloon borne measurements within the U.S. continental and globally

Regional Climate Data & Information
- Improve drought indicators and indices in support of the Regional Drought Early Warning Information System

- Work with states, territories, Tribal Nations and international partners to incorporate information into decision-making and management
- Support the quadrennial National Climate Assessment and the Scientific Assessment of Ozone Depletion, under the Montreal Protocol on Substances that Deplete the Ozone Layer
- Develop climate adaptive drought planning tools and vulnerability assessments to support communities with drought risk to better prepare for future droughts and water challenges
- Continue to support Climate Adaptation Partnerships program network activities that connect regions to help accelerate adaptation around national priorities

Climate Competitive Research
- Expand Earth system data collection for cryospheric, boundary layer properties, hydrometeorological, and oceanic process studies
- Improve understanding of key physical processes that are needed to advance precipitation prediction skill
- Conduct stakeholder engagements to match needs with current modeling capabilities and projections
- Transition research and information products to a new stage (development, demonstration, or application) to improve Earth system understanding and provide information to the private and public sector

Deliverables:
Climate Laboratories and Cooperative Institutes
- Long term global records of atmospheric compounds, up to 55 trace gases, stratospheric ozone, aerosols, and surface radiation
- Updated status of South Pole ozone hole
- Expanded use of the global storm resolving model and global-nested models for exploring global convection, hydroclimate extremes, cross-scale interactions, and subseasonal prediction
- Annual Greenhouse Gas Index number
- Updated global CarbonTracker including Carbon Dioxide (CO2) and methane (CH4) data products
- Maintain the Global Tropical Moored Buoy Array that provides data in real-time climate research and forecasting tools

Regional Climate Data & Information
- Forty total interoperable drought systems accessible through the U.S. Drought Portal
- Increased skill and capacity among stakeholders in businesses and communities to build resilience to climate-related impacts
- Climate training workshops and reports directed to the needs of resource managers

- Regional networks of scientists, decision makers, and practitioners working together to co-generate tailored research and products including regional climate and risk assessments that are focused on key climate risks for the region (e.g., coastal inundation, extreme heat, water resource stress, etc.) and the decision needs of vulnerable and underserved communities

Climate Competitive Research

- Research grants awarded in areas of scientific importance including future precipitation patterns under a changing climate, advancing multi-decadal projections to applied climate issues, improving process understanding and modeling, the implications of climate change for fisheries, improved subseasonal to seasonal Western hydrology forecasts, modeling and predicting drought, and the interactions of climate change and air quality
- Supported projects—ranging from advancing the understanding and prediction of drought to building resilience in coastal communities—conducted by universities, other research institutions, and other Federal agencies
- In partnership with the U.S. and international communities, develop testable hypotheses for major precipitation systematic errors, conduct research projects to test these hypotheses, and explore productive algorithmic changes to address them
- Urban heat island mapping in U.S. communities
- Snow parameterizations included within the National Water Model
- Better understanding of precipitation predictability, including its sources and barriers, dependence on time, locations, and scales to identify the sources of predictability that have the strongest influences on precipitation prediction, especially extremes
- Partnerships with the decision-making community to co-develop precipitation predictability metrics that are relevant to users

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Explanation and Justification

Line Item		2023 Actual		2024 Annualized CR		2025 Base Program	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Climate Laboratories & Cooperative Institutes	Pos/BA	188	101,179	213	104,102	213	105,366
	FTE/OBL	174	101,031	201	104,102	201	105,366
Regional Climate Data & Information	Pos/BA	25	48,520	29	47,932	29	48,267
	FTE/OBL	31	48,692	29	47,932	29	48,267
Climate Competitive Research	Pos/BA	46	72,987	60	72,116	60	72,648
	FTE/OBL	56	74,220	51	72,116	51	72,648
Total Climate Research	Pos/BA	259	222,686	302	224,150	302	226,281
	FTE/OBL	261	223,943	281	224,150	281	226,281

In 2023, there were 28 weather/climate disaster events with losses exceeding $1 billion each to affect the United States. These events included 1 drought event, 4 flooding events, 19 severe storm events, 2 tropical cyclone events, 1 wildfire event, and 1 winter storm event. Overall, these events resulted in the deaths of 492 people and had significant economic effects on the areas impacted.[1] OAR science has been at the forefront of improving our understanding of the causes of extremes, characterizing the drivers of predictability of extremes, and improving the prediction of extremes across timescales. OAR scientists work to understand the drivers of tropical cyclone variability and changes over time; how severe weather is modulated by climate phenomena such as the El Niño Southern Oscillation and Madden Julian Oscillation; how winter storms are responding to changes in the winter jet stream and water vapor in the atmosphere; how drought varies in response to remote and local climate influences; and how wildfires relate to meteorology, changes in the land surface, and drought. OAR's scientists and funding programs work to advance not only the understanding of these events but also our ability to predict them farther in advance to mitigate impacts on lives and property, and

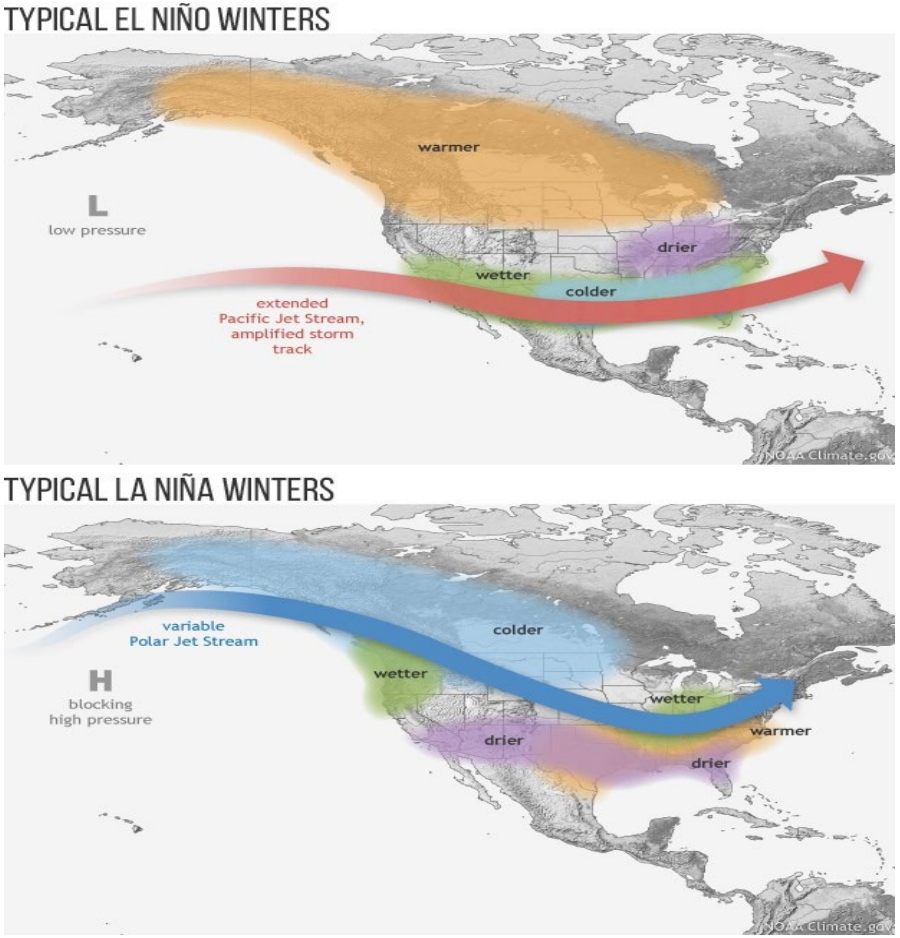
[1] NOAA National Centers for Environmental Information (NCEI) U.S. Billion-Dollar Weather and Climate Disasters (2024). https://www.ncei.noaa.gov/access/billions/, DOI: 10.25921/stkw-7w73

monitor them to better describe their evolution and magnitude.

In broader context, the total cost of U.S. billion-dollar disasters over the last seven years (2017-2023) exceeds $1.0 trillion while the costs for 376 events from 1980-2023 exceeds $2.660 trillion (inflation-adjusted to 2023 dollars). 2023 marks the ninth consecutive year (2015-2023) in which ten or more separate billion-dollar disaster events have impacted the U.S. The 1980–2023 annual average is 8.5 events (CPI-adjusted); the annual average for the most recent five years (2019–2023) is 20.4 events (CPI-adjusted). Climate change is also increasing the frequency and intensity of certain types of extreme weather that lead to billion-dollar disasters—most notably the rise in vulnerability to drought, lengthening wildfire seasons in the Western states, and the potential for extremely heavy rainfall becoming more common in the eastern states. Sea level rise is amplifying hurricane storm surge flooding. Given all these compounding hazardous risks, there is an increased need to focus on where we build, how we build, and investing in infrastructure updates that are designed for a 21st century climate.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Climate Research continues to sustain its investments and partnerships in global ocean observation and monitoring systems and participated in scientific field campaigns, like "Years of the Maritime Continent" — a 2-year joint research project to improve understanding and prediction of variability over the Indo-Pacific Ocean region, and how that influences weather patterns around the world. Climate Research has advanced the use of autonomous robotic ocean profiling instruments such as Deep Argo and Saildrones. Ocean observations led to assessments of ocean acidification impacts to coral reefs and fisheries and to sea level change risks that improved coastal community preparedness. Climate Research-sponsored field campaigns also conducted research on impacts to air quality from urban emissions and wildfires, which can adversely impact human health and the Nation's economy due to reduced productivity. In its continuing efforts to help bolster the nation's economy and meet stakeholders' need for science-based decision support, Climate Research enhanced its Regional Drought Early Warning Systems and expanded its online "Climate Explorer" tool, whereby decision makers can access maps and graphs of downscaled climate projections of decision-relevant variables for their county, like the annual numbers of days above or below critical temperature, precipitation, and high-tide flooding thresholds. Similar tools were developed to improve heat risk information and address other health impacts.



NOAA Climate Research

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

OAR's Climate Research is collaborative and cross-cutting and therefore is often funded through multiple Subactivities. Some cross-cutting themes include:

Global Observations
To better document and understand global processes, OAR provides an array of observational capabilities. For example, OAR's four Atmospheric Baseline Observatories have been collecting 250 measurements of atmospheric trends for over 50 years such that measurements conducted in the 1960s are exactly comparable to those made today. These observations and supplemental measurements help identify trends and anomalies in the atmosphere, like radioactive dust releases and transport of mercury in the air from China to the U.S., and their impacts. With this information, decision-makers are better able to address global atmospheric challenges. For example, OAR's long-term and on-going measurements of ozone, ultraviolet radiation, and ozone-depleting compounds help policymakers identify successes and needs to repair the ozone layer. OAR also supports the Global Ocean Observing System including the drifting buoy network, Argo profiling floats, tropical moored arrays in the Atlantic, and ocean carbon networks, and continually researches new climate observing strategies.

Predicting Future Change
OAR's Climate Research predicts future change to inform decision-making. The Earth system comprises many physical, chemical, and biological processes that need to be dynamically integrated to better predict their behavior over scales from local to global and periods of minutes to millennia. OAR research produces state-of-the-art models of the Earth system to better predict climate extremes and variability impacting the U.S., such as changes in the risk for heavy rainfall and snow events during an El Niño, frequency of high-impact weather events, and ocean dynamics like the Meridional Overturning Circulation.

Assessing Impacts
OAR Climate Research provides in-depth analysis of climate change impacts on the U.S. OAR assesses the multitude of ways climate change is already affecting and will increasingly affect the lives of Americans. For example, the United States Global Change Research Program's National Climate Assessment, which NOAA provides science, technical, and administrative support to, details the changes various geographic regions and economic sectors are experiencing and can expect to experience in the future. Past assessments have included studies of how climate impacts tornadoes, extreme weather and storms, ocean acidity, sea level, hurricanes, heat, the quality and quantity of water, and ecosystem services. This research points to more effective ways to meet environmental management and policy goals while avoiding costly overregulation.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Supporting Decisions
OAR Climate Research also delivers resources and tools to foster resilience and preparedness throughout the U.S. and abroad, across sectors and regions. In particular, the NOAA-led National Integrated Drought Information System, established by the *National Integrated Drought Information System Act of 2006* and amended in the *National Integrated Drought Information System Reauthorization Act of 2018*, provides accessible drought information for the Nation through improved drought monitoring and forecasting capabilities. The NOAA Climate.gov Portal provides easy public access to NOAA and its partners' climate data and information services. Climate.gov also hosts and supports the U.S. Climate Resilience Toolkit (toolkit.climate.gov). Additionally, the Climate Mapping for Resilience and Adaptation tool serves as a centralized hub of information to aid in planning and implementing climate resilience in Federally-funded projects and programs.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Climate Laboratories and	Pos./BA	213	105,366	213	95,168	0	(10,198)
Cooperative Institutes	FTE/Obl.	201	105,366	201	95,168	0	(10,198)

Climate Laboratories and Cooperative Institutes Grants Decrease (-$10,198, 0 FTE/ 0 Positions) – This program change is requested to support other NOAA and Administration priorities. At this level of funding, NOAA will maintain long-term atmospheric observation networks and infrastructure, including a network of tall towers and the Atmospheric Baseline Observatories that collect data on the atmosphere's composition. Measurements from these observation networks are used to advance modeling capabilities and publish tools to support decision-making, such as the Annual Greenhouse Gas Index. NOAA's laboratories will continue to advance and support Earth system science research, modeling, and technology development, albeit with potential impacts to the timely delivery of updates and services. NOAA will continue to support activities using funding received under the BIL and as allocated through IRA which will allow NOAA to continue to develop a prediction system for determining the mean and extreme water levels across subseasonal to annual time scales for the open coast and Great Lakes and engage on technology across to accelerate adoption and growth of industry.

This request will reduce grant funding that supports climate science conducted by a wide network of academic partners at NOAA's Cooperative Institutes. At this level of funding, NOAA will produce fewer forecast models and quantitative tools for scientists, resource managers, policy makers, and the public.

Schedule and Milestones:
FY 2025:
- Reduce funding for lower priority Climate Laboratories and Cooperative Institute grants

FY 2026-2029:
- Maintain support for highest priority activities within available Climate Laboratories and Cooperative Institutes funding, such as the development of global models and research to improve understanding of Earth's radiation budget

Deliverables:
- Reduce funding for Climate Laboratories and Cooperative Institute grants

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

	2025	2026	2027	2028	2029
Performance Measures:					
Number of OAR R&D products transitioned to new stage(s) (development, demonstration, or application)					
With Decrease	9	9	9	9	9
Without Decrease	11	11	11	11	11
Outyear Costs:					
Direct Obligations	(10,198)	(10,198)	(10,198)	(10,198)	(10,198)
Capitalized	0	0	0	0	0
Uncapitalized	(10,198)	(10,198)	(10,198)	(10,198)	(10,198)
Budget Authority	(10,198)	(10,198)	(10,198)	(10,198)	(10,198)
Outlays	(6,221)	(9,076)	(9,586)	(9,994)	(10,198)
FTE	0	0	0	0	0
Positions	0	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Climate Research
Subactivity: Climate Laboratories and Cooperative Institutes

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	23,803	25,041	25,542	25,542	0
11.3	Other than full-time permanent	586	586	586	586	0
11.5	Other personnel compensation	426	426	426	426	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	24,815	26,053	26,554	26,554	0
12	Civilian personnel benefits	8,958	9,424	9,612	9,612	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	705	705	705	705	0
22	Transportation of things	682	682	682	682	0
23	Rent, communications, and utilitites	0	0	0	0	0
23.1	Rental payments to GSA	0	0	0	0	0
23.2	Rental Payments to others	0	0	0	0	0
23.3	Communications, utilities and misc charges	0	0	0	0	0
24	Printing and reproduction	104	104	104	104	0
25.1	Advisory and assistance services	302	302	302	302	0
25.2	Other services from non-Federal sources	19,174	19,720	19,938	19,938	0
25.3	Other goods and services from Federal sources	3,189	3,189	3,189	3,189	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	4,035	4,035	4,035	4,035	0
31	Equipment	1,571	1,571	1,571	1,571	0
32	Lands and structures	925	925	925	925	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	36,569	37,390	37,747	27,549	(10,198)
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	2	2	2	2	0
44	Refunds	0	0	0	0	0
99	Total obligations	101,031	104,102	105,366	95,168	(10,198)

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Increase from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Regional Climate Data and Information	Pos./BA	29	48,267	33	55,267	4	7,000
	FTE/Obl.	29	48,267	32	55,267	3	7,000

Building climate resilience with readily available, integrated data and information (+$7,000, 3 FTE/ 4 Positions) – NOAA requests an increase to support the Climate Resilience Information System (CRIS; $5,000) and Climate Mapping for Resilience and Adaptation (CMRA; $2,000). This increase will significantly enhance the accessibility and usability of Federal climate data for building resilience. Planners and decision makers face challenges when seeking Federal data to support their planning and resilience-building efforts. This increase will help address those challenges by making the data readily available and will efficiently integrate Federal and local data to inform local decision-making.

An increase of $5,000 will enable CRIS to be a publicly accessible, interoperable architecture that makes it easy for people to find and use Federal agencies' decision-relevant data to equitably support climate adaptation and mitigation planning. CRIS will contain six components: (1) a collection of Federal decision-relevant data; (2) tools and utilities for browsing, mapping, graphing, interpreting, and analyzing; (3) an open-source repository of the software underpinning all tools and utilities; (4) an open tool developers forum to foster synergies and community-building; (5) ready-to-use web templates that are compatible with CRIS and facilitate easy integration of Federal agencies' maps and data with local, state, and/or tribal maps and data; and (6) free training and online tutorials about CRIS's resources.

An increase of $2,000 will support the enhancement and expansion of CMRA to include information specific to additional environmental hazards, integrate stakeholder feedback, and improve the systems functionality. CMRA is a platform for consumers of climate information that offers a quick and easy way for people to understand their exposure to climate-related hazards and identify Federal funding opportunities within the context of the Climate Resilience Toolkit's Steps to Resilience. CMRA is a centralized hub to help people find and interpret information that can aid them in planning and implementing climate resilience in Federally-funded

projects and programs. Prospective Federal grant recipients use CMRA to ensure their projects account for exposure, vulnerability, and risk associated with current and future climate-related hazards.

Schedule and Milestones:

FY 2025:

- Establish a Federal data review panel to consider which data are sufficiently robust for inclusion in CRIS
- Publish version two of CRIS, which will incorporate all other Federal data that are relevant to local resilience planning and approved by the data review panel
- Publish open-source code repository for all CRIS tools and utilities
- Launch the CRIS Tool Developers Forum and a grants competition focused on adapting open-source tools and utilities for extracting actionable intelligence from CRIS' data holdings
- Publish version three of CMRA, including enhancements to address feedback and lessons learned from users collected during stakeholder listening sessions

FY 2026-2029:

- Publish version three of CRIS, which will allow users to seamlessly bridge from CRIS into partnering "big data service providers" for large server-side processing, computations, and analyses
- Optimize CMRA's design and utility in partnership with stakeholders to ensure the site is easy to use, equitable, and responsive to the needs of diverse user communities
- Develop and publish StoryMaps to guide users' explorations of the exposures, risks, and interdependencies of their built environments to understand the threshold conditions that may harm their assets, and to determine how weather- and climate-driven disruptions may cause cascading impacts throughout their built environments

Deliverables:

- Criteria and data review panel established for selecting datasets for inclusion in CRIS
- Federal data incorporated into CRIS for both climate adaptation and greenhouse gas mitigation
- Open-source code repository available for all CRIS tools and utilities
- Annual CRIS Tool Developers Forums and grants competition
- Data services bridge from CRIS into partnering big data service providers for cloud-based computations involving large volumes of data
- CMRA's interface and functionality enhanced based on user feedback
- StoryMaps to guide users' explorations of their exposures in their locations

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

	2025	2026	2027	2028	2029
Performance Measures:					
Percentage increase in annual website visits for CRIS and CMRA					
With Increase	5	5	5	5	5
Without Increase	0	0	0	0	0
Annual score of quality of relationships (1-100), a measure of consumer perceptions of CRIS and CMRA					
With Increase	75	76	77	78	79
Without Increase	0	0	0	0	0
Outyear Costs:					
Direct Obligations	7,000	7,000	7,000	7,000	7,000
Capitalized	0	0	0	0	0
Uncapitalized	7,000	7,000	7,000	7,000	7,000
Budget Authority	7,000	7,000	7,000	7,000	7,000
Outlays	4,270	6,230	6,580	6,860	7,000
FTE	0	0	0	0	0
Positions	0	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE PERSONNEL DETAIL

Activity: Climate Research
Subactivity: Regional Climate and Data Information
Program Change: Building climate resilience with readily available, integrated data and information

Title		Grade	Number	Annual Salary	Total Salaries
Management and Program Analyst		ZA-IV	1	112,015	$112,015
Training Spcialist		ZA-IV	1	112,015	$112,015
Data Scientist		ZP-IV	1	112,015	$112,015
IT Specialist		ZP-IV	1	112,015	$112,015
Total			4		448,060
Less lapse	25.00%		(1)		(112,015)
Total full-time permanent (FTE)			3		336,045
2025 Pay Adjustment (2.0%)					6,721
					342,766

Personnel Data Summary	
Full-time Equivalent Employment (FTE)	
Full-time permanent	3
Total FTE	3
Authorized Positions:	
Full-time permanent	4
Total Positions	4

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Climate Research
Subactivity: Regional Climate and Data Information

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase from 2025 Base
11.1	Full-time permanent compensation	3,197	3,363	3,518	3,861	343
11.3	Other than full-time permanent	32	32	32	32	0
11.5	Other personnel compensation	2	2	2	2	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	3,231	3,397	3,552	3,895	343
12	Civilian personnel benefits	1,202	1,265	1,323	1,426	103
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	68	68	68	68	0
22	Transportation of things	69	69	69	69	0
23	Rent, communications, and utilitites	0	0	0	0	0
23.1	Rental payments to GSA	195	195	195	195	0
23.2	Rental Payments to others	0	0	0	0	0
23.3	Communications, utilities and misc charges	82	82	82	82	0
24	Printing and reproduction	10	10	10	10	0
25.1	Advisory and assistance services	3,526	3,526	3,526	6,148	2,622
25.2	Other services from non-Federal sources	4,819	4,943	4,943	4,943	0
25.3	Other goods and services from Federal sources	1,035	1,035	1,035	1,035	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	352	352	352	352	0
31	Equipment	162	162	162	162	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	33,941	32,828	32,950	36,882	3,932
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	0	0	0	0	0
44	Refunds	0	0	0	0	0
99	Total obligations	48,692	47,932	48,267	55,267	7,000

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
	Pos./BA	60	72,648	60	65,031	0	(7,617)
Climate Competitive Research	FTE/Obl.	51	72,648	51	65,031	0	(7,617)

Climate Competitive Research Grants Decrease (-$7,617, 0 FTE/ 0 Positions) – This program change is requested to support other NOAA and Administration priorities. At this level of funding, NOAA will sustain funding for grants programs related to adaptation science, modeling analysis predictions and projections, and climate variability and predictability. These grant programs advance the knowledge, methods and frameworks needed to move society beyond incremental adaptation toward more widespread, connected, adaptive pathways, and resilience strategies with clear economic and societal co-benefits; support advances in the development and application of Earth system models and analyses across NOAA for the purpose of building resilience to climate impacts, predicting and projecting change from years to decades in the future, and improving our understanding of and ability to simulate the Earth system; and support research that enhances our process-level understanding of the climate system through observation, modeling, analysis, and field studies. This request will also sustain NOAA's support for the National Integrated Heat Health Information System (NIHHIS) and the U.S. Global Change Research Program.

At this level of funding, NOAA will end support for some existing, multi-year research grants and cease issuance of new grants in lower priority programs. NOAA will continue support for existing Climate and Global Change Postdoctoral fellows, and award fewer fellowships in the future, while ending support for American Meteorological Society fellows from this Subactivity, which have been funded at two per year. In addition, this request will scale back NOAA's partnership with the American Society of Civil Engineers and eliminate NOAA support for the Arctic Council's working group, the Arctic Monitoring and Assessment Program. Contract support for the Climate Program Office's coordination functions involving cross-OAR, cross-Line Office and interagency engagement will also be eliminated.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

Schedule and Milestones:

FY 2025

- Reduce funding for Climate Competitive Research grants focused on the Atmospheric Chemistry, Carbon Cycle, and Climate and the Climate and Global Change Postdoctoral Fellowship programs
- End support for American Meteorological Fellows in coordination with the American Meteorological Society
- Reduce funding levels for NOAA's partnership with the American Society of Civil Engineers
- Maintain grant awards for modeling projections to support climate services, the NIHHIS program (and its urban heat island mapping campaigns), and core support for the U.S. Global Change Research Program

FY 2026–2029

- Maintain support for highest priority activities within available Climate Competitive Research funding, such as adaptation science, modeling analysis predictions and projections, and climate variability and predictability

Deliverables:

- Reduce funding for Climate Competitive Research grants and the Climate and Global Change Postdoctoral Fellowship program
- Terminate support for American Meteorological Fellows
- Reduce funding for partnership with the American Society of Civil Engineers

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

	2025	2026	2027	2028	2029
Performance Measures					
Annual number of new research awards to improve modeling projections, understanding of climatic variability, adaptation science, research into extreme heat and response options (the areas of CCR efforts that remain)					
With Decrease	120	120	120	120	120
Without Decrease	130	130	130	130	130
Annual number of new Climate and Global Change Postdoc Fellows					
With Decrease	0	4	4	4	4
Without Decrease	8	8	8	8	8
Outyear Costs:					
Direct Obligations	(7,320)	(7,320)	(7,320)	(7,320)	(7,320)
Capitalized	(0)	(0)	(0)	(0)	(0)
Uncapitalized	(7,320)	(7,320)	(7,320)	(7,320)	(7,320)
Budget Authority	(7,320)	(7,320)	(7,320)	(7,320)	(7,320)
Outlays	(4,465)	(6,515)	(6,881)	(7,174)	(7,320)
FTE	0	0	0	0	0
Positions	0	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Climate Research
Subactivity: Climate Competitive Research

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	4,913	5,168	5,271	5,271	0
11.3	Other than full-time permanent	328	328	328	328	0
11.5	Other personnel compensation	37	37	37	37	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	5,278	5,533	5,636	5,636	0
12	Civilian personnel benefits	1,894	1,992	2,032	2,032	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	198	198	198	198	0
22	Transportation of things	69	69	69	69	0
23	Rent, communications, and utilitites	0	0	0	0	0
23.1	Rental payments to GSA	836	836	836	836	0
23.2	Rental Payments to others	354	354	354	354	0
23.3	Communications, utilities and misc charges	950	950	950	950	0
24	Printing and reproduction	57	57	57	57	0
25.1	Advisory and assistance services	3,146	3,146	3,146	3,146	0
25.2	Other services from non-Federal sources	8,828	7,845	7,996	7,996	0
25.3	Other goods and services from Federal sources	504	504	504	504	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	45	45	45	45	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	1,035	1,035	1,035	1,035	0
31	Equipment	1,051	1,051	1,051	1,051	0
32	Lands and structures	164	164	164	164	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	49,810	48,336	48,574	41,254	(7,320)
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	1	1	1	1	0
44	Refunds	0	0	0	0	0
99	Total obligations	74,220	72,116	72,648	65,328	(7,320)

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
	Pos./BA	60	72,648	60	69,648	0	(3,000)
Climate Competitive Research	FTE/Obl.	51	72,648	51	69,648	0	(3,000)

Water in the West Decrease (-$3,000, 0 FTE/ 0 Positions) – This program change is requested to support other NOAA and Administration priorities. This request eliminates the additional resources provided in the FY 2023 appropriations for the Cooperative Institute for Research to Operations in Hydrology in support of the Water in the West initiative. At this level of funding, NOAA will continue work to further advance understanding and improve predictions of the key phenomena affecting water in the West, including drought and extreme precipitation events such as atmospheric rivers. This work includes funding for modeling of snow and hydrologic processes in complex, mountainous terrain (sublimation, melting, refreezing, redistribution), hydroclimate prediction services to strengthen co-management of atmospheric river and drought risk, and research to applications work to accelerate co-production and application of hydroclimate products and services.

Schedule and Milestones:
FY 2025:
- Reduce funding in the Climate Competitive Research Program for Water in the West research

FY 2026-2029:
- Maintain support for highest priority activities within available Climate Competitive Research funding

Deliverables:
- Reduce funding for Climate Competitive Research grants

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

	2025	2026	2027	2028	2029
Performance Measures:					
Annual number of projects funded collaboratively at the Cooperative Institute for Research to Operations in Hydrology for Water in the West Research and Development					
With Decrease	3	0	0	0	0
Without Decrease	3	3	3	3	3
Outyear Costs:					
Direct Obligations	(3,000)	(3,000)	(3,000)	(3,000)	(3,000)
Capitalized	0	0	0	0	0
Uncapitalized	(3,000)	(3,000)	(3,000)	(3,000)	(3,000)
Budget Authority	(3,000)	(3,000)	(3,000)	(3,000)	(3,000)
Outlays	(1,830)	(2,670)	(2,820)	(2,940)	(3,000)
FTE	0	0	0	0	0
Positions	0	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Climate Research
Subactivity: Climate Competitive Research

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	4,913	5,168	5,271	5,271	0
11.3	Other than full-time permanent	328	328	328	328	0
11.5	Other personnel compensation	37	37	37	37	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	5,278	5,533	5,636	5,636	0
12	Civilian personnel benefits	1,894	1,992	2,032	2,032	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	198	198	198	198	0
22	Transportation of things	69	69	69	69	0
23	Rent, communications, and utilitites	0	0	0	0	0
23.1	Rental payments to GSA	836	836	836	836	0
23.2	Rental Payments to others	354	354	354	354	0
23.3	Communications, utilities and misc charges	950	950	950	950	0
24	Printing and reproduction	57	57	57	57	0
25.1	Advisory and assistance services	3,146	3,146	3,146	3,146	0
25.2	Other services from non-Federal sources	8,828	7,845	7,996	7,996	0
25.3	Other goods and services from Federal sources	504	504	504	504	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	45	45	45	45	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	1,035	1,035	1,035	1,035	0
31	Equipment	1,051	1,051	1,051	1,051	0
32	Lands and structures	164	164	164	164	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	49,810	48,336	48,574	45,574	(3,000)
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	1	1	1	1	0
44	Refunds	0	0	0	0	0
99	Total obligations	74,220	72,116	72,648	69,648	(3,000)

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Activity: Weather and Air Chemistry Research

Goal Statement

Weather & Air Chemistry Research continually improves capabilities to provide more accurate and timely warnings and forecasts of various high-impact weather, water, and air quality events by prioritizing improvements in weather data observation, modeling, computing, forecasting, and warnings for the protection of life and property, for the enhancement of the national economy.

Base Program

OAR's weather research laboratories, programs, and partners are key contributors to advancing the NWS prediction capabilities. NOAA also focuses resources on better understanding and providing information on seasonal (3 months to 2 years) and sub-seasonal (2 weeks to 3 months) outlooks for farmers, fishermen, emergency responders, other industry workers, and the American people regarding what to expect in two weeks, next month, or next season. In addition, scientists working within OAR's Weather & Air Chemistry Research study atmospheric chemistry to accurately characterize atmospheric composition and predict meteorological processes to more effectively understand their role in severe weather.

The following two Subactivities support Weather & Air Chemistry Research:

- Weather Laboratories & Cooperative Institutes: OAR's Laboratories & Cooperative Institutes primarily support weather forecasting improvement and air chemistry research, modeling, and technology development.
- Weather & Air Quality Research Programs: Primarily supports cooperation with external experts in weather and air chemistry research by improving predictions and warnings for the public and weather sensitive U.S. industries with cutting-edge research, analysis techniques, and observing platforms.

NOAA's weather research activities are authorized under the *Weather Service Modernization Act* (Title VII, 15 U.S.C. § 313 note, §§ 701-709), the *National Oceanic and Atmospheric Administration Authorization Act* (Title I, § 108, 15 U.S.C. § 313 note), the *Weather Research and Forecasting Innovation Act* (15 U.S.C. § 8501), and the *National Integrated Drought Information System Reauthorization Act* (P.L. 115-423; 15 U.S.C. § 8511-8521).

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Statement of Operating Objectives

Schedule and Milestones:
FY 2025 - FY 2029
Weather Laboratories & Cooperative Institutes

- Collect high-quality hurricane observations from airborne experiments for use in hurricane regional model data assimilation and evaluation
- Conduct Propagation, Evolution, and Rotation in Linear Storms (PERiLS) field campaign in conjunction with the National Science Foundation to support the Verification of the Origins of Rotation in Tornadoes Experiment Southeast (VORTEX-SE) program
- Award VORTEX-SE and VORTEX-USA research grants
- Conduct research on the Threats-In-Motion warning generation approach at the Hazardous Weather Testbed with broadcast meteorologists and emergency managers
- Develop observation-based products that can be utilized for model improvements of air-sea interactions and the Arctic and terrestrial boundary layer
- Integrate atmospheric chemistry within Unified Forecast System Medium Range Weather Application
- Transition the Geodetic First Approximation of Size and Timing (GFAST) system at the Tsunami Warning Centers, allowing assessment of rapid automatic source solutions from global positioning system sensor array

Weather & Air Chemistry Research Programs

- Advance radar capabilities to better estimate precipitation in the cool season using dual polarization techniques in operational radar's Multi Radar Multi Sensor
- Complete annual competitive grant process to select U.S. Weather Research Program-funded and demonstration projects
- Evaluate Advanced Technology Demonstrator as a proof-of-concept for phased array radar (PAR)
- Review industry proposals for PAR pre-production contract award, provided that NOAA accepts PAR as its solution for its future radar system
- Begin development of rotating planar PAR test plan
- Test/evaluate dual-polarization panel characteristics and performance on PAR systems including the Advanced Technology Demonstrator
- Evaluate and quantify tornado warning decision performance in collaboration with NWS forecasters within the Hazardous Weather Testbed

- Facilitate knowledge sharing through the Earth Prediction Innovation Center (EPIC) by hosting annual meetings, seminar series, summer institutes, and code sprints.
- Produce well-documented, cloud-friendly, performance-optimized code through EPIC by managing and documenting code, integrating code with other NOAA and community modeling efforts, and conducting performance optimization
- Conduct real-time demonstrations to evaluate the Experimental Hourly Wildfire Potential Index derived from the High Resolution Rapid Refresh model predictions of temperature, winds, and soil moisture conditions

Deliverables:

Weather Laboratories & Cooperative Institutes

- Tsunami observation, mitigation, and forecast tools
- Probabilistic products incorporated into flash flood forecasting system
- Develop requirements and prototype capability for adding a total of 100,000 mobile station pressure observations data to the Meteorological Assimilation Data Ingest System.
- Improved skill and reliability of flood and water supply forecasts
- Improved tornado warning decision performance
- Demonstration of the ability to produce a 30-year, low-resolution, coupled global reanalysis system in the cloud
- Establishment of a Fire Weather Testbed
- Forecasts and products to prepare communities for impacts after a wildfire, such as debris flows and mudslides
- Improved monitoring and prediction of precipitation, streamflow, and coastal inundation in the San Francisco Bay region with new observations assimilated in Advanced Quantitative Precipitation Information

Weather & Air Chemistry Research Programs

- Prototype PAR products available for transfer into NOAA operations
- Complete report on the evaluation of the rotating PAR capability
- Release a fully functional web-based EPIC community portal that integrates Unified Forecast System code repository and dashboard, tutorials, and advanced user support
- Social science projects transitioned into application to enhance the value of tornado forecasts
- Reduced development time from research to operations
- Adoption of community-based modeling for Earth System Models

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Explanation and Justification

Line Item		2023 Actual		2024 Annualized CR		2025 Base Program	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Weather Laboratories & Cooperative Institutes	Pos/BA	245	105,029	283	93,156	283	94,534
	FTE/OBL	252	133,378	243	93,156	243	94,534
U.S. Weather Research Program	Pos/BA	18	47,615	20	39,100	20	39,347
	FTE/OBL	22	65,271	17	39,100	17	39,347
Tornado Severe Storm Research/Phased Array Radar	Pos/BA	5	20,825	6	20,916	6	21,036
	FTE/OBL	7	19,162	6	20,916	6	21,036
Joint Technology Transfer Initiative	Pos/BA	3	12,916	4	13,244	4	13,321
	FTE/OBL	4	12,684	4	13,244	4	13,321
Total Weather & Air Chemistry Research	Pos/BA	271	186,385	313	166,416	313	168,238
	FTE/OBL	285	230,495	270	166,416	270	168,238

Overall, OAR's Weather Research supports:

- Research and development that provides the Nation with accurate and timely warnings and forecasts of high-impact weather events and their broader impact on issues of societal concern such as weather and air chemistry; and
- Research that provides the scientific basis for informed management decisions about weather, water, and air chemistry.

NOAA's Global Ensemble Forecast System (GEFS) underwent significant upgrades to expand its capabilities and improve weather forecasting. NOAA uses the GEFS to produce medium-range weather forecasts and to issue watches and warnings during high-impact weather events, including hurricanes, blizzards, and extreme heat and cold. With the upgrade, the National Weather Service can deliver its first-ever numerical weather predictions three and four weeks in advance, extending the forecast length from 16 to 35 days and providing more lead time for decision making. GEFS now uses the Finite-Volume Cubed-Sphere dynamical core, which was added to the Global Forecast System model in 2019. GEFS resolution increased from approximately 33km to 13km, and the number of individual forecasts input into the ensemble has increased from 21 to 31. The changes allow models to run at a higher resolution of detail and provide better accuracy. The atmospheric composition model in the GEFS upgrade that integrates weather and aerosol forecasting based on the Finite-Volume Cubed-Sphere framework is the result of more than five years of model development at NOAA.

The 2022 Atlantic hurricane season produced 14 named storms (winds of 39 mph or greater), including eight hurricanes (winds of 74 mph or greater) of which two were major hurricanes (winds of 111 mph or greater). The 2022 season saw three hurricane landfalls along the coast of the U.S. mainland. One of these hurricanes, Hurricane Ian, made landfall first as a Category 4 storm in Cayo Costa, Florida, and again as a Category 1 in Georgetown, South Carolina. As a Category 4 with 150 mph maximum sustained winds, Hurricane Ian tied for the fifth-strongest hurricane ever to make landfall in the U.S. Scientists at NOAA's Atlantic Oceanographic and Meteorological Laboratory successfully launched the Altius 600 small uncrewed aircraft system. With support from OMAO's Uncrewed Systems Operations Center, scientists launched the instrument from NOAA's P-3 Hurricane Hunter into the core of Hurricane Ian hours before landfall, transmitting back data of wind speeds as high as 216 mph at an altitude of 2,150 feet. Forecasters and researchers relied on this invaluable data and other sources before, during, and after storms throughout this destructive hurricane season.[2]

OAR's Weather Research Portfolio is collaborative and crosscutting and therefore is often funded through multiple Subactivities. Some cross-cutting themes include:

Tornado Severe Storm Research / Phased Array Radar
OAR is working to couple weather forecast model information with dual-polarized radar observations to better determine the type and intensity of precipitation, and add the ability to classify hail size and detect tornado debris. Other radar research includes developing phased array radar, which can reduce the time to scan a weather system from 4-5 minutes to less than one minute, providing earlier weather predictions.

[2] https://www.noaa.gov/news-release/damaging-2022-atlantic-hurricane-season-draws-to-close

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Each spring, during prime time for severe thunderstorms and tornadoes, the NOAA Hazardous Weather Testbed hosts experiments that bring together researchers, forecasters and academics to test new technologies. Forecasters and researchers get to walk in each other's shoes.

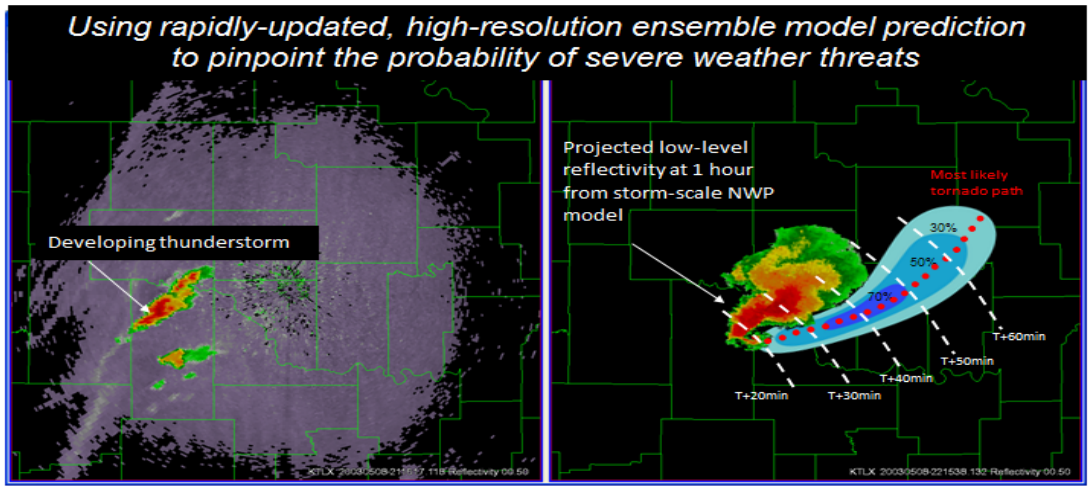
Forecaster and Researcher Collaboration
Researchers and forecasters work side-by-side throughout the year in the NOAA Hazardous Weather Testbed (HWT) to develop, test, and evaluate new forecast and warning strategies. Participants explore innovative radar and satellite technologies, decision support systems, and new weather and water prediction models. Each year, the HWT draws as many as 60 researchers and forecasters together for six to eight weeks to review emerging ideas and answer the question, “What do forecasters need?” HWT scientists also test new concepts and tools with forecasters in simulated settings and with real-time forecasts. This collaborative approach promotes effective transfer of research into forecasting and warning operations.

Earlier Warnings
Currently, NWS does not issue warnings for local severe weather until they see an early signal on radar, or the weather hazard is spotted. This approach provides the public with an average tornado warning lead time of 10 minutes. However, hospitals, nursing homes, large venue operators, aviation officials, and others require 30 minutes of lead time or more to move citizens to safety. Through its Warn-On-Forecast project, OAR is working to combine high-resolution surface satellite and radar data into a set of analyses allowing computer models to predict specific weather hazards 30-60 minutes before they form. This would enable state, local, and NWS impact-based decision support services to take more effective action to mitigate damage and reduce injuries and loss of life.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

U.S. Weather Research Program

Through a competitive grant program, the U.S. Weather Research Program provides continuous improvements to understand, predict, and communicate information associated with hazardous weather, air quality and seasonal to sub-seasonal events. Results of this research are transferred to NWS after demonstration in several NOAA testbeds. Projects are selected using a peer-review process with NWS participation.



Earth Prediction Innovation Center

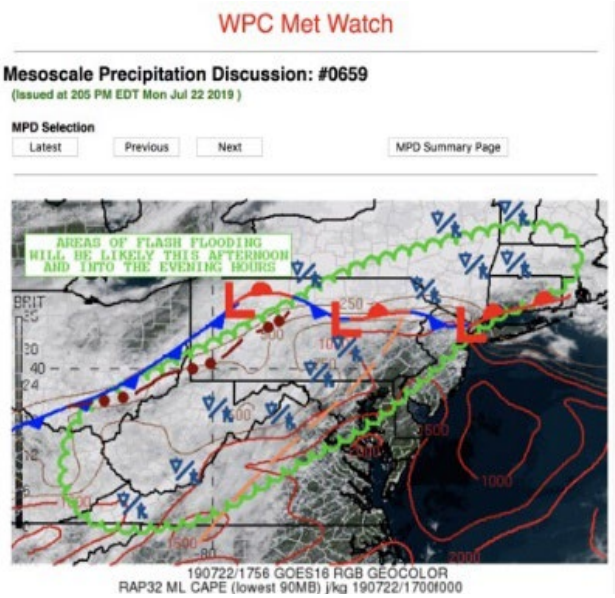
The *National Integrated Drought Information System Reauthorization Act of 2018* (P.L. 115-423) expands Section 102(b) of the *Weather Research and Forecasting Innovation Act of 2017* (P.L. 115-25) to include the Earth Prediction Innovation Center (EPIC) for advancing weather modeling skill and international leadership in the area of numerical weather prediction, and directs NOAA's U.S. Weather Research Program to carry out the activities of EPIC. The Act directs NOAA to create a true community global weather research modeling system that is accessible by the public and utilizes innovative strategies to host and manage the modeling system. EPIC leverages existing NOAA resources to accelerate advances to the Unified Forecast System, a community-based, coupled comprehensive Earth System Model-based analysis and prediction system designed to meet NOAA's operational forecast mission to protect life and property and improve economic growth.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

VORTEX-USA
The *Weather Research and Forecasting Innovation Act of 2017* (P.L. 115-25) authorized the implementation of a tornado warning improvement and extension program, codified in the *Consolidated Appropriations Act, 2021* (P.L. 116-260), as VORTEX-USA. The National Severe Storms Laboratory and the Weather Program Office are collaborating to build the program with the aim of reducing the loss of life and economic damage caused by tornadoes, including expanding atmospheric observations, advancing radar technology, and improving the delivery of actionable weather information. VORTEX-USA continues the work of the VORTEX-SE program, closely coordinating with this broader initiative.

Improved Flood & Drought Predictions
Accurate rain and snowfall predictions help water and emergency managers to better balance water supply needs. Partnering with NWS and other Federal, state, and local water resource agencies, OAR researches the extreme precipitation and weather conditions that can lead to droughts or flooding by evaluating new observations and modeling tools to improve these forecasts. Floods and flash floods kill more people each year than any other severe weather hazard, and a few extra minutes of notice can make a big difference in reducing deaths and economic loss. This is why NOAA is continuing to develop an experimental flash flood and intense rainfall forecasting tool. The Warn-on-Forecast System,[3] or WoFS, provides high-resolution information and can update quickly. Ultimately, the new tool will help forecasters issue flash flood warnings earlier.

The prediction system proved its usefulness in July 2019 when parts of the Northeast and mid-Atlantic were inundated with intense rainfall. The storms resulted in flooded roads during rush hour, stranded motorists, cancelled and delayed flights, power outages and property damage. Forecasters used WoFS as they observed the perfect conditions for flash flooding over the I-95 corridor, and the experimental system showed up to five inches of rain in some areas. The guidance provided through WoFS gave forecasters more confidence to use the phrase “flash flooding likely” when they issued area forecasts.



A Warn-on-Forecast product showing conditions for flash flooding over the I-95 corridor.

[3] https://www.nssl.noaa.gov/projects/wof/

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Air Chemistry
Whether it is fine particulate matter, or other airborne substances, air pollution can have a significant impact on the environment and human health. OAR Weather Research & Air Chemistry provides a strong scientific understanding of these air chemistry problems to help all stakeholders make effective management decisions. With long-term monitoring of chemicals like mercury, nitrogen and other compounds, OAR provides data to identify sources and evaluate the effectiveness of emission controls.

Data from these observations, along with model evaluations and other studies, help improve predictions of where airborne substances come from and where they will go. NWS uses OAR-developed air chemistry models to issue air quality warnings so that people can limit their exposure to air pollution. OAR's atmospheric dispersion models also predict impacts during emergencies, like the 2023 East Palestine, Ohio, train derailment and the December 31, 2021, Marshall Fire in Colorado.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Weather Laboratories and Cooperative Institutes	Pos./BA	283	94,534	283	86,121	0	(8,413)
	FTE/Obl.	243	94,534	243	86,121	0	(8,413)

Weather Laboratories and Cooperative Institutes Grants Decrease (-$8,413, 0 FTE/ 0 Positions) – This program change is requested to support other NOAA and Administration priorities. At this level of funding, NOAA will continue supporting weather forecasting improvement and air chemistry research, modeling, and technology development, specifically working towards improvements to fire weather forecasting, improving tornado warnings through VORTEX, flash flood forecasts, tsunami forecasting, and collecting high-quality hurricane observations. NOAA's laboratories will continue to support forecasting, modeling, research, and technology improvements, albeit with less frequent updates. NOAA will continue to maintain and support activities and partnerships using funding received under the BIL and as allocated through IRA funds. This will allow NOAA to continue projects such as leveraging information gathered on optimal techniques for generating Probable Maximum Precipitation estimates, and developing new mechanisms for Probable Maximum Precipitation generation supported by community input.

This request will reduce funding that supports weather research that is carried out by a wide network of academic partners at NOAA's Cooperative Institutes. These activities support a variety of programs including OAR's Forecasting a Continuum of Environmental Threats (FACETs) and the Joint Center for Satellite Data Assimilation's Joint Effort for Data assimilation Integration project to benefit the Next-Generation Global Prediction System effort and data assimilation activities.

Schedule and Milestones:
FY 2025:

- Decrease Cooperative Institute grant funding in Weather Laboratories and Cooperative Institutes

FY 2026-2029:

- Maintain support for highest priority activities within available Weather Laboratories and Cooperative Institutes research funding, such as collecting high quality hurricane observations including developing a Hurricane Underwater Glider to provide temperature and salinity profile observations during each Atlantic hurricane season

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

Deliverables:

- Decrease funding for Weather Laboratory and Cooperative Institute grants

	2025	2026	2027	2028	2029
Performance Measures:					
Annual number of OAR R&D products Transitioned to a new stage(s) (development, demonstration, or application)					
With Decrease	16	16	16	16	16
Without Decrease	17	17	17	17	17
Outyear Costs:					
Direct Obligations	(8,413)	(8,413)	(8,413)	(8,413)	(8,413)
Capitalized	0	0	0	0	0
Uncapitalized	(8,413)	(8,413)	(8,413)	(8,413)	(8,413)
Budget Authority	(8,413)	(8,413)	(8,413)	(8,413)	(8,413)
Outlays	(5,132)	(7,488)	(7,908)	(8,245)	(8,413)
FTE	0	0	0	0	0
Positions	0	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Weather Labs and Cooperative Institutes
Subactivity: Weather Labs and Cooperative Institutes

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	29,762	31,310	31,936	31,936	0
11.3	Other than full-time permanent	163	163	163	163	0
11.5	Other personnel compensation	530	530	530	530	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	30,455	32,003	32,629	32,629	0
12	Civilian personnel benefits	10,152	10,680	10,894	10,894	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	458	458	458	458	0
22	Transportation of things	92	92	92	92	0
23	Rent, communications, and utilitites	0	0	0	0	0
23.1	Rental payments to GSA	4,725	4,725	4,725	4,725	0
23.2	Rental Payments to others	3,035	3,035	3,035	3,035	0
23.3	Communications, utilities and misc charges	1,197	1,197	1,197	1,197	0
24	Printing and reproduction	126	126	126	126	0
25.1	Advisory and assistance services	697	697	697	697	0
25.2	Other services from non-Federal sources	26,608	9,689	9,891	9,891	0
25.3	Other goods and services from Federal	2,131	2,131	2,131	2,131	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	309	309	309	309	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	1,881	1,881	1,881	1,881	0
31	Equipment	1,535	1,535	1,535	1,535	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	49,975	24,596	24,932	16,519	(8,413)
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	2	2	2	2	0
44	Refunds	0	0	0	0	0
99	Total obligations	133,378	93,156	94,534	86,121	(8,413)

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
U.S. Weather Research Program	Pos./BA	20	39,347	20	31,334	0	(8,013)
	FTE/Obl.	17	39,347	17	31,334	0	(8,013)

U.S. Weather Research Program Grants Decrease (-$8,013, 0 FTE/ 0 Positions) – This program change is requested to support other NOAA and Administration priorities. At this level of funding, NOAA will focus on further analysis of Phased Array Radar (PAR), improving tornado forecast through social science, and reducing development time from research to operations. NOAA will also continue funding projects that test and demonstrate new cutting-edge science and technology with the goal of applying innovative forecasting techniques, models, and products and reading them for the transition to operations.

This reduction will reduce competitive extramural grants that balance the needs of NOAA operational stakeholders with investments in innovative high-risk research and development. It will narrow the scope of funded research and will terminate funding competitions for the Air Quality and Sub-seasonal to Seasonal (S2S) programs. Air quality is a small program and was selected for reduction given the focus on weather research. S2S was selected because it is relatively new compared with other programs, so there is less impact to the research community from eliminating grant opportunities for these programs. NWS will continue to develop version 1 of the Seasonal Forecast System, although potentially slower without OAR investment in development, testing, and validation of the system. This OAR reduction will pause development of future versions of the Seasonal Forecast System.

Schedule and Milestones:
FY 2025:
- Reduce funding for U.S. Weather Research Program grants

FY 2026–2029:
- Maintain support for highest priority activities within available U.S. Weather Research Program funding, such as developing an experimental technique to improve meteorological forcings of the Hydrological Ensemble Forecast System, leading to improved forecast accuracy and lead time

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

Deliverables:

- Reduce funding for U.S. Weather Research Program grants

	2025	2026	2027	2028	2029
Performance Measures:					
Number of forecast and mission improvements, to weather applications at operational U.S. weather services and in the U.S. weather commercial sector					
With Decrease	15	8	8	8	8
Without Decrease	15	15	15	15	15
Outyear Costs:					
Direct Obligations	(8,013)	(8,013)	(8,013)	(8,013)	(8,013)
Capitalized	(0)	(0)	(0)	(0)	(0)
Uncapitalized	(8,013)	(8,013)	(8,013)	(8,013)	(8,013)
Budget Authority	(8,013)	(8,013)	(8,013)	(8,013)	(8,013)
Outlays	(4,888)	(7,132)	(7,532)	(7,853)	(8,013)
FTE	0	0	0	0	0
Positions	0	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Weather and Air Chemistry Research
Subactivity: U.S. Weather Research Program

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	1,597	1,680	1,714	1,714	0
11.3	Other than full-time permanent	29	29	29	29	0
11.5	Other personnel compensation	32	32	32	32	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	1,658	1,741	1,775	1,775	0
12	Civilian personnel benefits	572	602	614	614	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	17	17	17	17	0
22	Transportation of things	0	0	0	0	0
23	Rent, communications, and utilitites	0	0	0	0	0
23.1	Rental payments to GSA	312	312	312	312	0
23.2	Rental Payments to others	0	0	0	0	0
23.3	Communications, utilities and misc charges	0	0	0	0	0
24	Printing and reproduction	1	1	1	1	0
25.1	Advisory and assistance services	772	772	772	772	0
25.2	Other services from non-Federal sources	26,510	15,997	16,075	16,075	0
25.3	Other goods and services from Federal sources	890	890	890	890	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	11	11	11	11	0
31	Equipment	3	3	3	3	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	34,525	18,754	18,877	10,864	(8,013)
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	0	0	0	0	0
44	Refunds	0	0	0	0	0
99	Total obligations	65,271	39,100	39,347	31,334	(8,013)

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Joint Technology Transfer Initiative	Pos./BA	4	13,321	4	1,001	0	(12,320)
	FTE/Obl.	4	13,321	4	1,001	0	(12,320)

Joint Technology Transfer Initiative (JTTI) Grants Decrease (-$12,320, 0 FTE/ 0 Positions) – This program change is requested to support other NOAA and Administration priorities. At this level of funding, NOAA will work towards the completion of existing grants and transitions of the latest scientific and technological advances into NWS operations. This request will eliminate new grants provided through JTTI to support projects (collaborative among external community, NWS, and OAR) to improve operational forecasts. This proposed budget reduction will end JTTI's funding to transition the latest technological advances due to weather research into products and services actively used by communities and businesses. JTTI will also no longer support the Unified Forecast System Research to Operations project, which supports NOAA Cooperative Institute staff, contractors, and the community, and is a partnership project with NWS to develop next-generation forecast models. This reduction reflects NOAA prioritization of improving forecasts through investments in observations, such as the GeoXO satellite program and increased resources for ship and airplane observations.

Schedule and Milestones:
FY 2025
- Reduce funding for JTTI grants

FY 2026–2029
- Maintain support for highest priority activities within available JTTI funding, such as releasing the Short-Range Weather Application (SRW 3.0) with inclusion of the Rapid Refresh Forecast System (RRFS) Smoke component, the RRFS Community Multiscale Air Quality component, and the Unified Forecast System Fire component

Deliverables:
- Reduce funding for JTTI grants

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

	2025	2026	2027	2028	2029
Performance Measures:					
Percentage of projects that increase Readiness Level at least one level					
With Decrease	58	25	10	0	0
Without Decrease	58	58	60	60	60
Outyear Costs:					
Direct Obligations	(12,320)	(12,320)	(12,320)	(12,320)	(12,320)
Capitalized	(304)	(304)	(304)	(304)	(304)
Uncapitalized	(12,016)	(12,016)	(12,016)	(12,016)	(12,016)
Budget Authority	(12,320)	(12,320)	(12,320)	(12,320)	(12,320)
Outlays	(7,515)	(10,965)	(11,581)	(12,074)	(12,320)
FTE	0	0	0	0	0
Positions	0	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Weather and Air Chemistry Research
Subactivity: Joint Technology Transfer Initiative

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	668	703	717	717	0
11.3	Other than full-time permanent	13	13	13	13	0
11.5	Other personnel compensation	7	7	7	7	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	688	723	737	737	0
12	Civilian personnel benefits	246	259	264	264	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	3	3	3	0	(3)
22	Transportation of things	0	0	0	0	0
23	Rent, communications, and utilitites	0	0	0	0	0
23.1	Rental payments to GSA	0	0	0	0	0
23.2	Rental Payments to others	29	29	29	0	(29)
23.3	Communications, utilities and misc charges	1	1	1	0	(1)
24	Printing and reproduction	0	0	0	0	0
25.1	Advisory and assistance services	2,486	2,691	2,713	0	(2,713)
25.2	Other services from non-Federal sources	547	547	547	0	(547)
25.3	Other goods and services from Federal	0	0	0	0	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	20	20	20	0	(20)
31	Equipment	40	40	40	0	(40)
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	8,624	8,931	8,967	0	(8,967)
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	0	0	0	0	0
44	Refunds	0	0	0	0	0
99	Total obligations	12,684	13,244	13,321	1,001	(12,320)

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Activity: Ocean, Coastal, and Great Lakes Research

Goal Statement

The Ocean, Coastal, and Great Lakes Research in OAR provides science to coastal communities from a wide network of university partners, develops technology to advance the Nation's oceans and Great Lakes observations, and coordinates multi-partner ocean exploration missions to characterize our natural resources and improve our understanding of the changes occurring in the oceans and Great Lakes.

Base Program

OAR's ocean, coastal, and Great Lakes laboratories, programs, and partners have been key contributors to advancing NOAA's NMFS, NOS, and NWS by providing research to better understand our oceans and Great Lakes natural resources and the influence of the oceans and Great Lakes on the Earth's weather and climate through technological advancements in modeling, computing, observing, and information dissemination.

The following seven Subactivities support the Ocean, Coastal, and Great Lakes Research portfolio:

- Ocean Laboratories & Cooperative Institutes: Primarily supports foundational ocean observation networks and research, modeling, and technology development at OAR's laboratories and cooperative institutes.
- National Sea Grant College Program: Established by Congress through the National Sea Grant College Program Act, the National Sea Grant College Program is a Federal-state partnership that turns research into actions that support science-based sustainable practices. This partnership ensures that coastal communities remain engines of economic growth. The Sea Grant programs form a dynamic national network of more than 300 participating institutions represented by more than 2,300 scientists, engineers and outreach experts based at universities across the country.
- Sea Grant Aquaculture Research: Guided by the National Aquaculture Act of 1980, advances this industry through aquaculture research and extension as well as supporting the National Sea Grant Marine Aquaculture Grant Program. This is the largest and most comprehensive U.S. government grant program dedicated to supporting marine aquaculture development. These grants tackle some of the top challenges to marine aquaculture like reducing fishmeal and fish oil in aquaculture feeds, increasing seafood safety and quality, diversifying species and products.

- Ocean Exploration and Research: Established by Congress through the Ocean Exploration Act, Ocean Exploration and Research is the only Federal organization dedicated to ocean exploration.
- Integrated Ocean Acidification (OA) authorized under the Federal Ocean Acidification Research and Monitoring Act to better understand ocean acidification and the consequences of OA on marine resources to enable communities to mitigate, prepare, and adapt to changes.
- Sustained Ocean Observations and Monitoring: A global system for observations and analysis of marine and ocean variables to support operational ocean services worldwide.
- National Oceanographic Partnership Program (NOPP): This OAR funding line was established in FY 2019 to advance ocean science research through the program established under 10 U.S.C. 7901 and to continue support for Ocean Joint Technology Transfer Initiative projects funded in FY 2018.

Statement of Operating Objectives

Schedule and Milestones:
FY 2025 - FY 2029
Ocean Laboratories & Cooperative Institutes

- Continue collection and analysis of acoustic data from Ocean Noise Reference Stations, in coordination with NMFS and NOS
- Demonstrate/test new ocean observing/communication technologies
- Support partnerships with universities on ocean observations, hurricane monitoring, ocean glider research, and offshore wind energy research
- Collect observations of ocean and marine ecosystem data to improve our understanding of Earth system processes and enable better predictions
- Conduct Great Lakes benthic surveys
- Complete monthly sample collections in the Great Lakes for temperature, nutrients, and zooplankton
- Monitor phytoplankton assemblage during algal bloom initiation through examination of physical-chemical parameters and fluorometric algal class composition
- Update the Finite Volume Community Ocean Model with floodplain information
- Release a bioinformatic pipeline to enable automated eDNA analyses to the public

National Sea Grant College Program

- Continue to leverage state and other partners
- Hold local and regional state program requests for proposals

- Continue to ensure accountability to NOAA aligned program plans through external Performance Review Panels
- Support Sea Grant activities to restore degraded ecosystems
- Provide coastal resource managers with information/training in local hazard resiliency, and hazard mitigation tools, techniques, and best practices
- Develop integrated teams of professionals focused on accelerating the development of specific aquaculture topics. These teams will establish a collaborative program to plan for and appropriately focus the next generation of aquaculture investments while enhancing the synthesis and transfer of past research advances to the industry.
- Address ongoing and long-term impacts associated with the COVID-19 pandemic on seafood resources, and strategies to increase the resilience of the coastal and Great Lakes seafood resources sector to respond to future disruptions.
- Advance the understanding of the economics of aquaculture businesses and provide the industry with important market information to aid sustainable growth in the U.S.

Sea Grant Aquaculture Research

- Provide competitive research grants, extension services, and research partnerships that support aquaculture's industry development and technology transfer grants to support the aquaculture industry
- Fund development and transfer of new and improved technologies to local communities; improvement of aquaculture practices; advancement of aquaculture production; and support for extension activities that contribute to both economic and environmental community resilience
- Continue to provide economic and marketing research to increase profitability and environmental stability of aquaculture businesses
- Identify common policies to ensure uniform regional governance and permitting
- Increase domestic production through research and extension efforts for currently farmed and promising new species
- Provide research and technical assistance to ensure the safety and quality of aquaculture products to meet public demand

Ocean Exploration and Research

- Conduct annual extramural competition for directing the next phase of research into the potential resources and natural habitats in areas identified through the Extended Continental Shelf Mapping Initiative
- Develop an annual extramural competition for the exploration of unknown and poorly known ocean areas where there is a high potential for discovery
- Complete Bureau of Ocean Energy Management-NOAA Partnership expedition to explore and characterize habitats and ecosystems in the Arctic and other key areas within the U.S. Exclusive Economic Zone

- Conduct telepresence-enabled systematic expeditions providing opportunities to engage a multitude of shore-based stakeholders and other users in real-time ocean exploration
- Contribute to the National Ocean Mapping, Exploration and Characterization (NOMEC) Council's efforts to develop a Standard Ocean Mapping Protocol
- Provide routine reports on the state of emerging scientific and technological capabilities within the ocean exploration community.
- Map unknown areas of the U.S. Exclusive Economic Zone
- Transition deep-sea uncrewed systems and other innovative technologies from research to operations

Integrated Ocean Acidification

- Conduct OA coastal observing and process research cruises and deploy OA sensors on NOAA research and volunteer observing ships
- Develop a coastal early-warning system that can identify episodic low pH events and alert managers of potentially impacted resources
- Partner with the U.S. Integrated Ocean Observing System (IOOS) Marine Sensor Program to develop marine sensors that can assist coastal industries with both scientific and monitoring capacity
- Engage in regional ocean acidification vulnerability analyses and support meta-analysis work that builds understanding of patterns in species-response to ocean acidification
- Model how ocean acidification may affect coastal and marine ecosystems and living marine resources in the north Pacific and north Atlantic Oceans and compare the potential impacts of ocean acidification, climate change, and human uses of the marine environment

Sustained Ocean Observations and Monitoring

- Maintain NOAA's contribution of active Argo ocean profiling floats and implement Deep (6000 meters) Argo array
- Maintain Global Ocean Observing System (GOOS)
- Support research to develop new data products from these observations to address a broad range of stakeholder needs
- Develop, operate, distribute, and analyze data from global tide gauges as well as coastal research gliders and multidisciplinary buoys near California and Hawai'i
- Develop high-level data products documenting changes in precipitation, snowfall, and other meteorological phenomena for multiple ocean data products, observing system evaluations, and observing system support

- Support the global drifter program including observations of Atlantic Meridional Overturning Circulation, global ocean partial pressure of carbon dioxide, and global ocean temperatures

National Oceanographic Partnership Program
- Projects focused on improving NOAA's operational efficiency and resource management responsibilities, including activities designed to support the blue economy
- Support the Ocean Research Advisory Panel, which advises the interagency Ocean Policy Committee on national ocean research priorities
- Collaborate on ocean-related research projects across agencies and sectors
- Host community engagement forums that connect the broader ocean community with federal agencies on priority topics

Deliverables:
Ocean Laboratories & Cooperative Institutes
- Pre-operational forecast products to alert the over two million coastal Lake Erie residents of algal toxins in drinking water
- An annual, synthetic, ecosystem-based assessment of the eastern Bering Sea for the North Pacific Fisheries Management Council
- Documentation and recommendations for operationalization of a Runoff Risk v3.0 Decision Support Tool
- Complete hyperspectral flyovers to assist in mapping the harmful algal bloom in Green Bay, WI
- Complete series or spatial deployments using 'omics techniques to understand, track, and provide forecasts for environmental health and change.

National Sea Grant College Program
- Partnerships with states and other partners maintained, strengthened, and expanded
- Sustainable development principles adopted by coastal communities
- New decision-support tools and technologies transferred to coastal managers
- Increased local hazard resiliency
- Thousands of jobs and businesses created
- Hundreds of millions of dollars in market and non-market value created
- Thousands of training events provided to communities to improve their resilience
- Hundreds of thousands of acres of habitat restored or protected

Sea Grant Aquaculture Research

- Increased profitability and environmental stability of aquaculture businesses
- More unified regional governance and permitting
- Increased domestic aquaculture production
- Improved safety and quality of aquaculture products that meet public demand

Ocean Exploration and Research

- Habitats and ecosystems in key areas within the U.S. Exclusive Economic Zone, such as the Arctic, explored and characterized
- Engagement of shore-based stakeholders in real-time ocean exploration through telepresence-enabled expeditions
- Tens of thousands of square miles mapped and data collected during expeditions
- Data collected during expeditions are publicly and freely available through national archives
- Digital data are quality controlled and made available through a suite of data access tools, including the NOAA Ocean Exploration Data Atlas

Integrated Ocean Acidification

- Regional biogeochemical and ecological models of ocean acidification processes, projections, and impacts
- Expanded observations of ocean acidification levels and impacts
- Enhanced understanding of the vulnerability of living marine resources to ocean acidification
- Optimized observing systems in each of the eight large marine ecosystem regions
- Increased number of living marine resources characterized for vulnerability to ocean acidification
- Completed hydrographic surveys and ship-based observations to understand the long-term changes in carbonate chemistry
- Data is archived and accessible for ocean carbon and ocean acidification analyses, forecasting capabilities, and better assessments of marine resource vulnerability

Sustained Ocean Observations and Monitoring

- Drifting buoys deployed annually
- Argo array buoys deployed annually
- Unique and essential global measurements and capabilities
- New data products developed in support of stakeholder needs
- Annual Arctic Report Card released

- Observational data quality improved through increased inter-comparisons across observing networks
- Expanded boundary layer observations of heat, moisture, wind stress, and carbon fluxes to better inform Earth-system models and decision-making
- Expanded Arctic ocean and sea-ice observations to improve sea ice forecasts for navigation, shipping, and local and Indigenous community activities

National Oceanographic Partnership Program

- Transition research into operational applications
- Increase in availability of marine data, data-derived information, and ability to use that information to realize high priority economic benefits
- Implement the Ocean Climate Action Plan set forth by the NOMEC Council
- Projects awarded in Earth Systems modeling, coastal and marine resources, innovative technology development, ocean observing and exploration, marine biodiversity, and ocean education.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Explanation and Justification

Line Item		2023 Actual		2024 Annualized CR		2025 Base Program	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Ocean Laboratories & Cooperative Institutes	Pos/BA	99	42,038	131	39,500	131	40,115
	FTE/OBL	106	42,695	111	39,500	111	40,115
National Sea Grant College Program	Pos/BA	13	89,768	20	80,000	20	80,448
	FTE/OBL	17	99,716	20	80,000	20	80,448
Sea Grant Aquaculture Research	Pos/BA	4	13,942	4	14,000	4	14,080
	FTE/OBL	2	13,226	4	14,000	4	14,080
Ocean Exploration and Research	Pos/BA	33	45,438	38	46,000	38	46,353
	FTE/OBL	35	47,502	36	46,000	36	46,353
Integrated Ocean Acidification	Pos/BA	12	16,902	14	17,000	14	17,133
	FTE/OBL	17	17,528	14	17,000	14	17,133
Sustained Ocean Observations and Monitoring	Pos/BA	27	56,079	32	52,500	32	52,868
	FTE/OBL	34	56,738	32	52,500	32	52,868
National Oceanographic Partnership Program	Pos/BA	1	2,458	1	2,500	1	2,515
	FTE/OBL	2	1,785	1	2,500	1	2,515
Total Ocean, Coastal, and Great Lakes Research	Pos/BA	189	266,625	240	251,500	240	253,512
	FTE/OBL	213	279,190	218	251,500	218	253,512

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Overall, OAR's Ocean, Coastal, and Great Lakes Research supports:

- Improving understanding of the physics, chemistry, and ecology of oceanic, coastal, and Great Lakes systems, including changes in these environments and the impacts of stressors such as changes in temperature, changes in ocean and Great Lakes chemistry, pollution, and invasive species;
- Improving predictive capability for oceanic, coastal, and Great Lakes processes, including developing predictive models for ecosystems, and coupling these with physical and biogeochemical models to create comprehensive Earth System Models;
- Translating ocean, coastal, and Great Lakes science into services through tools developed for resource managers, policy makers and the public, and through increased education and outreach; and
- Developing and using cutting edge technology for understanding and exploring the ocean, coasts and Great Lakes.

In 2022, Louisiana Sea Grant partnered with the Pointe-au-Chien Indian Tribe on a map-based decision support tool that aids the Tribe in assessing local ecological change and associated risks to the Tribe's resilience. The rate of coastal land loss and projected relative sea level rise are putting unprecedented stress on vulnerable communities in coastal Louisiana. Tribes and other indigenous communities often have a strong connection to place that helps inspire innovative ideas promoting greater sustainability of vulnerable ecosystems and the communities that depend on them.

The Tribe is using the new interactive maps to inform short and long-term local resilience planning and to help communicate Tribal priorities externally to gain support for restoration and protection projects.

Many Sea Grant programs educate landscape professionals, municipal officials, homeowners, and students about the effectiveness of rain gardens as a way to limit the harmful effects of stormwater runoff. In this image, Volunteers help Connecticut Sea Grant build a raingarden in Bridgeport. Photo credit: Connecticut Sea Grant.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Much of the research performed within OAR's Ocean, Coastal, & Great Lakes Research is collaborative and crosscutting and therefore is often funded through multiple sub-activities. Some cross-cutting themes include:

Ecosystems Research
OAR Laboratories and Cooperative Institutes conduct research on ecological processes, and provide data to develop models critical to understanding ecosystem structure and function in important and economically significant environments in the oceans and the Great Lakes, including coral reefs, deep sea hydrothermal vents, and fish and shellfish habitat. Through observations, laboratory, and field experiments researchers also develop models to forecast impacts of multiple stressors, such as invasive species and nutrient runoff, on water quality, food webs, and fishery productivity. This work supports the development of new models, forecasting tools, and applications to evaluate and mitigate impacts to present and future ecosystem stressors.

Photo shows a HAB developing in Lake Erie. The NOAA Great Lakes HAB and Hypoxia program is a collaborative effort between Great Lakes Environmental Research Laboratory and Cooperative Institute scientists. The team uses an integrated approach to understand the ecosystem dynamics and environmental drivers of HABs and hypoxia in the Great Lakes to improve prediction and mitigation strategies.

Integrated Marine and Ocean Processes
OAR carries out interdisciplinary scientific investigations of the physics of ocean currents and water properties, and on the role of the ocean in extreme weather events, and ecosystems. The tools used to carry out these studies range from sensors on deep ocean moorings to satellite-based instruments to measurements made on research and commercial shipping vessels and autonomous vehicles, and include data analysis and numerical modeling. NOAA scientists and partners conduct innovative research and develop numerical models to predict the physical, chemical, biological, and ecological response in the oceans and Great Lakes due to weather, climate, and human-induced changes. The forecast models and quantitative tools developed by researchers allow scientists, coastal resource managers, policy makers, and the public to make informed decisions for optimal management of oceans and Great Lakes resources. The ocean, coasts, and Great Lakes are closely tied to the Earth's atmosphere, and a sound understanding of ocean-earth interactions is essential for better management of marine resources and improved ocean and weather services.

Resilient Communities and Economies

OAR's Ocean, Coastal and Great Lakes Research works through the National Sea Grant College Program to develop vibrant and resilient coastal economies that use comprehensive planning to make informed strategic decisions; improve coastal water resources that sustain human health and ecosystem services; and adapt to the impacts of coastal hazards.

** Metrics are direct results of Sea Grant work between February 1, 2022, and January 31, 2023, as reported by Sea Grant programs in Summer 2023. Economic benefit refers to market and non-market value of Sea Grant's work; value of jobs and businesses ($610.8M), as well as total leveraged funds ($184.3M) and value of volunteer hours ($7.2M). Businesses refers to the number of businesses created or sustained as a result of Sea Grant efforts.*[4]

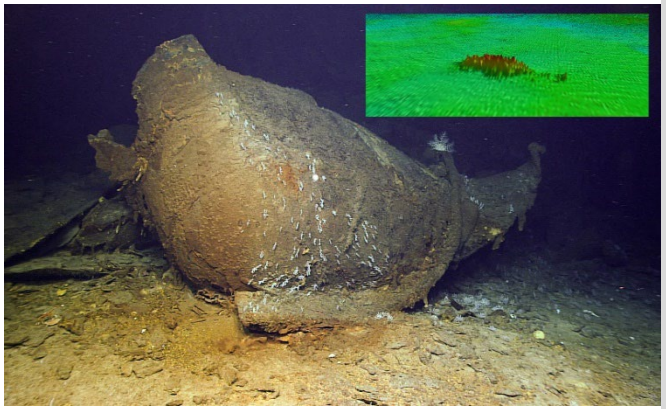
Sustainable Fisheries and Aquaculture

The National Sea Grant Marine Aquaculture Grant Program is the only U.S. government grant program dedicated to supporting marine aquaculture development. OAR's marine aquaculture work ensures safe, secure and sustainable supplies of domestic seafood and decreases reliance on seafood imports through aquaculture research, extension, and grants. As a part of the cross-NOAA Program, OAR works with aquaculture partners in the NMFS and the NOS in coordination with state fisheries managers, seafood processors, fishing associations and consumer groups. These grants tackle some of the top challenges to marine aquaculture like reducing fishmeal and fish oil in aquaculture feeds, increasing seafood safety and quality, diversifying species and products. OAR's aquaculture competition is authorized under the *National Aquaculture Act of 1980*.

[4] https://seagrant.noaa.gov/impacts/

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

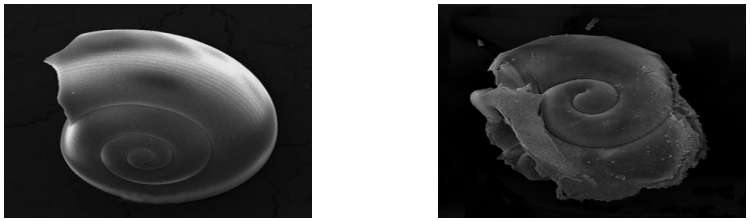
Ocean Exploration
OAR leads efforts to explore and characterize deep-water areas of the U.S. Exclusive Economic Zone, Extended Continental Shelf, and other poorly known ocean areas and phenomena. Since its commissioning in 2008, the *Okeanos Explorer*, NOAA's ship assigned to exploration, has mapped over a million square kilometers of the seafloor at high resolution. Data collected from ocean exploration expeditions have been critical for science-based decisions on issues like deepwater fisheries management, potential oil and gas development or deep-sea mining, marine protected area establishment and management, determination of the U.S. Extended Continental Shelf, and nautical charting.



In November 2021, NOAA Ocean Exploration met the milestone of 2 million square kilometers mapped aboard NOAA Ship *Okeanos Explorer*. Seafloor mapping provides insight into geological, physical, biological, and climatological processes, helping us better understand, manage, and protect critical ocean ecosystems, species, and services for the benefit of all. Seafloor mapping also supports navigation, national security, hazard detection, telecommunications, and offshore energy. In 2021, the mapping system on *Okeanos Explorer* was updated, making it the first ship in the world with a complete, integrated Kongsberg EM 304 MKII high-resolution deepwater multibeam sonar system and enabling even greater mapping data quality and coverage. Pictured Left: NOAA Ocean Exploration also uses the multibeam sonar system on NOAA Ship *Okeanos Explorer* to search for shipwrecks and other submerged cultural resources that help us better understand the past. An anomaly in seafloor mapping data (inset) turned out to be a shipwreck, likely the World War II-era oil tanker SS Bloody Marsh. Images courtesy of NOAA Ocean Exploration, 2021 U.S. Blake Plateau Mapping 2 (inset) and Windows to the Deep 2021.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Ocean Chemistry and Ocean Acidification
Research across OAR labs, programs, and Cooperative Institutes aims to improve our understanding of how, and how fast, ocean chemistry is changing, how variable that change is by region, and what impacts these changes are having on marine life, people, and the local, regional, and national economies. Ocean acidification (OA) refers to changes in the chemistry of the ocean due to rising atmospheric carbon dioxide; currently, ocean chemistry is changing faster than any period in the past 55 million years. OAR's Ocean Acidification Program (OAP) maintains long-term OA monitoring, conducts research to enhance the conservation of marine ecosystems sensitive to OA, and promotes OA educational opportunities. By better understanding and predicting OA, OAP also informs national and international carbon mitigation discussions and enables local communities to better prepare, mitigate, and adapt to changes caused by OA.



Impacts to a pteropod's shell in seawater that is too acidic (images above). The left panel shows a shell collected from a live pteropod from a region in the Southern Ocean where acidity is low. The shell on the right is from a pteropod collected in a region where the water is more acidic. Photo credits: (left) Bednaršek et al. 2012; (right) Nina Bednaršek.

Sustained Ocean Observations and Monitoring (SOOM)
SOOM supports NOAA's contribution to the sustained GOOS by maintaining over 3,950 platforms that report environmental weather/climate information to global prediction centers and researchers. GOOS is a permanent global system for observations, modeling, and analysis of marine and ocean variables to support operational ocean services worldwide. The IOOS is the U.S. regional contribution to GOOS. SOOM activities contribute unique and essential global measurements and capabilities to the IOOS enterprise. SOOM's contribution helps describe the present state of the oceans, monitors long-term changes, supports operational services worldwide and is the basis for forecasting climate variability and change. SOOM also supports research to develop new data products from these observations to address a broad range of stakeholder needs.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

National Oceanographic Partnership Program
The NOPP was established by Public Law 104-201 to "coordinate and strengthen national oceanographic efforts by identifying and carrying out partnerships among Federal agencies, academia, industry, and other members of the oceanographic scientific community in the areas of data, resources, education, and communication." With an increasing amount of research and development spending occurring within the private sector relative to the federal government, NOPP is a unique catalyst for participation by non-governmental organizations and industry in federal ocean research and education projects.

Previous NOPP successes include creation of a comprehensive national ocean observing network, air/ocean modeling improvements and transitions, and innovative marine technology solutions. Future efforts under discussion include:

- Reducing plastic waste in the oceans
- Comprehensive mapping and characterization of the U.S. Exclusive Economic Zone
- Development of next-generation autonomous and remote (air and satellite) marine data collection systems
- New discoveries of ocean resources and marine habitat dynamics that are gleaned from existing marine information databases.
- Seamless national oceanographic and marine information systems that provide transparent access and advanced data management and analysis tools

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Ocean Laboratories and Cooperative Institutes	Pos./BA	131	40,115	131	37,178	0	(2,937)
	FTE/Obl.	111	40,115	111	37,178	0	(2,937)

Ocean Laboratories and Cooperative Institutes Grants Decrease (-$2,937, 0 FTE/ 0 Positions) – This program change is requested to support other NOAA and Administration priorities. At this level of funding, NOAA will support foundational ocean observation networks and research, modeling, and technology development. OAR's laboratories will use 'omics techniques and other innovative technologies to understand, track, and provide forecasts for environmental health and change. While NOAA's laboratories will continue to improve our understanding of environmental phenomena impacting ocean, coastal, and Great Lakes systems; improve predictive capabilities for these systems; translate science into services by developing tools and providing education and outreach for resource managers, policy makers and the public; and develop cutting edge technology for understanding the ocean, coasts, and Great Lakes, this reduction may impact the timing of updates and services. NOAA will continue to support activities at Ocean, Coasts, and Great Lakes Laboratories and Cooperative Institutes using funding received under the BIL. This will allow NOAA to continue to deliver regional coastal models, including the Great Lakes, to inform coupled system development and develop the first ever prediction system for determining the mean and extreme water levels to provide the foundation for defining risk of coastal inundation impacts across subseasonal to annual time scales for the open coast and Great Lakes.

This request will reduce grant funding that supports ocean, coastal, and Great Lakes science carried out by a wide network of academic partners at NOAA's Cooperative Institutes. This program helps us better understand our oceans and Great Lakes natural resources and the influence of the oceans and Great Lakes on the Earth's weather and climate through technological advancements in modeling, computing, observing, and information dissemination. A decrease in funding may impact NOAA's ability to 1) improve understanding of the physics, chemistry, and ecology of systems; 2) improve predictive capability for processes; 3) translate science into services; and 4) develop and use cutting edge technology for understanding.

Schedule and Milestones:
FY 2025

- Decrease Cooperative Institute grant funding

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

FY 2026-2029

- Maintain support for highest priority activities within available Ocean Laboratories and Cooperative Institutes research funding, including 'omics activities

Deliverables:

- Decrease funding for Cooperative Institute grants

	2025	2026	2027	2028	2029
Performance Measures:					
Annual number of OAR R&D products Transitioned to a new stage(s) (development, demonstration, or application)					
With Decrease	10	10	10	10	10
Without Decrease	11	11	11	11	11
Outyear Costs:					
Direct Obligations	(2,937)	(2,937)	(2,937)	(2,937)	(2,937)
Capitalized	0	0	0	0	0
Uncapitalized	(2,937)	(2,937)	(2,937)	(2,937)	(2,937)
Budget Authority	(2,937)	(2,937)	(2,937)	(2,937)	(2,937)
Outlays	(1,792)	(2,614)	(2,761)	(2, 878)	(2,937)
FTE	0	0	0	0	0
Positions	0	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Ocean, Coastal, and Great Lakes Research
Subactivity: Ocean Laboratories and Cooperative Institutes

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	12,206	12,841	13,098	13,098	0
11.3	Other than full-time permanent	168	168	168	168	0
11.5	Other personnel compensation	164	164	164	164	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	12,538	13,173	13,430	13,430	0
12	Civilian personnel benefits	4,551	4,788	4,884	4,884	0
13	Benefits for former personnel	37	37	37	37	0
21	Travel and transportation of persons	326	326	326	326	0
22	Transportation of things	229	229	229	229	0
23	Rent, communications, and utilitites	0	0	0	0	0
23.1	Rental payments to GSA	0	0	0	0	0
23.2	Rental Payments to others	1,408	1,408	1,408	1,408	0
23.3	Communications, utilities and misc charges	209	209	209	209	0
24	Printing and reproduction	20	20	20	20	0
25.1	Advisory and assistance services	638	638	638	638	0
25.2	Other services from non-Federal sources	4,386	2,759	2,858	2,858	0
25.3	Other goods and services from Federal sources	26	26	26	26	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	2,736	2,736	2,736	2,736	0
31	Equipment	1,092	1,092	1,092	1,092	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	14,498	12,058	12,221	9,284	(2,937)
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	1	1	1	1	0
44	Refunds	0	0	0	0	0
99	Total obligations	42,695	39,500	40,115	37,178	(2,937)

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
National Sea Grant College Program	Pos./BA	20	80,448	17	72,392	(3)	(8,056)
	FTE/Obl.	20	80,448	17	72,392	(3)	(8,056)

National Sea Grant College Program Decrease (-$8,056, -3 FTE/ -3 Positions) – This program change is requested to support other NOAA and Administration priorities. At this level of funding, NOAA will support the core capabilities of 34 place-based Sea Grant programs to enhance the use and conservation of coastal, marine, and Great Lakes resources as prescribed in the Sea Grant authorization. Through integrated extension, education, and research programming, Sea Grant will continue to address both local and national needs in Resilient Communities & Economies, Sustainable Fisheries & Aquaculture, Environmental Literacy & Workforce Development, and Healthy Coastal Ecosystems, as identified in the 2024-2027 National Sea Grant Strategic Plan. The National Sea Grant College Program was established by the U.S. Congress in 1966 and works to create and maintain a healthy coastal environment and economy through their Federal-University partnership program that brings science together with communities for solutions that work. Sea Grant has a long history of significant impacts on job and business creation, generation of new applied research knowledge, community engagement, education and workforce development, and an economic return on investment of over 800 percent annually.

This proposed reduction will result in fewer extension and education activities and will eliminate the Sea Grant liaison program that advances and coordinates NOAA and inter-agency activities. The reduction will also scale back support for the Community Engaged Internship Program that supports students from underrepresented and indigenous communities. This reduction will also eliminate the NMFS - Sea Grant Joint Fellowship Program and will halt the development of two new Sea Grant projects at minority serving institutions in the Commonwealth of the Northern Marianas Islands and the U.S. Virgin Islands.

The proposed decrease will result in the loss of three Federal positions due to the 5.5 percent administrative cap mandated on Sea Grant appropriated funds. NOAA will explore a range of options to address reductions in staffing and will aim to transition these employees into new positions within the organization.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

Schedule and Milestones:

FY 2025

- Reduce funding for National Sea Grant College Program state programs
- Reduce National Sea Grant College Program staff
- Maintain support for highest priority activities within available National Sea Grant College Program funding, including core support for the Sea Grant place-based programs and the Knauss Fellowship Program

FY 2026–2029

- Maintain support for highest priority activities within available National Sea Grant College Program funding, including core support for the Sea Grant place-based programs and the Knauss Fellowship Program

Deliverables:

- Reduced funding for National Sea Grant College Program state programs
- Continued support for communities in addressing local, state, and national issues through the 34 Sea Grant Programs

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

	2025	2026	2027	2028	2029
Performance Measures:					
Economic and societal impacts derived from Sea Grant activities (Jobs created or retained/Businesses created or retained/Economic benefit ($M dollars))					
With Decrease	6750/675/270	6750/675/270	6750/675/270	6750/675/270	6750/675/270
Without Decrease	7500/750/300	7500/750/300	7500/750/300	7500/750/300	7500/750/300
Outyear Costs:					
Direct Obligations	(8,056)	(8,056)	(8,056)	(8,056)	(8,056)
Capitalized	(0)	(0)	(0)	(0)	(0)
Uncapitalized	(8,056)	(8,056)	(8,056)	(8,056)	(8,056)
Budget Authority	(8,056)	(8,056)	(8,056)	(8,056)	(8,056)
Outlays	(4,914)	(7,170)	(7,573)	(7,895)	(8,056)
FTE	0	0	0	0	0
Positions	0	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE PERSONNEL DETAIL

Activity: Ocean, Coastal, & Great Lakes Research
Subactivity: National Sea Grant College Program
Program Change: National Sea Grant College Program Decrease

Title		Grade	Number	Annual Salary	Total Salaries
Management and Program Analyst		ZA-III	(1)	78,592	($78,592)
Management and Program Analyst		ZA-IV	(2)	112,015	($224,030)
Total			(3)		(302,622)
Less lapse	0.00%		0		0
Total full-time permanent (FTE)			(3)		(302,622)
2025 Pay Adjustment (2.0%)					0
					(302,622)

Personnel Data Summary	
Full-time Equivalent Employment (FTE)	
Full-time permanent	(3)
Total FTE	(3)
Authorized Positions:	
Full-time permanent	(3)
Total FTE	(3)

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Ocean, Coastal, and Great Lakes Research
Subactivity: National Sea Grant College Program

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	2,042	2,148	2,191	1,888	(303)
11.3	Other than full-time permanent	37	37	37	37	0
11.5	Other personnel compensation	76	76	76	76	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	2,155	2,261	2,304	2,001	(303)
12	Civilian personnel benefits	613	645	658	571	(87)
13	Benefits for former personnel	1	1	1	1	0
21	Travel and transportation of persons	105	105	105	95	(10)
22	Transportation of things	1	1	1	1	0
23	Rent, communications, and utilitites	0	0	0	0	0
23.1	Rental payments to GSA	280	280	280	280	0
23.2	Rental Payments to others	0	0	0	0	0
23.3	Communications, utilities and misc charges	1	1	1	1	0
24	Printing and reproduction	0	0	0	0	0
25.1	Advisory and assistance services	76	76	76	76	0
25.2	Other services from non-Federal sources	3,250	1,278	1,278	1,240	(38)
25.3	Other goods and services from Federal sources	23	23	23	23	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	36	36	36	31	(5)
31	Equipment	113	113	113	113	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	93,062	75,180	75,572	67,959	(7,613)
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	0	0	0	0	0
44	Refunds	0	0	0	0	0
99	Total obligations	99,716	80,000	80,448	72,392	(8,056)

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
	Pos./BA	4	14,080	0	0	(4)	(14,080)
Sea Grant Aquaculture Research	FTE/Obl.	4	14,080	0	0	(4)	(14,080)

Sea Grant Aquaculture Research Termination (-$14,080, -4 FTE/ -4 Positions) – This program change is requested to support other NOAA and Administration priorities. This request zeroes out this investment in marine aquaculture research and development. This will eliminate OAR support for 1) development and commercialization of new technologies, including for finfish, shrimp, and oysters; 2) engineering of ocean-based infrastructure; and 3) partnerships that focus on conducting aquaculture research that provides affordable seafood to urban communities. NOAA will continue to provide technical assistance, science, data and information that may benefit the aquaculture community.

This proposed termination will result in the loss of four federal positions. NOAA will explore a range of options to address the reduction in staffing and will aim to transition these employees into new positions within the organization.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE PERSONNEL DETAIL

Activity: Ocean, Coastal, & Great Lakes Research
Subactivity: Sea Grant Aquaculture Research
Program Change: Sea Grant Aquaculture Research Termination

Title		Grade	Number	Annual Salary	Total Salaries
Management and Program Analyst		ZA-IV	(2)	112,015	($224,030)
Supervisory Management and Program Analyst		ZA-V	(1)	155,700	($155,700)
Communications Specialist		ZA-III	(1)	78,592	($78,592)
Total			(4)		(458,322)
Less lapse	0.00%		0		0
Total full-time permanent (FTE)			(4)		(458,322)
2025 Pay Adjustment (2.0%)					0
					(458,322)
Personnel Data Summary					
Full-time Equivalent Employment (FTE)					
Full-time permanent			(4)		
Total FTE			(4)		
Authorized Positions:					
Full-time permanent			(4)		
Total Positions			(4)		

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Ocean, Coastal, & Great Lakes Research
Subactivity: Sea Grant Aquaculture Research

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	435	458	458	0	(458)
11.3	Other than full-time permanent	0	0	0	0	0
11.5	Other personnel compensation	0	0	0	0	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	435	458	458	0	(458)
12	Civilian personnel benefits	130	137	140	0	(140)
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	20	20	20	0	(20)
22	Transportation of things	0	0	0	0	0
23	Rent, communications, and utilitites	0	0	0	0	0
23.1	Rental payments to GSA	0	0	0	0	0
23.2	Rental Payments to others	0	0	0	0	0
23.3	Communications, utilities and misc charges	0	0	0	0	0
24	Printing and reproduction	0	0	0	0	0
25.1	Advisory and assistance services	0	0	0	0	0
25.2	Other services from non-Federal sources	60	60	60	0	(60)
25.3	Other goods and services from Federal sources	4	4	4	0	(4)
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	0	0	0	0	0
31	Equipment	0	0	0	0	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	12,577	13,321	13,398	0	(13,398)
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	0	0	0	0	0
44	Refunds	0	0	0	0	0
99	Total obligations	13,226	14,000	14,080	0	(14,080)

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Ocean Exploration and Research	Pos./BA	38	46,353	38	25,320	0	(21,033)
	FTE/Obl.	36	46,353	36	25,320	0	(21,033)

Ocean Exploration and Research Grants Decrease (-$21,033, 0 FTE/ 0 Positions) – This program change is requested to support other NOAA and Administration priorities. At this level of funding, NOAA will support the foundational mission of NOAA's Ocean Exploration and Research to explore the unknown ocean, unlocking its potential through scientific discovery, technological advancements, and data delivery. Within available funding, NOAA will continue to invest in at-sea exploration, science, technology, education, and outreach, using the NOAA Ship *Okeanos Explorer*, as well as establish operational standards, best practices, and provide baseline information for new discoveries and lines of inquiry. NOAA will map, explore, and characterize previously unknown areas of our deep ocean, making discoveries of scientific, economic, and cultural value.

This decrease will eliminate grant funding for the NOAA Ocean Exploration Cooperative Institute, thereby ceasing exploratory cruises in the central Pacific; mapping unknown areas of the U.S. Exclusive Economic Zone; reducing by half the program's contributions to the National Ocean Mapping, Exploration and Characterization (NOMEC) Strategy goals; technological advancements of vehicles and sensors; and ongoing developments to advance access and usability of deep-water data and imagery. This reduction will also eliminate NOAA Ocean Exploration and Research's support for 'omics data processing and computation. Lastly, this reduction will eliminate NOAA Ocean Exploration and Research's contribution to the NOAA Center of Excellence for Operational Ocean and Great Lakes Mapping.

Schedule and Milestones:
FY 2025
- Reduce funding for Ocean Exploration and Research grants

FY 2026–2029
- Maintain support for highest priority activities within available Ocean Exploration and Research funding, to continue to explore the U.S. Exclusive Economic Zone aboard the NOAA Ship *Okeanos Explorer* with a transition to the NOAA Ship *Discoverer*,

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

and to maintain a repository of data collection standards and standard operating procedures that are recognized by the ocean community as the model of excellence for conducting deep-ocean exploration

Deliverables:

- Reduce funding for Ocean Exploration and Research grants

	2025	2026	2027	2028	2029
Performance Measures:					
Cumulative square nautical miles of deepwater ocean >200m) U.S. EEZ mapped					
With Decrease	115,000	115,000	115,000	115,000	100,000
Without Decrease	215,000	215,000	215,000	215,000	215,000
Outyear Costs:					
Direct Obligations	(21,033)	(21,033)	(21,033)	(21,033)	(21,033)
Capitalized	(0)	(0)	(0)	(0)	(0)
Uncapitalized	(21,033)	(21,033)	(21,033)	(21,033)	(21,033)
Budget Authority	(21,033)	(21,033)	(21,033)	(21,033)	(21,033)
Outlays	(12,830)	(18,719)	(19,771)	(20,612)	(21,033)
FTE	0	0	0	0	0
Positions	0	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Ocean, Coastal, and Great Lakes Research
Subactivity: Ocean Exploration and Research

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	3,648	3,838	3,915	3,915	0
11.3	Other than full-time permanent	0	0	0	0	0
11.5	Other personnel compensation	114	114	114	114	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	3,762	3,952	4,029	4,029	0
12	Civilian personnel benefits	1,290	1,357	1,384	1,384	0
13	Benefits for former personnel	11	11	11	11	0
21	Travel and transportation of persons	165	165	165	165	0
22	Transportation of things	8	8	8	8	0
23	Rent, communications, and utilitites	0	0	0	0	0
23.1	Rental payments to GSA	299	299	299	299	0
23.2	Rental Payments to others	6	6	6	6	0
23.3	Communications, utilities and misc charges	0	0	0	0	0
24	Printing and reproduction	2	2	2	2	0
25.1	Advisory and assistance services	5,813	5,109	5,205	5,205	0
25.2	Other services from non-Federal sources	1,367	1,367	1,367	1,367	0
25.3	Other goods and services from Federal sources	499	499	499	499	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	347	347	347	347	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	303	303	303	303	0
31	Equipment	28	28	28	28	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	33,602	32,547	32,700	11,667	(21,033)
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	0	0	0	0	0
44	Refunds	0	0	0	0	0
99	Total obligations	47,502	46,000	46,353	25,320	(21,033)

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM INCREASE FOR 2022
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
National Oceanographic Partnership Program (NOPP)	Pos./BA	1	2,515	1	990	0	(1,525)
	FTE/Obl.	1	2,515	1	990	0	(1,525)

National Oceanographic Partnership Program Decrease (-$1,525, 0 FTE/ 0 Position) – This program change is requested to support other NOAA and Administration priorities. At this level of funding, NOAA will continue to support the Ocean Research Advisory Panel (ORAP) and provide them with administrative and technical support as well as continuing to fund the NOPP Program Office contract, while closing out previous NOAA-awarded NOPP projects. This funding will enable NOAA to continue to support collaboration on ocean-related research projects across agencies and sectors-- a hallmark of NOPP. This decrease will eliminate financial contributions to NOAA-led NOPP projects, which have involved both Federal and non-Federal partners.

While NOAA manages the contract for the NOPP Program Office, NOAA and the Navy's Office of Naval Research fund the office jointly. The ORAP will continue to provide the Ocean Policy Committee of the NOPP with independent scientific advice and recommendations on national oceanographic matters.

Schedule and Milestones:
FY 2025
- Reduce funding for NOPP grants

FY 2026-2029
- Maintain support for highest priority activities within available NOPP funding, including maintaining the interagency working group's support services through the NOPP Program Office and providing White House-level federal advisory capacity through the Ocean Research Advisory Panel

Deliverables:
- Reduce funding for NOPP grants

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM INCREASE FOR 2022
(Dollar amounts in thousands)

	2025	2026	2027	2028	2029
Performance Measures:					
Cumulative number of projects supported using leveraged NOAA program funding and other federal agency resources					
With Decrease	0	0	0	0	0
Without Decrease	4	4	4	4	4
Outyear Costs:					
Direct Obligations	(1,525)	(1,525)	(1,525)	(1,525)	(1,525)
Capitalized	0	0	0	0	0
Uncapitalized	(1,525)	(1,525)	(1,525)	(1,525)	(1,525)
Budget Authority	(1,525)	(1,525)	(1,525)	(1,525)	(1,525)
Outlays	(930)	(1,357)	(1,434)	(1,495)	(1,525)
FTE	0	0	0	0	0
Positions	0	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Ocean, Coastal, and Great Lakes Research
Subactivity: National Oceanographic Partnership Program

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	55	58	59	59	0
11.3	Other than full-time permanent	0	0	0	0	0
11.5	Other personnel compensation	0	0	0	0	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	55	58	59	59	0
12	Civilian personnel benefits	23	24	24	24	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	0	0	0	0	0
22	Transportation of things	0	0	0	0	0
23	Rent, communications, and utilitites	0	0	0	0	0
23.1	Rental payments to GSA	0	0	0	0	0
23.2	Rental Payments to others	0	0	0	0	0
23.3	Communications, utilities and misc charges	0	0	0	0	0
24	Printing and reproduction	0	0	0	0	0
25.1	Advisory and assistance services	425	711	711	423	(288)
25.2	Other services from non-Federal sources	542	540	546	473	(73)
25.3	Other goods and services from Federal sources	0	0	0	0	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	5	5	5	5	0
31	Equipment	6	6	6	6	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	729	1,156	1,164	0	(1,164)
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	0	0	0	0	0
44	Refunds	0	0	0	0	0
99	Total obligations	1,785	2,500	2,515	990	(1,525)

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Activity: Innovative Research & Technology

Goal Statement

The Innovative Research and Technology accelerates the adoption and transition of advanced computing and technology throughout NOAA. Innovative Research and Technology supports High Performance Computing (HPC) initiatives through major improvements in weather and climate forecasting, ecosystem and ocean modeling, and environmental information dissemination.

Base Program

Innovative Research and Technology efforts provide NOAA with necessary computational and network resources required to support continued advances in environmental modeling capabilities. The purpose of the High Performance Computing and Communications program is to improve the accuracy and timeliness of NOAA's short-term weather warnings, seasonal forecasts, hurricane forecast improvements, as well as regional and global climate and weather predictions that are heavily dependent on major advances. Timely and responsive dissemination of NOAA's services and information requires full use of modern network and communication technologies.

The following Subactivities support Innovative Research & Technology:
- High Performance Computing and Communications: Supports the computing requirements for NOAA’s modeling and research missions.
- Uncrewed Systems: Supports the advancement of research and evaluation for operational readiness of a full spectrum of NOAA (aircraft and maritime) uncrewed systems (UxS) mission concepts.

Statement of Operating Objectives

Schedule and Milestones:
FY 2025 - FY 2029
- Complete migration of at least one operational model and one research model to next-generation architecture software structure

- Test impact of assimilation of new and proposed satellite observations using observing system simulation experiment and observing system experiment approaches using the operational Hurricane Weather Research and Forecast hybrid data assimilation system to improve hurricane intensity guidance
- Quantitative evaluation of (a) (statistically) downscaled climate projections for the U.S. and (b) their suitability for use in climate impacts and decision-making applications published in the peer-reviewed literature
- Participate in the Networking and information Technology Research and Development Program interagency activities
- Research and development (R&D) to support new and ongoing projects to advance operational readiness of UxS within NOAA

Deliverables:

- HPC System availability – 97 percent of computational hours made available to scientists
- 11 HPC and advanced networking R&D projects
- Conduct directed research and proposal solicitations for R&D related to promising new UxS concepts and technologies across all NOAA Line Offices
- Increase staffing capacity to effectively manage the R&D and transition activities

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

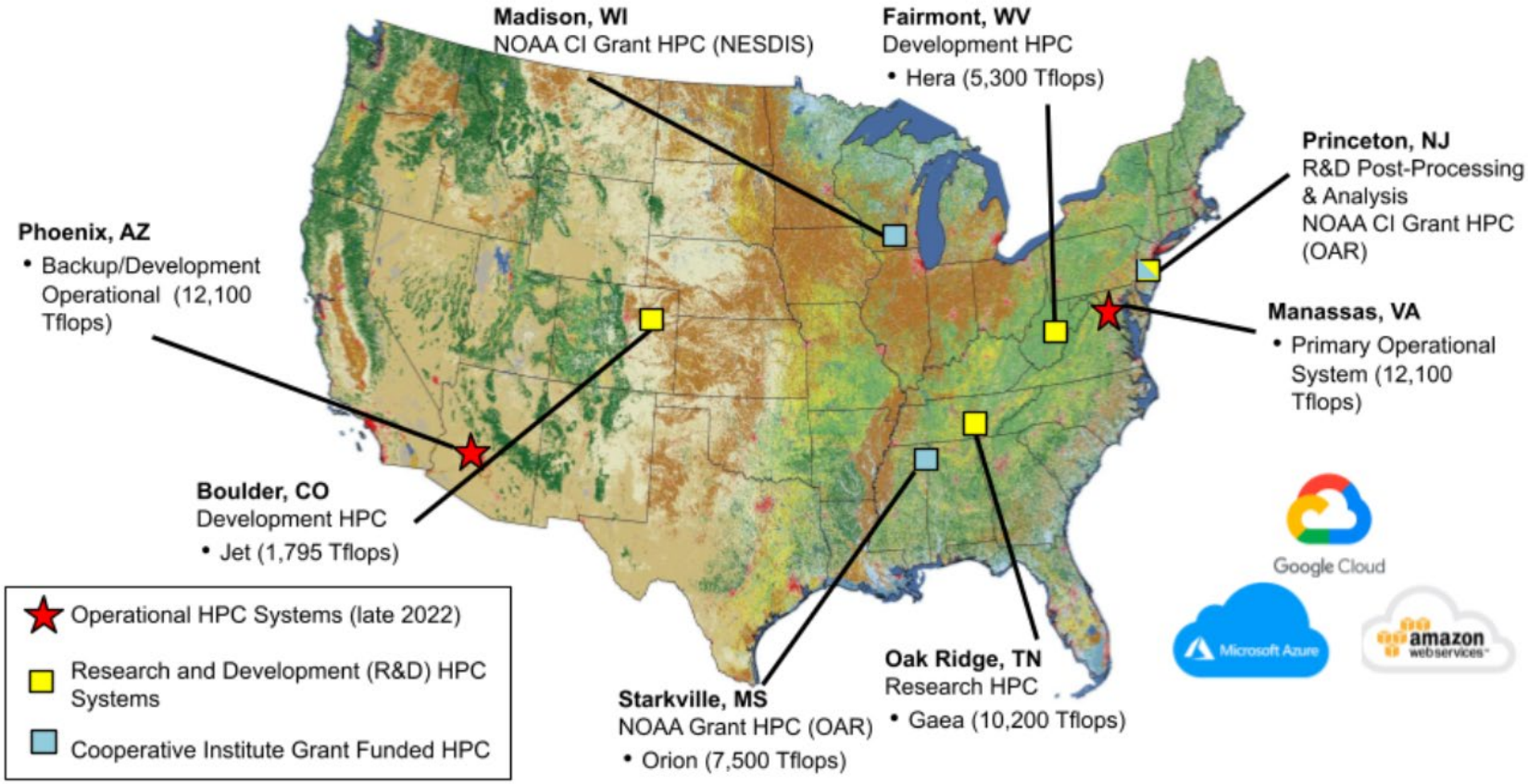
Explanation and Justification

Line Item		2023 Actual		2024 Annualized CR		2025 Base Program	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
High Performance Computing Initiatives	Pos/BA	16	18,102	17	18,231	17	18,378
	FTE/OBL	18	17,828	16	18,231	16	18,378
Uncrewed Systems	Pos/BA	2	999	3	1,000	3	1,012
	FTE/OBL	1	1,316	2	1,000	2	1,012
Total, Innovative Research & Technology	Pos/BA	18	19,101	20	19,231	20	19,390
	FTE/OBL	19	19,144	18	19,231	18	19,390

High Performance Computing Initiatives
HPC Initiatives, established through the *High-Performance Computing Act of 1991* (P.L. 102-194), improve the accuracy and timeliness of NOAA's short-term weather warnings, forecasts, hurricane forecast improvements, as well as regional and global climate and ecosystem predictions. HPC Initiatives provide necessary computational and network resources required to advance in environmental modeling capabilities across NOAA. In fact, every NOAA line office uses R&D HPC systems. Benefits of HPC Initiatives include:

- Improvements in short-term warning and weather forecast systems and models,
- Enabling scientists to attack long-lead time problems associated with the physical processes that govern the behavior of the atmosphere and ocean,
- Maintaining NOAA’s leadership position in understanding climate with applications towards critical issues such as hurricanes, drought, sea-level rise, and
- Accelerating modeling and simulation activities and providing relevant decision support information on a timely basis for programs.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)



Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Uncrewed Systems
The Uncrewed Systems (UxS) program allows NOAA to strategically move innovative R&D of UxS forward and through the transition process into NOAA operations, applications, and commercialization. The program invests in new concepts and technologies with an eye to the future. Broad usage of UxS across NOAA will more efficiently support NOAA's mission requirements of science, service, and stewardship and transform the ways that we understand and predict changes in climate, weather, oceans, and coasts for societal and economic benefits.

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisitions, and Construction
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Activity: Systems Acquisition

Goal Statement

Research Supercomputing:
Research Supercomputing provides sustained capability to the NOAA Research and Development (R&D) High Performance Computing System (HPC) to advance Earth system science and accelerate the development of regional and sub-regional information products and services.

Research Acquisitions and Management:
NOAA requires the acquisition and management of large scale research infrastructure in order to deliver the science and technology that establishes the basis of NOAA's climate, weather, and ocean products and services. By investing in this infrastructure, NOAA is investing in the future of the Nation by improving our ability to predict potential changes in global climate, provide earlier warnings about severe weather, and understand our oceans and Great Lakes natural resources and their influence on the Earth's weather and climate.

Base Program

NOAA's R&D HPC provides computational resources to support advances in environmental modeling crucial for understanding critical Earth system modeling issues. NOAA's environmental modeling enterprise underpins most of NOAA's products and services to the Nation. NOAA's R&D HPC assets are part of the critical infrastructure required for NOAA to accomplish its mission. NOAA's R&D HPC supports the NOAA user base in the geospatial and ecosystems research communities across the Agency. However, demand for HPC compute resources outweighs the supply currently. NOAA is exploring ways of mitigating this shortfall through other means such as cloud computing. NOAA currently has several pilots examining if cloud could be a possible solution to fill the supply and demand gap. Additionally, NOAA's research infrastructure is critical for the study of Earth's systems to better support NOAA's mission to understand and predict changes in climate, weather, ocean and coasts. This research will allow NOAA to make great strides in improving observations for severe weather, including fire weather, hurricanes, and flooding and eventually feed into observational forecasts.

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisitions, and Construction
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Statement of Operating Objectives

Schedule and Milestones and Deliverables:
FY 2025 - FY 2029

- High-resolution Earth System Model integrations publicly available for use in regional decision-making through federated data services
- Exploratory application of Earth System Models and subsequent demonstration of Earth system modeling applications using exascale high-performance computing platforms, which would be capable of at least one exaflop, or a thousand petaflops High-resolution integrations for prediction of seasonal tornado risks at multi-month lead times
- Improved credibility of projections of changes of important climatic quantities, such as regional climate change and extreme events, to allow society to efficiently plan for and adapt to climate change
- Capability to develop and provide decadal prototype forecasts and predictions made with high-resolution coupled climate model
- NOAA's environmental modeling applications able to utilize performance increases available through fine-grain architectures
- Sustain NOAA's R&D HPC computational resources which support advances in environmental modeling crucial for understanding critical Earth system modeling issues
- Prepare and carry out acquisition activities for rotating enhancement of current computational resources and infrastructure to return to a three-year technology refresh cycle within the established Research Supercomputing funding
- Acquire a dual polarization Phased Array Radar (PAR) to demonstrate and evaluate advanced techniques needed to perform the rapid updates required with a rotating planar array

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisitions, and Construction
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Explanation and Justification

Line Item		2023 Actual		2024 Annualized CR		2025 Base Program	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Research Supercomputing/CCRI	Pos/BA	4	69,805	4	70,000	4	70,000
	FTE/OBL	3	109,342	4	70,000	4	70,000
Research Acquisitions and Management	Pos/BA	0	29,970	0	30,000	0	30,000
	FTE/OBL	1	4,600	0	30,000	0	30,000
Total, Systems Acquisition	Pos/BA	4	99,775	4	100,000	4	100,000
	FTE/OBL	4	113,942	4	100,000	4	100,000

NOAA's R&D HPC provides computational resources to support advances in environmental modeling crucial for understanding critical Earth system modeling issues. This investment includes the supercomputing systems, associated storage devices, advanced data communications, hardware and software engineering services, security, and necessary data center space. NOAA currently operates three R&D HPCs:

- Gaea – Located at Oak Ridge National Laboratory in Oak Ridge, Tennessee, Gaea is primarily used for long-term climate and weather predictions and projections. Gaea powers research into the relationship between climate change and extreme weather. Gaea enables scientists to better understand the relationship between the atmosphere's chemical makeup and climate as well as the ocean's role in climate.
- Hera – Located in Fairmont, West Virginia, HERA more than doubles the previous Theia system with a total capacity of 3.27 petaflops. It supports development of weather modeling across OAR and NWS to improve the prediction of high-impact weather events and evaluate potential future directions for models and data assimilation.
- Jet – Located at the David Skaggs Research Center in Boulder, Colorado, Jet primarily supports the HPC needs of the Hurricane Forecast Improvement program, numerical weather prediction, and other weather research.

NOAA's R&D HPC also provides software engineering support and associated tools to re-architect NOAA's applications to run efficiently on next generation fine-grain HPC architectures. Through a focused effort, engineers investigate and test new algorithms,

train existing NOAA developers with new coding techniques, and assist these developers in accelerating the re-architecting of NOAA's applications. These software engineering efforts allow NOAA to take advantage of next-generation research computing technologies, but also help NOAA to more efficiently use its existing high performance computing assets.

NOAA's Research Acquisitions and Management program provides NOAA with the ability to acquire large-scale infrastructure for its world-class research which benefit the Nation. This program will acquire a rotating planar Phased Array Radar to perform risk reductions studies that will inform the NWS decision regarding their current radar system. PAR is a promising technology that could advance NOAA's current radars from 1988-based technology to radars that would be viable well into the 21st century and improve weather forecasts by improving warning times. Under the *Infrastructure Investment and Jobs Act of 2021*, NOAA's Research Acquisitions and Management Program is procuring mobile precipitation radars and Uncrewed Aircraft Systems platforms and sensors, in addition to constructing boundary layer profilers and mobile observation facilities. These activities will contribute to our understanding of wildfires and help to improve wildfire forecasts in the future.

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Research	Pos./BA	4	70,000	4	68,500	0	(1,500)
Supercomputing/CCRI	FTE/OBL	4	70,000	4	68,500	0	(1,500)

Research and Development (R&D) High Performance Computing (HPC) (-$1,500, 0 FTE/ 0 Positions) – This program change is requested to support other NOAA and Administration priorities. At this level of funding, NOAA will continue to provide computational resources to support advances in environmental modeling crucial for understanding critical Earth system modeling issues and will continue to provide software engineering support and associated tools to re-architect NOAA's applications to run efficiently on next generation HPC architectures. NOAA will continue to support R&D HPC activities using funding received from BIL and as allocated through IRA funds. This will allow NOAA to continue software engineering efforts to increase capacity and the usage of cloud platforms.

This request reduces the additional resources provided in the FY 2023 appropriations to develop artificial intelligence (AI) systems to more effectively utilize large, dense datasets produced by observation systems. NOAA will continue to support limited AI development to improve its weather, climate, and ocean numerical models.

Schedule and Milestones:
FY 2025
- Reduce funding for AI projects

FY 2026–2029
- Maintain support for highest priority activities such as workflow modernization, AI for numerical weather prediction, UFS Weather Model Infrastructure improvement, Exascale workflow development, and development of GPU tools specific to climate and weather models within available Research Supercomputing/CCRI funding

Deliverables:
- Reduce funding for AI projects

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

	2025	2026	2027	2028	2029
Performance Measures:					
Number of artificial intelligence (AI) projects in development to improve NOAA's weather, climate and ocean models.					
With Decrease	10	10	10	10	10
Without Decrease	15	15	15	15	15
Outyear Costs:					
Direct Obligations	(1,500)	(1,500)	(1,500)	(1,500)	(1,500)
Capitalized	0	0	0	0	0
Uncapitalized	0	0	0	0	0
Budget Authority	(1,500)	(1,500)	(1,500)	(1,500)	(1,500)
Outlays	(915)	(1,335)	(1,410)	(1,470)	(1,500)
FTE	0	0	0	0	0
Positions	0	0	0	0	0

Outyear Funding Estimates:

Research Supercomputing	2024 & Prior	2025	2026	2027	2028	2029	CTC	Total
Change from 2024 Base	N/A	(1,500)	(1,500)	(1,500)	(1,500)	(1,500)	N/A	N/A
Total Request	$596,644	68,500	68,500	68,500	68,500	68,500	N/A	Recurring

*Outyears are estimates. Future requests will be determined through the annual budget process.

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Systems Acquisition
Subactivity: Research Supercomputing/CCRI

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	412	433	442	442	0
11.3	Other than full-time permanent	0	0	0	0	0
11.5	Other personnel compensation	0	0	0	0	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	412	433	442	442	0
12	Civilian personnel benefits	123	129	132	132	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	0	0	0	0	0
22	Transportation of things	0	0	0	0	0
23	Rent, communications, and utilitites	0	0	0	0	0
23.1	Rental payments to GSA	0	0	0	0	0
23.2	Rental Payments to others	0	0	0	0	0
23.3	Communications, utilities and misc charges	509	509	509	509	0
24	Printing and reproduction	0	0	0	0	0
25.1	Advisory and assistance services	534	534	534	534	0
25.2	Other services from non-Federal sources	31,542	15,805	15,805	15,805	0
25.3	Other goods and services from Federal	68,868	45,236	45,224	43,724	(1,500)
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	276	276	276	276	0
31	Equipment	3,939	3,939	3,939	3,939	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	3,139	3,139	3,139	3,139	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	0	0	0	0	0
44	Refunds	0	0	0	0	0
99	Total obligations	109,342	70,000	70,000	68,500	(1,500)

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Research Acquisitions and Management	Pos./BA	0	30,000	0	0	0	(30,000)
	FTE/OBL	0	30,000	0	0	0	(30,000)

Phased Array Radar Research and Development Follow-On Plan (-$30,000, 0 FTE/ 0 Positions) – This request terminates funding for the PAR acquisition activities due to project completion. Funds received in FY 2023 and FY 2024 allowed NOAA to acquire a dual polarization PAR that will be used to demonstrate and evaluate advanced techniques needed to perform the rapid updates required with a rotating planar array. Continued ORF funding in the Tornado Severe Storm Research / Phased Array Radar PPA will allow NOAA to evaluate dual polarization PAR technology to meet NOAA's weather radar requirements.

Outyear Funding Estimates:

Research Acquisitions and Management	2024 & Prior	2025	2026	2027	2028	2029	CTC	Total
Change from 2024 Base	N/A	(30,000)	(30,000)	(30,000)	(30,000)	(30,000)	N/A	N/A
Total Request	70,000	0	0	0	0	0	N/A	70,000

*NOAA was appropriated $30,000 in FY 2023 for this purpose and requested a $10,000 increase above base in FY 2024, for a total request of $40,000 in FY 2024. The two-year total is $70,000. Outyears are estimates. Future requests will be determined through the annual budget process.

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM CHANGE DETAIL BY OBJECT CLASS

(Direct Obligations amounts in thousands)

Activity: Systems Acquisition
Subactivity: Research Acquisitions and Management

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	0	0	0	0	0
11.3	Other than full-time permanent	0	0	0	0	0
11.5	Other personnel compensation	0	0	0	0	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	0	0	0	0	0
12	Civilian personnel benefits	0	0	0	0	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	0	0	0	0	0
22	Transportation of things	6	6	6	0	(6)
23	Rent, communications, and utilitites	0	0	0	0	0
23.1	Rental payments to GSA	0	0	0	0	0
23.2	Rental Payments to others	0	0	0	0	0
23.3	Communications, utilities and misc charges	0	0	0	0	0
24	Printing and reproduction	0	0	0	0	0
25.1	Advisory and assistance services	0	0	0	0	0
25.2	Other services from non-Federal sources	1,147	26,547	26,547	0	(26,547)
25.3	Other goods and services from Federal sources	0	0	0	0	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	556	556	556	0	(556)
31	Equipment	1,967	1,967	1,967	0	(1,967)
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	924	924	924	0	(924)
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	0	0	0	0	0
44	Refunds	0	0	0	0	0
99	Total obligations	4,600	30,000	30,000	0	(30,000)

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Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service
Budget Estimates, Fiscal Year 2025

Executive Summary

For FY 2025, NOAA requests a total of $1,367,376,000 and 4,335 FTE/ 4,401 positions for the National Weather Service (NWS), including a net decrease of $20,077,000 and a net increase of 2 FTE/ 3 positions in program changes.

The FY 2025 budget submission continues to work towards making the United States a Weather-Ready Nation (WRN); meeting the changing and increasing needs for weather, water, and climate forecasts and warnings; and transforming the way people receive, understand, and act on our information. In FY 2023, NWS released its 2023-2033 Strategic Plan detailing actions to transform NWS under the three key themes of our People, our Infrastructure, and our Future and initiated the development of a road map to achieve the vision of the strategic plan. As embodied in the NWS Strategic Plan and in alignment with the *Weather Research and Forecasting Innovation Act of 2017* (P.L. 115-25), the NWS is transforming into a more nimble, flexible, and mobile agency that works eye-to-eye with critical decision makers to provide impact-based decision support services (IDSS) and life-saving products and services to the emergency management community and the public as they prepare for and respond to oncoming weather, water and climate events.

Resilient and reliable infrastructure is the foundation to NWS' transformative efforts. The United States has seen an average of 20 billion-dollar weather and climate disasters over the last three years; an exponential increase from the average of 6.7 events per year in the early 2000s. As this number continues to increase, the demand for IDSS from the NWS continues to grow. To meet this demand, NWS must ensure access to technology and tools that enable NWS personnel to provide weather, water and climate services to decision makers anytime, anywhere. NWS also must maintain a strong dissemination infrastructure so it can communicate essential warnings and forecasts to the American public. With these needs in mind, NWS is focused on its Advanced Weather Interactive Processing System (AWIPS) system and Integrated Dissemination Program (IDP). AWIPS is an interactive computer system that integrates all meteorological and hydrological data with satellite and radar imagery and is the cornerstone of NWS' forecast and warning issuance. Transforming AWIPS to a cloud framework will give forecasters efficient, secure remote access to the system, therefore allowing them to be more nimble and flexible in providing IDSS in embedded partner locations. IDP infrastructure collects and distributes life-saving watches, warnings, advisories, data, and products internally and externally. To fulfill its mission, NWS must maintain recent investments as well as fund regular IDP hardware upgrades and software maintenance to reduce system outages to achieve and maintain 99 percent availability of Primary Mission Essential Functions on IDP.

Consistent with the updated NWS Strategic Plan, FY 2025 investments are focused on enhancing the protection of life and property by empowering our people, improving our infrastructure, and looking towards the future. NWS will maintain recent investments to optimize the IDP in accordance with the plan provided to Congress, allowing NWS to reliably and quickly deliver critical observations, model guidance, forecasts, and watch and warning information to NWS meteorologists, emergency management partners, the

Weather Enterprise, and the public. NWS will leverage efforts started using Bipartisan Infrastructure Law funding to transform AWIPS into a modern, extensible framework by utilizing cloud-based technologies, allowing the provision of IDSS anytime, anywhere. In addition, NWS will address critical improvements needed to its Tsunami Warning Program to ensure mission delivery. Tsunamis, while relatively rare events, are unpredictable and extremely high impact with potentially disastrous consequences to life and property along the already vulnerable U.S. coastlines.

Significant Adjustments:

Inflationary Adjustments
NOAA's FY 2025 Base includes a net increase of $23,446,000 and 0 FTE/ 0 positions to account for the full funding requirement for certain inflationary adjustments to current programs for NWS activities. This includes inflationary increases for labor and non-labor activities including benefits and rent charges from the General Services Administration.

Department of Commerce
National Oceanic and Atmospheric Administration
PROGRAM AND PERFORMANCE: DIRECT OBLIGATIONS
(Dollar amounts in thousands)

		2023 Actual		2024 Annualized CR		2025 Base		2025 Estimate		Increase/Decrease from 2025 Base	
National Weather Service (NWS)		Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
Observations	Pos/BA	707	259,666	725	251,462	725	255,601	725	254,964	0	(637)
	FTE/OBL	687	253,555	712	251,462	712	255,601	712	254,964	0	(637)
Central Processing	Pos/BA	216	120,471	231	110,500	231	112,113	234	112,754	3	641
	FTE/OBL	213	118,263	221	110,500	221	112,113	223	112,754	2	641
Analyze, Forecast and Support	Pos/BA	2,848	588,594	2,846	589,500	2,846	603,491	2,846	599,741	0	(3,750)
	FTE/OBL	2,854	585,228	2,846	589,500	2,846	603,491	2,846	599,741	0	(3,750)
Dissemination	Pos/BA	84	116,494	93	116,979	93	118,126	93	134,573	0	16,447
	FTE/OBL	87	117,681	85	116,979	85	118,126	85	134,573	0	16,447
Science and Technology Integration	Pos/BA	429	200,007	471	178,952	471	181,508	471	161,144	0	(20,364)
	FTE/OBL	424	218,237	438	178,952	438	181,508	438	161,144	0	(20,364)
NOAA Community Project Funding/NOAA Special Projects	Pos/BA	0	7,265	0	7,265	0	7,265	0	0	0	(7,265)
	FTE/OBL	0	7,415	0	7,265	0	7,265	0	0	0	(7,265)
Total NWS – ORF	**Pos/BA**	**4,284**	**1,292,497**	**4,366**	**1,254,658**	**4,366**	**1,278,104**	**4,369**	**1,263,176**	**3**	**(14,928)**
	FTE/OBL	**4,265**	**1,300,379**	**4,302**	**1,254,658**	**4,302**	**1,278,104**	**4,304**	**1,263,176**	**2**	**(14,928)**
Systems Acquisition	Pos/BA	31	95,251	31	95,849	31	95,849	31	94,200	0	**(1,649)**
	FTE/OBL	25	124,550	30	95,849	30	95,849	30	94,200	0	**(1,649)**
Construction	Pos/BA	1	13,159	1	13,500	1	13,500	1	10,000	0	**(3,500)**
	FTE/OBL	1	7,824	1	13,500	1	13,500	1	10,000	0	**(3,500)**
Total NWS – PAC	**Pos/BA**	**32**	**108,410**	**32**	**109,349**	**32**	**109,349**	**32**	**104,200**	**0**	**(5,149)**
	FTE/OBL	**26**	**132,374**	**31**	**109,349**	**31**	**109,349**	**31**	**104,200**	**0**	**(5,149)**
NWS Inflation Reduction Act (ORF)	Pos/BA	0	0	0	0	0	0	0	0	0	**0**
	FTE/OBL	0	910	0	0	0	0	0	0	0	**0**
NWS Inflation Reduction Act (PAC)	Pos/BA	0	0	0	0	0	0	0	0	0	**0**
	FTE/OBL	0	1,545	0	0	0	0	0	0	0	**0**
Total NWS	**Pos/BA**	**4,316**	**1,400,907**	**4,398**	**1,364,007**	**4,398**	**1,387,453**	**4,401**	**1,367,376**	**3**	**(20,077)**
	FTE/OBL	**4,291**	**1,435,208**	**4,333**	**1,364,007**	**4,333**	**1,387,453**	**4,335**	**1,367,376**	**2**	**(20,077)**

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
NOAA Community Project Funding/ NOAA Special Projects	Pos./BA	0	7,265	0	0	0	(7,265)
	FTE/OBL	0	7,265	0	0	0	(7,265)

Terminate NOAA Community Project Funding/NOAA Special Projects (-$7,265, 0 FTE/ 0 Positions) - This program change removes funding for one-time congressionally directed projects provided in the FY 2023 enacted bill.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Activity: Observations

Goal Statement

NWS relies on environmental and climatological observations, from the surface of the sun to the bottom of the sea, to meet its forecast and warnings mission. NWS integrates *in situ* and remotely-sensed data from NOAA-managed systems, partner systems, and non-Federal sources such as commercial data buys. These systems include radars, satellites, upper air, marine, and surface-based systems that support statutory mandates and the Department of Commerce 2022-2026 Strategic Plan, Strategic Objective 3.1: Increase the impact of climate data and services for decision makers through enhanced service delivery and improved weather, water, and climate forecasts.

Base Program

Funding from this Activity is used to operate and maintain all NWS observing systems, evaluate observational requirements, engineer technical solutions, perform systems development and testing, and purchase additional observational data from select third-party vendors. Together, these systems and the additional data provide critical infrastructure that enable forecasters to identify emerging threats, characterize their severity, and provide detailed warnings and forecasts.

Observing systems must support warning and forecasting in all mission service areas of the NWS including aviation weather, severe weather, space weather, marine weather, tropical weather, fire weather, climate and more. All of these systems measure different phenomena from different perspectives, such as ground or air or remote sensing, and they all complement each other to form a holistic picture of the environment. By gathering information from multiple sources, NWS ensures the most complete data picture possible.

Specific activities in Observations include:

- Manage operations and maintenance of NWS observational systems;
- Provide holistic, ongoing assessments/analyses of the observing systems portfolio to optimize resource allocation;
- Identify, support, and manage NWS' observation requirements;
- Seek solutions to fulfill NWS' observation requirements;
- Develop a strategy to maximize effectiveness while minimizing cost; and,
- Coordinate NWS' observing system activities within NOAA and with its partners.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Statement of Operating Objectives

Schedule and Milestones
FY 2025 – FY 2029

- Sustain the tri-agency Next Generation Weather Radar (NEXRAD) radar network in support of severe weather, winter, and tropical cyclone warnings and forecasts
- Sustain the radiosonde, NOAA profiler, and aircraft reporting networks in support of upper air observations and modeling
- Sustain the tri-agency Automated Surface Observing System (ASOS) in support of aviation, climate, and other services
- Operate and maintain Coastal Weather Buoys, Coastal Marine Automated Networks (C-MAN), Pacific Ocean Tropical Atmosphere Ocean (TAO) buoy array, and Deep-ocean Assessment and Reporting of Tsunamis (DART) in support of marine, tropical, tropical cyclone, and tsunami warnings and forecasts
- Sustain data processing of the National Solar Observatory's Global Oscillation Network Group (GONG) and observatory in support of space weather warnings and forecasts
- Sustain the Cooperative Observer Program (COOP) in support of climate and other services
- Sustain the Voluntary Observing Ships program in support of marine weather
- Develop, test, and deploy NEXRAD Radar Product Generator and Radar Data Acquisition Software Builds
- Develop, test, and deploy Terminal Doppler Weather Radar (TDWR) Supplemental Product Generator (SPG) Builds
- Develop, test, and deploy NOAA Profiler Network Software Builds
- Sustain the Meteorological Assimilation Data Ingest System
- Transition legacy General Services Administration circuits supporting NEXRAD and ASOS to the Enterprise Infrastructure Solutions

Deliverables

- Support operations of 122 NEXRAD systems at 96 percent availability
- Support operations of 45 Federal Aviation Administration (FAA) TDWR SPG systems
- Support operations of 102 radiosonde stations in the United States and its territories, and Pacific Island nations, maintaining 90 percent availability
- Support operations and maintenance of 308 NWS, 570 FAA, and 78 Department of Defense (DoD) ASOS units under a reimbursable funding agreement at 96 percent availability
- Support operations of 93 Coastal Weather Buoys systems at 80 percent availability

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

- Support operations of 40 C-MAN stations at 80 percent availability
- Support operations of 39 DART buoys at 70 percent availability
- Support operations of the TAO buoy array at 70 percent availability
- Continuity of GONG data to the Space Weather Prediction Center
- Support operations of three Wind Profiler systems in Alaska at 96 percent availability
- Support transition of the Multi-Radar/Multi-System sustainment to NWS
- Oversee continued observational data purchasing
- Leverage data flow from aircraft observations commercial data purchases
- Maintain National Mesonet Program Office and leverage data flow from commercial environmental data purchases
- Leverage data flow from commercial lightning data purchases
- Leverage data flow from ship, vessel, or other marine surface meteorological and oceanographic observations data purchases
- Support strategic and tactical ice analysis services for the tri-agency U.S. National Ice Center by leveraging data from foreign satellite data purchases and providing support for the International Arctic Buoy Program
- Increase interoperability of observation data formats with key international partners
- Provide maintenance, repair, quality assurance, and warehousing of new and reconditioned parts;
- Develop and maintain software for observing systems;
- Perform system and operational tests and evaluation of alternative systems; and,
- Continue the transition of legacy circuits supporting NEXRAD and ASOS inventory to the Enterprise Infrastructure Solutions

Explanation and Justification

		2023 Actual		2024 Annualized CR		2025 Base Program	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
	Pos/BA	707	259,666	725	251,462	725	255,601
Observations	FTE/OBL	687	253,555	712	251,462	712	255,601

In FY 2025, the Observations portfolio will support the observing systems, such as the NEXRAD, ASOS, and radiosondes that collect data necessary to provide weather forecasts, warnings, and outlooks. They will operate and maintain multiple networks of

weather/ocean buoys, and develop, test and deploy software builds for the NEXRAD Radar Product Generator and Radar Data Acquisition, the TDWR SPG, and the NOAA Profiler Network. They will also identify, and demonstrate as appropriate, alternative sources of observations that complement the NWS' core observational capabilities.

NWS is maintaining an average C-MAN and weather buoy availability rate of 80 percent, TAO and DART buoy availability of 70 percent, a NEXRAD system availability rate of 96 percent, radiosonde system availability of 90 percent, and an ASOS system availability rate of 96 percent.

Under Observations, NWS maintains the following programs to accomplish this activity:

Upper Air Observations Program provides a vertical profile of meteorological data across the Earth's atmosphere. To provide humidity, pressure, and other data that inform weather forecasts, NWS operates a radiosonde network, acquires observations from private and commercial aircraft, acquires lightning data from commercial vendors, and operates a wind profiler network in Alaska. In addition, the program provides for critical, terrestrial-based space weather observations.

- Each year, NWS launches over 78,000 radiosondes from locations throughout the United States (U.S.) and its territories, including the Caribbean and Pacific Island nations. Radiosondes provide atmospheric profiles of pressure, temperature, relative humidity, and winds aloft. These data are critical inputs for NWS weather prediction models and forecaster operations supporting severe storm, aviation and marine forecasts, and climate and other research uses. Radiosondes also serve to provide a critical reference for satellite-sounding data, enabling a global picture of the atmosphere.
- The Aircraft-Based Observations program procures vertical atmospheric profiles of wind and temperature from 3,500 aircraft providing a vertical profile similar to a rawinsonde. Aircraft record wind and temperature observations every few seconds, on ascent and descent near airports, and at cruise level, a wind and temperature observation are provided every 14 minutes. Additionally, a subset of 135 of the 3,500 aircraft are equipped with a high-quality water vapor instrument NWS developed and installed in partnership with industry to collect data over the continental U.S. Aircraft-based observation profiles are the most important source of observations for the skill of hourly high-resolution numerical weather prediction over the continental U.S., and the third most important for global numerical weather prediction.
- The Alaskan NOAA Profiler Network consists of three Doppler radar sites providing continuous vertical wind profile data. The most critical use of the Alaska profiler network is to support the production of aviation warnings of volcanic ash, which can cause catastrophic engine failure for aircraft in flight.
- NWS supports the National Solar Observatory's GONG, which consists of six ground-based observatories strategically placed around the globe so that at least one site has the opportunity to observe the sun at all times.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Radar Observations Program provides meteorological data about winds, clouds, and precipitation that provide real-time information to forecasters for issuing severe weather warnings, with guidance on storm impacts, quantitative precipitation estimates and severity. To produce timely and accurate storm data, NWS operates 122 NEXRADs and acquires supplementary radar data from other sources.

- NEXRAD is a tri-agency weather radar system with NWS, the DoD, and FAA. NEXRAD is the primary tool used by NOAA's meteorologists for issuing warnings for flash floods, tornadoes, and severe thunderstorms.
- NWS leverages other radar data sources such as the FAA's TDWR to supplement the NEXRAD network to ensure adequate national radar coverage.

Surface Observations Program provides meteorological data at the Earth's surface. To provide on-the-ground observations, NWS operates the ASOS, the COOP, and the National Mesonet Program.

- ASOS is the Nation's primary surface weather observing network supporting aviation operations and the needs of the meteorological, hydrological, and climatological research communities. ASOS is a tri-agency automated surface observation system with NWS, FAA, and DoD and consists of 956 operational systems.
- COOP is a network of volunteer observers providing a significant and cost-effective source of climate and weather data. The COOP data are the primary data utilized in the NWS snowfall forecast guidance.
- The National Mesonet Program is a network of automated weather stations located in areas most susceptible to severe weather and data sparse regions and installed closely together to gather "mesoscale meteorological" observations such as temperature, humidity, lightning, and atmospheric pressure. Due to their proximity to each other, mesonet data can identify small-scale features at the surface that can indicate rapidly deteriorating weather conditions not shown by other observations.

Marine Observations Program provides real-time meteorological, oceanographic, climatological, and tsunami *in situ* observations in the open ocean and coastal zones surrounding the U.S. and the equatorial Pacific Ocean. NWS operates the Weather and Ocean Platform network, the TAO buoy array, the DART buoy networks which includes the Voluntary Observing Ship (VOS) program.

- The Coastal Weather Buoys and C-MAN stations are meteorological and ocean observing platforms that provide real-time, *in situ*, marine meteorological, oceanographic, and geophysical observations. The 93 moored Coastal Weather Buoys and 40 land-based C-MAN stations operate in the coastal U.S. and offshore waters from the western Atlantic, Gulf of Mexico, and Caribbean Sea to the western Pacific around Hawai'i, to the Bering Sea, and in the Great Lakes. The buoys and C-MAN stations provide forecasters and the public with frequent, high-quality marine observations for forecast and warning preparation (including for hurricanes) and to verify forecasts after they are produced. Other users rely on the observations and forecasts for commercial and recreational activities.

- The TAO buoy array in the equatorial Pacific Ocean is designed for the study of sub-seasonal to seasonal and year-to-year climatic variations related to El Niño and the Southern Oscillation that can have tremendous impact on the Nation's weather. These data are used to produce NWS' seasonal outlooks. Like shorter-term forecasting, the study of this variability enables more rapid prediction of climate anomalies that may result in hazardous weather conditions within the United States. The array consists of 55 moored ocean buoys and four Acoustic Doppler Current Profilers.
- The DART buoy network, located along the 'ring of fire' throughout the Pacific Ocean, and in the Atlantic Ocean, Caribbean Sea, and Gulf of Mexico, collects observational data that is used by NWS Tsunami Warning Centers to prepare and refine tsunami watches and warnings covering all U.S. territories and coastal states.
- The VOS program obtains meteorological and oceanographic observations from ships in both coastal and high seas areas to improve tropical and marine watches and warnings, as well as global weather models, and informs local ocean surface conditions. It is supported by NWS Port Meteorological Officers located at twelve major port cities across the country.

Systems Engineering and Support provides systems acquisition, engineering, and logistics support for NWS mission critical observing systems, as well as the functional expertise necessary to design, acquire, test, and provide life cycle support. Actions include:

- Performing system engineering and acquisition to support operational weather systems.
- Planning, coordinating, and implementing hardware modifications, retrofits, and rehabilitation programs to meet changing program requirements and improve system performance.
- Directing product identification, configuration control, auditing, and status accounting for all systems that are under formal NWS Configuration Management control.
- Prescribing and managing efficient logistics for stocking levels (i.e., level of stock needed to balance the need for the part, without carrying the overhead of having unneeded items on hand) and ensuring procurement of initial and replenishment spares for depot-level stock (i.e. required level of on-hand spare parts inventory needed to repair a particular system or system component).
- Warehousing and shipment of supplies and replacement parts for NWS observing systems to support maintenance and repair.
- Supports NOAA-owned Sterling Field Support Center which is a critical facility on 230 acres for testing and evaluating quality of weather instruments, direct operational field support for several observing systems, and training support. Site also serves as the alternate location for Emergency Continuity of Operations ("Site B") for NOAA and NWS Headquarters.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Increase from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
	Pos/BA	725	255,601	725	260,101	0	4,500
Observations	FTE/OBL	712	255,601	712	260,101	0	4,500

AWIPS in the Cloud - Data Flows (+$4,500, 0 FTE/ 0 Positions) - NOAA requests an increase to transform the Advanced Weather Interactive Processing System (AWIPS), and the underlying infrastructure into a modern, extensible framework by utilizing cloud-based technologies. The total NWS request for this initiative is $11,000, to include $4,500 in Observations, $1,500 for Central Processing [NWS-26], and $5,000 for Dissemination [NWS-56].

The United States has seen an average of 20 billion-dollar weather and climate disasters over the last three years; an exponential increase from the average of 6.7 events per year in the early 2000s. As this number continues to increase, the demand for impact-based decision support services (IDSS) from the NWS continues to grow. Decision makers are asking the NWS to provide this support face-to-face in emergency operations centers, at the scene of disasters, and at the front lines of the hazards. Transforming NWS's current network of systems - AWIPS - to a cloud framework is crucial to meeting these needs and achieving the NWS's goal to move towards a more nimble, flexible, and mobile agency that can respond to decision makers anytime, anywhere.

AWIPS is currently a network of systems originally developed and deployed in the 1990s at more than 170 NWS Offices and National Centers across the country and territories to enable the generation of life-saving forecasts and warnings. The current design of this system is highly reliable, which is critical to the issuance of timely life-critical warnings. However, this 30 year old system architecture has shortcomings that developed over time in its ability to keep up with access to exponentially growing amounts of data. This has resulted in the increased complexity of providing alternative telecommunications, impacts to the ability to efficiently infuse innovations into operations, and limits to the NWS' ability in ensuring forecasters have efficient secure remote access for IDSS in embedded partner locations.

Shifting AWIPS to cloud-based technology will enable the NWS to accomplish a number of efficiencies and cyber security improvements, while enabling more rapid transition of future functionality into operations. By moving AWIPS to a cloud infrastructure,

the exponentially increasing amount of observational data (e.g., satellite and radar data) and model data can be stored and processed in the cloud. This would relieve some of the need to have complex local computing systems at each NWS site and allow forecasters to access data and tools from anywhere. In addition, since the NWS maintains AWIPS as open source software, implementing a cloud-based AWIPS will also have benefits to other Federal agencies and academic institutions who utilize AWIPS operationally or for research. A highly reliable, full-scale AWIPS cloud configuration would be implemented in FY 2029.

Observations requires $4,500 to plan and migrate the flow of data from observational platforms to AWIPS in the cloud. This includes: developing a concept of operations; planning and demonstrating updated data flows from radar, marine, upper air and surface observing platforms; migrating connections and data flows to new circuits; and integrating and testing observations into the AWIPS in the Cloud capability. The modifications will support data exchange with partners and include the rearchitecting and provision of data to the NESDIS Common Cloud Framework for archive.

Schedule and Milestones
FY 2025 - FY 2029

- Develop a concept of operations for observations data flow to the cloud
- Conduct a study to investigate decoupling remote radars from their primary WFOs, as well as the FAA & DoD WSR-88Ds operated by WFOs; finalize and select a decoupling solution or network redesign; and implement solution
- Plan, design, and implement the transition of the 45 TDWR SPGs to the cloud
- Investigate, plan, and finalize the redesign of the Radar Product Generator (RPG) to separate the hardware command and control functionality to allow migration of the product generation capability to the cloud
- Investigate and develop a detailed plan how central data collection will intersect to support operational radar data in the cloud
- Investigate and develop a detailed plan for implementing the current two-way communications between the RPG and AWIPS and identify impacts or improvements for cloud implementation
- Plan, design, and implement the transition of upper air sites to the cloud
- Plan, design, and implement the transition of ASOS to the cloud
- Plan, design, and implement the transition of marine observations to the cloud
- Plan, design, and implement archive of observations in the NESDIS Common Cloud Framework
- Update IT Security documentation to reflect new network and system configurations

Deliverables

- Creation of a mobile AWIPS framework that enables NWS to support decision makers anytime, anywhere

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

- Modernized NWS network enabling resilient and mobile connectivity of NWS personnel to AWIPS in the Cloud
- Timely access to observational data and forecast guidance from common cloud environment

Performance Measures	2025	2026	2027	2028	2029
Percentage of offices with mobile and resilient network infrastructure to access AWIPS in the Cloud					
With Increase	10	35	60	85	100
Without Increase	0	0	0	0	0
Percentage of NWS observing platforms enabled to provide data to the cloud					
With Increase	10	35	60	85	100
Without Increase	5	5	5	5	5
Outyear Costs:					
Direct Obligations	4,500	4,500	4,500	4,500	4,500
Capitalized	0	0	0	0	0
Uncapitalized	4,500	4,500	4,500	4,500	4,500
Budget Authority	4,500	4,500	4,500	4,500	4,500
Outlays	2,745	4,005	4,230	4,410	4,500
FTE	0	0	0	0	0
Positions	0	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Observations
Subactivity: Observations

	Object Class	2023 Actual	FY 2024 Annualized CR	2025 Base	2025 Estimate	Increase from 2025 Base
11.1	Full-time permanent compensation	78,324	77,677	79,822	79,822	0
11.3	Other than full-time permanent	102	101	104	104	0
11.5	Other personnel compensation	2,587	2,566	2,637	2,637	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	81,013	80,344	82,563	82,563	0
12	Civilian personnel benefits	33,650	33,372	34,277	34,277	0
13	Benefits for former personnel	38	38	38	38	0
21	Travel and transportation of persons	777	771	800	800	0
22	Transportation of things	3,494	3,465	3,548	3,548	0
23	Rent, communications, and utilities	0	0	0	0	0
23.1	Rental payments to GSA	6,242	6,190	6,291	6,291	0
23.2	Rental Payments to others	3,951	3,918	3,982	3,982	0
23.3	Communications, utilities and misc charges	12,073	11,973	12,169	12,169	0
24	Printing and reproduction	25	25	26	26	0
25.1	Advisory and assistance services	28,322	28,088	28,079	28,079	0
25.2	Other services from non-Federal sources	53,983	53,537	53,520	58,020	4,500
25.3	Other goods and services from Federal sources	1,813	1,798	1,797	1,797	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	352	349	349	349	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	23,598	23,403	23,941	23,941	0
31	Equipment	1,150	1,141	1,172	1,172	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	3,066	3,041	3,041	3,041	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	9	9	9	9	0
44	Refunds	0	0	0	0	0
99	Total Obligations	253,555	251,462	255,601	260,101	4,500

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
	Pos/BA	725	255,601	725	250,464	0	(5,137)
Observations	FTE/OBL	712	255,601	712	250,464	0	(5,137)

Reduce National Mesonet Program (-$5,137, 0 FTE/ 0 Positions) – This program change is requested to support other NOAA and Administration priorities. NWS will sustain a core set of ongoing activities and procurement of non-Federal surface and near-surface mesonet observational data from external partners. The program will continue to provide technical assistance to partners and will work closely with them to ensure it delivers the critical information required for improved weather prediction and warnings across the United States.

Schedule and Milestones
FY 2025-2029

- Sustain the highest priority requirements to the National Mesonet Program capabilities and infrastructure to continue availability at 99 percent or greater of observations purchased under this program

Deliverables

- Maintain the core of the National Mesonet Program and high-quality observations that support severe weather watches and warnings
- Maintain at least 99 percent availability of observational data within this program

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

Performance Measures	2025	2026	2027	2028	2029
Number of high-quality Mesonet observation platforms					
With Decrease	6,300	6,300	6,300	6,300	6,300
Without Decrease	7,500	7,500	7,500	7,500	7,500
Outyear Costs:					
Direct Obligations	(5,137)	(5,137)	(5,137)	(5,137)	(5,137)
Capitalized	(5,137)	(5,137)	(5,137)	(5,137)	(5,137)
Uncapitalized	0	0	0	0	0
Budget Authority	(5,137)	(5,137)	(5,137)	(5,137)	(5,137)
Outlays	(3,134)	(4,572)	(4,829)	(5,034)	(5,137)
FTE	0	0	0	0	0
Positions	0	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Observations
Subactivity: Observations

	Object Class	2023 Actual	FY 2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	78,324	77,677	79,822	79,822	0
11.3	Other than full-time permanent	102	101	104	104	0
11.5	Other personnel compensation	2,587	2,566	2,637	2,637	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	81,013	80,344	82,563	82,563	0
12	Civilian personnel benefits	33,650	33,372	34,277	34,277	0
13	Benefits for former personnel	38	38	38	38	0
21	Travel and transportation of persons	777	771	800	800	0
22	Transportation of things	3,494	3,465	3,548	3,548	0
23	Rent, communications, and utilities	0	0	0	0	0
23.1	Rental payments to GSA	6,242	6,190	6,291	6,291	0
23.2	Rental Payments to others	3,951	3,918	3,982	3,982	0
23.3	Communications, utilities and misc charges	12,073	11,973	12,169	12,169	0
24	Printing and reproduction	25	25	26	26	0
25.1	Advisory and assistance services	28,322	28,088	28,079	28,079	0
25.2	Other services from non-Federal sources	53,983	53,537	53,520	48,383	(5,137)
25.3	Other goods and services from Federal sources	1,813	1,798	1,797	1,797	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	352	349	349	349	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	23,598	23,403	23,941	23,941	0
31	Equipment	1,150	1,141	1,172	1,172	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	3,066	3,041	3,041	3,041	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	9	9	9	9	0
44	Refunds	0	0	0	0	0
99	Total Obligations	253,555	251,462	255,601	250,464	(5,137)

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Activity: Central Processing

Goal Statement

Central Processing is the second step in the NWS forecast process. Through this Activity, NWS ingests data obtained from observing infrastructure and delivers it in a usable form to NWS modelers and meteorologists in support of the Department of Commerce 2022-2026 Strategic Plan, Strategic Objective 3.1: Increase the impact of climate data and services for decision makers through enhanced service delivery and improved weather, water, and climate forecasts.

Base Program

Activities under Central Processing include managing the Weather and Climate Operational Supercomputing System (WCOSS), the Advanced Weather Interactive Processing System (AWIPS), hydrology information technology initiatives, and the information technology (IT) infrastructure that supports national centers and field operations. Together these ensure the uninterrupted flow of information from collection of observations to central guidance production and local access to all essential weather and climate data products.

Specific activities in Central Processing include:

- Operate NWS' IT processing infrastructure;
- Sustain reliability of NWS' IT processing by keeping infrastructure up to date;
- Identify NWS' processing requirements and gaps;
- Review NWS' processing system capabilities;
- Seek solutions to fulfill NWS processing requirements;
- Coordinate NWS' processing system activities across NOAA; and,
- Maintain a 24/7 help desk for all forecast systems.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Statement of Operating Objectives

Schedule and Milestones

FY 2025 – FY 2029

- Manage high performance computing usage, reliability, and resources including a major system upgrade
- Support scheduled improvements to National Centers for Environmental Prediction (NCEP) production suite
- Maintain updated AWIPS architecture and infrastructure at National Centers, Weather Forecast Offices (WFOs), River Forecast Centers (RFCs)
- Continue to improve flood lead time and accuracy improvement
- Implement cloud-based AWIPS

Deliverables

- WCOSS meeting or exceeding reliability metrics
- 43 million numerical prediction products produced per day for weather, climate, ocean, river, and space-weather forecasts
- 4,011 operational Advanced Hydrologic Prediction System (AHPS) forecast locations
- AHPS performance meeting or exceeding flood lead time and accuracy goals
- National Center and Regional IT infrastructure that meets operational reliability goals through improved annual maintenance

Explanation and Justification

		2023 Actual		2024 Annualized CR		2025 Base Program	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Central Processing	Pos/BA	216	120,471	231	110,500	231	112,113
	FTE/OBL	213	118,263	221	110,500	221	112,113

In FY 2024, the AWIPS Program completed the operational implementation of a cloud-based AWIPS capability for limited use by incident meteorologists locally supporting incident commanders battling forest fires. The NWS also continued software baseline redesign efforts to enable a national scale cloud-based AWIPS capability. In FY 2025, the NWS will continue to advance AWIPS

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Hazard Services enhancing warning capabilities for convective hazards such as tornadoes and severe thunderstorms. AWIPS II is an underlying software design enhancement that enables the AWIPS software, NWS' primary forecasting software, to more rapidly integrate new data sources and forecast capabilities into operations while improving system maintainability. In FY 2025, NWS will complete the operational transition of National Centers to use of AWIPS II enabling a common operating picture from the national to local scale for greater efficiency in collaborative forecast processes. NWS will also continue to integrate new forecast capabilities into AWIPS and will implement model improvements on high performance computing systems under the new WCOSS contract.

Central Processing maintains the following programs to accomplish this activity:

NCEP Central Operations provides support for WCOSS including the software and infrastructure that forms the basis for predictions from NCEP Centers and WFOs through its Weather and Climate Computing Infrastructure Services program. The Weather and Climate Computing Infrastructure Services program provides the following services:

- Performs quality assurance of incoming observations and outgoing products;
- Transitions and disseminates numerical weather and climate prediction models from development into operational use by forecasters at NCEP and the WFOs;
- Performs 24/7 system maintenance and administration service;
- Performs software development for data processing, display, interaction, and product generation; and,
- Monitors the creation of all products in the NCEP production suite on a 24/7 basis.

Advanced Weather Interactive Processing System is the information processing, display, and telecommunications system that is the cornerstone of NWS field operations. AWIPS provides the following services:

- Integrates and displays observing data (meteorological, hydrological, satellite, and radar) at NWS field offices;
- Processes and displays forecast data at operational sites;
- Provides an interactive communications system including the Satellite Broadcast Network to connect NWS field locations and allows a mechanism for external partners to access the data;
- Initiates the dissemination of weather and flood warnings and forecasts in a rapid and highly reliable manner; and,
- Provides the communication interface for the public to see NOAA's data.

Hydrology Information Technology Initiatives gather, integrate and utilize advanced and localized water and related observations to predict streamflow and produce water resources information to inform decisions, which optimize water use and mitigate the

impacts of floods and droughts.

- The AHPS is a web-based suite of graphical river-forecast products that provide advanced information on the magnitude and likelihood of floods and droughts. Advanced river forecast information is provided at 4,011 locations throughout the United States to enable government agencies, private institutions, and individuals to make more informed decisions about risk-based policies and actions to mitigate the dangers posed by floods and droughts. This advanced forecast information includes uncertainty information generated by the Hydrologic Ensemble Forecast Service.
- Community Hydrologic Prediction System is the information technology infrastructure that all 13 RFCs use to develop and run operational hydrologic forecast models. This infrastructure generates data and information that water resource managers and emergency managers use to effectively respond to flooding events.

National Centers and Regional IT Infrastructure maintain the information technology infrastructure and standards that enable the National Centers and regional offices, including forecast offices, to effectively work together. This includes:

- Computing that occurs outside of AWIPS;
- Local area networking;
- Security; and
- Data center power and cooling

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Increase from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
	Pos/BA	231	112,113	234	113,863	3	1,750
Central Processing	FTE/OBL	221	112,113	223	113,863	2	1,750

Tsunami Warning Center Alignment - Addressing Information Security Risks (+$1,750, 2 FTE/ 3 Positions) - This request will support the alignment of Tsunami Warning Centers (TWCs) operation procedures at the analytic level, thereby ensuring product consistency and 24/7 backup capabilities. IT and Information Security solutions are a prerequisite for a successful TWC alignment. Currently, the TWCs do not meet the *Federal Information Security Management Act* (FISMA) requirements, posing an acute operational risk to NOAA's TWC operations. This results in potentially losing Authority to Operate due to inherent, ongoing, and unmanageable information security risks. NOAA's TWC operational analysis, product generation and dissemination equipment are required to meet rigorous FISMA (High) Information Security requirements. Long-term hardware, software, and support solutions must be identified and implemented to safeguard systems and ensure operational integrity. This proposal identifies appropriate investments to implement and maintain FISMA (High) compliance at NOAA's TWCs. This will be accomplished through a complete technology refresh of the TWCs to replace all end of life equipment to mitigate existing operational security risk and enable consistent operational processes for backup capabilities between TWCs. The total NWS request for this initiative is $4,000, to also include $2,250 in Analyze, Forecast and Support [NWS-42].

Schedule and Milestones:
FY 2025 – FY 2029

- Complete technology refresh of TWCs to replace all end of life equipment mitigating existing operational security risk
- Implement matching systems infrastructure across both TWCs to enable consistent operational processes for backup capabilities
- On-board dedicated IT support at each of the TWCs to ensure proper oversight and ongoing security maintenance of systems

Deliverables

- Consistent systems infrastructure for complete backup capabilities across TWCs
- Secure FISMA (High) systems with routine on-going cyclical technology updates to maintain appropriate security risk levels

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

Performance Measures	2025	2026	2027	2028	2029
Outstanding POAM items on operational systems					
With Increase	11	8	6	4	1
Without Increase	15	17	19	21	21
Automatic Failover/COOP (in percent of operations that is capable of seamless backup/continuity of operations					
With Increase	50	65	85	100	100
Without Increase	45	40	35	35	35
Outyear Costs:					
Direct Obligations	1,750	1,750	1,750	1,750	1,750
Capitalized	1,366	1,366	1,366	1,366	1,366
Uncapitalized	384	384	384	384	384
Budget Authority	1,750	1,750	1,750	1,750	1,750
Outlays	1,068	1,558	1,645	1,715	1,750
FTE	2	2	2	2	2
Positions	3	3	3	3	3

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE PERSONNEL DETAIL

Activity: Central Processing
Subactivity: Central Processing
Program Change: Tsunami Warning Center Alignment - Addressing Information Security Risks

Title	Grade	Number	Annual Salary	Total Salaries
IT Specialist	13	3	120,044	$360,132
Total		3		360,132
Less lapse	25.00%	(1)		(90,033)
Total full-time permanent (FTE)		2		270,099
2025 Pay Adjustment (2.0%)				5,402
				275,501

Personnel Data Summary	
Full-time Equivalent Employment (FTE)	
Full-time permanent	2
Total FTE	2
Authorized Positions:	
Full-time permanent	3
Total Positions	3

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Central Processing
Subactivity: Central Processing

	Object Class	2023 Actual	FY 2024 Annualized CR	2025 Base	2025 Estimate	Increase from 2025 Base
11.1	Full-time permanent compensation	31,151	29,106	29,900	30,175	276
11.3	Other than full-time permanent	44	41	42	42	0
11.5	Other personnel compensation	924	863	887	887	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	32,118	30,010	30,828	31,104	276
12	Civilian personnel benefits	13,281	12,409	12,708	12,802	94
13	Benefits for former personnel	15	14	14	14	0
21	Travel and transportation of persons	76	71	73	73	0
22	Transportation of things	117	109	112	112	0
23	Rent, communications, and utilities	0	0	0	0	0
23.1	Rental payments to GSA	3,536	3,304	3,362	3,362	0
23.2	Rental Payments to others	0	0	0	0	0
23.3	Communications, utilities and misc charges	485	453	461	461	0
24	Printing and reproduction	1	1	1	1	0
25.1	Advisory and assistance services	12,364	11,552	11,549	11,549	0
25.2	Other services from non-Federal sources	36,562	34,162	34,152	34,416	264
25.3	Other goods and services from Federal sources	1,236	1,155	1,155	1,155	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	14,153	13,224	13,542	13,542	0
31	Equipment	4,170	3,896	4,016	5,132	1,116
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	147	137	137	137	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	3	3	3	3	0
44	Refunds	0	0	0	0	0
99	Total Obligations	118,263	110,500	112,113	113,863	1,750

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Increase from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
	Pos/BA	231	112,113	231	113,613	0	1,500
Central Processing	FTE/OBL	221	112,113	221	113,613	0	1,500

AWIPS in the Cloud - System Engineering/Architecture (+$1,500 0 FTE/ 0 Positions) - NOAA requests an increase to transform the AWIPS and the underlying infrastructure into a modern, extensible framework by utilizing cloud-based technologies. The total NWS request for this initiative is $11,0000, to include $4,500 in Observations [NWS-11], $1,500 for Central Processing, and $5,000 for Dissemination [NWS-56].

The United States has seen an average of 20 billion-dollar weather and climate disasters over the last three years; an exponential increase from the average of 6.7 events per year in the early 2000s. As this number continues to increase, the demand for impact-based decision support services (IDSS) from the NWS continues to grow. Decision makers are asking the NWS to provide this support face-to-face in emergency operations centers, at the scene of disasters, and at the front lines of the hazards. Transforming NWS's current network of systems - AWIPS - to a cloud framework is crucial to meeting these needs and achieving the NWS's goal to move towards a more nimble, flexible, and mobile agency that can respond to decision makers anytime, anywhere.

AWIPS is currently a network of systems originally developed and deployed in the 1990s at more than 170 NWS Offices and National Centers across the country and territories to enable the generation of life-saving forecasts and warnings. The current design of this system is highly reliable, which is critical to the issuance of timely life-critical warnings. However, this 30 year old system architecture has shortcomings that developed over time in its ability to keep up with access to exponentially growing amounts of data. This has resulted in the increased complexity of providing alternative telecommunications, impacts to the ability to efficiently infuse innovations into operations, and limits to the NWS' ability in ensuring forecasters have efficient secure remote access for IDSS in embedded partner locations.

Shifting AWIPS to cloud-based technology will enable the NWS to accomplish a number of efficiencies and cyber security improvements, while enabling more rapid transition of future functionality into operations. By moving AWIPS to a cloud infrastructure, the exponentially increasing amount of observational data (e.g., satellite and radar data) and model data can be stored and

processed in the cloud. This would relieve some of the need to have complex local computing systems at each NWS site and allow forecasters to access data and tools from anywhere. Additionally, since the NWS maintains AWIPS as open source software, implementing a cloud-based AWIPS will also have benefits to other Federal agencies and academic institutions who utilize AWIPS operationally or for research. A highly reliable, full-scale AWIPS cloud configuration would be implemented in FY 2029.

Central Processing requires $1,500 to implement the “to-be” architecture for AWIPS in the Cloud, inclusive of the network and data flow changes. This includes professional support, technical assistance, and training to ensure that the defined architecture is implemented in a timely manner to support operational use of AWIPS in the Cloud with the prescribed performance characteristics.

Schedule and Milestones
FY 2025 - FY 2029

- Complete customer experience journey mapping, ensuring AWIPS service levels meet the needs of the NWS forecasters
- Complete architectural analyses to inform design approach for data access, cybersecurity, and integration with NWS infrastructure
- Perform necessary market research and government cost estimates to acquire contracts needed to operate and sustain AWIPS in the Cloud
- Develop and deploy training for users and maintainers of AWIPS in the Cloud environment

Deliverables

- Creation of a mobile AWIPS framework that enables NWS to support decision makers anytime, anywhere
- Modernized NWS network enabling resilient and mobile connectivity of NWS personnel to AWIPS in the Cloud
- Timely access to observational data and forecast guidance from common cloud environment

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

Performance Measures	2025	2026	2027	2028	2029
Percentage of offices with mobile and resilient network infrastructure to access AWIPS in the cloud					
With Increase	10	35	60	85	100
Without Increase	0	0	0	0	0
Percentage of NWS observing platforms enabled to provide data to the cloud					
With Increase	10	35	60	85	100
Without Increase	5	5	5	5	5
Outyear Costs:					
Direct Obligations	1,500	1,500	1,500	1,500	1,500
Capitalized	0	0	0	0	0
Uncapitalized	1,500	1,500	1,500	1,500	1,500
Budget Authority	1,500	1,500	1,500	1,500	1,500
Outlays	915	1,335	1,410	1,470	1,500
FTE	0	0	0	0	0
Positions	0	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Central Processing
Subactivity: Central Processing

	Object Class	2023 Actual	FY 2024 Annualized CR	2025 Base	2025 Estimate	Increase from 2025 Base
11.1	Full-time permanent compensation	31,151	29,106	29,900	29,900	0
11.3	Other than full-time permanent	44	41	42	42	0
11.5	Other personnel compensation	924	863	887	887	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	32,118	30,010	30,828	30,828	0
12	Civilian personnel benefits	13,281	12,409	12,708	12,708	0
13	Benefits for former personnel	15	14	14	14	0
21	Travel and transportation of persons	76	71	73	73	0
22	Transportation of things	117	109	112	112	0
23	Rent, communications, and utilities	0	0	0	0	0
23.1	Rental payments to GSA	3,536	3,304	3,362	3,362	0
23.2	Rental Payments to others	0	0	0	0	0
23.3	Communications, utilities and misc charges	485	453	461	461	0
24	Printing and reproduction	1	1	1	1	0
25.1	Advisory and assistance services	12,364	11,552	11,549	11,549	0
25.2	Other services from non-Federal sources	36,562	34,162	34,152	35,652	1,500
25.3	Other goods and services from Federal sources	1,236	1,155	1,155	1,155	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	14,153	13,224	13,542	13,542	0
31	Equipment	4,170	3,896	4,016	4,016	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	147	137	137	137	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	3	3	3	3	0
44	Refunds	0	0	0	0	0
99	Total Obligations	118,263	110,500	112,113	113,613	1,500

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
	Pos/BA	231	112,113	231	109,504	0	(2,609)
Central Processing	FTE/OBL	221	112,113	221	109,504	0	(2,609)

Eliminate Advanced Hydrologic Prediction Services System Expansion (-$2,609, 0 FTE/ 0 Positions) – This program change is requested to support other NOAA and Administration priorities. At this funding level, NOAA will maintain the availability of HEFS version 1.0 services and sustain the 3,300 AHPS water forecast service locations with GEFS version 12. NOAA will continue to provide, but not improve, short-term and long-term probabilistic hydrologic forecasts. This information is critical to the various users of hydrologic information, such as NWS Weather Forecast Offices (WFOs), local emergency management officials, reservoir operators, and other water resources managers.

Schedule and Milestones
FY 2025 - 2029

- Maintain availability of HEFS version 1.0 services

Deliverables

- HEFS services are sustained nationally at 3,300 AHPS water forecast service locations with GEFS version 12.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

Performance Measures	2025	2026	2027	2028	2029
HEFS version 2.0 development percentage complete					
With Decrease	0%	0%	0%	0%	0%
Without Decrease	20%	40%	60%	80%	100%
Number of development and deployments of NWPS					
With Decrease	1	0	0	0	0
Without Decrease	1	1	1	1	1
Outyear Costs:					
Direct Obligations	(2,609)	(2,609)	(2,609)	(2,609)	(2,609)
Capitalized	(2,609)	(2,609)	(2,609)	(2,609)	(2,609)
Uncapitalized	0	0	0	0	0
Budget Authority	(2,609)	(2,609)	(2,609)	(2,609)	(2,609)
Outlays	(1,591)	(2,322)	(2,452)	(2,557)	(2,609)
FTE	0	0	0	0	0
Positions	0	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Central Processing
Subactivity: Central Processing

	Object Class	2023 Actual	FY 2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	31,151	29,106	29,900	29,900	0
11.3	Other than full-time permanent	44	41	42	42	0
11.5	Other personnel compensation	924	863	887	887	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	32,118	30,010	30,828	30,828	0
12	Civilian personnel benefits	13,281	12,409	12,708	12,708	0
13	Benefits for former personnel	15	14	14	14	0
21	Travel and transportation of persons	76	71	73	73	0
22	Transportation of things	117	109	112	112	0
23	Rent, communications, and utilities	0	0	0	0	0
23.1	Rental payments to GSA	3,536	3,304	3,362	3,362	0
23.2	Rental Payments to others	0	0	0	0	0
23.3	Communications, utilities and misc charges	485	453	461	461	0
24	Printing and reproduction	1	1	1	1	0
25.1	Advisory and assistance services	12,364	11,552	11,549	11,549	0
25.2	Other services from non-Federal sources	36,562	34,162	34,152	31,543	(2,609)
25.3	Other goods and services from Federal sources	1,236	1,155	1,155	1,155	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	14,153	13,224	13,542	13,542	0
31	Equipment	4,170	3,896	4,016	4,016	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	147	137	137	137	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	3	3	3	3	0
44	Refunds	0	0	0	0	0
99	Total Obligations	118,263	110,500	112,113	109,504	(2,609)

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Activity: Analyze, Forecast and Support

NWS' mission is to provide forecasts, warnings, and impact-based decision support services for the protection of life and property, and to support the national economy. The Analyze, Forecast and Support (AFS) Activity leverages innovations from the Science and Technology Integration (STI) Activity, and utilizes output and support services from the Observations, Central Processing, and Dissemination Activities by applying expertise to the observed data, model outputs, and dissemination systems, resulting in forecasts, warnings, and impact-based decision support services (IDSS) for the Nation in support of the Department of Commerce 2022-2026 Strategic Plan, Strategic Objective 3.1: Increase the impact of climate data and services for decision makers through enhanced service delivery and improved weather, water, and climate forecasts.

Base Program

NWS' national network of forecast offices, specialized centers, and associated workforce of meteorologists, hydrologists, climatologists, and space physicists is supported through the AFS Activity. This expert workforce monitors the weather, water, climate and space weather from our oceans to the surface of the sun, 24 hours a day, seven days a week. These professionals provide information using a collaborative forecast process that enables forecasts and warnings to benefit from the NWS' fully integrated forecast process. Forecasts globally support agriculture, transportation, energy production and water management among other missions and industries. Forecasts and warnings, provided days in advance of pending winter storms or hurricanes, wildland fire conditions, tornado outbreaks, heat waves or river floods, enable communities, industry, and emergency managers to plan effective preparation and response strategies. Warnings for high impact, rapidly evolving hazards such as solar storms, tornadoes, tsunamis, flash floods or ash plumes following volcanic eruptions, enable decision makers to keep the public out of harm's way to protect their lives and livelihoods.

NOAA's network of Weather Forecast Offices (WFOs), River Forecast Centers (RFCs), and specialized national centers house the NOAA equipment and expertise that results in weather forecasts, warnings, and the provision of IDSS. Like any other physical asset, this infrastructure must be maintained to support NWS' mission delivery and efforts to build a Weather-Ready Nation. Many of these facilities are required to operate 24 hours per day, 365 days per year. As such, NWS conducts facility condition assessments (FCAs) for all leased and owned facilities. At many locations, the FCA identifies issues that significantly affect operational readiness, service delivery, or occupant safety. The first assessment of all facilities was completed in FY 2019, which provided NWS with a comprehensive analysis of site conditions, itemized deferred maintenance requirements and costs, and the ten year projected life

cycle cost for all NWS locations. After a temporary pause due to the pandemic, the FCA process restarted in FY 2022 to begin the cycle to update all of the facility assessments, which continued in FY 2023.

Statement of Operating Objectives

Schedule and Milestones

FY 2025 – FY 2029

- Operate national network of 24/7 WFOs, that provide weather surveillance, IDSS, forecast and warning services
- Operate national network of RFCs that provide river stage, streamflow, water supply, and flood guidance
- Operate the National Centers for Environmental Prediction (NCEP) service centers that monitor the tropics, high seas, and national airspace, warn of space weather hazards, predict tornadoes, provide outlooks for sub-seasonal and seasonal conditions and develop and deliver foundational data sets
- Operate the National Water Center (NWC) 24/7 to support water resource decision support services across the Nation by providing analyses, forecasts, and inundation information and guidance for all water resources events, including flash flooding, riverine flooding, and water resources outlooks
- Operate NOAA's component of the interagency U.S. National Ice Center (USNIC) to support sea ice analysis and prediction
- Provide IDSS to core partners during routine and high impact events, which includes underserved and vulnerable communities
- Operate Tsunami Warning Centers to monitor and predict the development and onset of tsunamis along the Nation's coasts and coasts of other countries as agreed by treaty
- Provide weather and financial support to the Nations of the Pacific Island Compact

Deliverables

- Operations of all WFOs, RFCs, National Centers, and Tsunami Warning Centers
- IDSS provided to local, regional and state partners and decision makers from WFOs, RFCs and National Centers
- Provision of field operational support from National Headquarters
- Operations and maintenance of Weather Service Offices (WSO) outside the continental United States that support the Nations of the Pacific Island Compact
- Operations and maintenance of WSOs and Data Collection Offices in Hawaii and Alaska as components of the national observation program
- Operational sea ice forecasts from the USNIC

- Aviation weather forecasts for all identified airports and air routes
- Deployments of Incident Meteorologists to support decision makers at wildland fires
- Probabilistic prediction of extreme weather events in support for fire management of large fire outbreaks and growth
- Fire weather services, decision support and risk communications for underserved and vulnerable rural, Tribal, and wildlife urban interface communities.
- Continued support of StormReady® and TsunamiReady® communities
- Street-level water information for every stream reach in the continental United States, hourly at 2.7 million locations
- Sixty percent of the U.S. population served by operational Flood Inundation Mapping Services
- Design a aligned National Tsunami Warning System
- Redesigned tsunami.gov website to support the alignment of the National Tsunami Warning System
- Incident meteorologists trained and deployment-ready
- Seasonal to sub-seasonal IDSS tools deployed to support regional and local delivery of climate-based IDSS
- Performance metrics for implementation of climate-based IDSS at NWS local offices defined
- Plain language utilized in hazard communication to support risk mitigation and decision-making

Explanation and Justification

		2023 Actual		2024 Annualized CR		2025 Base Program	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Analyze, Forecast, & Support	Pos/BA	2,848	588,594	2,846	589,500	2,846	603,491
	FTE/OBL	2,854	585,228	2,846	589,500	2,846	603,491

NWS issues forecasts and warnings, provides seasonal outlooks, and communicates the effects of changing weather, sub-seasonal to seasonal climate trends, and water resources information to the American public and to the weather/water/climate enterprise. Weather and water impact every sector of the economy, and businesses rely on NOAA's information to improve commerce. Timely and accurate warnings for weather and water-related hazards – provided reliably and on time, every time – are necessary for public safety. NWS measures satisfaction with NOAA information and warning services through surveys of emergency managers, first responders, natural resource and water managers, public health professionals, industry, government, and the public. NWS then uses these results to inform service improvements.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

In FY 2023, the NWC continued its evolution from initial operating capability toward full operating capability as directed in the *Consolidated Appropriations Act, 2023* (P.L.117-328). The NWC leads the transition of state-of-the-science improvements to national hydrologic forecasting and decision support operations through strong collaboration with the public, private, and academic sectors. This transition also will be supported through the recent establishment of the Cooperative Institute for Research to Operations in Hydrology (CIROH), managed by the NWS Office of Water Prediction.

Supported with funding received via the *Infrastructure Investment and Jobs Act* (P.L. 117-58), following the successful operational implementation of real-time flood inundation mapping (FIM) services for the first 10 percent of the U.S. population, in FY 2024, the NWC continues operational implementation and public dissemination of real-time FIM services for 30 percent of the U.S. population. The continued operational implementation of FIM in FY 2024 includes an initial OCONUS expansion to Puerto Rico.

NWC continues to operate a centralized capability providing critical service backup and continuity of operations for NOAA's 13 RFCs as well as the Hydrologic Ensemble Forecasting Service (HEFS). In FY 2023, the operational implementation of HEFS was completed at nearly 3000 locations nationwide and leverages the skill in weather and climate forecasts to produce ensemble-based, probabilistic forecasts of streamflow at forecast lead times ranging from one hour to one year.

NWC maintains situational awareness before, during, and after all hydrologic events throughout the year across the U.S. and its territories, and leads the intra- and interagency coordination for significant national or multi-regional hydrologic events. Moreover, NWC works with NCEP Centers, Regional Operations Centers, RFCs, WFOs, and core Federal agency partners including U.S. Geological Survey (USGS), U.S. Army Corps of Engineers (USACE), and Federal Emergency Management Agency (FEMA). This coordination enables actionable water resources decision support services to inform both routine, high value decisions such as routine management of water infrastructure as well as event-driven, high impact decisions that range from floods to droughts. Additional collaborative activities include the NOAA Annual Spring Flood Outlook, which helps communities prepare for potential flooding from mid-March through June.

Recognizing the gap in equitable water resources information, the NWS developed the concept of a continental domain, neighborhood-scale water resources model to deliver service equity for communities nationwide. NOAA's National Water Model (NWM), introduced in August 2016 as NOAA's first foray in leveraging high performance computing for hydrology, is a continental-scale water resources model that combines data from USGS stream gauges, reservoir release information from USACE and other reservoir operators, with outputs from NOAA's atmospheric weather models to significantly improve the spatial resolution and temporal frequency of streamflow and flood forecasts. The NWM simulates conditions for 3.4 million miles of rivers and streams nationwide every hour, expanding from

the 110 thousand miles forecast today by the RFCs. The model also improves NOAA's ability to meet the needs of stakeholders by providing more frequent and expanded streamflow information, as well as new forecast capabilities for soil moisture, evapotranspiration, runoff, snow water equivalent and other water resources parameters on a high-resolution grid nationwide.

Following previous upgrades to the NWM, which expanded the domain to include Hawai'i, the Great Lakes, Puerto Rico, and the U.S. Virgin Islands, NWS continues to upgrade the model to improve and expand hydrologic information and services to previously underserved communities. In FY 2023, the NWM version 3.0 expanded the model domain to the Cook Inlet and Copper River Basins in Alaska and delivered comprehensive operational total water guidance for 120 million Americans living in coastal communities. These new total water forecasts in the coastal zone account for the combined impacts of riverine freshwater, surge, tide, and wave action through a coupling of the NWM with coastal estuary models.

In FY 2023, AFS took deliberate steps to increase its fire weather capabilities, including hiring additional deployment-ready incident meteorologists and supporting program staff to ensure NWS is able to meet the growing demand for on-site support for wildfire operations. The increase in both wildfire events and prescribed fire missions has resulted in a greater number of acres burned per year and a lengthened season for operational support. Land management agencies have increased legislative and strategic targets for annual fuel treatments. In addition, the demand for incident meteorologists is increasing beyond fire operations to other extreme events. AFS has also worked to improve forecaster tools and decision support services for fire weather partners.

AFS maintains the following programs to accomplish these and other mission-critical activities:

Weather and Climate Services and Warnings provide real-time meteorological and subseasonal to seasonal climate products and services to emergency managers, public officials and the public, with an emphasis on reaching underserved/vulnerable communities. To achieve this requirement, NWS operates WFOs and other field offices within the continental U.S., Alaska, Hawai'i, U.S. territories and in locations within the Pacific Island Compact.

- WFOs issue warnings, watches, advisories, statements, and forecasts for their geographic area of responsibility at multiple time scales, from alerting for immediate threats, to sub-seasonal and seasonal reports. WFOs operate full time 24/7/365. WFO forecasts include aviation, fire weather, marine, severe and tropical weather and the prediction of winter storms. WFOs also issue warnings for tornadoes, blizzards, large hail, flash floods (including ice jams and dam failures) and projected tsunami impacts. WFOs control broadcasts of weather information on the NOAA Weather Radio All Hazards stations, provide weather spotter training to communities, and foster close ties with both the media and the emergency management community. Staff at WFOs have a close relationship with local, state, territorial and native American government officials and

emergency managers and provide IDSS and outreach to support their decision making both remotely (including underserved communities) and at their operations centers during hazardous conditions.

- WSOs and Data Collection Offices are located within Alaska and Pacific Regions and provide a collection of expert hydro-meteorological data in support of local, regional, national, and global weather, hydrologic, climatic, and warning programs. WSOs support the mission of their associated WFO through public service, education, and outreach. They differ from WFOs in that they do not issue forecasts or warnings, are responsible primarily for observations and data collection, and are not operated 24 hours a day.
- Through an interagency agreement with the FAA, NWS forecasters are embedded within all 21 Air Route Traffic Control Centers to provide direct decision support services to air traffic managers promoting aviation safety and supporting efficient airspace management.

National Centers provide specialized forecast guidance and products for NWS field offices and other direct users (such as the FAA's Air Route Traffic Control Center, and FEMA) through the NCEP. Each National Center depends on data from the Observations Subactivity, model output from the supercomputers in Central Processing, dissemination infrastructure from the Dissemination Subactivity, and innovations from the Science and Technology Integration Subactivity to provide expert analysis and prediction services to the local WFO and RFC infrastructure and other core partners. The National Centers provide an integrated suite of numerical weather and environmental forecast guidance, at scales ranging from local to global, at various time frames. National Centers also issue watches and warnings that include tornado watches, hurricane watches and warnings, gale, storm, and hurricane-force wind warnings for large oceanic storms, aviation weather warnings and advisories for hazards to aircraft, space weather alerts, and seasonal predictions for El Niño and La Niña events. NWS forecasters and the weather enterprise use this information and the suite of weather model output as the basis for consistent forecast products, advisories and warnings. The AFS Subactivity supports seven NCEP National Centers:

- **Aviation Weather Center** delivers consistent, timely and accurate weather information to support safe air navigation for the world airspace system. The Aviation Weather Center provides aviation warnings and forecasts of hazardous flight conditions (including volcanic ash), at all levels within domestic and international airspace, and has an embedded group of forecasters at the FAA's Air Route Traffic Control Center.

- **Climate Prediction Center (CPC)** delivers real-time products and information on timescales from weeks two-to-four to sub-seasonal and seasonal, integrating observed weather with longer-term climate variability. This includes predictions for the onset and duration of El Niño and La Niña events, which can have a significant impact on the nation's weather from the

potential extremes of flood, drought, excessive heat or cold, and severe weather. Application of CPC services provides social and economic benefits to agriculture, energy, transportation, water resources, and public health. CPC works with scientific partners around the world to understand and predict modes of natural global climate variability.

- **National Hurricane Center** issues watches, warnings, forecasts and analyses of hazardous tropical weather (e.g., tropical storms and hurricanes including storm surge), and offshore and high seas marine forecasts for a large part of the southwest North Atlantic (south of 30 degrees North), Caribbean Sea, Gulf of Mexico and the eastern North Pacific (east of 140 degrees West). The National Hurricane Center also leads a substantial education and outreach program on tropical hazards both domestically and internationally.

- **Ocean Prediction Center (OPC)** issues marine warnings, forecasts, and guidance for maritime users and continually monitors and analyzes maritime data for protection of life and property, safety at sea, and enhancement of economic opportunity. OPC issues gale, storm and hurricane-force wind warnings for the Atlantic and Pacific Oceans, north of 30 degrees North. As part of OPC, NOAA's component of the interagency USNIC produces global snow cover and operational sea ice prediction products.

- **Space Weather Prediction Center (SWPC)** provides real-time monitoring and forecasting of solar and geophysical events and disturbances such as geomagnetic storms and solar flares. SWPC researchers and partners develop advanced models to improve understanding of the space weather environment and predict future events. Model improvements enable better prediction of these events and their potential impact on Earth. Impacts could include disruptions to satellite communications, impacts to the terrestrial electric grid and communication outages to cross polar airline flights. SWPC supports the Space Weather Operations, Research and Mitigation national space weather strategy and serves as an International Civil Aviation Organization Space Weather Center.

- **Storm Prediction Center** provides forecasts and watches for tornadoes, severe thunderstorms, large hail, lightning, wildfire potential, and heavy precipitation for the United States.

- **Weather Prediction Center** is responsible for preparing a variety of analyses, national guidance products, and reliable national forecasts through a collaborative forecast process that ensures consistency and accuracy. The Weather Prediction Center specializes in providing national temperature and quantitative precipitation forecasts and predictions of the impacts of winter storms.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Hydrologic Services and Warnings provides hydrologic data, analysis, forecast information, and decision support services through the NWC, RFCs, and WFOs to address the Nation's growing water resources challenges.

- NWS operates 13 RFCs. RFCs provide short range (deterministic) and long range (probabilistic) river level and streamflow forecasts, flash flood guidance, and water supply forecasts. RFCs deliver a set of water resource-related decision support services for regional, state, and local NWS core partners that facilitate decision making associated with water supply planning and events ranging from flash floods to drought. A wide range of users depend on these forecasts including those in emergency management, agriculture, hydroelectric dam operation, transportation, recreation, and water resources management. The forecast information is the basis for river and flash flood warnings, watches, and advisories issued by the WFOs.
- NWS operates 122 WFOs. WFOs assess and monitor the threat of flash and river flooding 24 hours a day 7 days a week to provide timely and accurate life-saving forecasts, warnings and decision support services. In addition, WFOs work with dam operators and the emergency management community to provide timely warnings for floods that result from infrastructure failure such as dam break and levee breaches. Moreover, WFOs routinely conduct local outreach and education to heighten public and partner awareness of flood risks and NWS hydrologic services.
- The NWC acts as a catalyst for interagency activities as they relate to the transformation of NOAA's water prediction capabilities and decision support services. Moreover, it serves as an operational forecasting center, which includes a FEMA Liaison Officer. To that end, NWC maintains situational awareness before, during, and after all hydrologic events, from floods to drought, and leads the agency/interagency coordination for significant national or multi-regional hydrologic events. The goal is to establish an integrated and common operating picture for water resources. Moreover, the NWC is focused on developing and improving new national water prediction capabilities such as the National Water Model and Flood Inundation Mapping, which simulates conditions for 3.4 million miles of rivers and streams nationwide every hour. A second new transformational hydrologic forecasting capability is the Hydrologic Ensemble Forecasting Service, which produces reliable and skillful ensemble streamflow forecasts at lead times ranging from one hour to one year, and is particularly useful for long-range water resource planning and risk-based water resources decision-making.

NOAA's Tsunami Warning Program provides reliable, 24/7 monitoring of seismic events that could generate a tsunami that could impact the Atlantic or Pacific coastlines. In the event of a tsunami, the program generates timely and precise warnings, predictions of wave impact times and heights, and operational tools for emergency managers and public officials to guide rapid, critical decisions in which lives and property are at stake. The program uses DART® moorings and coastal sea level stations from the observations program as critical input and verification of tsunami forecasts.

Tsunami forecast modeling research seeks to develop faster and more reliable tsunami forecasts. Inundation modeling assists communities with their efforts to assess risk and mitigate potential impacts.

Tsunami hazard mitigation grants have enabled partner states to support coastal communities with life-saving products and services such as coastal inundation maps, evacuation plans and maps, preparedness training and mitigation workshops, evacuation drills, warning infrastructure (e.g., sirens), and tsunami evacuation signs.

The program coordinates with a variety of national and international partners and is supported by the Pacific Tsunami Warning Center in Hawaii and the National Tsunami Warning Center in Alaska. Ongoing work in the Tsunami Warning Program includes

- performing innovative research to speed earthquake detection and improve the reliability of predictions of tsunami track, speed, height, onset times and potential coastal impact;
- better aligning operations at the two Tsunami Warning Centers to avoid confusion while ensuring full backup and continuity of operation functionality.
- issuing tsunami watches and warnings for all U.S. communities at risk and for international areas by agreement or compact; and
- increasing community preparedness and public tsunami education through the TsunamiReady™ program and outreach.

Pacific Island Compact is part of the U.S. Compact of Free Association with the Republic of the Marshall Islands, the Federated States of Micronesia, and the Republic of Palau in which the U.S. government provides basic government and commerce services including weather services to these island nations. The Compact provides the necessary funding to support the NWS WSOs and associated weather warning, forecast, and observation services for these islands. This continued investment preserves critical weather observation infrastructure and services necessary to support core NOAA mission responsibilities in the Pacific such as aviation, typhoon, and marine forecasts; climate monitoring; and support to U.S. Navy operations.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Increase from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Analyze, Forecast, &	Pos/BA	2,846	603,491	2,846	605,741	0	2,250
Support	FTE/OBL	2,846	603,491	2,846	605,741	0	2,250

Tsunami Warning Center Alignment - Common Analytic System (+$2,250, 0 FTE/ 0 Positions) – This request would support the alignment of Tsunami Warning Centers (TWCs) operation procedures at the analytic level, thereby ensuring product consistency and 24/7 backup capabilities. Tsunamis are unpredictable and have an extremely high impact with potentially disastrous consequences to life and property along the already vulnerable U.S. coastlines. The National Tsunami Warning Center (NTWC), located in Palmer, Alaska, and Pacific Tsunami Warning Center (PTWC), located in Honolulu, Hawai'i, currently operate independent tsunami detection, analysis and forecasting systems, and use different analytic techniques and methodologies. This results in discontinuities in operational products and services between TWCs. Continuity of operations is therefore incomplete, risky, and expensive due to dynamic and divergent systems. The total NWS request for this initiative is $4,000, to also include $1,750 in Central Processing [NWS-22].

With this funding, NWS would deploy a Common Analytic System at the NTWC and PTWC which would provide a common framework that supports the NWS One Event One Forecast strategic goal. This ensures seamless continuity of operations by eliminating discontinuities within existing systems, and providing the same guidance to all users, independent of location. This system will be designed, built and fielded as a collaborative effort between NWS and OAR, with input and long-term archival support from NESDIS.

Schedule and Milestones
FY 2025 - FY 2029

- Integration of National Centers for Environmental Information databases into prototype analytic system
- Development of a Common Analytic System with seismic and non-seismic inputs
- Evaluate Common Analytic System within established testbed and proving ground
- Develop comprehensive training strategy for tsunami watchstanders on new system
- Establish new hardware at TWCs

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

Deliverables
FY 2025 - FY 2029

- Functional and technical requirements for a Common Analytic System
- Common Analytic System Proving Ground established
- Test and Evaluation completed for a new Common Analytic System within an established NOAA testbed
- System Acceptance by TWCs
- Complete System Integration between TWCs

Performance Measures	2025	2026	2027	2028	2029
Automatic Failover/COOP (in % of operations that is capable of seamless backup/continuity of operations)					
With Increase	50%	65%	85%	100%	100%
Without Increase	45%	40%	35%	35%	35%
Outyear Costs:					
Direct Obligations	2,250	2,250	2,250	2,250	2,250
Capitalized	0	0	0	0	0
Uncapitalized	2,250	2,250	2,250	2,250	2,250
Budget Authority	2,250	2,250	2,250	2,250	2,250
Outlays	1,372	2,002	2,070	2,205	2,250
FTE	0	0	0	0	0
Positions	0	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Analyze, Forecast and Support
Subactivity: Analyze, Forecast and Support

	Object Class	2023 Actual	FY 2024 Annualized CR	2025 Base	2025 Estimate	Increase from 2025 Base
11.1	Full-time permanent compensation	313,502	315,790	324,625	324,625	0
11.3	Other than full-time permanent	727	732	752	752	0
11.5	Other personnel compensation	27,313	27,512	28,282	28,282	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	341,541	344,034	353,659	353,659	0
12	Civilian personnel benefits	138,434	139,445	142,895	142,895	0
13	Benefits for former personnel	254	256	256	256	0
21	Travel and transportation of persons	2,142	2,158	2,227	2,227	0
22	Transportation of things	4,111	4,141	4,241	4,241	0
23	Rent, communications, and utilities	0	0	0	0	0
23.1	Rental payments to GSA	13,931	14,033	14,286	14,286	0
23.2	Rental Payments to others	3,934	3,963	4,034	4,034	0
23.3	Communications, utilities and misc charges	11,753	11,839	12,052	12,052	0
24	Printing and reproduction	41	41	42	42	0
25.1	Advisory and assistance services	18,992	19,131	19,125	19,125	0
25.2	Other services from non-Federal sources	32,235	32,470	32,460	32,460	0
25.3	Other goods and services from Federal sources	3,542	3,568	3,567	3,567	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	5,932	5,975	6,123	6,123	0
31	Equipment	2,397	2,415	2,491	2,491	0
32	Lands and structures	26	26	26	26	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	5,957	6,000	6,000	8,250	2,250
42	Insurance claims and indemnities	1	1	1	1	0
43	Interest and dividends	4	4	4	4	0
44	Refunds	0	0	0	0	0
99	Total Obligations	585,228	589,500	603,491	605,741	2,250

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2024
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Analyze, Forecast, &	Pos/BA	2,846	603,491	2,846	597,491	0	(6,000)
Support	FTE/OBL	2,846	603,491	2,846	597,491	0	(6,000)

Terminate Tsunami Grant Program (-$6,000, 0 FTE/ 0 Positions) – This program change is requested to support other NOAA and Administration priorities. This will terminate the National Tsunami Hazard Mitigation Program (NTHMP) grant funding to state and territory education and awareness; inundation and evacuation map development; and state and territory support for the TsunamiReady® Program. This proposal would eliminate the grants that support local infrastructure for critical response. NOAA will continue to support NTHMP member states and territories through IDSS and tsunami outreach and education efforts. This includes continuing to advance the NWS TsunamiReady®recognition program within tsunami-prone communities and continuing to provide tsunami IDSS to local emergency managers and decision makers.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Analyze, Forecast and Support
Subactivity: Analyze, Forecast and Support

	Object Class	2023 Actual	FY 2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	313,502	315,790	324,625	324,625	0
11.3	Other than full-time permanent	727	732	752	752	0
11.5	Other personnel compensation	27,313	27,512	28,282	28,282	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	341,541	344,034	353,659	353,659	0
12	Civilian personnel benefits	138,434	139,445	142,895	142,895	0
13	Benefits for former personnel	254	256	256	256	0
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22	Transportation of things	4,111	4,141	4,241	4,241	0
23	Rent, communications, and utilities	0	0	0	0	0
23.1	Rental payments to GSA	13,931	14,033	14,286	14,286	0
23.2	Rental Payments to others	3,934	3,963	4,034	4,034	0
23.3	Communications, utilities and misc charges	11,753	11,839	12,052	12,052	0
24	Printing and reproduction	41	41	42	42	0
25.1	Advisory and assistance services	18,992	19,131	19,125	19,125	0
25.2	Other services from non-Federal sources	32,235	32,470	32,460	32,460	0
25.3	Other goods and services from Federal sources	3,542	3,568	3,567	3,567	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	5,932	5,975	6,123	6,123	0
31	Equipment	2,397	2,415	2,491	2,491	0
32	Lands and structures	26	26	26	26	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	5,957	6,000	6,000	0	(6,000)
42	Insurance claims and indemnities	1	1	1	1	0
43	Interest and dividends	4	4	4	4	0
44	Refunds	0	0	0	0	0
99	Total Obligations	585,228	589,500	603,491	597,491	(6,000)

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Activity: Dissemination

Goal Statement

The ability to communicate warnings and forecasts to the American public is essential to protecting property and saving lives. To be effective, NWS requires a scalable, robust, secure, 24 hours a day, 7 days a week operational dissemination infrastructure with a combination of on-premise and public cloud components, an optimized network that meets capacity requirements, and a sophisticated suite of communications systems to meet varied customer needs in a timely, reliable, and authoritative manner in support of the Department of Commerce 2022-2026 Strategic Plan, Strategic Objective 3.1: Increase the impact of climate data and services for decision makers through enhanced service delivery and improved weather, water, and climate forecasts.

Base Program

The NWS transmits forecasts and warnings through the infrastructure provided by the Dissemination Activity. Dissemination maintains communication technology required by NWS to collect, tailor, and distribute data and products. The resilient Integrated Dissemination Program (IDP) infrastructure is an on-premise private cloud located in Boulder, CO, and College Park, MD. The IDP infrastructure collects and distributes watches, warnings, advisories, data, and products internally and externally. It provides information to multiple users in various formats including satellite broadcast and terrestrial (Earth-based) networks, internet, radio, and partner briefing webinars. Current major systems included on IDP are the Satellite Product Analysis and Distribution System, Radar Integrated Display with GeoSpatial Elements version 2, and the National Operational Model Archive & Distribution System (NOMADS). The IDP infrastructure is the mission-critical communications hub that delivers information to different dissemination networks, such as to NWS offices, over the OneNWS Network, which connects NWS sites to each other and to partners, to the public with wireless emergency alerts through FEMA Integrated Public Alert and Warning System and NOAA Weather Radio (NWR), and to emergency managers via the Emergency Managers Weather Information Network (EMWIN).

Building on the successes over the last few years of implementing robust geographically-diverse dissemination systems and upgrading the network infrastructure, including the increased bandwidth of the two data centers implemented in FY 2025, NWS will operationally maintain and operate the existing IDP application services. NWS will maintain an IDP system availability rate of 90 percent, providing 8x5 or 24x7 support (depending on application) to maintain existing infrastructure and dissemination services with application failover between IDP data centers in 30 minutes or less. With the additional funding received in FY 2022 and FY 2023, NWS will migrate all remaining applications from the NWS Internet Dissemination System (NIDS) to IDP in FY 2024.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

In FY 2024, the NWS was in their first full year of operations in the NOAA public cloud, building a child system called the Dissemination Cloud Services (DIS Cloud), hosting eight applications there, including NWSChat on Slack, Cloud Geographic Information System (GIS) Web Services (Cloud GIS), and HydroVis with 24x7 support. NWS also partnered with the General Services Administration's 18F and completed the initial release of a more nimble, flexible, and mobile weather.gov 2.0 hosted in NOAA's Public Cloud. In FY 2024, the NWS is decommissioning NIDS, the legacy, end of life, hardware that pre-dated IDP.

In FY 2025, NWS will continue to maintain an NWR system availability rate of 96 percent and have a maximum transit time for warning messages of one second or less for system latency at 1,030 locations. NWS will also continue to migrate the OneNWS Net and other circuits off of the GSA Networx contract to the Enterprise Infrastructure Solutions (EIS) contract and to the NOAA N-Wave network.

To ensure a Weather-Ready Nation and optimize the delivery of scalable and agile dissemination capabilities, the NWS organized the Dissemination Subactivity around infrastructure, networks, web services, and other warning-delivery services.

In general, activities in the Dissemination portfolio will:

- Operate NWS' information technology (IT) dissemination infrastructure and services;
- Maintain and support a scalable and geographically diverse redundant NWS dissemination architecture consistent with, and part of, the NOAA enterprise architecture;
- Maintain a strategy to maximize effectiveness while minimizing cost;
- Maintain and operate NWS' dissemination system capabilities including IDP and NWS networks at 90 percent operational availability; and
- Sustain a support model for applications running in the public cloud.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Statement of Operating Objectives

Schedule and Milestones
FY 2025 – FY 2029

- Maintain existing Enterprise Geospatial and Web Services to accommodate data providers and users and increase data throughput via the DIS Cloud
- Execute approved and resourced Roadmap for future Weather Distribution Services to support a Weather-Ready Nation
- Manage IDP system usage, reliability, and resources
- Operate and maintain IDP applications 8x5 or 24x7 depending on application
- Operate and maintain applications in the public cloud 24x7
- Operate and maintain water-related products and services
- Maintain operational support and maintenance of IDP on-premise private cloud infrastructure in College Park, MD, and Boulder, CO
- Maintain operational support and maintenance of NWS Geostationary Weather Satellite Antenna System
- Operate and maintain OneNWS Network bandwidth/reliability as NWS transitions to the EIS contract and NOAA N-Wave
- Transition all NWR IP circuits, NWR sites, and One NWSNet sites to EIS and NOAA N-Wave.
- Complete the optimization and sustaining operational capability of legacy applications such as the NOAA Weather Wire Service (NWWS), and Spot on either a NWS supported private cloud or public cloud environment
- Sustain operational capability of applications such as NWWS and Spot on IDP
- Sustain operational capability of National Water Prediction Service (NWPS) on the DIS Cloud

Deliverables

- Maintain IDP services at greater than 90 percent reliability
- Maintain NWR service at 96 percent availability
- Disseminate warning messages in fewer than 15 seconds
- Integrated enhanced weather data and web services operationally supported on IDP system monitored 24 hours a day/seven days a week
- 8 hours a day/five days a week or 24 hours a day/seven days a week support (varies by service) of infrastructure and networking services
- 24 hours a day/seven days a week support of NWS Global Information System Centers, GIS, and Web Services via the DIS Cloud

- Modernized telecommunications infrastructure capable of meeting the agency's mission

Explanation and Justification

		2023 Actual		2024 Annualized CR		2025 Base Program	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
	Pos/BA	84	116,494	93	116,979	93	118,126
Dissemination	FTE/OBL	87	117,681	85	116,979	85	118,126

NWS operates and maintains critical infrastructure that enables NOAA to provide services to the Nation. NWS manages a distributed network of offices that span the United States and its territories, delivering essential NOAA services, especially those related to high-impact events at the local level where critical, life-saving decisions are made. NWS manages all major weather observing systems from software engineering and communications to facilities and logistics planning. NWS also ensures worldwide acquisition and delivery of weather and water data through its private-cloud IDP systems, web and GIS services, public cloud services, and the OneNWS Network.

Dissemination maintains the following programs to accomplish this activity:

Dissemination IT Infrastructure and Virtualized Application Services within the IDP provides a scalable, robust, and secure dissemination IT infrastructure in two geographically diverse locations for NWS, NOAA, and federal partners.

- Weather and environmental disturbances can disrupt virtually every major public infrastructure system including transportation systems, power grids, telecommunications, and emergency response systems that protect the public. Facing these interruptions, users could be cut off from government services. Minutes (sometimes seconds) count in saving lives, and it is critical that the NWS dissemination systems perform reliably so that they can quickly provide critical information.
- The IDP infrastructure is the Nation's hub for collecting and distributing weather data and products. Applications within the IDP systems automatically collect and distribute a wide variety of environmental data such as observations, analysis, and forecast products to WFOs, National Centers, NWS web-services, broadcasters, the commercial meteorological community, and major international partners. These time-perishable data products are distributed to ensure the fastest availability of the fully-integrated information within IDP in College Park, MD, and Boulder, CO.

- NWS IDP applications and services provide users with flexible access to observational weather data, hazardous weather information, and other weather forecast products required for air traffic management. NOAA provides data discovery services, data format translation, and dissemination services to improve the accuracy and availability of weather information.
- In FY 2025, NWS will decommission the legacy NIDS and migrated all applications to IDP or the DIS Cloud, or decommissioned those with redundant products. This included implementing the National Water Prediction Service (NWPS) on the DIS Cloud, allowing NWS to decommission the Advanced Hydrologic Prediction Service (AHPS) on NIDS.
- In FY 2025, NWS will pilot an updated, mobile friendly, and nimble weather.gov.
- In FY 2025, NWS will expand the updated capabilities of the new weather.gov, as well as the number of NWS regions running on it.

Terrestrial and Satellite Networking Services ensures NWS has the networking capacity and reliability to deliver critical weather data for internal and external partners. NWS operates and maintains critical terrestrial and satellite networking capabilities. With its updated IT infrastructure, NWS ensures adequate processing, delivery, and exploitation of new environmental satellite, model, and radar data. These terrestrial and satellite operational networks enable NWS to use new data to improve the accuracy and timeliness of weather warnings and forecasts.

- NWS manages the OneNWS Network, a distributed network of terrestrial telecommunication circuits, satellite communications space segments, wireless, and broadband capabilities that span the Nation, including the Pacific and Alaskan regions, delivering essential NOAA data.
- NWS National Centers, Pacific Region, and Alaska Region Offices require full resolution and aerial coverage of satellite imagery and products to achieve their missions. NWS provides the operational support and maintenance for the GOES-16, GOES-18, and Himawari-9 Re-Broadcast Antennas at the National Hurricane Center, Inouye Research Center, WFO Guam, WFO Anchorage, Aviation Weather Center, Storm Prediction Center, Space Weather Prediction Center, and NOAA Center for Weather and Climate Prediction.
- In FY 2025, NWS will award a new Task Order on GSA's Enterprise Infrastructure Services (EIS) contract transition to this contract.
- In FY 2025, NWS will continue to transition network services from GSA's Networx contract to the EIS contract and the NOAA N-Wave network. GSA has provided an extension to NWS allowing circuits to remain on Networx until May 2026.
- In FY 2025, NWS will continue to sustain and operate the infrastructure to meet the NWS mission.

Weather Information Distribution Services provides the capabilities to communicate weather-related warnings directly to emergency managers and the American public. These services include providing NWS data and product access for international

partners via the World Meteorological Organization Information Systems and the robust NWS Global Information System Centers. NWS operates several weather warning services systems:

- NWR is a national warning network consisting of 1,030 transmitter stations with a broadcast coverage that reaches more than 96 percent of the Nation's population. It provides critical weather and other hazard information to the U.S. public and media outlets. NWR is the only NWS dissemination system capable of reaching individuals at nominal cost (individual purchase of NOAA weather radio) in both rural and urban locations, as well as across the coastal marine waters to serve the boating community.
- The EMWIN provides the emergency management community with direct access to a set of NWS warnings, watches, forecasts, and other products via either satellite broadcast or an internet connection.
- The NWWS is a satellite data collection and dissemination system that provides NWS partners, Federal, state, local emergency managers, and the public with timely delivery of meteorological, hydrological, climatological, and geophysical information. The vast majority of NWWS products are weather and hydrologic forecasts and warnings issued around the clock from NWS Forecast Offices. NWWS is one method used to activate the Emergency Alert System.
- HazCollect/Common Alerting Protocol Handler application amplifies non-weather emergency messages through NWS delivery channels. These non-weather emergency messages, such as Civil Emergencies, from authorized local, state, and Federal partners, are delivered to the IDP by FEMA's Integrated Public Alert and Warning System.
- Web and GIS services enable the access and delivery of NOAA and NWS data and products to forecasters, NOAA users, Federal partners (FAA, FEMA), the Weather Enterprise, the international community, and the public.
- In FY 2025, NWS will complete the first full year of the DIS Cloud, running 8 applications fully operational with 24x7 support. The applications running in the DIS Cloud include Cloud GIS, NWS Chat 2.0, as well as the OWP Hydrologic Visualization and Information Services (HydroVis) System

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Increase from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
	Pos/BA	93	118,126	93	129,573	0	11,447
Dissemination	FTE/OBL	85	118,126	85	129,573	0	11,447

Integrated Dissemination Program Implementation (+$11,447, 0 FTE/ 0 Positions) - NWS requests an increase to maintain recent investments to optimize the IDP. This funding will provide a larger application upgrade support team for the applications currently operating on IDP allowing the NWS to better maintain applications with current operating systems and meeting partner needs, as well as critical resources to maintain hardware support. It will fully fund regular IDP hardware upgrades and software maintenance to reduce system outages, and move all hardware and applications back to 24x7 support.

Without additional resources to support the IDP, periodic enhancements and upgrades, as well as hardware refresh, the health of the applications and system will quickly deteriorate and compromise the ability of the NWS to fulfill its mission. In FY 2023, the Office of Dissemination deferred hardware refresh in order to fund the new IDP contract up to 97 percent availability, but that trade-off was not a long-term solution. In FY 2025, the NWS requires this increase to maintain support and achieve the availability of 99 percent (no more than 1.7 hours of outage per week). With 99 percent availability, NWS is better able to reliably and quickly deliver critical observations, model guidance, forecasts, and watch and warning information required to make real-time, life and property-saving decisions by limiting outages to 87.6 hours a year (or 3.65 days) versus 262.8 hours a year (or 10.95 days) at 97 percent availability.

Schedule and Milestones
FY 2025 - FY 2029

- Provide IDP required hardware and software maintenance to support NWS dissemination systems
- Increase contractual services to support the existing IDP applications at 99 percent
- Continue to operate and maintain NWS mission-critical delivery systems and applications on the IDP infrastructure

Deliverables

- Achieve 99 percent availability of Primary Mission Essential Functions on IDP
- Maintain IT Security within both the re-engineered applications and the underlying technical architecture
- Enable routine access to IDP delivery services

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

- Achieve 24x7 resourced support model for operational applications on the IDP private cloud systems, including Spot, and NWWS

Performance Measures	2025	2026	2027	2028	2029
Percentage of IDP System and Application Availability					
With Increase	99	99	99	99	99
Without Increase	90	90	90	90	90
Outyear Costs:					
Direct Obligations	11,447	11,447	11,447	11,447	11,447
Capitalized	0	0	0	0	0
Uncapitalized	11,447	11,447	11,447	11,447	11,447
Budget Authority	11,447	11,447	11,447	11,447	11,447
Outlays	6,983	10,188	10,531	11,218	11,447
FTE	0	0	0	0	0
Positions	0	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Dissemination
Subactivity: Dissemination

	Object Class	2023 Actual	FY 2024 Annualized CR	2025 Base	2025 Estimate	Increase from 2025 Base
11.1	Full-time permanent compensation	11,069	11,003	11,280	11,280	0
11.3	Other than full-time permanent	11	11	11	11	0
11.5	Other personnel compensation	441	438	449	449	0
11.8	Total personnel compensation	0	0	0	0	0
11.9		11,521	11,452	11,740	11,740	0
12	Civilian personnel benefits	4,349	4,323	4,419	4,419	0
13	Benefits for former personnel	4	4	4	4	0
21	Travel and transportation of persons	176	175	180	180	0
22	Transportation of things	101	100	102	102	0
23	Rent, communications, and utilities	0	0	0	0	0
23.1	Rental payments to GSA	4,034	4,010	4,075	4,075	0
23.2	Rental Payments to others	5,192	5,161	5,245	5,245	0
23.3	Communications, utilities and misc charges	26,982	26,821	27,255	27,255	0
24	Printing and reproduction	0	0	0	0	0
25.1	Advisory and assistance services	5,911	5,876	5,874	5,874	0
25.2	Other services from non-Federal sources	48,980	48,688	48,675	60,122	11,447
25.3	Other goods and services from Federal sources	1,291	1,283	1,283	1,283	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	6,717	6,677	6,825	6,825	0
31	Equipment	1,410	1,402	1,442	1,442	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	1,011	1,005	1,005	1,005	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	2	2	2	2	0
44	Refunds	0	0	0	0	0
99	Total Obligations	117,681	116,979	118,126	129,573	11,447

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Increase from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
	Pos/BA	93	118,126	93	123,126	0	5,000
Dissemination	FTE/OBL	85	118,126	85	123,126	0	5,000

AWIPS in the Cloud - Networking (+$5,000 0 FTE/ 0 Positions) - NOAA requests an increase to transform the AWIPS and the underlying infrastructure into a modern, extensible framework by utilizing cloud-based technologies. The total NWS request for this initiative is $11,0000, to include $4,500 in Observations [NWS-11], $1,500 for Central Processing [NWS-26], and $5,000 for Dissemination.

The United States has seen an average of 20 billion-dollar weather and climate disasters over the last three years; a significant increase from the average of 6.7 events per year in the 2000s. As this number continues to increase, the demand for impact-based decision support services (IDSS) from the NWS continues to grow. Decision makers are asking the NWS to provide this support face-to-face in emergency operations centers, at the scene of disasters, and at the front lines of the hazards. Transforming NWS's current network of systems - AWIPS - to a cloud framework is crucial to meeting these needs and achieving the NWS's goal to move towards a more nimble, flexible, and mobile agency that can respond to decision makers anytime, anywhere.

AWIPS is currently a network of systems originally developed and deployed in the 1990s at more than 170 NWS Offices and National Centers across the country and territories to enable the generation of life-saving forecasts and warnings. The current design of this system is highly reliable, which is critical to the issuance of timely life-critical warnings. However, this 30 year old system architecture has shortcomings that developed over time in its ability to keep up with access to exponentially growing amounts of data. This has resulted in the increased complexity of providing alternative telecommunications, impacts to the ability to efficiently infuse innovations into operations, and limits to the NWS' ability in ensuring forecasters have efficient secure remote access for IDSS in embedded partner locations.

Shifting AWIPS to cloud-based technology will enable the NWS to accomplish a number of efficiencies and cyber security improvements, while enabling more rapid transition of future functionality into operations. By moving AWIPS to a cloud infrastructure, the exponentially increasing amount of observational data (e.g., satellite and radar data) and model data can be stored and processed in the cloud. This would relieve some of the need to have complex local computing systems at each NWS site and allow

forecasters to access data and tools from anywhere. Additionally, since the NWS maintains AWIPS as open source software, implementing a cloud-based AWIPS will also have benefits to other Federal agencies and academic institutions who utilize AWIPS operationally or for research. A highly reliable, full-scale AWIPS cloud configuration would be implemented in FY 2029.

Dissemination requires $5,000 to implement the “to-be” architecture for AWIPS in the Cloud, inclusive of the network and data flow changes. This includes procurement of necessary network equipment and circuits to ensure adequate and reliable connectivity between operational forecasters and the new AWIPS infrastructure in support of nimble, flexible, and mobile forecast operations. It will also include procurement of network engineering services to work with the NWS to quickly implement the network hardware and upgraded telecom infrastructure.

Schedule and Milestones

FY 2025 - FY 2029

- Acquisition of updated technology to enable offices and observing systems to access AWIPS in the Cloud
- Transition to communications infrastructure with bandwidth and resiliency to enable mobile and reliable access to AWIPS in the Cloud

Deliverables

- Creation of a mobile AWIPS framework that enables NWS to support decision makers needs anytime, anywhere
- Modernized NWS network enabling resilient and mobile connectivity of NWS personnel to AWIPS in the Cloud
- Timely access to observational data and forecast guidance from common cloud environment

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

Performance Measures	2025	2026	2027	2028	2029
Percentage of offices with mobile and resilient network infrastructure to access AWIPS in the cloud					
With Increase	10	35	60	85	100
Without Increase	0	0	0	0	0
Percentage of NWS observing platforms enabled to provide data to the cloud					
With Increase	10	35	60	85	100
Without Increase	5	5	5	5	5
Outyear Costs:					
Direct Obligations	5,000	5,000	5,000	5,000	5,000
Capitalized	0	0	0	0	0
Uncapitalized	5,000	5,000	5,000	5,000	5,000
Budget Authority	5,000	5,000	5,000	5,000	5,000
Outlays	3,050	4,450	4,700	4,900	5,000
FTE	0	0	0	0	0
Positions	0	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Dissemination
Subactivity: Dissemination

	Object Class	2023 Actual	FY 2024 Annualized CR	2025 Base	2025 Estimate	Increase from 2025 Base
11.1	Full-time permanent compensation	11,069	11,003	11,280	11,280	0
11.3	Other than full-time permanent	11	11	11	11	0
11.5	Other personnel compensation	441	438	449	449	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	11,521	11,452	11,740	11,740	0
12	Civilian personnel benefits	4,349	4,323	4,419	4,419	0
13	Benefits for former personnel	4	4	4	4	0
21	Travel and transportation of persons	176	175	180	180	0
22	Transportation of things	101	100	102	102	0
23	Rent, communications, and utilities	0	0	0	0	0
23.1	Rental payments to GSA	4,034	4,010	4,075	4,075	0
23.2	Rental Payments to others	5,192	5,161	5,245	5,245	0
23.3	Communications, utilities and misc charges	26,982	26,821	27,255	27,255	0
24	Printing and reproduction	0	0	0	0	0
25.1	Advisory and assistance services	5,911	5,876	5,874	5,874	0
25.2	Other services from non-Federal sources	48,980	48,688	48,675	53,675	5,000
25.3	Other goods and services from Federal sources	1,291	1,283	1,283	1,283	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	6,717	6,677	6,825	6,825	0
31	Equipment	1,410	1,402	1,442	1,442	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	1,011	1,005	1,005	1,005	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	2	2	2	2	0
44	Refunds	0	0	0	0	0
99	Total Obligations	117,681	116,979	118,126	123,126	5,000

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Activity: Science and Technology Integration

Goal Statement

NWS improves the overall quality of the environmental information needed to safeguard life and livelihoods by integrating new science and technology into its operations. NWS' STI activity leverages the entire weather enterprise including users, research communities, partner agencies, and industry, to provide improved weather forecast guidance for the Nation in support of the NWS 2023-2033 Strategic Plan and Department of Commerce 2022-2026 Strategic Plan, Strategic Objective 3.1: Increase the impact of climate data and services for decision makers through enhanced service delivery and improved weather, water, and climate forecasts.

Base Program

STI engages partners in outreach efforts, supporting targeted research and development efforts, improving a suite of forecast guidance models and post-processing, continuously training the workforce on scientific advances, and infusing new science along with social, behavioral, and economic sciences into operations. Demonstration and transition of new research into operations (R2O) is a fundamental activity of this portfolio. NWS identifies and transfers new science into operational warning, forecast, and decision support services, enabling the NWS vision to build a Weather-Ready Nation through improved products and services.

In FY 2024, NWS implemented the:

- Global Forecast System (GFS) version 17/ GFS Ensemble Forecast System (GEFS) version 13
- Rapid Refresh Forecast System (RRFS) version 1
- 3D Real Time Mesoscale Analysis (3DRTMA)/ UnRestricted Mesoscale Analysis (URMA) version 2

Statement of Operating Objectives

Schedule and Milestones
FY 2025 - FY 2029

- Conduct testing, demonstration, and validation of new science and service capabilities through testbeds and proving grounds
- Implement regional, global, hurricane, and air quality model upgrades routinely
- Develop and implement a Seasonal Forecast System (SFS version 1)

- Improve weather model and post-processing guidance
- Update product suite based on customer requirements
- Demonstrate high-resolution large watershed modeling with nested hyper-resolution modeling over three regional areas
- Annual upgrade of National Blend of Models
- Implement annual update to 3DRTMA/URMA
- Implement annual update to Hurricane Analysis and Forecast System (HAFS)
- Pilot evidence-based community engagement model
- Develop an Agent Based Model for select riverine communities experiencing flooding
- Develop and implement in select communities a rapid case study methodology to understand the impacts of weather hazards

FY 2025

- Implement decision support tools for week 3-4 precipitation forecasts targeted toward water resource managers
- Implement operational high-resolution large watershed modeling with nested hyper-resolution capability in at least five regional areas
- Implement Global Ensemble Forecast System version 13/Global Forecast System version 17
- Implement update to HAFS version 3
- Implement update to RRFS version 2
- Implement update to Whole Atmosphere Model version 2 for space weather forecasts
- Implement annual update to 3DRTMA/URMA
- Implement National Blend of Models version 5.0

FY 2026

- Implement RRFS version 3
- Implement update to HAFS version 4
- Prototype unification of regional and hurricane regional systems
- Implement annual update to 3DRTMA/URMA
- Pilot evidence-based community engagement model
- Develop and implement in select communities a rapid case study methodology to understand the impacts of weather hazards

FY 2027

- Implement Global Ensemble Forecast System version 14/Global Forecast System version 18
- Implement update to HAFS version 5
- Implement RRFS version 4
- Implement annual update to 3DRTMA/URMA

- Develop an Agent Based Model for select riverine communities experiencing flooding

FY 2028

- Implement SFS version 1
- Implement update to HAFS version 6
- Implement update to RRFS version 5
- Implement annual update to 3DRTMA/URMA

Deliverables

- Upgrades to global operational atmospheric prediction system
- Annual upgrades to operational NOAA Hurricane Forecast System
- Annual enhancement and release of UFS modeling infrastructure (ESMF, CCPP, and METplus)
- Upgrades to the operational regional forecast systems
- Probabilistic hydrologic forecasts for assessing river level and flood risks
- Continuous improvements to NOAA's suite of operational forecast models
- Regular release of operational forecast systems to the community through the Unified Forecast System
- New and improved modeling techniques, evaluated by the Developmental Testbed Center, and delivered to NWS, for incorporation in the Operational Modeling Suite
- Increased horizontal and vertical resolution of atmosphere, ocean, sea ice, waves, land, within bounds of computational capability
- Upgrades to operational Data Assimilation System, toward JEDI-based coupled data assimilation system
- Annual upgrades to the NOAA Environmental Modeling System infrastructure
- Upgraded ocean, atmosphere, sea ice, land surface, aerosol, wave component models
- Agile HPC environment with quicker operational transition of research and development efforts
- Upgraded operational storm surge warning service products (e.g., inundation maps)
- Upgraded probabilistic storm surge guidance
- Operational weekly, monthly and seasonal sea ice outlook guidance products for Arctic Ocean
- Forecaster applications (tools, methodologies, datasets) of near real-time data products from research ocean remote sensing satellites
- New NWS experimental products focused on extreme events
- Global operational coupled atmosphere-ocean-land-wave-sea ice prediction system extending today's operational weather outlooks from 16 days out to one year

- Improved forecasts provided to the Nation's critical infrastructure to ensure lives and property are protected from the effects of space weather
- Evaluation of NWS testing/demonstration plans and results
- Improved public access to Federal water information
- Upgraded ozone and particulate prediction system
- Adaptable community engagement model Weather Forecast Offices can utilize to provide equitable services to the communities they serve.
- An Agent Based Model providing potential insights regarding flooding in riverine communities.
- Consistent and comparable case studies of selected weather events and communities to better understand impact and outcomes.

Explanation and Justification

		2023 Actual		2024 Annualized CR		2025 Base Program	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Science and Technology Integration	Pos/BA	429	200,007	471	178,952	471	181,508
	FTE/OBL	424	218,237	438	178,952	438	181,508

In support of NOAA's operational forecasting mission, NWS researches and develops, improves, and monitors data assimilation systems and models of the atmosphere and oceans using advanced methods developed internally, as well as cooperatively with scientists from universities, NOAA laboratories, other government agencies, and the international scientific community.

STI maintains the following programs to accomplish this activity:

Weather-Ready Nation (WRN) is a nationwide initiative to build community resilience in the face of increasing vulnerability to extreme weather, water, and climate events. WRN empowers emergency managers, first responders, government officials, businesses, and the public to make faster, smarter decisions to save lives and protect livelihoods. Key actions that enable implementation of the WRN roadmap include the following:

- Develop, transition, and improve advanced forecast tools, techniques, service products, and next generation warning and forecast paradigms to enhance NWS' national, regional and local warning, forecast, and guidance services.

- Incorporate and integrate social science into the forecasting process to develop more effective decision support capabilities, improving the effectiveness of warnings and forecasts, and to better convey forecast risk and uncertainty.
- Develop high-resolution probabilistic weather information consistent across space and time to support safe air traffic operations.
- Extend warning and forecast lead times for tornado, hurricane, storm surge, fire weather, and winter storms with increased certainty and confidence. Develop/improve models, tools, and data sets to forecast and monitor real-time climate variations.
- Improve space weather warnings and forecasts for geomagnetic and radiation storms and ionospheric disturbances to protect the reliability and resilience of the Nation's electric power system, satellite navigation, and telecommunication infrastructure, and support aviation and space flight safety.

Operational Environmental Prediction Modeling Suite is the foundation for all warning, forecast, and decision support services. The Environmental Modeling Center (EMC) develops, enhances, and maintains complex software of numerical weather, ocean, climate, sea ice, and coastal prediction models and data assimilation systems that span the globe. These forecast systems underpin all NOAA forecast capabilities. The operational modeling suite provides the basic numerical guidance that NWS forecasters rely on in making forecasts, warnings, and decision support service products. EMC collaborates with universities, laboratories, and federal agencies through the Unified Forecast System (UFS).

- EMC collaborates with partners at universities and research laboratories to integrate advancements of environmental prediction modeling research and development into NWS operational models.
- EMC also collaborates with partners within NOAA and with other Federal agencies to conduct studies to validate observing requirements and data impacts for existing and new observing platforms and technologies such as satellites and radar.

Improving Effectiveness of Warning and Forecasts aims to accelerate the transition of advanced modeling research into operations. This program is focused on improving warning and forecast lead times and accuracy of severe weather events associated with hurricanes, tornadoes, flash floods, and other severe weather hazards. The collaborations within the Unified Forecast System Research to Operations (UFS-R2O) are focused on developing the next versions of three applications: the Medium Range Weather / Sub-seasonal to Seasonal (days to weeks), Short Range Weather (hours to days), and Hurricane applications. Major efforts of the modeling program include:

- Improving the accuracy and reliability of hurricane track and intensity forecasts, through the Hurricane Forecast Improvement Project (HFIP), as required by the *Weather Research and Forecasting Innovation Act of 2017* (P.L. 115-25), to reduce unnecessary evacuations. This effort also focuses on advanced data assimilation and improved global atmospheric and ocean models, which underpin forecast systems for all severe weather.

- Providing the Next Generation Global Prediction System (NGGPS) to the research community, including necessary infrastructure to facilitate engagement and improvements from community collaborators. NGGPS forms the backbone of NOAA's future operational numerical weather prediction capability meeting the public's evolving needs for more accurate, more specific, and longer lead time weather forecasts. NGGPS provides significant advancements for warning and forecast skill across multiple service areas.
- Developing and evaluating national air quality forecast models to provide national pollutant forecast information for states, local communities, commercial sectors, the U.S. Environmental Protection Agency, and the U.S. Department of State.
- Extending forecast of extreme and high impact weather to four weeks through the development of improved outlooks and transitioning into modeling operations of advancements in prediction science coming from the scientific research community. Extending foundational forecasts of subseasonal and seasonal temperature and precipitation is a key requirement of the *Weather Research and Forecasting Innovation Act of 2017*.
- Unifying NOAA's operational model suite based on Finite-Volume Cubed-Sphere atmospheric Dynamic Core, with coupling to the MOM6 ocean model.

Hydrology and Water Resource Programs leverage NOAA partnerships in the areas of atmosphere, watersheds, estuaries and oceans to improve and integrate water resource prediction modeling capabilities. NWS' Hydrology Laboratory conducts studies, investigations and analyses, leading to the application of new scientific and computer technologies to hydrologic forecasting and related water resources problems.

- NWS transitions research in atmosphere, watershed, estuary and ocean modeling, and data assimilation science and technology into operational hydrologic and water resource forecast capabilities in order to provide integrated decision support tools that offer a seamless suite of summit-to-sea forecasts.
- Through partnerships, especially the Integrated Water Resources Science and Services Consortium, NWS is developing a new suite of high-resolution forecasts of streamflow, soil moisture, soil temperature and other variables directly related to watershed conditions to enable monitoring and forecasting of hydrologic conditions from floods to droughts.

Training Infrastructure is critical to preparing the current and future workforce for WRN. Effective training leads to better integration of new models, transition of science and technology into operations, and improved service to the Nation. The NWS workforce must remain agile and flexible to meet core partner needs. NWS uses a blended learning approach including online courses, webinars, and residence training. Implementation of these training initiatives requires new and enhanced methods and technologies for training delivery, such as simulations and on-demand training, integrated into applications and other systems. As a part of this effort:

- NWS identifies and addresses local training needs, facilitates professional development, and addresses individual strengths

and weaknesses of the local forecast staff.
- NWS ensures local operations and management teams are fully proficient and knowledgeable in protocols, tools, forecast and warning operations for delivery of effective IDSS.

Improve Operational Forecast Products and Services through a continuous infusion of science and technology. This is critical for improving services and ensuring the current and future workforce is prepared to meet the requirements of a WRN. These actions include:
- Centrally manage national and regional implementation of research to operations transitions at the local level including applications that improve model guidance;
- Maintain local science and training expertise through the Science and Operations Officers and the Development and Operations Hydrologists to lead coordinated improvements of operations through adopting new science and technology by the forecasting staff, and addressing local forecast and warning issues;
- Maintain close connections with the research community to enable, and accelerate, research to operations, including sponsoring the Collaborative Science and Technology Applied Research program, supporting testbeds, and supporting visiting scientist programs, a priority of the *Weather Research and Forecasting Innovation Act of 2017* (P.L. 115- 25), to improve NWS services;
- Enhance testbeds and operational proving grounds; and,
- Provide operational platforms for the broad research and development community across NOAA, academia, core partners, and the weather enterprise to conduct demonstration, simulation, verification, and validation of new science and service capabilities.

Build Social, Behavioral, and Economic Sciences (SBES) capabilities to support the growth and understand the impacts of the programs developed throughout the NWS. The primary purpose of SBES research is to help the NWS make better decisions to fulfill its mission. In order to ensure a Weather Ready Nation, to improve warnings, forecasts, and training, and to evaluate products and services; SBES research needs to be included from the beginning of the R&D process to develop baselines and to utilize innovative methods to demonstrate progress and impacts over time. As communities and core partners change and evolve, the NWS must keep abreast of these changes to ensure that relationships remain strong and messages and tools remain relevant and meaningful, ensuring equitable services to all communities served by the NWS. To fulfill this mission, the SBES program will:
- Understand communities by examining the convergence of society, place, and weather,
- Communicate risk effectively by refining tools and messages regarding risk and uncertainty, and by understanding the decision making processes of the NWS and its core partners,

- Evaluate products and services with the development of evaluation frameworks and logic models to support process improvement and outcomes throughout the lifecycle of a program, and
- Assess impact through the development of baselines and metrics at the individual, community, state, tribal, and national levels regarding resilience and vulnerability to weather, water, and climate events.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Science and Technology	Pos/BA	471	181,508	471	162,458	0	(19,050)
Integration	FTE/OBL	438	181,508	438	162,458	0	(19,050)

Reduce the Cooperative Institute for Research to Operations in Hydrology (-$19,050, 0 FTE/ 0 Positions) - This program change is requested to support other NOAA and Administration priorities. At this funding level, the Cooperative Institute for Research to Operations in Hydrology (CIROH), in consultation with its 28 consortium members, will have to prioritize only the continuation of multi-year CIROH projects already in progress to support research within the themes of Advancing Water Resources Prediction Capabilities; Advancing and Accelerating Community Water Resources Modeling Development; Developing Innovative Hydroinformatics Solutions; and Applying Social, Economic and Behavioral Science to Water Resources.;.

Schedule and Milestones:
FY 2025 - FY 2029

- Reduce funding for Research to Operations in Hydrology grants
- Maintain support for highest priority activities within available Research to Operations in Hydrology funding

Deliverables:

- Reduce funding for Research to Operations in Hydrology grants

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

Performance Measures	2025	2026	2027	2028	2029
Number of grant awards (new and existing projects)					
With Decrease	9	9	9	9	9
Without Decrease	37	37	37	37	37
Outyear Costs:					
Direct Obligations	(19,050)	(19,050)	(19,050)	(19,050)	(19,050)
Capitalized	0	0	0	0	0
Uncapitalized	(19,050)	(19,050)	(19,050)	(19,050)	(19,050)
Budget Authority	(19,050)	(19,050)	(19,050)	(19,050)	(19,050)
Outlays	(11,620)	(16,954)	(17,907)	(18,669)	(19,050)
FTE	0	0	0	0	0
Positions	0	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Science and Technology Integration
Subactivity: Science and Technology Integration

	Object Class	2023 Actual	FY 2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	72,835	59,390	61,046	61,046	0
11.3	Other than full-time permanent	69	56	58	58	0
11.5	Other personnel compensation	2,521	2,056	2,113	2,113	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	75,425	61,502	63,217	63,217	0
12	Civilian personnel benefits	31,566	25,739	26,374	26,374	0
13	Benefits for former personnel	27	22	22	22	0
21	Travel and transportation of persons	48	39	40	40	0
22	Transportation of things	258	210	215	215	0
23	Rent, communications, and utilities	0	0	0	0	0
23.1	Rental payments to GSA	7,970	6,499	6,616	6,616	0
23.2	Rental Payments to others	101	82	83	83	0
23.3	Communications, utilities and misc charges	1,226	1,000	1,018	1,018	0
24	Printing and reproduction	45	37	38	38	0
25.1	Advisory and assistance services	51,312	41,840	41,828	41,828	0
25.2	Other services from non-Federal sources	13,531	12,033	12,029	6,926	(5,103)
25.3	Other goods and services from Federal sources	4,308	3,513	3,512	3,512	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	2,580	2,104	2,156	2,156	0
31	Equipment	1,056	861	888	888	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	28,782	23,469	23,469	9,522	(13,947)
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	2	2	2	2	0
44	Refunds	0	0	0	0	0
99	Total Obligations	218,237	178,952	181,508	162,458	(19,050)

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Science and	Pos/BA	471	181,508	471	180,194	0	(1,314)
Technology Integration	FTE/OBL	438	181,508	438	180,194	0	(1,314)

Suspend COASTAL Act (-$1,314, 0 FTE/ 0 Positions) - This program change is requested to support other NOAA and Administration priorities. This decrease will suspend implementation of the Consumer Option for an Alternative System To Allocate Losses (COASTAL) Act of 2012 in order to better align NOAA's timeline with the Federal Emergency Management Agency. Once COASTAL Act implementation is re-initiated, NWS will require time and resource investments to bring the existing code up to current standards through development, testing, and evaluation to achieve the final steps for implementation.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Science and Technology Integration
Subactivity: Science and Technology Integration

	Object Class	2023 Actual	FY 2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	72,835	59,390	61,046	61,046	0
11.3	Other than full-time permanent	69	56	58	58	0
11.5	Other personnel compensation	2,521	2,056	2,113	2,113	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	75,425	61,502	63,217	63,217	0
12	Civilian personnel benefits	31,566	25,739	26,374	26,374	0
13	Benefits for former personnel	27	22	22	22	0
21	Travel and transportation of persons	48	39	40	40	0
22	Transportation of things	258	210	215	215	0
23	Rent, communications, and utilities	0	0	0	0	0
23.1	Rental payments to GSA	7,970	6,499	6,616	6,616	0
23.2	Rental Payments to others	101	82	83	83	0
23.3	Communications, utilities and misc charges	1,226	1,000	1,018	1,018	0
24	Printing and reproduction	45	37	38	38	0
25.1	Advisory and assistance services	51,312	41,840	41,828	40,514	(1,314)
25.2	Other services from non-Federal sources	13,531	12,033	12,029	12,029	0
25.3	Other goods and services from Federal sources	4,308	3,513	3,512	3,512	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	2,580	2,104	2,156	2,156	0
31	Equipment	1,056	861	888	888	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	28,782	23,469	23,469	23,469	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	2	2	2	2	0
44	Refunds	0	0	0	0	0
99	Total Obligations	218,237	178,952	181,508	180,194	(1,314)

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Activity: Systems Acquisition
Subactivity: Observations

Goal Statement

The PAC Observations Subactivity supports the life-cycle of all NWS observing system investments by providing technical solutions to meet NWS' operational observational requirements. Through these activities, NOAA sustains current observational capabilities, provides recapitalization of critical observational systems and components, and engineers technical solutions to address system obsolescence, and to meet evolving requirements and demands in support of the Department of Commerce 2022-2026 Strategic Plan, Strategic Objective 3.1: Increase the impact of climate data and services for decision makers through enhanced service delivery and improved weather, water, and climate forecasts.

Base Program

Observations is responsible for the collection of space, atmosphere, water, and climate observational data owned, leveraged, or purchased by NWS. Observations is also responsible for the development, acquisition and management of cost-effective observing technologies, hardware and software enhancements, maintenance and repairs, logistics, cost management, technical data verification, and life-cycle replacements of NWS observational platforms.

Specifically, the funds in the PAC Observations Subactivity are used to:

- Extend the service life of NWS' observing systems networks;
- Address obsolete components by re-engineering and integrating new solutions;
- Conduct refresh of system components to maintain service availability;
- Migrate systems to current versions of software and networks.

Statement of Operating Objectives

Schedule and Milestones
FY 2025 – FY 2029
Next Generation Weather Radar (NEXRAD)

- Recapitalize test equipment

- Continue to migrate comms to EIS
- Begin refresh of Radar Product Generator hardware and software

Automated Surface Observing System (ASOS)

- Continue deployment of Acquisition Control Unit (ACU) and Data Collection Package (DCP) upgrades
- Continue to migrate comms to EIS
- Replace end-of-life sensors (e.g., visibility, lightning)

Weather Buoys and Coastal Marine Automated Network (C-MAN) stations

- Initiate refresh of at-risk weather buoys (e.g., platforms and sensors)

Upper Air

- Initiate refresh of end-of-life Automated Radiosonde Observation System (AROS)

Cooperative Observer Programs

- Initiate refresh of end-of-life sensors for COOP program
- Initiate communication upgrades for Voluntary Observing Ship network

EIS

- Establish a sustainable, resilient architecture to meet NWS's current and planned needs

Deliverables

NEXRAD

- Re-engineer and integrate key components to extend service life

ASOS

- Total refreshment of ACU-DCP enabling rapid sensor replacement, Increase data flow, and remote maintenance capabilities
- New sensors to improve precipitation estimates, and local weather conditions

Weather Buoys and C-MAN stations

- Refurbished marine and coastal observing network to support weather forecasting and marine transportation

Upper Air

- Continuity for upper air launch sites providing critical input to Numerical Weather Prediction models

Cooperative Observer Programs

- Targeted refresh of critical observing sites providing climatological and oceanic data

EIS

- Modernized telecommunications infrastructure capable of meeting the agency's mission via EIS implementation

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Explanation and Justification

		2023 Actual		2024 Annualized CR		2025 Base Program	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Observations	Pos/BA	3	15,942	3	16,200	3	16,200
	FTE/OBL	2	38,294	3	16,200	3	16,200

As with the other NWS PPAs, PAC Observations follows a portfolio management approach, wherein objectives are achieved through the prioritization of validated resource requirements and allocation of funds to those priorities. In this case, NWS prioritizes the refurbishment/extension of the useful life of NWS observational assets. Then, funds are allocated based on an evaluation of validated requirements, the impact of the observations to the NWS mission, the overall annual portfolio risk outlook, and costs.

Observation Systems Sustainment
Many of the NWS' observational systems are old and have reached, or are approaching, their end-of-life. Radar systems have thousands of components that continue to wear-out and/or become obsolete. In these cases, replacement components must be designed, engineered, and integrated - sometimes requiring a new manufacturer. Other observing systems face similar challenges - the weather buoy network requires new hulls and sensors to replace the current network which has been subject to many years in the harsh ocean environment. The upper air network of automated balloon launchers, a critical input to numerical weather prediction and medium range forecasts, are nearing the end of their life. Observations will have to work with the manufacturer to extend their useful life. The Cooperative Observer Program, the NWS' longest operating and oldest observation program, relies on equipment that is no longer supported by manufacturers and the support systems are nearing obsolescence

NWS addresses these challenges in a systematic manner, based on system risk and observational impact. It will address obsolete components by re-engineering and integrating new solutions, updating hardware, software, and network components to maintain pace with industry standards, and identifying ways to operate and maintain systems more efficiently.

In FY 2023, the NWS issued the final task order to complete the pedestal refurbishment for the NEXRAD radars and replaced generator systems in the operational radar network. It took delivery of the first advanced Acquisition Control Unit (ACU) and Data Collection Package (DCP) upgrades for the Automated Surface Observing System (ASOS) for testing.

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

In FY 2024, the NWS completed the radar pedestal refurbishment project, and completed low-rate production of new ACU/DCPs and entered full rate production for the complete network.

In FY 2025, the NWS plans to continue migrating systems to GSA's Enterprise Infrastructure Solutions network services, refreshing the radar product generator, and recapitalizing radar test equipment to ensure performance of the NEXRAD system. Observations also intends to continue deploying the ASOS ACU/DCPs and replace precipitation sensors. Observations will initiate planning for the replacement of the weather buoy hulls and replace sensors for the Cooperative Observer Program.

In addition, in FY 2022, NWS received $50,000 in funding from the Bipartisan Infrastructure Law and has been working to recapitalize two end-of-life observing capabilities: the Tropical Atmosphere Ocean (TAO) array in the tropical Pacific that provides key insights into ocean, climate, and weather variability and prediction, regionally and globally; and the Deep-ocean Assessment and Reporting of Tsunamis (DART), which is critical for tsunami detection and warnings. In FY 2023, NWS completed the engineering design of the new TAO system and deployed three redesigned TAO systems for testing in the array. In FY 2024, NWS will award the contract for new DART systems and will award contracts for TAO sensors and equipment, as well as system assembly. NWS also received $13,500 to accelerate the enhancements of ASOS by 18 months for the Service Life Extension Program to upgrade the observation infrastructure. That funding also provided the necessary ASOS communications infrastructure upgrades to facilitate dissemination of an increased volume of observations from ceilometers and other sensors while improving system security, logging, and maintenance access.

Outyear Funding Estimates*

Observations	2024 & Prior	2025	2026	2027	2028	2029	CTC	Total
Change from 2024 Base	N/A	0	0	0	0	0	N/A	N/A
Total Request	N/A	16,200	16,200	16,200	16,200	16,200	N/A	Recurring

*Outyears are estimates. Future requests will be determined through the annual budget process.

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Activity: Systems Acquisition
Subactivity: Central Processing

Goal Statement

The PAC Central Processing Subactivity ensures the uninterrupted flow of information from the collection of observations, to central guidance production, to local applications of all essential weather and climate data products, and continuity of public watches and warnings in support of the Department of Commerce 2022-2026 Strategic Plan, Strategic Objective 3.1: Increase the impact of climate data and services for decision makers through enhanced service delivery and improved weather, water, and climate forecasts.

Base Program

Central Processing is responsible for program and budget planning for the Weather and Climate Operational Supercomputing System (WCOSS) and the Advanced Weather Interactive Processing System (AWIPS). Central Processing is also responsible for maintaining an optimum processing systems configuration and an enterprise architecture for processing systems to meet current and future NWS mission requirements, including the strategy for maximizing effectiveness while minimizing operating costs and coordination with the Office of Dissemination.

Statement of Operating Objectives

Schedule and Milestones
FY 2025 – 2029

- Provide operations and maintenance support for WCOSS
- Provide operations and maintenance support for NOAA's R&D High Performance Computing system
- Phased implementation of new forecast tools and capabilities into AWIPS
- Complete resign of software baseline for cloud-based AWIPS
- Award Phase II task order for enhanced WCOSS capabilities

Deliverables

- Operational WCOSS with full backup capability
- Production Suite On-Time Product Generation at 99 percent

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

- Sustained WCOSS capacity at 14.5 petaflops, in each of the primary and backup systems
- New forecast tools and capabilities for impact-based decision support services / Weather-Ready Nation operations
- Weather Event Simulator integration into AWIPS

Explanation and Justification

		2023 Actual		2024 Annualized CR		2025 Base Program	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
	Pos/BA	27	69,378	27	69,649	27	69,649
Central Processing	FTE/OBL	22	75,164	26	69,649	26	69,649

PAC Central Processing objectives are achieved through the following programs:

Weather and Climate Operational Supercomputing System (WCOSS) supports (a) weather and climate forecasting capabilities 24 hours per day/seven days a week, (b) numerical environmental prediction model development and testing, and (c) dissemination of operational products using a wide area network. These products include national and global weather, water, climate and space weather guidance, forecasts, warnings and analyses to a broad range of users and partners including other NOAA programs, government agencies, military, and the general public.

WCOSS is composed of primary and backup operational supercomputing systems, storage resources, wide area network, support services, and developmental research and development computing systems. The primary system runs the NCEP production suite. The backup is used to thoroughly test new weather and climate forecasting applications when it is not being used to run the production suite (during a backup system test or an actual emergency). The backup supercomputer system is capable of handling 100 percent of the operational workload should the primary supercomputer system be disrupted. In accordance with NOAA Critical Infrastructure Protection plans, implementation and maintenance of a redundant WCOSS architecture ensures uninterrupted flow of weather and climate data and products, such as storm watch and warning services to the public. WCOSS also provides NWS access to developmental computing systems through the NOAA-wide enterprise Research and Development High Performance Computing System.

Advanced Weather Interactive Processing System (AWIPS) is an information processing, display, and telecommunications

system that is the cornerstone of NWS field operations. AWIPS provides the following services:

- Integrates and displays radar, satellite, and other meteorological and hydrological data at NWS field offices;
- Acquires and processes data from sensors and local sources;
- Provides computational and display functions at the forecaster's desk;
- Provides an interactive communications system to interconnect NWS operational sites;
- Initiates the dissemination of weather and flood warnings and forecasts in a rapid and highly reliable manner; and,
- Provides the communication interface for internal and external users of much of NOAA's real-time environmental data.

Sustained investments in the AWIPS hardware, communications, and software infrastructure, are necessary for integrating many other programs such as NEXRAD, and other weather radars, weather satellites, sensors, and instruments. NWS Government Performance and Results Act goals are based on the effective use of these technology investments along with advanced decision assistance tools, forecast preparation and advanced database capabilities. As the NWS continues to evolve toward an IDSS-based WRN, improvements to AWIPS technology will be needed to ensure NWS meteorologists and hydrologists have the necessary tools and technology. Continued AWIPS improvements produce increased performance in the Government Performance and Results Act goals of Tornado Warning Lead Time, Flash Flood Warning Lead Time, and Winter Storm Warning Lead Time.

In FY 2023, NWS implemented a 20 percent increase in operational supercomputing for WCOSS. In FY 2025, NWS will award a Phase II task order for enhanced WCOSS supercomputing capabilities. In FY 2025, NWS will continue to develop new Advanced Weather Interactive Processing System (AWIPS-II) forecast capabilities and implement modeling advancements on its modernized WCOSS. Without continued support for WCOSS and for investments in AWIPS, NWS cannot provide operational and developmental high performance computing capacity, and forecast and process improvements within AWIPS.

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
	Pos/BA	27	69,649	27	68,000	0	(1,649)
Central Processing	FTE/OBL	26	69,649	26	68,000	0	(1,649)

Slow cloud readiness studies (-$1,649, 0 FTE/ 0 Positions) - This program change is requested to support other NOAA and Administration priorities. At this funding level, NOAA will continue to conduct cloud readiness studies for AWIPS in the Cloud. However, because NOAA plans to begin migration of AWIPS to the cloud, supported by $4,500 in Observations [NWS-12], $1,500 for Central Processing [NWS-27], and $5,000 for Dissemination NWS 60], in FY 2025, NOAA can reduce cloud readiness study efforts

Schedule and Milestones
FY 2025 - 2029

- Complete migration of AWIPS to the cloud

Deliverables

- Cloud migration approach based on limited data to inform design and architectural considerations

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

Performance Measures	2025	2026	2027	2028	2029
Percentage of HEFS version 2.0 development complete					
With Decrease	0	0	0	0	0
Without Decrease	40	60	80	100	100
Number of development and deployments of NWPS					
With Decrease	1	0	0	0	0
Without Decrease	1	1	1	1	1
Outyear Costs:					
Direct Obligations	(1,649)	(1,649)	(1,649)	(1,649)	(1,649)
Capitalized	(1,649)	(1,649)	(1,649)	(1,649)	(1,649)
Uncapitalized	0	0	0	0	0
Budget Authority	(1,649)	(1,649)	(1,649)	(1,649)	(1,649)
Outlays	(1,022)	(1,468)	(1,517)	(1,616)	(1,649)
FTE	0	0	0	0	0
Positions	0	0	0	0	0

Outyear Funding Estimates*

Central Processing	2024 & Prior	2025	2026	2027	2028	2029	CTC	Total
Change from 2024 Base	N/A	(1,649)	(1,649)	(1,649)	(1,649)	(1,649)	N/A	N/A
Total Request	N/A	68,000	68,000	68,000	68,000	68,000	N/A	Recurring

*Outyears are estimates. Future requests will be determined through the annual budget process.

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Systems Acquisition
Subactivity: Central Processing

	Object Class	2023 Actual	FY 2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	4,131	3,828	3,828	3,828	0
11.3	Other than full-time permanent	14	13	13	13	0
11.5	Other personnel compensation	50	46	46	46	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	4,195	3,887	3,887	3,887	0
12	Civilian personnel benefits	1,761	1,632	1,632	1,632	0
13	Benefits for former personnel	2	2	2	2	0
21	Travel and transportation of persons	1	1	1	1	0
22	Transportation of things	2	2	2	2	0
23	Rent, communications, and utilities	0	0	0	0	0
23.1	Rental payments to GSA	1,063	985	985	985	0
23.2	Rental Payments to others	0	0	0	0	0
23.3	Communications, utilities and misc charges	2,284	2,116	2,116	2,116	0
24	Printing and reproduction	0	0	0	0	0
25.1	Advisory and assistance services	2,690	2,493	2,493	2,493	0
25.2	Other services from non-Federal sources	57,978	53,724	53,724	52,075	(1,649)
25.3	Other goods and services from Federal sources	520	482	482	482	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	1,105	1,024	1,024	1,024	0
31	Equipment	653	605	605	605	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	2,908	2,695	2,695	2,695	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	1	1	1	1	0
44	Refunds	0	0	0	0	0
99	Total Obligations	75,164	69,649	69,649	68,000	(1,649)

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Activity: Systems Acquisition
Subactivity: Dissemination

Goal Statement

The advancement of the NOAA Weather Radio (NWR) Program is a life-saving mission critical component in the delivery of short-fused warnings and emergency messages for the American Public and near shore marine community. As commercial providers stop supporting copper lines, the NWS must migrate to current technologies. In FY 2025 NWS will continue to transition NWR transmitter circuits from legacy copper to a wireless solution to continue the delivery of time-sensitive warnings over NWR broadcasts.

The NOAA Integrated Dissemination Program (IDP) became operational in FY 2018, providing a reliable and scalable NWS on-premise private cloud (a dissemination infrastructure) to sustain 24 hours a day/seven days a week mission operations in support of the Department of Commerce 2022-2026 Strategic Plan, Strategic Objective 3.1: Increase the impact of climate data and services for decision makers through enhanced service delivery and improved weather, water, and climate forecasts. To ensure IDP continues to function as intended, ongoing maintenance and support is necessary to keep both the hardware and software up to date and meeting current security requirements. In FY 2024, NWS continued utilizing both the private on-premise cloud and the public cloud to disseminate NWS information. NWS also facilitated the ongoing enhancements necessary for the Geographic Informational Services (GIS) Viewer (a way of visualizing data overlaid on a map) which is hosted in the Dissemination Cloud Services.

Base Program

To ensure a Weather-Ready Nation and optimize the delivery of scalable and agile dissemination capabilities, the PAC Dissemination Subactivity is organized around infrastructure, networks, web services, and warning dissemination services.

Funding within the PAC Dissemination Subactivity:

- Procures NWS' IT dissemination infrastructure and services;
- Closes NWS' dissemination requirements and gaps;
- Enhances and maintains NWS' dissemination system and application capabilities; and
- Develops a strategy to maximize effectiveness while minimizing cost.

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Statement of Operating Objectives

Schedule and Milestones
FY 2025 – FY 2029

- Provide processing and storage resources to support WRN
- Conduct modest enhancements of existing IDP applications and services
- Conduct annual phase of five-year refresh of Dissemination Infrastructure hardware
- Conduct enhancements of GIS and web services both on-premise private cloud and off-premise public cloud environments
- Replace legacy NWR copper circuits to wireless technologies and NWR transmitter site monitoring equipment

Deliverables

- Improved reliability of enterprise GIS capabilities on the Dissemination Cloud Services
- Reliable infrastructure for NWS Dissemination services
- Continued reliability of NWR on updated wireless solutions

Explanation and Justification

		2023 Actual		2024 Annualized CR		2025 Base Program	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
	Pos/BA	1	9,931	1	10,000	1	10,000
Dissemination	FTE/OBL	1	11,092	1	10,000	1	10,000

To achieve these goals, NWS manages the following programs:

NOAA Weather Radio
NWR provides the NWS with the capability to quickly disseminate severe and high impact weather warnings, watches and forecasts, and non-weather emergency messages to the public. In FY 2024, NWS continued its slow transition of NWR legacy technology to Ethernet/Internet Protocol-based services within budgetary resources. Further, NWS has continued to strengthen its partnership with FEMA to look for efficiencies in delivering both weather and non-weather emergency messages via NWR and FEMA's Integrated Public Alert and Warning System. This partnership ensures that messages from both the Federal Communication Commission-managed Emergency Activation System and Wireless Emergency Alerts are distributed appropriately.

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Improve Dissemination Reliability Project
The improved dissemination reliability project mitigates risk to mission operations during severe weather events by enhancing capabilities to reduce single points of failure.

Providing phased hardware refresh of the IDP architecture and modest enhancements to existing core applications on IDP ensures reliable delivery of NWS products to users and capitalizes on better observation data and prediction models to improve services.

Specific activities, spanning multiple years, include:

- Reducing Enterprise Single Points of Failure: Acquiring robust and reliable networking capabilities by upgrading networking Integrating IT Infrastructure Redesign and Upgrades: Enhance the delivery of web and GIS services, as well as the radar lines (such as aging copper lines) with fiber optics.
- Conducting enhancements and upgrades of existing IDP applications and services.
- Providing Robust Enterprise Web and GIS Services: Increasing web and GIS services for NWS Weather Forecast Offices at the primary and backup integrated dissemination sites to ensure the services align with growing requirements and increased use during severe weather events.
- Integrating IT Infrastructure Redesign and Upgrades: Enhance the delivery of web and GIS services, as well as the radar, model, and observational data necessary as new satellites with increased data collection become operational.
- Transition of non-primary mission-essential functions to public cloud delivery solutions based on budgetary resources.

Without the continued support for NWR and the Improve Dissemination Reliability Project, NWS cannot continue to enhance the infrastructure of NWS dissemination systems and upgrade existing applications, including web and GIS services, to meet new satellite and model data requirements, as well as upgrades to select NWR locations.

Outyear Funding Estimates*

Dissemination	2024 & Prior	2025	2026	2027	2028	2029	CTC	Total
Change from 2024 Base	N/A	0	0	0	0	0	N/A	N/A
Total Request	N/A	10,000	10,000	10,000	10,000	10,000	N/A	Recurring

*Outyears are estimates. Future requests will be determined through the annual budget process.

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Activity: NWS Construction
Subactivity: Facilities Construction and Major Repairs

Goal Statement

The objective of the Construction activity is to construct and provide for major repairs and relocations to forecast offices and other government-owned and leased weather facilities in support of the Department of Commerce 2022-2026 Strategic Plan, Strategic Objective 3.1: Increase the impact of climate data and services for decision makers through enhanced service delivery and improved weather, water, and climate forecasts.

Base Program

To support its mission, the NWS operates and maintains 122 Weather Forecast Offices (WFO), 13 River Forecast Centers (RFC), 18 Weather Service Offices (WSO) and associated employee housing units, and 9 National Centers. There are 85 owned and 37 leased WFOs and WFO/RFCs. To support these facilities, the Facilities Construction & Major Repairs Subactivity is managed by NWS Office of Facilities.

The objectives of the Facilities Construction & Major Repairs activity are to:

- Upgrade, improve, and relocate NOAA's NWS Facilities;
- Maintain operational readiness by addressing major component replacements, deferred maintenance and real property disposals; and
- Maintain compliance with Federal law and national and local building codes.

Statement of Operating Objectives

Schedule and Milestones
FY 2025 – FY 2029

- Design and build out tenant improvements for the relocation of up to seven operational sites
- Award contracts for highest priority repairs, replacements, and real property disposals

Deliverables

- Forced relocations addressed through new GSA leases

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

- Completed tenant improvements, construction, and relocation of operations
- Conducted necessary actions for real property disposals with available resources
- Completed deferred maintenance and major component replacement projects with available resources

Explanation and Justification

		2023 Actual		2024 Annualized CR		2025 Base Program	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
	Pos/BA	1	13,159	1	13,500	1	13,500
NWS Construction	FTE/OBL	1	7,824	1	13,500	1	13,500

NWS facilities have exceeded 25 years of age and now require extensive capital improvements to maintain operational readiness to support a Weather-Ready Nation. Immediate capital investments are required to address deficiencies in both leased and owned facilities including mission-critical infrastructure such as heating, ventilation, and air conditioning systems, emergency power generators, roofs, flooring systems, and uninterruptible power supply systems. This effort is essential to ensure the safety of the workforce and continuity of uninterrupted warnings, watches, and forecasts for local communities and for our partner agencies, such as the FAA and DOD. NWS relies on Facilities PAC funding to cover the costs of tenant improvements and move costs associated with forced office relocations resulting from the competitive procurement of new GSA leases. The Facilities Portfolio must meet the evolving needs of the NWS mission to provide facilities that enable a fully integrated field structure capable of supporting impact-based decision support services (IDSS).

NWS anticipates the following activities will be supported in FY 2025: NWS will complete the design for WFO Slidell, New Orleans, LA, and WFO Topeka, KS, and initiate the competitive leasing process for WFO Miami, FL, and award the lease and begin design for WFO/RFC State College, PA. NWS will continue with lease procurement activities with the General Services Administration for WFO/RFCs located in Sacramento, CA; State College, PA; and Tulsa, OK. NWS will complete major system replacements at WFOs Flagstaff, AZ; Glasgow, MT; Bismarck, ND and Miami, FL. NWS complete the potable water solution for the WFO Gray, ME, and complete the WSO Pago Pago Emergency Readiness project. NWS will continue to address the aging infrastructure of its headquarters building in Silver Spring, MD, and continue implementing the data center infrastructure refresh project, a multi-year effort to address aging NWS IT architecture and equipment. NWS will also continue to focus resources on lifecycle management of government owned assets to address improved space utilization in the National Capital Region. Future projects include the

remediation, demolition, disposal, and site restoration at Grants Pass, OR; Lake Hughes, CA; Yap; Majuro; Guam; Miami, FL (RDA); St. Paul AK, and Elmendorf, AK.

In FY 2025, as part of facilities lifecycle management, NWS will complete ongoing forced relocations, address deferred maintenance, field requirements, real property disposals, and NWS headquarters infrastructure repairs.

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Facilities Construction	Pos/BA	1	13,500	1	10,000	0	(3,500)
and Major Repair	FTE/OBL	1	13,500	1	10,000	0	(3,500)

Reduce Radar Relocations (-$3,500, 0 FTE/ 0 Positions) - This program change is requested to support other NOAA and Administration priorities. This request reduces the additional resources provided in the FY 2023 appropriations. The remaining funding will be used to continue to address NWS facility needs, including major facilities repairs and Weather Forecast Office relocations. The priority is given to required WFO relocations, repairs, and other facility construction planning requirements; therefore, NWS will not resource any new NEXRAD relocations or repairs.

Schedule and Milestones
FY 2025 - 2029
- Continue mitigation of Wilmington, NC, NEXRAD Radar Blockage
- Continue relocation of Taunton, MA, NEXRAD radar

Deliverables
- Complete site preparation at new Taunton, MA, NEXRAD
- Complete activities required to relocate the Taunton, MA, NEXRAD radar
- Complete agreements with landowners and perform tree trimming at WFO Wilmington, NC

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

Performance Measures	2025	2026	2027	2028	2029
Number of Radar Relocations					
With Decrease	1	0	0	0	0
Without Decrease	1	1	0	0	0
Outyear Costs:					
Direct Obligations	(3,500)	(3,500)	(3,500)	(3,500)	(3,500)
Capitalized	(3,500)	(3,500)	(3,500)	(3,500)	(3,500)
Uncapitalized	0	0	0	0	0
Budget Authority	(3,500)	(3,500)	(3,500)	(3,500)	(3,500)
Outlays	(2,170)	(3,115)	(3,220)	(3,430)	(3,500)
FTE	0	0	0	0	0
Positions	0	0	0	0	0

Outyear Funding Estimates*

NWS Construction	2024 & Prior	2025	2026	2027	2028	2029	CTC	Total
Change from 2024 Base	N/A	(3,500)	(3,500)	(3,500)	(3,500)	(3,500)	N/A	N/A
Total Request	N/A	10,000	10,000	10,000	10,000	10,000	N/A	Recurring

*Outyears are estimates. Future requests will be determined through the annual budget process.

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: NWS Construction
Subactivity: Facilities Construction and Major Repair

	Object Class	2023 Actual	FY 2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	0	0	0	0	0
11.3	Other than full-time permanent	0	0	0	0	0
11.5	Other personnel compensation	0	0	0	0	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	0	0	0	0	0
12	Civilian personnel benefits	0	0	0	0	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	42	73	73	73	0
22	Transportation of things	0	0	0	0	0
23	Rent, communications, and utilities	0	0	0	0	0
23.1	Rental payments to GSA	93	161	161	161	0
23.2	Rental Payments to others	0	0	0	0	0
23.3	Communications, utilities and misc charges	10	18	18	18	0
24	Printing and reproduction	0	0	0	0	0
25.1	Advisory and assistance services	1,687	2,910	2,910	2,910	0
25.2	Other services from non-Federal sources	4,202	7,250	7,250	3,750	(3,500)
25.3	Other goods and services from Federal sources	1,432	2,470	2,470	2,470	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	76	131	131	131	0
31	Equipment	277	478	478	478	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	5	9	9	9	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	0	0	0	0	0
44	Refunds	0	0	0	0	0
99	Total Obligations	7,824	13,500	13,500	10,000	(3,500)

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Exhibit 3

Department of Commerce
National Oceanic and Atmospheric Administration
Mission Support
Budget Estimates, Fiscal Year 2025

Executive Summary

For FY 2025, NOAA requests a total of $529,363,000 and 830 FTE/ 873 positions for Mission Support, including an increase of $300,000 and 7 FTE/ 10 positions in program changes.

In FY 2025, Mission Support will continue to provide the services that are essential to the safe and successful execution of NOAA's mission.

The Mission Support budget is organized into seven activities within the Operations, Research, and Facilities (ORF) account.

- Executive Leadership provides centralized executive management as well as policy formulation and direction.
- Mission Services and Management includes such activities as financial reporting, budgeting, information technology, acquisition and grants, human resource services, and facilities management.
- IT Security leads priority cyber security initiatives.
- Payment to the DOC Working Capital Fund provides centralized services to NOAA's Line Offices and Staff Offices.
- Facilities Maintenance supports a centralized approach to addressing facilities maintenance and repair projects across NOAA.
- The Office of Space Commerce advocates for the U.S. Commercial Space Industry, both at home and abroad; regulates the U.S. Remote Sensing Industry; and is establishing a space situational awareness (SSA) system for global commercial and civil space traffic coordination and spaceflight safety.
- Office of Education provides leadership on education matters, promotes NOAA products and services to the public and provides expert support for education activities across the agency.

The Mission Support budget is organized under one activity within the Procurement, Acquisition, and Construction (PAC) account. Construction provides for restoration of capital assets including alteration or modification of properties.

Significant Adjustments:

Inflationary Adjustments
NOAA's FY 2025 Base includes a net increase of $20,603,000 and 0 FTE/ 0 positions to account for the full funding requirement for certain inflationary adjustments to current programs for Mission Support activities. This includes inflationary increases for labor and non-labor activities including benefits and rent charges from the General Services Administration.

Department of Commerce
National Oceanic and Atmospheric Administration
Mission Support
Budget Estimates, Fiscal Year 2025

Department of Commerce Enterprise Services Initiative:
Department of Commerce's Enterprise Services Office (DOC ESO) provides transactional and corporate-wide services in the Human Resources (HR), Acquisition Services, Financial Management, and Information Technology functional areas. HR was the first functional area to transition to the Enterprise Services model and NOAA was the first DOC ESO customer for these services starting in late FY 2016. NOAA continues to receive and pay for an increasing number of HR transactional and processing services to include Personnel Action Requests, payroll, employee separations and limited processing of compensation and benefits. NOAA/Office of Human Capital Services still provides all NOAA personnel with retirements and benefits counseling and processing services. NOAA continues to subscribe to the U.S. Office of Personnel Management's (OPM) USAStaffing talent acquisition application and service and continued its participation through FY 2024 to conduct full scale hiring. In FY 2025, NOAA will continue to expand its hiring and talent acquisition services using USAStaffing to include expanded recruiting, hiring and retention projects while relying on the Department to provide HR transactional services.

Department of Commerce
National Oceanic and Atmospheric Administration
PROGRAM AND PERFORMANCE: DIRECT OBLIGATIONS
(Dollar amounts in thousands)

		2023 Actual		2024 Annualized CR		2025 Base		2025 Estimate		Increase/Decrease From 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
MISSION SUPPORT (MS)											
Executive Leadership	Pos/BA	120	31,605	124	31,743	124	32,476	124	32,476	0	0
	FTE/OBL	94	30,617	124	31,743	124	32,476	124	32,476	0	0
Mission Services and Management	Pos/BA	564	182,998	663	182,375	663	186,785	663	186,785	0	0
	FTE/OBL	541	171,568	630	182,375	630	186,785	630	186,785	0	0
IT Security	Pos/BA	20	16,278	22	16,393	22	16,596	22	16,596	0	0
	FTE/OBL	17	13,380	22	16,393	22	16,596	22	16,596	0	0
Payment to the DOC Working Capital Fund	Pos/BA	0	71,215	0	71,299	0	85,673	0	85,673	0	0
	FTE/OBL	0	71,075	0	71,299	0	85,673	0	85,673	0	0
Facilities Maintenance	Pos/BA	0	6,462	0	6,500	0	6,594	0	6,594	0	0
	FTE/OBL	1	8,720	0	6,500	0	6,594	0	6,594	0	0
Office of Space Commerce	Pos/BA	13	69,883	36	70,000	36	70,638	46	75,638	10	5,000
	FTE/OBL	14	44,635	29	70,000	29	70,638	36	75,638	7	5,000
Office of Education	Pos/BA	15	35,340	16	35,450	16	35,601	16	35,601	0	0
	FTE/OBL	19	34,588	16	35,450	16	35,601	16	35,601	0	0
Hollings Scholarship	Pos/BA	6	7,597	0	0	0	0	0	0	0	0
	FTE/OBL	8	8,034	0	0	0	0	0	0	0	0
NOAA Community Project Funding/ NOAA Special Projects	Pos/BA	0	4,700	0	4,700	0	4,700	0	0	0	(4,700)
	FTE/OBL	0	5,481	0	4,700	0	4,700	0	0	0	(4,700)

Department of Commerce
National Oceanic and Atmospheric Administration
PROGRAM AND PERFORMANCE: DIRECT OBLIGATIONS
(Dollar amounts in thousands)

TOTAL MISSION SUPPORT – ORF	**Pos/BA**	**738**	**426,078**	**861**	**418,460**	**861**	**439,063**	**871**	**439,363**	**10**	**300**
	FTE/OBL	**694**	**388,098**	**821**	**418,460**	**821**	**439,063**	**828**	**439,363**	**7**	**300**
Construction	Pos/BA	2	93,704	2	90,000	2	90,000	2	90,000	0	0
	FTE/OBL	5	58,996	2	90,000	2	90,000	2	90,000	0	0
TOTAL MISSION SUPPORT – PAC	**Pos/BA**	**2**	**93,704**	**2**	**90,000**	**2**	**90,000**	**2**	**90,000**	**0**	**0**
	FTE/OBL	**5**	**58,996**	**2**	**90,000**	**2**	**90,000**	**2**	**90,000**	**0**	**0**
Spectrum Relocation Fund – ORF	**Pos/BA**	**0**	**40,900**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	FTE/OBL	**1**	**12,845**	**0**	**18,551**	**0**	**19,719**	**0**	**19,719**	**0**	**0**
Spectrum Relocation Fund-PAC	**Pos/BA**	**0**	**6,100**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	FTE/OBL	**0**	**15,677**	**0**	**6,567**	**0**	**9,180**	**0**	**9,180**	**0**	**0**
Spectrum Pipeline – ORF	**Pos/BA**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	FTE/OBL	**0**	**1,907**	**0**	**6,041**	**0**	**0**	**0**	**0**	**0**	**0**
MS Inflation Reduction Act (ORF)	**Pos/BA**	**10**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	FTE/OBL	**4**	**7,091**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
MS Inflation Reduction Act (PAC)	**Pos/BA**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	FTE/OBL	**0**	**35,124**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
TOTAL MISSION SUPPORT	**Pos/BA**	**750**	**566,782**	**863**	**508,460**	**863**	**529,063**	**873**	**529,363**	**10**	**300**
	FTE/OBL	**704**	**519,378**	**823**	**539,619**	**823**	**557,962**	**830**	**558,262**	**7**	**300**

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
NOAA Community Project Funding/ NOAA Special Projects	Pos./BA	0	4,700	0	0	0	(4,700)
	FTE/OBL	0	4,700	0	0	0	(4,700)

Terminate NOAA Community Project Funding/NOAA Special Projects (-$4,700, 0 FTE/0 Positions) – This program change removes funding for one-time congressionally directed projects provided in the FY 2023 enacted bill.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Activities: Executive Leadership, Mission Services and Management, IT Security, Payment to the DOC Working Capital Fund, Facilities Maintenance, Office of Space Commerce, and Office of Education

Goal Statement

The objectives of these Mission Support activities are to: 1) develop policies regarding the administration of NOAA programs with Federal agencies, the Congress, and private industry; and 2) develop and implement policy, planning, and program oversight.

Base Program

NOAA's Mission Support services are the backbone of NOAA's programs and mission. These services provide the planning, administrative, financial, procurement, information technology, human resources, and infrastructure services that are essential to the safe and successful execution of NOAA's mission.

Statement of Operating Objectives

Schedule and Deliverables:

AGO

- Continue efforts to decrease backlog of required contract closeouts
- Continue to execute Bipartisan Infrastructure Law and Inflation Reduction Act grants and contracts
- Strengthen alignment of acquisition resources to NOAA program requirements
- Increase AGO/Program Office engagement early in the acquisition/grant lifecycle

OCAO

- Continue implementation of the Silver Spring Metro Center Consolidation Project to reduce NOAA's leased portfolio costs in the National Capital Region
- Continue implementation of the NOAA Asset Management Program to support data driven decision making and reporting

- Increase focus on timely resolution of leases, and initiate property disposals
- Implement strategic priorities of the Facilities Strategic Plan
- Address highest priority repair needs to arrest the degradation of facilities condition across the portfolio
- Continue implementing measures to improve the safety culture that has been established at NOAA over the past four years
- Successfully execute construction and repair projects on time and within budget

OCFO

- Continue to contribute materially accurate and timely NOAA financial reporting to DOC in support of annual unqualified opinion on the DOC consolidated financial statements
- Continue to deliver DOC Strategic Planning and Performance elements ahead of schedule
- Execute at least one major economic reporting product (e.g. Marine Economy Satellite Account)

OCIO

- Incorporate machine learning and automation into security operations
- Expand NOAA's enterprise network to achieve economic efficiencies and increased reliability
- Optimize sustainable relationships with industry to continue to provide enhanced, cloud-based access to NOAA's open environmental data
- Support NOAA's transition to and increased utilization of the cloud
- Secure NOAA's access to a radio frequency spectrum that fulfills mission requirements

OHCS

- Modernize a Full-Service HR Model for NOAA in concert with the Department's Enterprise Service solutions
- Improve NOAA's ability to attract, hire and retain diverse talent in both scientific and support fields, especially among historically underserved communities
- Build an ongoing internal Federal HR hiring capacity to supplement current capacity and address emerging hiring needs
- Modernize the NOAA workforce with flexibilities for work location and schedule to attract and retain personnel with needed skills and experience in geographically dispersed locations
- Evolve and modernize programs, such as tailored personnel development programs at various levels of seniority, that address employee development and incorporate findings from federal viewpoint surveys in order to achieve better work-life balance and improve retention rates, especially in critical skill areas Mature use of HR IT tools and state-of-the-art information management practices for analysis of HR data to improve delivery of mission critical services
- Improve and expand HR IT Systems functionality and reporting

- Expand Training and Development Services across NOAA and improve the Commerce Learning Center infrastructure
- Provide consultative services to NOAA management with the Employee and Labor Relations Program, supporting 20 bargaining units
- Provide investigations support for Workforce Violence Response Program (WVPRP) and the Office of Inclusion and Civil Right (OICR)
- Modernize consultative and operational support services for Senior Executive outreach, recruitment, and continuing education

OICR

- Sustain a model Equal Employment Opportunity (EEO) program and process EEO complaints of discrimination
- Conduct Alternative Dispute Resolutions
- Proactive Outreach to Underrepresented Communities
- Conduct organizational climate assessments
- Foster an inclusive culture within the agency
- Manage the Agency's Diversity and Inclusion Implementation Plan
- Educate the workforce (EEO & Diversity and Inclusion training; Special Emphasis Programs)
- Manage Special Emphasis Programs and Employee Resource Groups

WVPRP

- Maintain victim advocacy and consultation services to ensure coverage across NOAA's geographical footprint
- Maintain the Rape, Abuse & Incest National Network (RAINN) contract for continued crisis response and victim advocacy services through a NOAA dedicated sexual assault and sexual harassment (SASH) hotline/helpline and website
- Maintain contract for management of NOAA's SASH database to safeguard and properly store sensitive information to enable efficient SASH case management, thorough data analysis, identification of trends, and risk mitigation
- Continue to acquire and distribute WVPRP informational materials to the NOAA workforce to broaden awareness regarding SASH reporting options and available resources
- Continue to support and participate in the National Academies of Science, Engineering, and Medicine Action Collaborative on Preventing Sexual Harassment in Higher Education
- Develop mandatory annual SASH training and supplemental training to address other forms of sexual misconduct, stalking, domestic violence, and psychological safety
- Continue to solicit feedback from the workforce and develop courses of action to enhance preventive and responsive measures to address SASH
- Conduct NOAA's Annual Sexual Assault Awareness and Prevention Month and National Domestic Violence Month campaigns

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

OSC

- Implement releases for Phase 1 of the Traffic Coordination System for Space (TraCSS), the United States' civil space situational awareness (SSA) and space traffic coordination (STC) system, including provision of basic safety services and further develop capabilities of the operational infrastructure and system
- Begin planning for Phase 2 implementation of the TraCSS system
- Work with DoD to implement the plan for a phased transition of basic SSA/STC safety services for civil and private operators from DoD to OSC's TraCSS
- Formally establish the HORIZONS modeling, simulation, and research environment for joint government and industry testing of capabilities and academic research in SSA/STC
- Refine business model process to support continued acquisition of SSA/STC data and services from the commercial sector
- Continue to engage international partners on issues relating to commercial space, sustainability, and the Global SSA Future Vision for space operations, including exploring a collaborative international coordination process for sharing SSA/STC information
- Facilitate and coordinate the expanded Federal Advisory Committee (FAC) to cover a broader scope of policy and operational areas within OSC
- Lead or influence five or more space policy related decisions processes, rulemakings, statements, or other governmental activities per quarter
- Produce 2-3 workshops, reports, and other tools, per quarter, to facilitate the economic growth and technological advancement of the U.S. commercial space industry
- Provide timely and accurate responses to stakeholder requests for advocacy support
- Issue licenses for the operation of private remote sensing space systems and process license modification requests within regulatory timeline of 60 days
- Complete inspections of 20 percent of licensed, operating mission control centers and direct access terminals/facilities
- Develop request for proposal and procure capabilities to modernize the Commerce Licensing & Compliance System for Space

OED

- Advance education both within NOAA and with the public we serve
- Educate and train students in NOAA-related fields through the José E. Serrano Educational Partnership Program with Minority Serving Institutions (MSIs) and the Hollings Scholarship Program
- Support meaningful watershed education through the Bay Watershed Education and Training Program
- Support formal and informal education projects that build community resilience through the Environmental Literacy Grants Program
- Coordinate educational activities across NOAA and with external partners to ensure that these efforts are effective and continually improve

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Comparison by subactivity		2023 Actual Personnel	2023 Actual Amount	2024 Annualized CR Personnel	2024 Annualized CR Amount	2025 Base Program Personnel	2025 Base Program Amount
Executive Leadership	Pos/BA	120	31,605	124	31,743	124	32,476
	FTE/OBL	94	30,617	124	31,743	124	32,476
Mission Services and Management	Pos/BA	564	182,998	663	182,375	663	186,785
	FTE/OBL	541	171,568	630	182,375	630	186,785
IT Security	Pos/BA	20	16,278	22	16,393	22	16,596
	FTE/OBL	17	13,380	22	16,393	22	16,596
DOC Working Capital Fund	Pos/BA	0	71,215	0	71,299	0	85,673
	FTE/OBL	0	71,075	0	71,299	0	85,673
Facilities Maintenance	Pos/BA	0	6,462	0	6,500	0	6,594
	FTE/OBL	1	8,720	0	6,500	0	6,594
Office of Space Commerce	Pos/BA	13	69,883	36	70,000	36	70,638
	FTE/OBL	14	44,635	29	70,000	29	70,638
Office of Education	Pos/BA	15	35,340	16	35,450	16	35,601
	FTE/OBL	19	34,588	16	35,450	16	35,601
Hollings Scholarship	Pos/BA	6	7,597	0	0	0	0
	FTE/OBL	8	8,034	0	0	0	0
NOAA Community Project Funding/ NOAA Special Projects	Pos/BA	0	4,700	0	4,700	0	4,700
	FTE/OBL	0	5,481	0	4,700	0	4,700
Total Mission Support	Pos/BA	738	426,078	861	418,460	861	439,063
	FTE/OBL	694	388,098	821	418,460	821	439,063

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Executive Leadership

Executive Leadership supports the leadership and management of NOAA, and represents NOAA at the executive level with other Federal agencies, Congress, NOAA stakeholders, and private industry.

The Offices of the Under Secretary/Assistant Secretary and Deputy Under Secretary (USAO): These offices support NOAA's leadership. Program activities consist of formulating and executing policies for achieving NOAA objectives, responding to Executive Branch policy decisions, and exercising delegated authority in committing NOAA to courses of action. USAO also includes the following offices:

Office of Legislative and Intergovernmental Affairs (OLIA): This office serves as the primary liaison for NOAA with the members and staff of Congress. The office is responsible for the planning, direction, and coordination of legislative programs that are of immediate concern to the Office of the Under Secretary.

Office of Communications and External Affairs: This office is the principal point of contact for NOAA programs with the public and the news media. Its staff advises NOAA and other Departmental officials on all aspects of media relations and communication issues.

Office of International Affairs (OIA): This office coordinates NOAA and other leadership officials' relationships with international programs, as directed by the Office of the Under Secretary. The Director of the Office of International Affairs exercises a leadership role in establishing policies, guidelines, and procedures for NOAA's international programs.

Interagency Meteorological Coordination Office (IMCO): This office ensures Federal coordination functions for the Department pursuant to the Weather Research and Forecasting Innovation Act (Public Law No. 115-25, Title IV, sec. 402). The IMCO serves as the administrative headquarters of the Interagency Council on Advancing Meteorological Services, an Executive Branch office chartered under the authority of the Director of Science and Technology Policy. This office is funded through an assessment of funds from NWS, OAR, and NESDIS.

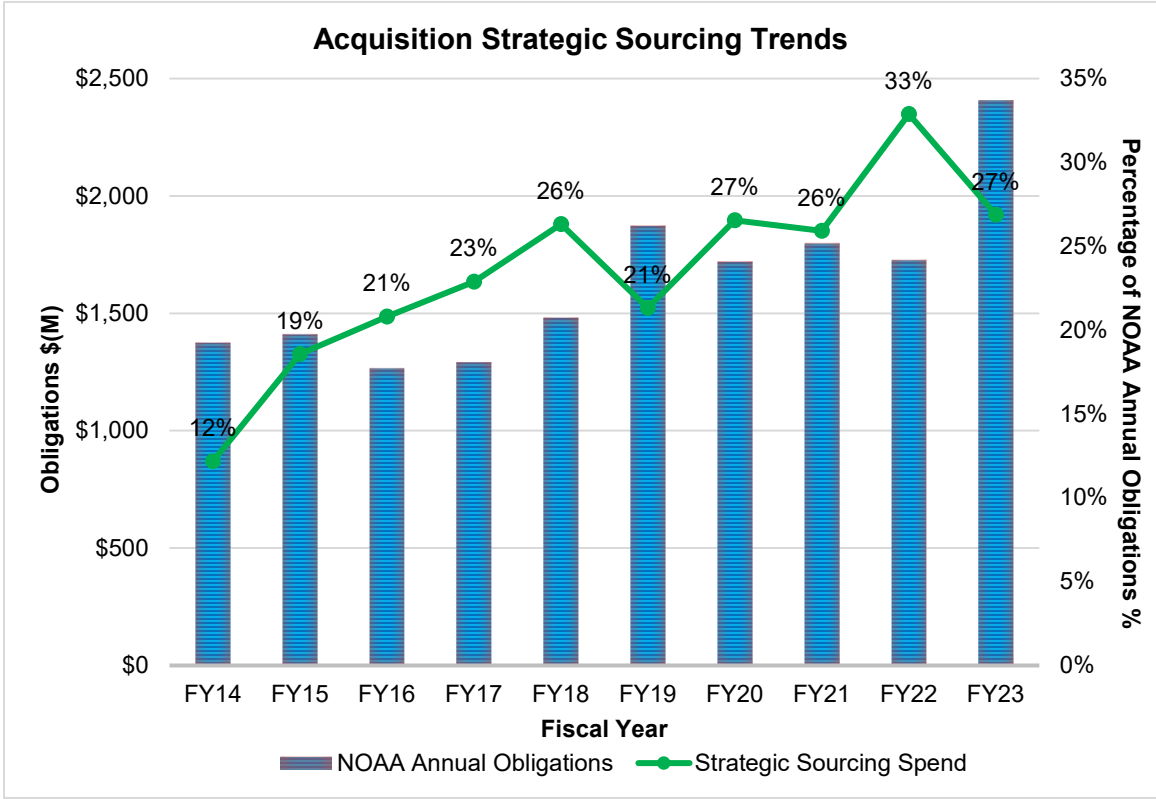
Office of General Counsel (OGC): OGC provides legal advice, review, and representation on a host of complex matters arising from the fulfillment of NOAA's mission. NOAA OGC ensures NOAA management decisions are made with necessary consideration of proper legal requirements, procedures, and options.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Mission Services and Management

Mission Services and Management is the mission-enabling arm of NOAA that supports all operational activities and is essential to its success.

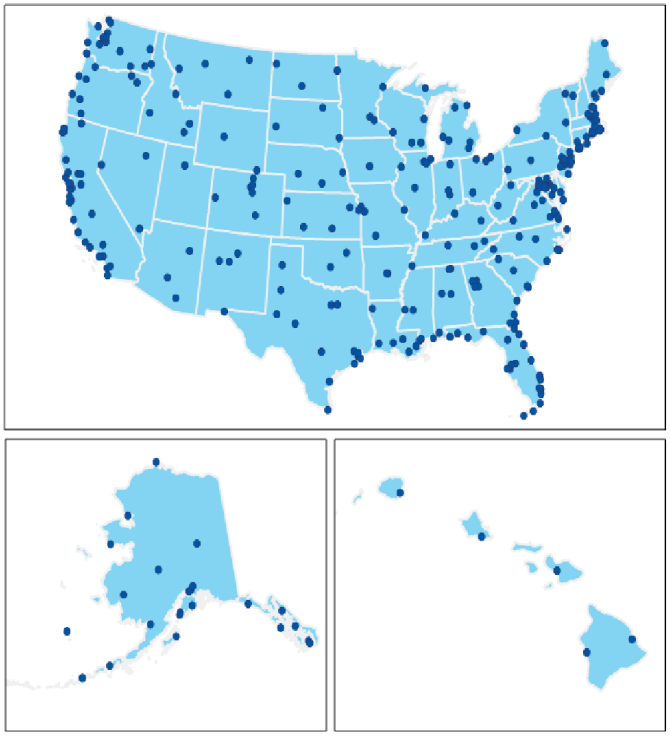
Acquisition and Grants Office (AGO): AGO provides high-value services to NOAA Line and Staff Offices, compliant with laws and regulations, on time, and at the best value to the government through the planning, solicitation, award, administration, and closeout of more than 23,000 acquisition and financial assistance transactions annually. NOAA's ability to accomplish its mission and achieve its goals depends significantly on AGO's ability to process over $4 billion annually in accordance with statutory and regulatory requirements. In FY 2023 for example, AGO obligated over $2.4 billion and managed over 4,600 active contracts valued at over $6 billion. AGO executed over 3,000 financial assistance transactions to award $3.1 billion. NOAA also successfully executed over 14,000 acquisition closeout actions and 700 financial assistance closeout actions in FY 2023.



In addition, NOAA continued its strong support of small businesses in FY 2023, obligating $1.45 billion to small businesses equating to 57 percent of contracts being awarded to small businesses for the year. AGO also continued to place emphasis on NOAA's two key strategic sourcing initiatives, NOAALink program and ProTech Acquisition Initiative, to improve efficiency and reduce costs. In FY 2023, 26.9 percent of NOAA dollars were awarded via strategic sourcing vehicles.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Office of the Chief Administrative Officer (OCAO): NOAA's national scope and mission requires a diverse portfolio of geographically distributed facilities. OCAO supports NOAA-wide mission accomplishment by oversight, technical expertise and support services for the stewardship of NOAA's assets, facilities, and infrastructure. NOAA's real property portfolio has more than 620 facilities, including 4,675 acres of land, including over 400 NOAA-owned facilities with an estimated replacement value of $3 billion. OCAO administers a personal property portfolio of approximately 141,000 personal property assets valued at over $17 billion. OCAO manages NOAA's Safety and Occupational Health program, coordinates security and anti-terrorism risk protection, and ensures best business practices around records and financial controls.



Current NOAA Footprint

In recent years, NOAA launched its 2030 Footprint initiative to develop and implement best practices and tools for facilities management. The initiative consists of three major projects: 1) developing and implementing a Strategic Facilities Plan for 2030, 2) consolidating four locations around the National Capital Region into NOAA Headquarters in Silver Spring, MD, and 3) implementing asset management tools to track the condition of NOAA's facilities. In 2023, OCAO initiated the final phase of the National Capital Region consolidation project in order to reduce NOAA's footprint and to provide more efficient operations.

In 2022, NOAA successfully completed all regional footprint studies to support the development of a Facilities Strategic Plan. Asset management tools were implemented and NOAA has assessed nearly 100 percent of its gross square footage which has enabled the projection of actionable maintenance and repair needs for FY 2023 and beyond.

In FY 2023, NOAA completed a comprehensive review of its portfolio requirements including:
1. Assessments of active capital projects and related requirements to complete;
2. Identification of strategic investment priorities to include investments in critical mission facilities in the Northwest, Northeast and Southeast regions;
3. Identification of leasehold requirements for new leases coming due in FY 2024 and FY 2025 that have an anticipated requirement for tenant improvements and move costs;

4. Review of investment priorities for deferred maintenance and repair projects; and
5. Identification of property disposal requirements for owned properties.

These products were incorporated into a comprehensive five-year facilities investment planning and prioritization process which was used to inform the FY 2025 Construction Program.

In 2023, OCAO initiated the final phase of the National Capital Region consolidation project in order to reduce NOAA's footprint and to provide more efficient operations. In 2024, OCAO will finalize NOAA's requirements needed to procure a new lease recompete with GSA for its headquarters in the National Capital Region area which is slated to expire 2028.

Office of the Chief Financial Officer (OCFO): OCFO serves as NOAA's principal financial manager. NOAA has annual appropriated resources of almost $8.1 billion and recorded net capital asset value of $13.0 billion in FY 2023. OCFO is responsible under the CFO Act to provide oversight necessary for NOAA to materially contribute to DOC's unmodified opinion on the audit of its consolidated financial statements. The areas under the direction of the OCFO are the Budget Office, the Finance Office, Performance, Risk and Social Science Office (PRSSO), Program Integration Office, the DOC Working Capital Fund (WCF), Common Services and the NOAA Direct Bill. The Budget Office provides oversight, management, outreach and communication of the budget process, which includes coordinating the preparation of budget submissions, and allocating and controlling the execution of all budgetary resources. The Finance Office ensures that the NOAA financial statements and reports are accurate, supports the financial management system, and is responsible for the timely payment of bills. The PRSS Office leads and deploys best practices from strategic planning, social science integration, enterprise performance and risk management, and evidence building to advance NOAA's mission. The Program Integration Office plans and manages the design, development, implementation, and transition of key cross-cutting Departmental and NOAA enterprise systems, including the BAS implementation project.

DOC Accounting System: The Commerce Business System (CBS) application has been replaced with DOC's Business Applications Solution applications of Oracle EBS and an Enterprise Data Warehouse (EDW). The go-live date was October 2023, and now CBS and the NOAA data warehouse are performing sunsetting activities for CBS in FY 2024. NOAA will retain financial systems support and expertise for its BAS reports development, production support activities such as recommendations for, and testing of, configuration changes, subject matter expertise, internal and DOC change control board (CCB) representation, and data analytics leadership. Additionally, help desk, training services, and tier 2 support will remain in place for NOAA's E2 travel system user community.

Common Services (CS) account: The Common Services account supports the NOAA CFO in providing resources for NOAA-wide activities and services provided through the DOC and other agencies through Memoranda of Understanding (MOU) and/or

Interagency Agreements (IA). CS funds the Departmental Management Advances and Reimbursements (A&R) accounts providing a centralized funding source for special services and tasks provided by the DOC; off-site health services at the Census Bureau Health Unit; OPM USAJobs portal usage and maintenance; and other miscellaneous services and products.

NOAA Direct Bill Process: The NOAA Direct Bill process enables NOAA Line and Staff Office service providers to assess other Line and Staff Offices for their proportionate share of the costs of enterprise-wide programs or services. Direct Bill proposals are only for unique services/products that provide an enterprise-wide benefit or that consolidate funding for enterprise solutions.

Office of the Chief Information Officer (OCIO): NOAA OCIO's operating model focuses on service delivery, customer experience, innovation, and security, with a mission to provide a secure and agile information enterprise with advanced computing capability that propels NOAA's scientific and operational missions. OCIO has established five NOAA Information Resources Management strategic goals: (1) promote our people who make the mission possible; (2) propel the mission; (3) protect the mission; (4) deliver customer-centric service excellence; and (5) optimize for maximum NOAA value. OCIO provides the enterprise IT infrastructure that connects and manages networks, telecommunications, systems, and people to enable NOAA to provide data observation, ingestion, assimilation and modeling, processing, dissemination, and archiving capabilities at greater scales. OCIO improves customer experience and productivity by increasing collaboration tool utilization and focusing resources on modernizing and streamlining IT systems to protect against cyber-attack, equipment malfunctions, or natural disasters.

The cornerstone of the operating model is delivering shared enterprise information services through technology advancements including cloud computing, mobile devices, and access to NOAA open data. The OCIO, through the NOAA Chief Data Officer (CDO), serves as the NOAA lead for execution of the NOAA Data Strategy which is focused on maximizing the access and use of NOAA's open data holdings through a range of open data, geospatial, and information services. The NOAA Open Data Dissemination (NODD) Program provides public access, at no cost to the user, to NOAA's open data on commercial cloud platforms through public-private partnerships. These partnerships remove obstacles to the public use of NOAA data, help avoid costs and risks associated with Federal data access services, and leverage operational public-private partnerships with the cloud computing and information services industries.

The N-Wave Program delivers stable, secure, high-speed network services to enable the broad missions of its stakeholder community within the Department of Commerce and the Federal government. The N-Wave national network infrastructure extends across the contiguous U.S., Alaska and Hawaii, connecting remote field sites, major campuses, mobile platforms, data centers, and supercomputing facilities. Combined with scalable cloud solutions and a robust catalog of enterprise managed services and advanced network operations, N-Wave employs a customer-focused approach to deliver solutions to Federal, scientific research and education partners across the country.

N-Wave facilitates forums and working groups to gather requirements, share information and create collaborative approaches to solve unusual networking challenges, such as vast distances, sparse population, and harsh climate.

The Research and Development (R&D) High Performance Computing (HPC) program, primarily funded by OAR, provides research that contributes directly to operating high performance computers and data systems for NOAA to deliver improved earth systems models. These models are used to understand and predict earth systems and to produce decision-support tools that facilitate understanding weather, climate, mitigation strategies, and adaptation options for the Nation. The goal of the program is to develop, test, and apply state-of-the-science computer-based simulation models, based upon a strong scientific foundation while leveraging leading edge HPC software methodologies, AI, and cloud based computing. The objective is to increase the skill, resolution, complexity, and throughput of computer model-based projections.

The Radio Frequency Management Program ensures the availability and usability of Radio Frequency spectrum to radio users in the Department of Commerce (DOC). Responsibilities include: obtaining authorization for all DOC agencies to use new and existing radio systems, and ensuring that such systems meet relevant federal standards; coordination of NOAA satellite systems with domestic and foreign space networks to ensure compatible operation; negotiation with other government agencies, the private sector, and foreign and international entities on behalf of Commerce and the United States to ensure the future availability of spectrum and the absence of interference; and coordination of all spectrum sharing activities.

Office of Human Capital Services (OHCS): OHCS provides human capital programs, consultative services, and policy and process guidance that facilitate the acquisition, development and retention of a diverse, highly skilled, motivated, and effective workforce capable of accomplishing the Agency's mission. OHCS provides a wide range of human capital functions including strategic human capital planning, labor-management and employee relations, strategic recruitment and hiring, program evaluation, customer experience, quality assurance, HR policy, performance management and incentives, executive and employee support, leadership and career development, HR data analytics and forecasting, and HR information technology systems.

In FY 2023, OHCS managed all of NOAA's hiring work and achieved the highest number of hires (1,802) at NOAA since 2008 and continued to identify ways to reduce average time-to-hire, placed significant emphasis on targeted recruitment efforts by building talent pipelines, collaborating and maintaining partnerships with colleges and universities, utilizing student programs (i.e.- Recent Graduates, Presidential Management Fellows, Direct Hiring Authority, etc.), and promoted recruitment of veterans and individuals with disabilities. OHCS, the Office of Education, and Office of Inclusion and Civil Rights jointly sponsored special emphasis projects to attract STEM and other critical skill candidates to join the NOAA workforce. OHCS expanded its dynamic LANTERN (Leveraging Abilities, Needs, Talents Energies & Resources Network) program where Line and Staff Offices provide detail opportunities to NOAA personnel that support distinct organizational needs while promoting individual professional growth and experience. OHCS conducted a comprehensive program

assessment of its Leadership Competencies Development Program (LCDP) while launching two new leadership development programs: the Mid-Career Leadership Development (MCLDP) and Foundational Leadership Development (FLDP) Program to address the developmental needs of mid-career and junior personnel. OHCS continued to promote, manage, and expand the President's Management Council's Interagency Rotation Program (PMC-IRP) to match NOAA's high-potential GS 13-15s (or equivalent) with six-month full-time interagency rotational assignments that enable emerging Federal leaders to expand their management skills, broaden their organizational experience, and foster networks they can leverage in the future. OHCS identified opportunities for NOAA senior executives to enhance their continuing education in concert with a nationally known university to provide tailored programs of instruction.

In FY 2024, OHCS implemented an automated performance management system for OHCS personnel, realign specific functional areas within OHCS to improve program management and customer experience, and utilize an internal hiring capacity to supplement current hiring services and address emerging hiring needs. OHCS continued to provide extensive mentoring, coaching and leadership development training for all NOAA SES/ST/SL and GS-13 and GS-14 equivalent personnel through a comprehensive subscription with the Department of Treasury's Executive Institute. OHCS also played a key role in the development of a new talent acquisition master contract (Blanket Purchase Agreement) sponsored by DOC Enterprise Services to ensure that NOAA continues to hire a diverse group of highly qualified professionals as efficiently as possible. In a multi-year project, OHCS continued to work collaboratively with DOC ES, the Department of Treasury, and OPM to fully automate the NOAA recruitment and employment life cycle requiring ongoing development and implementation of HRConnect Interconnections with the USA Staffing system.

In FY 2025, OHCS will continue to mature each of these program areas which are critical to supporting NOAA's efforts to hire an increasingly diverse and highly educated workforce, enhance equity among all personnel, and improve overall employee satisfaction. OHCS will continue to expand its NOAA-wide supervisory training, leadership development and mentoring programs and will continue to enhance agency capabilities around change management and change leadership efforts. OHCS will continue to improve its ability to provide tailored HR consultative services to support NOAA's organizational excellence while continuing to adapt to new hybrid working environments and situations.

Office of Inclusion and Civil Rights (OICR): OICR is responsible for ensuring NOAA-wide compliance with EEO and Civil Rights laws, regulations, executive orders, and policies that prohibit discrimination on the basis of race, color, religion, sex, national origin, age, disability, sexual orientation, reprisal, and genetic information. OICR manages the agency's EEO compliance program for a federal workforce of almost 12,000. Compliance rates for processing informal cases within prescribed timelines remain consistent with EEOC statutory requirements. In FY 2023, OICR saw over a 90 percent success rate in Alternative Dispute Resolutions. This has reduced formal EEO complaints, which in turn reduced litigation and administrative expenses, an estimated cost savings of over $302,000. Pursuant to the Equal Employment Commission's Management Directive 715 (MD-715), OICR annually assesses the

effectiveness of its affirmative employment programs, including identifying and eliminating barriers to employment. In FY 2023, OICR established a formal Barrier Analysis Working Group, an ongoing initiative to focus specifically on identifying and eliminating barriers.

Additionally, OICR manages the agency's Diversity, Equity, Inclusion, and Accessibility (DEIA) program and oversees affirmative employment initiatives. OICR's mission is to ensure that DEIA is a business priority that becomes ingrained into NOAA's organizational culture to enhance its standing as an Employer of Choice. OICR identifies and deploys DEIA best practices to promote DEIA agency-wide. To ensure the agency's workforce is knowledgeable about practices which promote inclusion and strategies to overcome barriers to diversity, OICR provides EEO and DEIA training at all levels. Also, OICR staff regularly provide advice and counsel to employees and agency leaders on a wide range of topics relative to EEO/DEIA.

To raise cultural awareness and promote DEIA, OICR annually offers ten Special Emphasis Programs which focus special attention on certain groups that are not represented or have less than expected participation rates in specific occupational categories or grade levels within the agency's workforce. From an outreach perspective, OICR ensures NOAA's presence at affinity group conferences to attract underrepresented populations within the civilian labor force and further promote NOAA as an Employer Choice.

To help offices assess their culture, OICR conducts Organizational Climate Assessments on behalf of leaders to gather information from the workforce based on employee perceptions that is used to identify practices that may have a negative impact on organizational effectiveness. In FY 2023, the OICR Director began to conduct site visits at NOAA locations nationwide and on a regular basis meets with Line/Staff Office senior leaders one-on-one to discuss EEO/DEIA issues and assist them with developing courses of action to address areas of concern. OICR is committed to expanding its DEIA portfolio and constantly looking at adopting innovative methods to keep moving the needle forward towards greater diversity, equity, inclusion, and accessibility across the agency.

Workplace Violence Prevention and Response Program (WVPRP): The WVPRP supports the NOAA Deputy Under Secretary of Operations. The WVPRP provides comprehensive, trauma-informed support services for all NOAA employees, contractors, and affiliates who experience SASH. The WVPRP adopts a strategic approach to victim advocacy services by placing full-time Regional Coordinators in various regions across NOAA's expansive geographical footprint. Services are augmented through the use of Federal volunteer victim advocates who are credentialed by the National Organization for Victim Advocacy. The program develops comprehensive SASH prevention training for all NOAA employees; tracks reports of workplace violence; prepares the annual SASH congressional report; provides consultation to NOAA leaders; and develops SASH prevention and response goals and initiatives.

In FY 2023, during the National Academies Sciences Engineering and Math Action Collaborative on Preventing Sexual Harassment in Higher Education's Annual Public Summit, NOAA's *Strategic Resistance* curriculum was recognized as a best practice.

Additionally, the WVPRP staff planned and coordinated three agency-wide training events during Sexual Assault Awareness and Prevention Month (SAAPM). Special emphasis was placed on exploring the impact of SASH through shared experiences, the positive effects of emotional intelligence, how societal beliefs influence attitudes about SASH, lessons learned, and supporting impacted persons with empathy. With exception to the SAAPM keynote events, the number of attendees for the general sessions in 2023 (427) increased by 283 percent in comparison to 2022 (187). In addition, the collaborative partnership between WVPRP and Fisheries Office of Law Enforcement (OLE) continues in OLE Alaska Division Pulse Operations in Anchorage, Alaska and Dutch Harbor/Unalaska for Fisheries Observers, NOAA's most vulnerable population for SASH. In FY 2023, WVPRP and OLE conducted site visits to sustain rapport with SASH victim service organizations; interact with NOAA Fisheries Observers to assess safety; and deliver training to broaden awareness of SASH reporting procedures, available resources for impacted persons, and prevention strategies. Training participants included fishing industry partners, such as fishing process plant managers and employees, vessel captains, and crew members.

In FY 2025, WVPRP will continue to enhance trend analysis capabilities through the use of the WVPR database and virtual support kiosk, assess the organizational climate, identify and mitigate risks, develop action plans, and monitor progress towards goals in support of NOAA's mission (Science, Service, and Stewardship) and DEIA initiatives. The WVPRP staff will continue to support, empower, and educate the NOAA workforce with special emphasis in remote locations and targeted areas exhibiting a prevalence of SASH incidents.

IT Security

The mission of the IT Security Program is to defend NOAA's data, networks, equipment, intellectual property, and personnel against a wide variety of adversaries ranging from nation states to lone-wolf attackers. Successful attacks by adversaries could negatively impact NOAA's ability to keep nearly 330 million Americans, as well as others, safe and informed of weather, environmental, and other events with widespread economic impact. Additionally, with NOAA's reliance on information systems and data connected to the Internet, cyber-espionage is an effective, low-cost, low-risk way to compromise data and information products and services. NOAA's interconnected nature presents significant risk to IT infrastructure components and data. OCIO implements NOAA's IT Security Program through a risk-based approach that emphasizes vulnerability management to achieve defense in depth via a common prevention, response, and mitigation strategy to manage mission risk related to cyber security threats.

High-priority risks include insider threat, network segmentation, national/international/non-state adversaries, social engineering attacks, botnets, and malware/ransomware. Major initiatives include improving system segmentation to limit adversaries from traversing from

external facing systems to internal resources, full monitoring of all NOAA end points, improving the quality of enterprise IT security services and the implementation of all five phases of the DHS Continuous Diagnostic Monitoring Program.

The IT Security Program continues its efforts to increase the efficiency of base-level functionality, which resulted in significantly increased visibility into defending the NOAA networks and systems. This includes building out our sensors so more NOAA systems are sending information to our centralized network defense systems, better integration of cyber threat intelligence, and better processes and procedures to use this data. The NOAA Cyber Security Center (NCSC) delivers enterprise-wide cybersecurity services to all NOAA systems; these services include Security Operations Center (SOC) operations, Trusted Internet Connection (TIC) operations, endpoint security, audit log archival, incident response, IT security policy, compliance, risk management, oversight and training, continuous monitoring, IT security infrastructure, and IT security project management. In FY 2023, the NCSC provided continuous enterprise monitoring, situational awareness, and cyber security incident response, intelligently protecting and analyzing threats to NOAA and DOC IT operations and assets. The IT Security Program continued to improve the NOAA Internal Risk Mitigation (IRM) Program to protect the agency's intellectual property and Controlled Unclassified Information for the purposes of harnessing observational and cyber assets more effectively. Specifically, the program provides enterprise-wide capability to detect anomalous behavior and prevent potentially harmful consequences. The program assists Staff and Line Offices with addressing risk to sensitive NOAA data and in doing so, helps prevent damage to NOAA's reputation and any related effect on mission execution. By implementing a more robust IRM Program, NOAA is better equipped to confidently provide employees with access to the data they require, while simultaneously reducing the chance for loss or exposure of that data.

Payment to the Department of Commerce (DOC) Working Capital Fund (WCF)

The DOC WCF provides centralized services to NOAA's Line and Staff Offices in the most efficient and economical manner. Organizational units within DOC provide the administrative, legal, information technology, financial, and policy support needed to accomplish NOAA's overall mission. The WCF was established pursuant to 5 USC 607 (15 USC 1521). Unlike other DOC bureaus, the NOAA contribution to the WCF is provided by specific allocation within the NOAA appropriation.

Facilities Maintenance

As facilities maintenance requirements have grown, mission funds have been used to address safety and health related facility issues as well as an increasing number of critical maintenance and sustainability issues. With the advent of the Asset Management Program and the implementation of the Army Corps of Engineers BUILDER™ software, NOAA is able to accurately project facilities maintenance needs and identify the level of unfunded deferred maintenance and repair (DM&R) backlog requirements. BUILDER™ demonstrates that this portfolio liability will exceed $1.0 billion by 2028. Addressing DM&R backlog requirements is key to reducing the pressure on mission funding. NOAA will continue to review DM&R requirements annually and prioritize them to ensure the most critical issues are corrected first.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Office of Space Commerce

The Office of Space Commerce (OSC) serves a key role in coordinating with the Executive Branch's activities surrounding the National Space Policy and the U.S. Space Priorities Framework. OSC is the principal unit for space commerce policy activities within the Department of Commerce. The OSC is responsible for three major tasks: (1) advocacy for the U.S. Commercial Space Industry, both at home and abroad; (2) regulation of the U.S. Remote Sensing Industry; and (3) establishment of a space situational awareness (SSA) system for global commercial and civil space traffic coordination and spaceflight safety. In FY 2025, OSC is planning to complete Phase 1 operational deployment of the Traffic Coordination Space System (TraCSS) basic services that promote space safety and sustainability as directed in Space Policy Directive-3. Commercial and civil operators will have access to the TraCSS basic services and SSA products absent of direct user fees which will drive spaceflight safety, space sustainability, and international coordination. OSC will coordinate and facilitate a Federal Advisory Committee for all operational and policy areas of OSC that will provide information, advice, and recommendations to OSC, NOAA, and DOC leadership.

OSC's Commercial Remote Sensing Regulatory Affairs division promulgates and implements regulations pursuant to 51 U.S.C.§ 60121 et seq. These activities include issuing and modifying licenses to operate private remote sensing space systems; monitoring licensed systems for compliance with the law, regulation, and conditions of the license and investigating non-compliance; and monitoring availability of space-based remote sensing data made available by foreign sources.

Office of Education

The Office of Education guides and underpins education activities to build a more efficient and effective portfolio that better supports NOAA priorities. Activities build capacity in science, technology, engineering, and mathematics (STEM) and environmental education through use of NOAA assets to reach more people in effective ways. The Office supports NOAA's mission by working with students, educators, and the general public so they understand NOAA's science and can use it to make decisions. The Office fosters a diverse future workforce by providing quality educational opportunities for the next generation, including competitive scholarships, internships, and professional training for post-secondary students.

The Office of Education provides advice and counsel to the Under Secretary of Commerce for Oceans and Atmosphere in matters pertaining to education, coordinates education activities across NOAA through the NOAA Education Council, and represents the Agency in inter-agency education initiatives. The Office lays out the goals and objectives for NOAA's education programs and supports data-driven program assessments, enabling a learning culture able to evolve and improve education efforts. The Office also works with institutions and networks to build capacity to advance NOAA's mission through formal (K-12) and informal education at national, regional, and community levels. Among the Office's recent accomplishments:

- Released the first NOAA Citizen Science Action Plan and supported a community of practice for the agency with projects that engage over 500 thousand volunteers annually, contributing over one million volunteer hours estimated at a value of over $30 million each year.
- Developed an implementation plan with over 95 strategies that supports the NOAA Education 2021-2040 Strategic Plan by working with programs across the Agency, as required by America COMPETES Act.
- Coordinated 25 aquariums and marine science education institutions through the Coastal Ecosystems Learning Centers network and 162 educational institutions through the Science on a Sphere® network.

José E. Serrano Educational Partnership Program with Minority Serving Institutions (EPP/MSI): EPP/MSI provides financial assistance, through competitive processes, to students and MSIs that train students and conduct research in NOAA mission sciences. The program's goal is to increase the number of students, particularly from traditionally underrepresented and historically excluded communities who are trained and earn post-secondary degrees directly aligned to the NOAA mission. Long-term goals of the program include increasing the pool of candidates with NOAA mission aligned skills and competencies to enhance the organizational health of NOAA in STEM and fostering American competitiveness in STEM fields. Among EPP/MSI's accomplishments in FY 2022:

- 2,765 postsecondary degrees have been awarded to EPP/MSI supported students in NOAA mission fields since 2001, including 359 PhDs. Over 655 of these students have received Master's degrees.
- 305 students studying NOAA mission fields are currently in the pipeline
- One graduate student attending an EPP/MSI Cooperative Science Center (CSC) was selected for the Graduate Fellowship class of 2023 and three students from the class of 2022 continued to be supported. From 2020 to 2022, NOAA hired 35 alumni from EPP/MSI. This is more than three times the number made in the previous three years (2017-2019), when NOAA hired 11 EPP/MSI alumni.
- From 2003-2019, EPP/MSI Cooperative Science Center (CSC) Institutions awarded 54 percent of doctoral degrees in atmospheric sciences, 35 percent of doctoral degrees in marine science, and 30 percent of doctoral degrees in environmental sciences earned by African Americans. Additionally, CSCs awarded 39 percent of doctoral degrees in marine science doctoral, 21 percent of doctoral degrees in atmospheric sciences, and 19 percent environmental science doctoral degrees earned by Latinos

For more information, please visit the EPP/MSI website: http://www.noaa.gov/epp

Ernest F. Hollings Scholarship Program: The NOAA Hollings Scholarship Program is a competitive program that increases undergraduate training in oceanic and atmospheric sciences, research, technology, and education. The program catalyzes scientific research through work-based learning experiences, improves environmental literacy, and prepares the STEM workforce for the future. It recruits and prepares students for careers with NOAA and other natural resource and science organizations at the Federal, state and local levels of government, in academia and the private sector, as well as in science and environmental education. In 2023, the Hollings

Scholarship Program supported 130 new scholars (class of 2023) while continuing to support 127 scholars from the class of 2022. Hollings scholars undertake a variety of internships, from working with fish, diving, going aboard vessels, and computer modeling. The program has supported over 2,052 scholars from over 350 colleges and universities.

Based on the FY 2025 Request of $6.561 billion, NOAA estimates it will have $6.561 million for the Hollings Scholarship Program. For more information, please visit the Hollings Scholarship website: http://www.noaa.gov/hollings

Environmental Literacy Grants Program: NOAA's Environmental Literacy Grants Program provides competitive funding and in-kind support for formal (K-12) and informal education projects to increase local resilience to hazardous weather, changes in climate, and other environmental threats monitored by NOAA. All projects are in service of NOAA's mission of science, service, and stewardship. Using NOAA's assets, funded projects empower people to protect themselves and their communities from local climate impacts and will engage organizations that are directly serving the most underserved and vulnerable communities. Since the program's inception in 2005, the Environmental Literacy program has supported 163 awards. In FY 2023 these awards resulted in:

- Over 3,000 formal and informal educators participated in ongoing professional learning communities designed to empower each educator with the confidence and competence to teach NOAA-related topics as well as use NOAA's assets to educate others
- Over 6,000 K-12 students participated in formal science education programs
- over 12,000 youth and adults participated in informal science education programs
- Six new projects were funded to help people and their communities build local resilience to the environmental threats monitored by NOAA through education

For more information, please visit https://www.noaa.gov/office-education/elp/impacts

Bay-Watershed Education and Training (B-WET): The NOAA B-WET program is an environmental education program that promotes locally relevant, authentic experiential learning focused on K–12 students and educators. B-WET provides funding through competitive grants that support the Meaningful Watershed Educational Experience (MWEE): a learner-centered framework that focuses on investigations into local environmental issues and leads to informed action. B-WET serves seven regions of the country: California, Chesapeake Bay, Great Lakes, Gulf of Mexico, Hawaii, New England, and Pacific Northwest. This regional approach allows the B-WET program to provide tailored grantee support and capacity building, as well as include place-based STEM resources and expertise and respond to local education and environmental priorities. B-WET accomplishments include the following:

- In FY 2023, B-WET grants reached over 61,000 students and 4,700 teachers in 2022 through awards to 149 institutions

- Since the program's inception in 2002, B-WET has awarded over $149 million to support 981 projects
- The NOAA B-WET program is working with the U.S. Department of Education to continue a successful partnership with the Nita M. Lowey 21st Century Community Learning Centers (21st CCLC). With funding from the Department of Education B-WET will support projects that provide locally relevant, out-of-school time STEM programming to students in high-poverty and low performing schools based on the B-WET MWEE model and include NOAA assets and expertise. Since 2017, B-WET has supported 47 grants engaging 134 local 21st CCLC sites, reaching over 7,500 youth and 1000 21st CCLC staff.

For more information, please visit the B-WET website: https://www.noaa.gov/office-education/bwet.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Increase from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Office of Space Commerce	Pos./BA	36	70,638	36	73,638	0	3,000
	FTE/OBL	29	70,638	29	73,638	0	3,000

Space Portal (+$3,000, 0 FTE/ 0 Positions) –The Office of Space Commerce (OSC) proposes to develop and maintain a new information system, including cloud services, data procurement and management, and software services. The information system will provide the Department of Commerce with two capabilities.

First, it will implement a modern, unified information system to support regulatory activities for remote sensing and other commercial space activities regulated by the Department of Commerce and other agencies. System capabilities will include licensing, monitoring, interagency consultation, and compliance. The system will allow companies to perform "self-service" licensing activities, automate and semi-automate licensing and monitoring workflows, and facilitate streamlined and secure Department of Commerce consultation with other U.S. regulatory agencies and consultation partners for more rapid regulatory decision-making and minimally-burdensome licensee experience. Lack of a streamlined and transparent regulatory process has the potential to drive space firms to incorporate in or relocate to other nations with simplified commercial space authorization processes. Such offshoring of technology companies would result in a loss of critical jobs, revenues, industrial base, and government/military access to advanced capabilities. It would also damage U.S. leadership and national security as the U.S. would lose regulatory oversight and security-based controls on such systems.

Second, it will provide a simple method by which the U.S. Government can disseminate information regarding U.S. space activity regulation, standards, and best practices. The information system will also act as a data repository for U.S. and global commercial space information to assist new and established space entrepreneurs.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

Schedule and Milestones:

FY 2025

- Baseline Users' Requirements
- Establish an Architectural Concept of Operations and System Requirements
- Develop an Acquisition Plan
- Issue contract for software development of the information system

FY 2026

- Complete software/algorithms development
- Security Assessment – Pre-Integration Verification
- Security Assessment – Integration Validation

FY 2027

- Deploy initial operational capability
- Security Assessment – Validation
- Obtain Authority to Operate
- Operationalize, process, distribute, retrieve, and store data

FY 2028-FY 2029

- Operations and sustainment of information system

Deliverables:

FY 2025

- Award Space Portal contract
- Validate Architectural Concept of Operations and System Requirements

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

Performance Measure	2025	2026	2027	2028	2029
Percent of U.S. Commercial Space Industry participating in the information system					
With Increase	N/A	N/A	70	75	80
Without Increase	0	0	0	0	0
Outyear Costs:					
Direct Obligations	3,000	3,000	3,000	3,000	3,000
Capitalized	3,000	3,000	3,000	3,000	3,000
Uncapitalized	0	0	0	0	0
Budget Authority	3,000	2,000	2,000	2,000	2,000
Outlays	1,830	2,670	2,820	2,940	3,000
FTE	0	0	0	0	0
Positions	0	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS

(Direct Obligations amounts in thousands)

Activity: Office of Space Commerce
Subactivity: Office of Space Commerce

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase from 2025 Base
11.1	Full-time permanent compensation	1,948	4,152	4,598	4,598	0
11.3	Other than full-time permanent	0	0	0	0	0
11.5	Other personnel compensation	53	70	70	70	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	2,001	4,222	4,668	4,668	0
12	Civilian personnel benefits	687	1,082	1,274	1,274	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	203	450	450	450	0
22	Transportation of things	0	5	5	5	0
23	Rent, communications, and utilitites					
23.1	Rental payments to GSA	262	371	371	371	0
23.2	Rental Payments to others	109	155	155	155	0
23.3	Communications, utilities and misc charges	22	28	28	28	0
24	Printing and reproduction	10	10	10	10	0
25.1	Advisory and assistance services	9,304	9,700	9,700	12,700	3,000
25.2	Other services from non-Federal sources	6,829	10,654	10,654	10,654	0
25.3	Other goods and services from Federal sources	25,050	33,123	33,123	33,123	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	10,000	10,000	10,000	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	60	50	50	50	0
31	Equipment	98	150	150	150	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	0	0	0	0	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	0	0	0	0	0
44	Refunds	0	0	0	0	0
99	Total obligations	44,635	70,000	70,638	73,638	3,000

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Increase from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Office of Space Commerce	Pos./BA	36	70,638	46	72,638	10	2,000
	FTE/OBL	29	70,638	36	72,638	7	2,000

Mission Authorization and Supervision (+$2,000, 7 FTE/ 10 Positions) – These funds provide the necessary staffing for the Office of Space Commerce (OSC) to implement Department of Commerce responsibilities under the U.S. Novel Space Activities Authorization and Supervision Framework (December 2023) and legislative reforms proposed by the Biden Administration. The requested personnel will provide program management oversight, administrative, and regulatory operational support to effectively implement an expanded regulatory program with responsibilities for licensing and monitoring compliance of in-space activities beyond remote sensing, lead the interagency steering group on novel space activities, work with the private sector to establish standards and best practices, run an expanded Federal Advisory Committee for commercial space activities, provide support to US commercial industry, and maintain awareness of US and global commercial space activities. Providing the necessary resources to effectively manage mission authorization functional requirements is critical to meeting U.S. international obligation and ensuring U.S. economic competitiveness in the commercial space sector.

Globally, commercial space activities are experiencing tremendous economic and technological growth. The Biden Administration recognizes it is vital to institute U.S. Government authorization and continuing oversight of these private space activities. Mission authorization has become a priority of space policymaking for two reasons. First, the Outer Space Treaty requires authorization and continuing supervision for space activities undertaken by private sector companies and is therefore necessary for the U.S. to meet its international obligations. Second, mission authorization will provide legal stability and certainty for companies undertaking in-space activities, thereby contributing to U.S. leadership in an increasingly competitive and global marketplace.

Mission authorization includes (1) an expanded regulatory program for non-governmental space entities to obtain authorization for space missions beyond existing authorities; and (2) a continuous focus on space sustainability incorporating the space situational awareness services to be provided by OSC. The additional resources would also allow the Office to play an enhanced role in existing license review processes, and prepare to implement sustainability measures in accordance with the Framework. Providing necessary resources for the Office's expanded regulatory and advocacy role is critical to meeting U.S. international obligations, ensuring U.S. economic competitiveness in commercial space, and maintain space sustainability.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

Schedule and Milestones:
FY 2025

- Implement hiring plan
- Create and submit hiring packages to the Office of Human Capital Services
- Work with Office of Human Capital Services to prioritize and fill positions timely in FY 2025

Deliverables:

- Fill 75 percent of new positions by 3rd Quarter of FY 2025
- Assign new staff to critical licensing and compliance workload gaps

Performance Measure	2025	2026	2027	2028	2029
Percent increase in MA&S authorizations executed by CRSRA					
With Increase	75	100	100	100	100
Without Increase	10	10	10	10	10
Outyear Costs:					
Direct Obligations	2,000	2,000	2,000	2,000	2,000
Capitalized	0	0	0	0	0
Uncapitalized	2,000	2,000	2,000	2,000	2,000
Budget Authority	2,000	2,000	2,000	2,000	2,000
Outlays	1,220	1,780	1,880	1,960	2,000
FTE	7	10	10	10	10
Positions	10	10	10	10	10

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE PERSONNEL DETAIL

Activity: Office of Space Commerce
Subactivity: Office of Space Commerce
Program Change: Mission Authorization and Supervision

Title		Grade	Number	Annual Salary	Total Salaries
Supvry Mgmt. and Program Analyst (Licensing & Compliance)		ZA-343-V	2	188,280	376,560
Management and Program Analyst (Licensing)		ZA-343-IV	2	179,990	359,980
Management and Program Analyst (Licensing)		ZA-343-III	2	120,250	240,500
Policy Analyst (Advocacy)		ZA-343-IV	3	179,990	539,970
Budget Analyst		ZA-560-IV	1	179,990	179,990
Total			10		1,697,000
Less lapse	25.00%		(3)		(424,250)
Total full-time permanent (FTE)			7		1,272,750
2025 Pay Adjustment (2.0%)					25,455
					1,298,205

Personnel Data Summary	
Full-time Equivalent Employment (FTE)	
Full-time permanent	7
Total FTE	7
Authorized Positions:	
Full-time permanent	10
Total Positions	10

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS

(Direct Obligations amounts in thousands)

Activity: Office of Space Commerce
Subactivity: Office of Space Commerce

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase from 2025 Base
11.1	Full-time permanent compensation	1,948	4,152	4,598	5,896	1,298
11.3	Other than full-time permanent	0	0	0	0	0
11.5	Other personnel compensation	53	70	70	70	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	2,001	4,222	4,668	5,966	1,298
12	Civilian personnel benefits	687	1,082	1,274	1,663	389
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	203	450	450	450	0
22	Transportation of things	0	5	5	5	0
23	Rent, communications, and utilitites					
23.1	Rental payments to GSA	262	371	371	371	0
23.2	Rental Payments to others	109	155	155	155	0
23.3	Communications, utilities and misc charges	22	28	28	28	0
24	Printing and reproduction	10	10	10	10	0
25.1	Advisory and assistance services	9,304	9,700	9,700	10,013	313
25.2	Other services from non-Federal sources	6,829	10,654	10,654	10,654	0
25.3	Other goods and services from Federal sources	25,050	33,123	33,123	33,123	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	10,000	10,000	10,000	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	60	50	50	50	0
31	Equipment	98	150	150	150	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	0	0	0	0	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	0	0	0	0	0
44	Refunds	0	0	0	0	0
99	Total obligations	44,635	70,000	70,638	72,638	2,000

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Activity: Construction

Goal Statement

The Construction activity ensures that NOAA has safe and modern facilities to support NOAA's critical science, service, and stewardship mission. NOAA facilities support experts across the Nation delivering critical services from highly specialized laboratories, state-of-the-science data assimilation, modeling and prediction centers, satellite operations facilities, ship and aircraft operations centers, weather forecast offices and fisheries and ocean science centers to ensure the lives, livelihoods, and lifestyles of every American.

Base Program

NOAA's facilities portfolio constitutes a significant capital investment with over 620 facilities across 160 markets and 6,965,592 total Usable Square Feet, including over 400 owned properties with an estimated replacement exceeding $3 billion in value. NOAA takes its fiduciary responsibilities seriously to ensure the portfolio is capable of supporting its mission in a cost-effective manner, and secures the safety and long-term sustainability for its employees and the Nation. Each facility requires financial investments for maintenance, repairs, and modernization to effectively sustain and evolve our science capabilities to support the current and future missions. Facilities analysis and construction planning activities are being utilized to enable NOAA to capture current and future mission requirements. NOAA endeavors to complete appropriate analyses and pre-design work, and determine suitable acquisition strategies that make the actual construction phase as efficient and effective as possible. NOAA's facilities work includes the critical tasks of National Environmental Policy Act (NEPA) planning, special environmental studies, facilities condition surveys, and any other activities to help ensure successful acquisition and completion of construction projects within budget and schedule.

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Within base funding NOAA will support the following:

Project Name	FY 2025 Estimate
Deferred Maintenance and Repair (DM&R) Projects	$35,000
Leasehold Improvements	$21,000
Planning	$4,500
Design	$20,000
Outfitting/Occupancy	$5,500
La Jolla California Contract Judgment Fund	$4,000
Total	**$90,000**

DM&R (PAC) - NOAA plans to prioritize its most critical projects within its extensive backlog of deferred maintenance and repair (DM&R). The capital improvements for DM&R projects are identified as those that extend the useful life of a facility, or significantly improve the efficiency of facility systems. NOAA's efforts to tackle the DM&R significantly increased in FY 2023 and NOAA intends to increase resources for this program in FY 2025.

Leasehold Improvements - NOAA plans to invest in leasehold improvements projects with the highest priority execution needs. The funding will be used to execute improvements and conduct requirements validation for various projects.

Planning - NOAA plans to develop planning documentation to advance priority capital investment projects including Strategic Initiatives in the Northeast region and Southeast region.

Design - The funding requested will be used for design efforts for various projects including Strategic Initiatives in the Seattle, WA area, Northwest region, and Pacific Islands.

Outfitting/Occupancy – NOAA requests funding for the costs associated with new furnishings, fixtures, and normal equipment associated with a new construction, renovated, repaired, or newly leased facility project and the need to relocate or move equipment, furnishing, and IT system(s). This request is linked to construction and lease projects funded in previous years.

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Statement of Operating Objectives

Schedule and Deliverables:

- Allocate $4.0 million for the repayment of the Judgment Fund for the La Jolla Settlement
- Prioritize funding for NOAA's capital investment facilities needs and deferred maintenance and repair backlog
- Continue conducting Business Case Analyses (BCA) and develop program of requirements for the Southeast and Northeast Fisheries Science Centers based on recommendations from the Regional Footprint Studies
- Continue planning activities to refine the Northwest Regional Footprint Study opportunities to improve mission execution and initiate design once those planning activities are completed
- Begin construction of Northwest Fisheries Science Center Manchester Lab
- Continue construction of the Charleston Pier project
- Continue construction of the Newport Pier
- Initiate projects on the property disposal List
- Begin lease procurements for expiring leases at Baysboro, FL and Gloucester, MA
- Complete the program of requirements for NOAA Headquarters lease re-compete; submit materials to GSA for Prospectus lease approval

Explanation and Justification

		2023 Actual		2024 Annualized CR		2025 Base	
Comparison by subactivity		Personnel	Amount	Personnel	Amount	Personnel	Amount
NOAA Construction	Pos/BA	2	93,704	2	90,000	2	90,000
	FTE/OBL	5	58,996	2	90,000	2	90,000
Total Construction	Pos/BA	2	93,704	2	90,000	2	90,000
	FTE/OBL	5	58,996	2	90,000	2	90,000

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

NOAA Construction
Constructing new facilities and reinvesting in existing facilities in accordance with the NOAA Facilities Strategic Plan and compliance with the NOAA Facilities Council guidance is critical to sustaining and evolving mission capabilities. Conducting and effectively managing construction and repair projects on facilities that have major deferred maintenance issues corrects health and life safety issues, averts emergency repairs and associated costs, reduces energy costs through creation of more efficient and sustainable building systems, brings facilities up to current safety, environmental and building code standards, and minimizes overall sustainment costs while ensuring NOAA facilities support assigned science missions.

Outyear Funding Estimates:

NOAA Construction	2024 & Prior	2025	2026	2027	2028	2029	CTC	Total
Change from 2025 Base	N/A	0	0	0	0	0	N/A	TBD
Total Request	323,000*	90,000	90,000	90,000	90,000	90,000	N/A	TBD

*Total includes funds from FY 2020-FY 2024

Department of Commerce
National Oceanic and Atmospheric Administration
National Environmental Satellite, Data, and Information Service
Budget Estimates, Fiscal Year 2025

Executive Summary

For FY 2025, NOAA requests a total of $2,138,226,000 and 887 FTE/ 976 positions for the National Environmental Satellite, Data, and Information Service (NESDIS), including a net increase of $423,412,000 and 0 FTE/ 0 positions in program changes.

NESDIS (http://www.nesdis.noaa.gov/) provides secure and timely access to global environmental data from satellites and other sources to enhance the Nation's economy, security, environment, and quality of life. NESDIS works in close coordination with its NOAA Line Office partners to help satisfy NOAA's climate and environmental mission service requirements. Information derived from the data that NESDIS collects supports investments and resource utilization in the economy, including: agriculture, transportation, fisheries, energy, construction, emergency management, hazard mitigation, and other sectors. Billions of dollars in damage are incurred each year due to natural disasters and extreme climate and weather events such as wildfires, heatwaves, tornadoes, hurricanes, floods, and drought. In 2023, there were 28 weather, water, and climate disaster events with losses exceeding $1 billion each across the United States, directly resulting in 492 deaths and damages totaling more than $92.9 billion.[1] These events included unprecedented heat waves over the Southern U.S., drought in the Midwest agricultural belt, and wildfire in Hawai'i. In addition, 2023 was the ninth consecutive year (2015-2023) in which 10 or more billion-dollar weather and climate disaster events impacted the United States. Though the large events make headlines, this year there were also hundreds of smaller events with an economic impact below $1 billion. National climate assessments warn that the fast-altering climate will amplify the number and severity of annual billion-dollar disasters in the future. Decision makers, including businesses, communities, and governments, rely on NESDIS data and information to help them reduce the losses incurred by these destructive events, making it imperative to ensure the continuity of these satellite systems and the data they provide.

NESDIS manages the Nation's civil operational environmental satellites, which constitutes the largest constellation of civil operational satellites in the world. These satellites are essential to the agency's integrated observing system, which is the foundation of the environmental intelligence that the agency provides. NESDIS maintains primary constellations of environmental satellites in the polar- and geostationary orbits and in deep space at Lagrange point 1, directly along the sun-earth line. NESDIS satellite-based observations assist with disaster mitigation through the monitoring of severe weather, sea level rise, precipitation, fire and smoke, volcanic eruptions, dust storms, and other air quality issues. Along with managing NOAA's satellites in real time, NESDIS leverages Federal, partner, and commercial data sources to develop and distribute products and information from NOAA. NESDIS-developed products and information underpin weather and other environmental forecasts, contributing to saving lives and property, and providing essential information to sustain and generate economic activity.

[1] NOAA National Centers for Environmental Information (NCEI) U.S. Billion-Dollar Weather and Climate Disasters (2023). https://www.ncdc.noaa.gov/billions/, DOI: 10.25921/stkw-7w73

Department of Commerce
National Oceanic and Atmospheric Administration
National Environmental Satellite, Data, and Information Service
Budget Estimates, Fiscal Year 2025

NOAA satellite observations, along with partner and commercial observations, provide uninterrupted global coverage critical for generating short-term and long-term weather forecasts. By integrating these observations with NESDIS's extensive environmental data archives at the National Centers for Environmental Information, NESDIS provides valuable information and analyses of long-term monitoring and understanding of planetary environmental change. The preservation and continuous validation of long-term environmental data records support decision making, seasonal forecasting, climate monitoring, and climate modeling applications in both the private and public sectors. NESDIS is committed to the international effort to establish a global observing system that meets both the Nation's and the world's need for environmental intelligence. A fully implemented global observing system, leveraging investments from NOAA and from multiple international contributors, is yielding increasingly accurate and reliable warnings of severe weather, climate change, and other environmental events in the United States and all around the world.

Next Generation Architecture

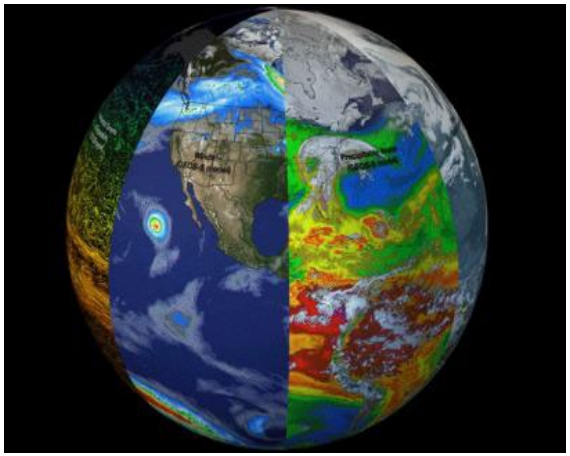
Within the evolving weather, climate, and environmental data landscape, we are seeing an unprecedented pace of technology advances (such as satellite and launch vehicle capabilities, artificial intelligence, high performance computing, and machine learning), which is opening access to space, increasing demand for timely integrated data and information, and advancing forecast modeling. In particular, there is an increased demand for timely and accurate observations and predictions of extreme weather events, and an intensified demand for environmental assessments informed by climate change assessments and forecasts that can inform infrastructure investments. Commercial launch and remote sensing capabilities are emerging among the aerospace industry, along with an increasing vulnerability of our technological society to the effects of space weather.

NOAA is taking essential steps to operate effectively in this changing environment by assessing data collection and management requirements, IT systems trends, and the anticipated user environment and. Our vision is to create an integrated, digital understanding of our Earth environment that will allow our citizens to adapt and thrive. This observing system will provide advanced, real-time data critical to saving lives and protecting property as well as powering increasingly sophisticated models that forecast climate change-driven weather patterns and environmental conditions never seen before, to provide our communities and users with information to manage their lives and investments into the future.

We envision a future observing system that will provide:

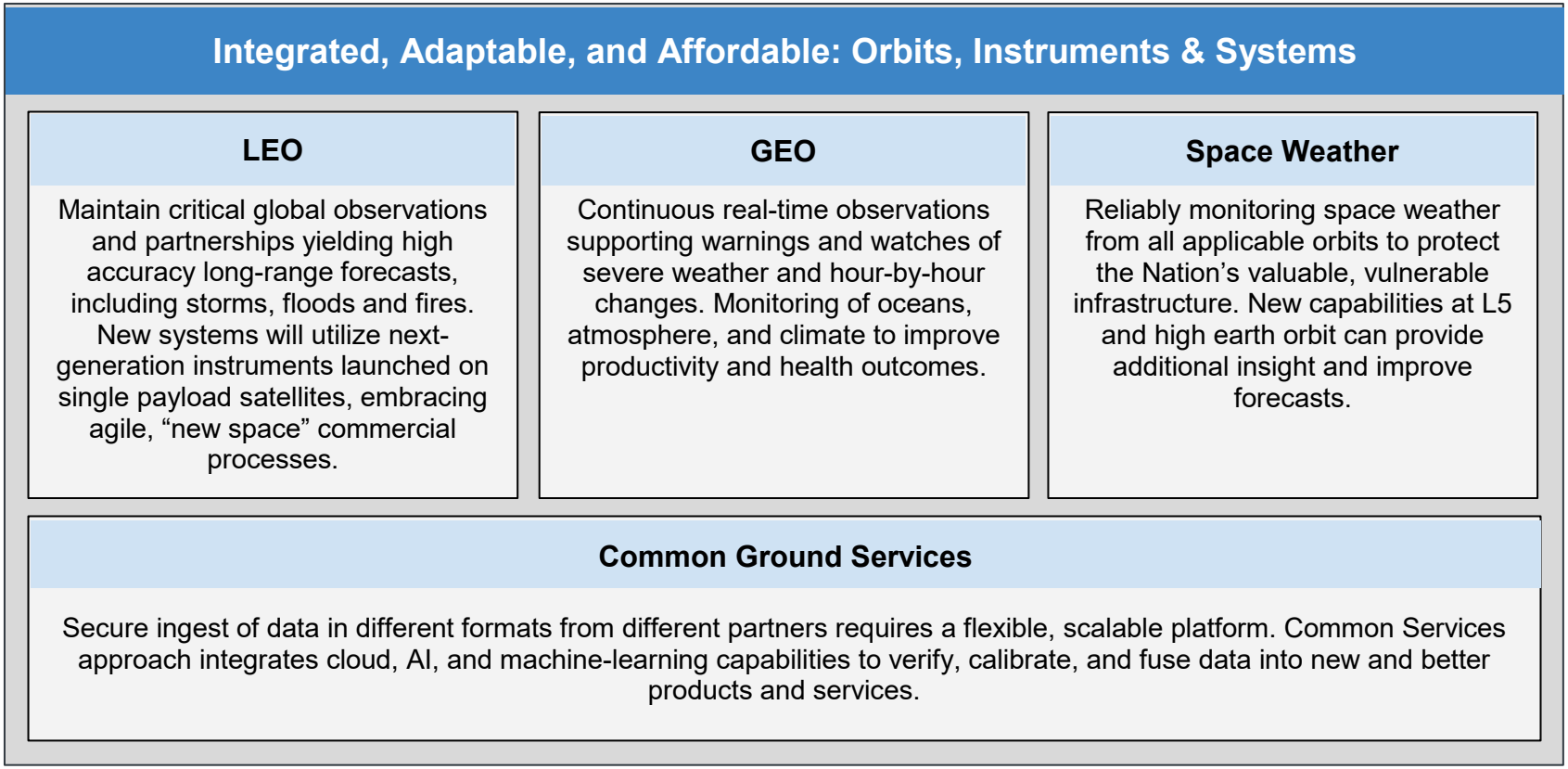
- A breadth of observations obtained from multiple viewpoints and organized into observation portfolios, including Low Earth Orbit (LEO), Geostationary Earth Orbit (GEO), and Space Weather Observations (SWO), where and when we need them to meet expected future demands.

- A system featuring a mixture of small, medium, and large satellites and instruments, including shorter development times, more frequent launches, and smaller and more capable instruments and satellites.
- A Common Ground Services approach to operate the evolving observing system, and integrate cloud, artificial intelligence, and machine-learning capabilities to verify, calibrate, and fuse data into better products and services. This includes a flexible, scalable platform that enables secure ingest of partner data in different formats.
- A combination of assets, including NOAA-owned and managed, partner assets, commercial partnerships, and the purchase of data.



As NESDIS continues adapting to the changing weather and environmental data landscape, future endeavors will focus on the continuity and efficient expansion of LEO, GEO, and SWO capabilities as well as the provision of common ground services for the secure ingest of data. Together, these four areas constitute the pillars of NOAA's next-generation observing system:

Department of Commerce
National Oceanic and Atmospheric Administration
National Environmental Satellite, Data, and Information Service
Budget Estimates, Fiscal Year 2025



NESDIS will continue to adhere to and track the life cycle costs (LCCs) formulated in conjunction with the Department of Commerce for major satellite programs such as the Geostationary Operational Environmental Satellite – R Series (GOES-R Series), Geostationary Extended Observations (GeoXO), Joint Polar Satellite System (JPSS), Polar Follow On (PFO), and Space Weather Follow On (SWFO). Since each of these represents established missions with unique visibility and stakeholders, NESDIS will keep the current reporting structure for the duration of these missions.

Department of Commerce
National Oceanic and Atmospheric Administration
National Environmental Satellite, Data, and Information Service
Budget Estimates, Fiscal Year 2025

The figure above reflects NOAA's current and planned next-generation satellite systems, as well as some of our partner missions.

The FY 2025 budget supports the current constellation and makes the critical investments necessary to maintain the development timelines for the most mature next generation satellite programs to expand delivery of essential climate, weather, atmospheric, oceanographic, and space weather information to meet the needs of the Nation.

Department of Commerce
National Oceanic and Atmospheric Administration
National Environmental Satellite, Data, and Information Service
Budget Estimates, Fiscal Year 2025

Significant Adjustments:

Inflationary Adjustments
NOAA's FY 2025 Base includes a net increase of $6,658,000 and 0 FTE/ 0 positions to account for the full funding requirement for certain inflationary adjustments to current programs for NESDIS activities. This includes inflationary increases for labor and non-labor activities including benefits and rent charges from the General Services Administration.

Operational Phase Transfers
The NOAA satellite budget profiles in the PAC account are formulated to reflect the full LCC including design, development, and operations. An Operational Phase Transfer (OPT) is required to transfer the LCC funding currently budgeted within a PAC Subactivity to the appropriate ORF Subactivity for operational functions. It results in a net change of $0 and 0 FTE / 0 positions to the NESDIS budget.

Low Earth Orbit / COSMIC-2 / GNSS-RO:

From Office	Subactivity	To Office	Subactivity	Amount/ FTE
NESDIS	Low Earth Orbit (PAC)	NESDIS	Office of Satellite and Product Operations (ORF)	$5,750,000 / 1 FTE / 1 Position
NESDIS	Low Earth Orbit (PAC)	NESDIS	Product Development, Readiness & Application (ORF)	$2,350,000 / 0 FTE / 0 Position

In FY 2025, NOAA requests a technical adjustment to transfer:

- $5,750,000 and 1 FTE/ 1 positions from the LEO Subactivity in PAC into the Office of Satellite and Product Operations Subactivity in ORF. This OPT supports operations funding for the COSMIC-2 / GNSS RO data processing and ground stations.
- $2,350,000 and 0 FTE/ 0 positions from the LEO Subactivity in PAC into the Product Development, Readiness and Application Subactivity in ORF. This OPT supports product development for the COSMIC-2 / GNSS RO.

Department of Commerce
National Oceanic and Atmospheric Administration
National Environmental Satellite, Data, and Information Service
Budget Estimates, Fiscal Year 2025

Space Weather Follow On:

From Office	Subactivity	To Office	Subactivity	Amount/ FTE
NESDIS	Space Weather Follow On (PAC)	NESDIS	Office of Satellite and Product Operations (ORF)	$1,065,000 / 0 FTE / 0 Position
NESDIS	Space Weather Follow On (PAC)	NESDIS	National Centers for Environmental Information (ORF)	$400,000 / 0 FTE / 0 Position

In FY 2025, NOAA requests technical adjustments to transfer:

- $1,065,000 and 0 FTE/ 0 positions from the Space Weather Follow On Subactivity in PAC into the Office of Satellite and Product Operations Subactivity in ORF. This OPT supports operations funding for the GOES-U compact coronagraph (CCOR).
- $400,000 and 0 FTE / 0 positions from the Space Weather Follow On Subactivity in PAC into the National Centers for Environmental Information Subactivity in ORF. This OPT transfers archiving and data stewardship funding to support the GOES-U CCOR.

GOES-R Series:

From Office	Subactivity	To Office	Subactivity	Amount/ FTE
NESDIS	Geostationary Systems – R (PAC)	NESDIS	Office of Satellite and Product Operations (ORF)	$7,000,000 / 0 FTE / 0 Position
NESDIS	Geostationary Systems – R (PAC)	NESDIS	Common Ground Services (PAC)	$10,400,000 / 0 FTE / 0 Position

In FY 2025, NOAA requests technical adjustments to transfer:

- $7,000,000 and 0 FTE/ 0 positions from the Geostationary Systems – R Subactivity in PAC into the Office of Satellite and Product Operations Subactivity in ORF. This OPT supports operations funding for the GOES-R ground system and hardware/software licensing;
- $10,400,000 and 0 FTE/ 0 positions from the Geostationary Systems – R Subactivity into the Common Ground Services

Subactivity in PAC. This OPT supports the sustainment of Environmental Satellite Processing Center capabilities; sustainment and modernization of existing hardware and software and development of new capabilities; and development and transition to operations of GEO-related products in the NESDIS Common Cloud Framework.

Department of Commerce
National Oceanic and Atmospheric Administration
National Environmental Satellite, Data, and Information Service
Budget Estimates, Fiscal Year 2025

Life cycle costs: The following tables provide the details of the total LCC of NOAA satellites that have a required base funding level of over $250 million.

GOES-R Series LCC* ($ in thousands):

GOES-R Series	2024 & Prior**	2025	2026*	2027*	2028*	2029*	CTC	Total
GOES-R Series LCC (PAC & ORF)	**10,449,028**	**134,803**	**129,900**	**129,900**	**129,900**	**129,900**	**596,656**	**11,700,087**
Procurement, Acquisition, and Construction (PAC)								
Total PAC	**10,177,828**	**93,903**	**89,000**	**89,000**	**89,000**	**89,000**	**310,356**	**10,938,087**
GOES-R Series	10,177,828	83,503	78,600	78,600	78,600	78,600	259,936	10,835,667
Common Ground Services	-	10,400	10,400	10,400	10,400	10,400	50,420	102,420
Operations, Research, and Facilities (ORF)								
Total ORF	**271,200**	**40,900**	**40,900**	**40,900**	**40,900**	**40,900**	**286,300**	**762,000**
Office of Satellite and Product Operations	211,920	33,490	33,490	33,490	33,490	33,490	234,430	613,800
Product Development, Readiness & Application	48,000	6,000	6,000	6,000	6,000	6,000	42,000	120,000
National Centers for Environmental Information	11,280	1,410	1,410	1,410	1,410	1,410	9,870	28,200

* Outyears are estimates. Future requests will be based on current needs and requirements. Therefore, the PAC profile will be updated on an annual basis.
** The FY 2024 & Prior column accounts for FY 2024 Annualized Continuing Resolution, as well as any reductions for deobligations in prior enacted appropriations.

Department of Commerce
National Oceanic and Atmospheric Administration
National Environmental Satellite, Data, and Information Service
Budget Estimates, Fiscal Year 2025

GeoXO LCC* ($ in thousands):

GeoXO	2024 & Prior**	2025	2026	2027	2028	2029	CTC	Total
GeoXO LCC (PAC & ORF)	**729,420**	**798,400**	**691,500**	**1,320,000**	**1,320,000**	**1,320,000**	**13,465,069**	**19,644,389**
Procurement, Acquisition, and Construction (PAC)								
Total PAC	729,420	798,400	691,500	1,320,000	1,320,000	1,320,000	13,465,069	19,644,389
GeoXO	729,420	798,400	691,500	1,320,000	1,320,000	1,320,000	13,465,069	19,644,389

* Outyears are estimates. Future requests will be based on current needs and requirements. Therefore, the PAC profile will be updated on an annual basis.
** The FY 2024 & Prior column accounts for FY 2024 Annualized Continuing Resolution, as well as any reductions for deobligations in prior enacted appropriations.

Department of Commerce
National Oceanic and Atmospheric Administration
National Environmental Satellite, Data, and Information Service
Budget Estimates, Fiscal Year 2025

Polar Weather Satellites (PWS; JPSS and PFO) LCC* ($ in thousands):

PWS		2024 & Prior**	2025	2026	2027	2028	2029	CTC	Total
Total PWS (PAC & ORF)		**13,552,283**	**425,000**	**425,000**	**425,000**	**425,000**	**375,000**	**2,532,741**	**18,160,025**
JPSS LCC (PAC & ORF)		11,239,535	82,590	-	-	-	-	-	11,322,125
PFO LCC (PAC & ORF)		2,312,749	342,410	425,000	425,000	425,000	375,000	2,532,741	6,837,900
Procurement, Acquisition, and Construction (PAC)									
Total PAC		**13,342,704**	**350,210**	**350,210**	**350,210**	**350,210**	**300,210**	**1,859,631**	**16,903,385**
Subactivity	**Program**								
Polar Weather Satellites	JPSS	11,014,355	-	-	-	-	-	-	11,014,355
	PFO	2,312,749	342,410	342,410	342,410	342,410	292,410	1,789,431	5,764,230
Common Ground Services	JPSS	15,600	7,800	-	-	-	-	-	23,400
	PFO	-	-	7,800	7,800	7,800	7,800	70,200	101,400
Operations, Research, and Facilities (ORF)									
Total ORF		**209,580**	**74,790**	**74,790**	**74,790**	**74,790**	**74,790**	**673,110**	**1,256,640**
Subactivity	**Program**								
Office of Satellite and Product Operations	JPSS	178,380	59,190	-	-	-	-	N/A	237,570
	PFO^	-	-	59,190	59,190	59,190	59,190	532,710	769,470
Product Development, Readiness & Application	JPSS	29,200	14,600	-	-	-	-	-	43,800
	PFO^	-	-	14,600	14,600	14,600	14,600	131,400	189,800
National Centers for Environmental Information	JPSS	2,000	1,000	-	-	-	-	-	3,000
	PFO^	-	-	1,000	1,000	1,000	1,000	9,000	13,000

* Outyears are estimates. Future requests will be based on current needs and requirements. Therefore, the PAC profile will be updated on an annual basis.
** The FY 2024 & Prior column accounts for FY 2024 Annualized Continuing Resolution, as well as any reductions for deobligations in prior enacted appropriations.
^ Operational Phase Transfers related to PFO are estimates and will be reevaluated in FY 2026.

Department of Commerce
National Oceanic and Atmospheric Administration
National Environmental Satellite, Data, and Information Service
Budget Estimates, Fiscal Year 2025

Space Weather Follow On (SWFO) LCC* ($ in thousands):

SWFO	2024 & Prior**	2025	2026*	2027*	2028*	2029*	CTC	Total
SWFO LCC (PAC & ORF)	**632,892**	**41,200**	**4,677**	**4,677**	**4,677**	**4,677**	**-**	**692,800**
Procurement, Acquisition, and Construction (PAC)								
Total PAC	**632,892**	**39,735**	**3,212**	**3,212**	**3,212**	**3,212**	**-**	**685,475**
Space Weather Follow On	**632,892**	**39,735**	**3,212**	**3,212**	**3,212**	**3,212**	**-**	**685,475**
Total ORF	**-**	**1,465**	**1,465**	**1,465**	**1,465**	**1,465**	**-**	**7,325**
Office of Satellite and Product Operations	-	1,065	1,065	1,065	1,065	1,065	-	5,325
National Centers for Environmental Information	-	400	400	400	400	400	-	2,000

* Outyears are estimates. Future requests will be based on current needs and requirements. Therefore, the PAC profile will be updated on an annual basis.
** The FY 2024 & Prior column accounts for FY 2024 Annualized Continuing Resolution, as well as any reductions for deobligations in prior enacted appropriations.

Department of Commerce
National Oceanic and Atmospheric Administration
TRANSFER CHANGE DETAIL BY OBJECT CLASS
(Direct Obligation amounts in thousands)

Activity: Systems Acquisition
Subactivity: Low Earth Orbit (PAC) – Operational Phase Transfer from Low Earth Orbit (PAC) to the Office of Satellite and Product Operations (ORF)

Object Class	2024 Annualized CR	2025 Transfer	2025 Base*
Full-time permanent compensation	2,201	(156)	2,089
Other than full-time permanent	0	0	0
Other personnel compensation	7	0	7
NOAA Corps	0	0	0
Total personnel compensation	2,208	(156)	2,096
Civilian personnel benefits	707	(50)	671
Benefits for former personnel	0	0	0
Travel and transportation of persons	54	0	54
Transportation of things	0	0	0
Rent, communications, and utilitites	0	0	0
Rental payments to GSA	0	0	0
Rental Payments to others	0	0	0
Communications, utilities and misc charges	0	0	0
Printing and reproduction	0	0	0
Advisory and assistance services	11,885	0	11,877
Other services from non-Federal sources	7,412	0	7,408
Other goods and services from Federal sources	69,814	(5,544)	61,874
Operation and maintenance of facilities	0	0	0
Research and development contracts	0	0	0
Medical care	0	0	0
Operation and maintenance of equipment	0	0	0
Subsistence and support of persons	0	0	0
Supplies and materials	51	0	51
Equipment	773	0	773
Lands and structures	0	0	0
Investments and loans	0	0	0
Grants, subsidies and contributions	3,526	0	3,526
Insurance claims and indemnities	0	0	0
Interest and dividends	0	0	0
Refunds	0	0	0
Total obligations	96,430	(5,750)	88,330

*The 2025 Base column reflects the full 2025 Base for this Subactivity, including calculated ATBs and any additional transfers.

Department of Commerce
National Oceanic and Atmospheric Administration
TRANSFER CHANGE DETAIL BY OBJECT CLASS
(Direct Obligation amounts in thousands)

Activity: Environmental Satellite Observing Systems
Subactivity: Office of Satellite and Product Operations (ORF) – Operational Phase Transfer to the Office of Satellite and Product Operations (ORF) from Low Earth Orbit (PAC)

	Object Class	2024 Annualized CR	2025 Transfer	2025 Base*
11.1	Full-time permanent compensation	43,908	156	45,281
11.3	Other than full-time permanent	92	0	92
11.5	Other personnel compensation	5,736	0	5,736
11.7	NOAA Corps	0	0	0
11.9	Total personnel compensation	49,736	156	51,109
12	Civilian personnel benefits	15,916	50	16,383
13	Benefits for former personnel	4	0	4
21	Travel and transportation of persons	402	0	407
22	Transportation of things	109	0	112
23	Rent, communications, and utilitites	0	0	0
23.1	Rental payments to GSA	10,019	0	10,128
23.2	Rental Payments to others	0	0	0
23.3	Communications, utilities and misc charges	2,399	0	2,399
24	Printing and reproduction	49	0	50
25.1	Advisory and assistance services	102,283	0	104,648
25.2	Other services from non-Federal sources	41,573	0	41,573
25.3	Other goods and services from Federal sources	17,185	5,544	30,794
25.4	Operation and maintenance of facilities	0	0	0
25.5	Research and development contracts	0	0	0
25.6	Medical care	0	0	0
25.7	Operation and maintenance of equipment	0	0	0
25.8	Subsistence and support of persons	0	0	0
26	Supplies and materials	1,081	0	1,107
31	Equipment	4,657	0	4,764
32	Lands and structures	0	0	0
33	Investments and loans	0	0	0
41	Grants, subsidies and contributions	502	0	502
42	Insurance claims and indemnities	0	0	0
43	Interest and dividends	0	0	0
44	Refunds	0	0	0
99	Total obligations	245,915	5,750	263,980

*The 2025 Base column reflects the full 2025 Base for this Subactivity, including calculated ATBs and any additional transfers.

Department of Commerce
National Oceanic and Atmospheric Administration
TRANSFER CHANGE DETAIL BY OBJECT CLASS
(Direct Obligation amounts in thousands)

Activity: Systems Acquisition
Subactivity: Low Earth Orbit (PAC) – Operational Phase Transfer from Low Earth Orbit (PAC) to Product Development, Readiness and Application (ORF)

	Object Class	2024 Annualized CR	2025 Transfer	2025 Base*
11.1	Full-time permanent compensation	2,201	0	2,089
11.3	Other than full-time permanent	0	0	0
11.5	Other personnel compensation	7	0	7
11.7	NOAA Corps	0	0	0
11.9	Total personnel compensation	2,208	0	2,096
12	Civilian personnel benefits	707	0	671
13	Benefits for former personnel	0	0	0
21	Travel and transportation of persons	54	0	54
22	Transportation of things	0	0	0
23	Rent, communications, and utilitites	0	0	0
23.1	Rental payments to GSA	0	0	0
23.2	Rental Payments to others	0	0	0
23.3	Communications, utilities and misc charges	0	0	0
24	Printing and reproduction	0	0	0
25.1	Advisory and assistance services	11,885	0	11,877
25.2	Other services from non-Federal sources	7,412	0	7,408
25.3	Other goods and services from Federal sources	69,814	(2,350)	61,874
25.4	Operation and maintenance of facilities	0	0	0
25.5	Research and development contracts	0	0	0
25.6	Medical care	0	0	0
25.7	Operation and maintenance of equipment	0	0	0
25.8	Subsistence and support of persons	0	0	0
26	Supplies and materials	51	0	51
31	Equipment	773	0	773
32	Lands and structures	0	0	0
33	Investments and loans	0	0	0
41	Grants, subsidies and contributions	3,526	0	3,526
42	Insurance claims and indemnities	0	0	0
43	Interest and dividends	0	0	0
44	Refunds	0	0	0
99	Total obligations	96,430	(2,350)	88,330

*The 2025 Base column reflects the full 2025 Base for this Subactivity, including calculated ATBs and any additional transfers.

Department of Commerce
National Oceanic and Atmospheric Administration
TRANSFER CHANGE DETAIL BY OBJECT CLASS
(Direct Obligation amounts in thousands)

Activity: Environmental Satellite Observing Systems
Subactivity: Product Development, Readiness and Application (ORF) – Operational Phase Transfer to Product Development, Readiness and Application (ORF) from Low Earth Orbit (PAC)

	Object Class	2024 Annualized CR	2025 Transfer	2025 Base*
11.1	Full-time permanent compensation	13,369	0	13,705
11.3	Other than full-time permanent	0	0	0
11.5	Other personnel compensation	312	0	312
11.7	NOAA Corps	0	0	0
11.9	Total personnel compensation	13,681	0	14,017
12	Civilian personnel benefits	4,788	0	4,913
13	Benefits for former personnel	0	0	0
21	Travel and transportation of persons	276	0	279
22	Transportation of things	6	0	6
23	Rent, communications, and utilitites	0	0	0
23.1	Rental payments to GSA	2,850	0	2,875
23.2	Rental Payments to others	17	0	17
23.3	Communications, utilities and misc charges	22	0	22
24	Printing and reproduction	40	0	41
25.1	Advisory and assistance services	3,687	0	4,062
25.2	Other services from non-Federal sources	3,199	0	3,199
25.3	Other goods and services from Federal sources	727	2,350	3,077
25.4	Operation and maintenance of facilities	0	0	0
25.5	Research and development contracts	9,661	0	9,661
25.6	Medical care	0	0	0
25.7	Operation and maintenance of equipment	0	0	0
25.8	Subsistence and support of persons	0	0	0
26	Supplies and materials	165	0	169
31	Equipment	912	0	933
32	Lands and structures	0	0	0
33	Investments and loans	0	0	0
41	Grants, subsidies and contributions	17,469	0	17,469
42	Insurance claims and indemnities	0	0	0
43	Interest and dividends	0	0	0
44	Refunds	0	0	0
99	Total obligations	57,500	2,350	60,740

*The 2025 Base column reflects the full 2025 Base for this Subactivity, including calculated ATBs and any additional transfers.

Department of Commerce
National Oceanic and Atmospheric Administration
TRANSFER CHANGE DETAIL BY OBJECT CLASS
(Direct Obligation amounts in thousands)

Activity: Systems Acquisition
Subactivity: Space Weather Follow On (PAC) – Operational Phase Transfer from Space Weather Follow On (PAC) to the Office of Satellite and Product Operations (ORF)

	Object Class	2024 Annualized CR	2025 Transfer	2025 Base*
11.1	Full-time permanent compensation	3,412	0	3,480
11.3	Other than full-time permanent	0	0	0
11.5	Other personnel compensation	19	0	19
11.7	NOAA Corps	0	0	0
11.9	Total personnel compensation	3,431	0	3,499
12	Civilian personnel benefits	1,098	0	1,120
13	Benefits for former personnel	0	0	0
21	Travel and transportation of persons	73	0	73
22	Transportation of things	0	0	0
23	Rent, communications, and utilitites	0	0	0
23.1	Rental payments to GSA	0	0	0
23.2	Rental Payments to others	0	0	0
23.3	Communications, utilities and misc charges	0	0	0
24	Printing and reproduction	0	0	0
25.1	Advisory and assistance services	19,635	0	19,622
25.2	Other services from non-Federal sources	238	0	238
25.3	Other goods and services from Federal sources	108,708	(1,065)	107,566
25.4	Operation and maintenance of facilities	0	0	0
25.5	Research and development contracts	0	0	0
25.6	Medical care	0	0	0
25.7	Operation and maintenance of equipment	0	0	0
25.8	Subsistence and support of persons	0	0	0
26	Supplies and materials	0	0	0
31	Equipment	0	0	0
32	Lands and structures	0	0	0
33	Investments and loans	0	0	0
41	Grants, subsidies and contributions	3,017	0	2,617
42	Insurance claims and indemnities	0	0	0
43	Interest and dividends	0	0	0
44	Refunds	0	0	0
99	Total obligations	136,200	(1,065)	134,735

*The 2025 Base column reflects the full 2025 Base for this Subactivity, including calculated ATBs and any additional transfers.

Department of Commerce
National Oceanic and Atmospheric Administration
TRANSFER CHANGE DETAIL BY OBJECT CLASS
(Direct Obligation amounts in thousands)

Activity: Environmental Satellite Observing Systems
Subactivity: Office of Satellite and Product Operations (ORF) – Operational Phase Transfer to the Office of Satellite and Product Operation (ORF) from Space Weather Follow On (PAC)

	Object Class	2024 Annualized CR	2025 Transfer	2025 Base*
11.1	Full-time permanent compensation	43,908	0	45,281
11.3	Other than full-time permanent	92	0	92
11.5	Other personnel compensation	5,736	0	5,736
11.7	NOAA Corps	0	0	0
11.9	Total personnel compensation	49,736	0	51,109
12	Civilian personnel benefits	15,916	0	16,383
13	Benefits for former personnel	4	0	4
21	Travel and transportation of persons	402	0	407
22	Transportation of things	109	0	112
23	Rent, communications, and utilitites	0	0	0
23.1	Rental payments to GSA	10,019	0	10,128
23.2	Rental Payments to others	0	0	0
23.3	Communications, utilities and misc charges	2,399	0	2,399
24	Printing and reproduction	49	0	50
25.1	Advisory and assistance services	102,283	0	104,648
25.2	Other services from non-Federal sources	41,573	0	41,573
25.3	Other goods and services from Federal sources	17,185	1,065	30,794
25.4	Operation and maintenance of facilities	0	0	0
25.5	Research and development contracts	0	0	0
25.6	Medical care	0	0	0
25.7	Operation and maintenance of equipment	0	0	0
25.8	Subsistence and support of persons	0	0	0
26	Supplies and materials	1,081	0	1,107
31	Equipment	4,657	0	4,764
32	Lands and structures	0	0	0
33	Investments and loans	0	0	0
41	Grants, subsidies and contributions	502	0	502
42	Insurance claims and indemnities	0	0	0
43	Interest and dividends	0	0	0
44	Refunds	0	0	0
99	Total obligations	245,915	1,065	263,980

*The 2025 Base column reflects the full 2025 Base for this Subactivity, including calculated ATBs and any additional transfers.

Department of Commerce
National Oceanic and Atmospheric Administration
TRANSFER CHANGE DETAIL BY OBJECT CLASS
(Direct Obligation amounts in thousands)

Activity: Systems Acquisition
Subactivity: Space Weather Follow On (PAC) – Operational Phase Transfer from Space Weather Follow On (PAC) to National Centers for Environmental Information (ORF)

	Object Class	2024 Annualized CR	2025 Transfer	2025 Base*
11.1	Full-time permanent compensation	3,412	0	3,480
11.3	Other than full-time permanent	0	0	0
11.5	Other personnel compensation	19	0	19
11.7	NOAA Corps	0	0	0
11.9	Total personnel compensation	3,431	0	3,499
12	Civilian personnel benefits	1,098	0	1,120
13	Benefits for former personnel	0	0	0
21	Travel and transportation of persons	73	0	73
22	Transportation of things	0	0	0
23	Rent, communications, and utilitites	0	0	0
23.1	Rental payments to GSA	0	0	0
23.2	Rental Payments to others	0	0	0
23.3	Communications, utilities and misc charges	0	0	0
24	Printing and reproduction	0	0	0
25.1	Advisory and assistance services	19,635	0	19,622
25.2	Other services from non-Federal sources	238	0	238
25.3	Other goods and services from Federal sources	108,708	0	107,566
25.4	Operation and maintenance of facilities	0	0	0
25.5	Research and development contracts	0	0	0
25.6	Medical care	0	0	0
25.7	Operation and maintenance of equipment	0	0	0
25.8	Subsistence and support of persons	0	0	0
26	Supplies and materials	0	0	0
31	Equipment	0	0	0
32	Lands and structures	0	0	0
33	Investments and loans	0	0	0
41	Grants, subsidies and contributions	3,017	(400)	2,617
42	Insurance claims and indemnities	0	0	0
43	Interest and dividends	0	0	0
44	Refunds	0	0	0
99	Total obligations	136,200	(400)	134,735

*The 2025 Base column reflects the full 2025 Base for this Subactivity, including calculated ATBs and any additional transfers.

Department of Commerce
National Oceanic and Atmospheric Administration
TRANSFER CHANGE DETAIL BY OBJECT CLASS
(Direct Obligation amounts in thousands)

Activity: Environmental Satellite Observing Systems
Subactivity: National Centers for Environmental Information (ORF) – Operational Phase Transfer to National Centers for Environmental Information (ORF) from Space Weather Follow On (PAC)

	Object Class	2024 Annualized CR	2025 Transfer	2025 Base*
11.1	Full-time permanent compensation	26,798	0	27,480
11.3	Other than full-time permanent	64	0	64
11.5	Other personnel compensation	508	0	508
11.7	NOAA Corps	0	0	0
11.9	Total personnel compensation	27,370	0	28,052
12	Civilian personnel benefits	9,580	0	9,844
13	Benefits for former personnel	0	0	0
21	Travel and transportation of persons	457	0	463
22	Transportation of things	15	0	15
23	Rent, communications, and utilitites	0	0	0
23.1	Rental payments to GSA	4,921	0	4,972
23.2	Rental Payments to others	603	0	603
23.3	Communications, utilities and misc charges	288	0	288
24	Printing and reproduction	41	0	42
25.1	Advisory and assistance services	11,890	0	12,394
25.2	Other services from non-Federal sources	10,027	0	10,427
25.3	Other goods and services from Federal sources	492	0	492
25.4	Operation and maintenance of facilities	0	0	0
25.5	Research and development contracts	0	0	0
25.6	Medical care	0	0	0
25.7	Operation and maintenance of equipment	0	0	0
25.8	Subsistence and support of persons	0	0	0
26	Supplies and materials	247	0	253
31	Equipment	161	0	165
32	Lands and structures	0	0	0
33	Investments and loans	0	0	0
41	Grants, subsidies and contributions	5,280	400	5,280
42	Insurance claims and indemnities	0	0	0
43	Interest and dividends	0	0	0
44	Refunds	0	0	0
99	Total obligations	71,372	400	73,290

*The 2025 Base column reflects the full 2025 Base for this Subactivity, including calculated ATBs and any additional transfers.

Department of Commerce
National Oceanic and Atmospheric Administration
TRANSFER CHANGE DETAIL BY OBJECT CLASS
(Direct Obligation amounts in thousands)

Activity: Systems Acquisition
Subactivity: Geostationary Systems-R (PAC) – Operational Phase Transfer from Geostationary Systems-R (PAC) to the Office of Satellite and Product Operations (ORF)

	Object Class	2024 Annualized CR	2025 Transfer	2025 Base*
11.1	Full-time permanent compensation	8,478	0	8,648
11.3	Other than full-time permanent	11	0	11
11.5	Other personnel compensation	122	0	122
11.7	NOAA Corps	0	0	0
11.9	Total personnel compensation	8,611	0	8,781
12	Civilian personnel benefits	2,756	0	2,810
13	Benefits for former personnel	0	0	0
21	Travel and transportation of persons	112	0	112
22	Transportation of things	0	0	0
23	Rent, communications, and utilitites	0	0	0
23.1	Rental payments to GSA	1,216	0	1,216
23.2	Rental Payments to others	0	0	0
23.3	Communications, utilities and misc charges	0	0	0
24	Printing and reproduction	0	0	0
25.1	Advisory and assistance services	135,613	0	130,419
25.2	Other services from non-Federal sources	20,704	0	20,704
25.3	Other goods and services from Federal sources	123,722	(7,000)	116,592
25.4	Operation and maintenance of facilities	0	0	0
25.5	Research and development contracts	0	0	0
25.6	Medical care	0	0	0
25.7	Operation and maintenance of equipment	0	0	0
25.8	Subsistence and support of persons	0	0	0
26	Supplies and materials	41	0	41
31	Equipment	0	0	0
32	Lands and structures	0	0	0
33	Investments and loans	0	0	0
41	Grants, subsidies and contributions	8,225	0	2,925
42	Insurance claims and indemnities	0	0	0
43	Interest and dividends	0	0	0
44	Refunds	0	0	0
99	Total obligations	301,000	(7,000)	283,600

*The 2025 Base column reflects the full 2025 Base for this Subactivity, including calculated ATBs and any additional transfers.

Department of Commerce
National Oceanic and Atmospheric Administration
TRANSFER CHANGE DETAIL BY OBJECT CLASS
(Direct Obligation amounts in thousands)

Activity: Environmental Satellite Observing Systems
Subactivity: Office of Satellite and Product Operations (ORF) – Operational Phase Transfer to the Office of Satellite and Product Operations (ORF) from Geostationary Systems-R (PAC)

	Object Class	2024 Annualized CR	2025 Transfer	2025 Base*
11.1	Full-time permanent compensation	43,908	0	45,281
11.3	Other than full-time permanent	92	0	92
11.5	Other personnel compensation	5,736	0	5,736
11.7	NOAA Corps	0	0	0
11.9	Total personnel compensation	49,736	0	51,109
12	Civilian personnel benefits	15,916	0	16,383
13	Benefits for former personnel	4	0	4
21	Travel and transportation of persons	402	0	407
22	Transportation of things	109	0	112
23	Rent, communications, and utilitites	0	0	0
23.1	Rental payments to GSA	10,019	0	10,128
23.2	Rental Payments to others	0	0	0
23.3	Communications, utilities and misc charges	2,399	0	2,399
24	Printing and reproduction	49	0	50
25.1	Advisory and assistance services	102,283	0	104,648
25.2	Other services from non-Federal sources	41,573	0	41,573
25.3	Other goods and services from Federal sources	17,185	7,000	30,794
25.4	Operation and maintenance of facilities	0	0	0
25.5	Research and development contracts	0	0	0
25.6	Medical care	0	0	0
25.7	Operation and maintenance of equipment	0	0	0
25.8	Subsistence and support of persons	0	0	0
26	Supplies and materials	1,081	0	1,107
31	Equipment	4,657	0	4,764
32	Lands and structures	0	0	0
33	Investments and loans	0	0	0
41	Grants, subsidies and contributions	502	0	502
42	Insurance claims and indemnities	0	0	0
43	Interest and dividends	0	0	0
44	Refunds	0	0	0
99	Total obligations	245,915	7,000	263,980

*The 2025 Base column reflects the full 2025 Base for this Subactivity, including calculated ATBs and any additional transfers.

Department of Commerce
National Oceanic and Atmospheric Administration
TRANSFER CHANGE DETAIL BY OBJECT CLASS
(Direct Obligation amounts in thousands)

Activity: Systems Acquisition
Subactivity: Geostationary Systems – R (PAC) – Operational Phase Transfer from Geostationary Systems-R (PAC) to Common Ground Services (PAC)

	Object Class	2024 Annualized CR	2025 Transfer	2025 Base*
11.1	Full-time permanent compensation	8,478	0	8,648
11.3	Other than full-time permanent	11	0	11
11.5	Other personnel compensation	122	0	122
11.7	NOAA Corps	0	0	0
11.9	Total personnel compensation	8,611	0	8,781
12	Civilian personnel benefits	2,756	0	2,810
13	Benefits for former personnel	0	0	0
21	Travel and transportation of persons	112	0	112
22	Transportation of things	0	0	0
23	Rent, communications, and utilitites	0	0	0
23.1	Rental payments to GSA	1,216	0	1,216
23.2	Rental Payments to others	0	0	0
23.3	Communications, utilities and misc charges	0	0	0
24	Printing and reproduction	0	0	0
25.1	Advisory and assistance services	135,613	(5,100)	130,419
25.2	Other services from non-Federal sources	20,704	0	20,704
25.3	Other goods and services from Federal sources	123,722	0	116,592
25.4	Operation and maintenance of facilities	0	0	0
25.5	Research and development contracts	0	0	0
25.6	Medical care	0	0	0
25.7	Operation and maintenance of equipment	0	0	0
25.8	Subsistence and support of persons	0	0	0
26	Supplies and materials	41	0	41
31	Equipment	0	0	0
32	Lands and structures	0	0	0
33	Investments and loans	0	0	0
41	Grants, subsidies and contributions	8,225	(5,300)	2,925
42	Insurance claims and indemnities	0	0	0
43	Interest and dividends	0	0	0
44	Refunds	0	0	0
99	Total obligations	301,000	(10,400)	283,600

*The 2025 Base column reflects the full 2025 Base for this Subactivity, including calculated ATBs and any additional transfers.

Department of Commerce
National Oceanic and Atmospheric Administration
TRANSFER CHANGE DETAIL BY OBJECT CLASS
(Direct Obligation amounts in thousands)

Activity: Environmental Satellite Observing Systems
Subactivity: Common Ground Services (PAC) – Operational Phase Transfer to Common Ground Services (PAC) from Geostationary Systems-R (PAC)

	Object Class	2024 Annualized CR	2025 Transfer	2025 Base*
11.1	Full-time permanent compensation	10,981	0	11,201
11.3	Other than full-time permanent	0	0	0
11.5	Other personnel compensation	126	0	126
11.7	NOAA Corps	0	0	0
11.9	Total personnel compensation	11,107	0	11,327
12	Civilian personnel benefits	3,887	0	3,958
13	Benefits for former personnel	0	0	0
21	Travel and transportation of persons	73	0	73
22	Transportation of things	0	0	0
23	Rent, communications, and utilitites	0	0	0
23.1	Rental payments to GSA	762	0	762
23.2	Rental Payments to others	0	0	0
23.3	Communications, utilities and misc charges	20	0	20
24	Printing and reproduction	0	0	0
25.1	Advisory and assistance services	56,211	5,100	61,110
25.2	Other services from non-Federal sources	25,311	0	25,222
25.3	Other goods and services from Federal sources	366	0	365
25.4	Operation and maintenance of facilities	0	0	0
25.5	Research and development contracts	0	0	0
25.6	Medical care	0	0	0
25.7	Operation and maintenance of equipment	0	0	0
25.8	Subsistence and support of persons	0	0	0
26	Supplies and materials	81	0	81
31	Equipment	359	0	359
32	Lands and structures	0	0	0
33	Investments and loans	0	0	0
41	Grants, subsidies and contributions	7,256	5,300	12,556
42	Insurance claims and indemnities	0	0	0
43	Interest and dividends	0	0	0
44	Refunds	0	0	0
99	Total obligations	105,433	10,400	115,833

*The 2025 Base column reflects the full 2025 Base for this Subactivity, including calculated ATBs and any additional transfers.

Department of Commerce
National Oceanic and Atmospheric Administration
PROGRAM AND PERFORMANCE: DIRECT OBLIGATIONS
(Dollar amounts in thousands)

Comparison by Subactivity		2023 Actuals		2024 Annualized CR		2025 Base		2025 Estimate		Increase/Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
NATIONAL ENVIRONMENTAL SATELLITE, DATA, AND INFORMATION SERVICE (NESDIS)											
Office of Satellite and Product	Pos/BA	306	243,908	325	245,915	326	263,980	326	262,480	0	(1,500)
Operations (OSPO)	FTE/OBL	301	246,079	311	245,915	312	263,980	312	262,480	0	(1,500)
Product Development, Readiness &	Pos/BA	77	59,054	87	57,500	87	60,740	87	60,740	0	0
Application (PDR&A)	FTE/OBL	73	61,048	79	57,500	79	60,740	79	60,740	0	0
U.S. Group on Earth Observations	Pos/BA	0	749	0	750	0	750	0	1,000	0	250
(USGEO)	FTE/OBL	0	702	0	750	0	750	0	1,000	0	250
National Centers for Environmental	Pos/BA	195	73,487	210	71,372	210	73,290	210	73,290	0	0
Information (NCEI)	FTE/OBL	182	75,622	200	71,372	200	73,290	200	73,290	0	0
NOAA Community Project	Pos/BA	0	2,500	0	2,500	0	2,500	0	0	0	(2,500)
Funding/NOAA Special Projects	FTE/OBL	0	2,500	0	2,500	0	2,500	0	0	0	(2,500)
TOTAL NESDIS - ORF	**Pos/BA**	**578**	**379,698**	**622**	**378,037**	**623**	**401,260**	**623**	**397,510**	**0**	**(3,750)**
	FTE/OBL	**556**	**385,951**	**590**	**378,037**	**591**	**401,260**	**591**	**397,510**	**0**	**(3,750)**

Exhibit 10

Department of Commerce
National Oceanic and Atmospheric Administration
PROGRAM AND PERFORMANCE: DIRECT OBLIGATIONS
(Dollar amounts in thousands)

Comparison by Subactivity		2023 Actuals Personnel	2023 Actuals Amount	2024 Annualized CR Personnel	2024 Annualized CR Amount	2025 Base Personnel	2025 Base Amount	2025 Estimate Personnel	2025 Estimate Amount	Increase/Decrease from 2025 Base Personnel	Increase/Decrease from 2025 Base Amount
NATIONAL ENVIRONMENTAL SATELLITE, DATA, AND INFORMATION SERVICE (NESDIS)											
Geostationary Systems-R (GOES-R)	Pos/BA	45	299,301	51	301,000	51	283,600	51	83,503	0	(200,097)
	FTE/OBL	72	298,390	48	301,000	48	283,600	48	83,503	0	(200,097)
Polar Weather Satellites (PWS)	Pos/BA	45	181,498	57	183,500	57	183,500	57	342,410	0	158,910
	FTE/OBL	50	199,588	52	183,500	52	183,500	52	342,410	0	158,910
Space Weather Follow On (SWFO)	Pos/BA	21	135,860	27	136,200	27	134,735	27	39,735	0	(95,000)
	FTE/OBL	14	135,675	22	136,200	22	134,735	22	39,735	0	(95,000)
Common Ground Services (CGS)	Pos/BA	54	100,778	78	105,433	78	115,833	78	120,527	0	4,694
	FTE/OBL	52	102,486	68	105,433	68	115,833	68	120,527	0	4,694
Geostationary Earth Orbit (GEO)	Pos/BA	26	284,135	34	285,000	34	285,000	34	798,400	0	513,400
	FTE/OBL	7	285,125	28	285,000	28	285,000	28	798,400	0	513,400
Low Earth Orbit (LEO)	Pos/BA	14	96,282	16	96,430	15	88,330	15	68,437	0	(19,893)
	FTE/OBL	12	61,044	13	96,430	12	88,330	12	68,437	0	(19,893)
Space Weather Next	Pos/BA	30	151,454	49	151,606	49	151,606	49	236,754	0	85,148
	FTE/OBL	30	151,533	32	151,606	32	151,606	32	236,754	0	85,148
Systems/Services Architecture & Engineering (SAE)	Pos/BA	38	67,753	42	68,500	42	68,500	42	48,500	0	(20,000)
	FTE/OBL	29	45,636	34	68,500	34	68,500	34	48,500	0	(20,000)
Satellite CDA Facility	Pos/BA	0	1,657	0	2,450	0	2,450	0	2,450	0	0
	FTE/OBL	0	1,520	0	2,450	0	2,450	0	2,450	0	0
TOTAL NESDIS - PAC	**Pos/BA**	**273**	**1,318,718**	**354**	**1,330,119**	**353**	**1,313,554**	**353**	**1,740,716**	**0**	**427,162**
	FTE/OBL	**266**	**1,280,997**	**297**	**1,330,119**	**296**	**1,313,554**	**296**	**1,740,716**	**0**	**427,162**
NESDIS Inflation Reduction Act (ORF)	**Pos/BA**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	FTE/OBL	**0**	**3,026**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
TOTAL NESDIS	**Pos/BA**	**851**	**1,698,416**	**976**	**1,708,156**	**976**	**1,714,814**	**976**	**2,138,226**	**0**	**423,412**
	FTE/OBL	**822**	**1,669,974**	**887**	**1,708,156**	**887**	**1,714,814**	**887**	**2,138,226**	**0**	**423,412**

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
NOAA Community Project Funding/ NOAA Special Projects	Pos./BA	0	2,500	0	0	0	(2,500)
	FTE/OBL	0	2,500	0	0	0	(2,500)

Terminate NOAA Community Project Funding/NOAA Special Projects (-$2,500, 0 FTE/ 0 Positions) - This program change removes funding for one-time congressionally directed projects provided in the FY 2023 enacted bill.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Activity: Environmental Satellite Observing System

Goal Statement

NOAA manages environmental satellites and related ground systems to provide timely and accurate environmental data and products for forecasts and warnings to ensure the safety of U.S. citizens, public property, and infrastructure.

Base Program

NOAA's Environmental Satellite Observing Systems activities are to:

- Maintain and operate a system of polar-orbiting satellites which provides global imaging and sounding for medium and long-range weather forecasting and climate analysis crucial to numerical weather prediction models.
- Maintain and operate a system of geostationary satellites to provide near-continuous environmental observations of the Earth's Western Hemisphere critical for weather forecasting and severe storm tracking.
- Supply data and operational products to the public and decision-makers.
- Operate and maintain the mission control center for the search and rescue satellite system.

The Environmental Satellite Observing System activity includes the following Subactivities: Office of Satellite and Product Operations; Product Development, Readiness and Application; and U.S. Group on Earth Observations. Detailed operating objectives for each Subactivity are described below.

Statement of Operating Objectives

Office of Satellite and Product Operations (OSPO)
Schedule and Milestones:
FY 2025 – FY 2029

- 24/7 operations, collision, and anomaly support for NOAA geostationary, low Earth orbiting, and space weather satellites; and, backup operations for Jason Continuity of Service and Metop satellites
- Process and distribute environmental data from NOAA geostationary and low earth orbiting satellites; Metop B, C, and European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT) Polar System Second Generation; Argos-4, and other international partner satellites
- Continuous monitoring and annual penetration testing of all NOAA information technology (IT) systems

- Enhance common processes in response to IT Security events or incidents including moving NESDIS non-satellite control high impact networks into NOAA OCIO's secure active directory
- Maintain satellite operation facilities at Suitland, Maryland; Wallops, Virginia; Utqiaġvik and Fairbanks, Alaska; and Fairmont, West Virginia
- Data collection at McMurdo Station, Antarctica, and Svalbard Station, Norway.
- Maintain infrastructure for National/Mission High and Moderate Critical IT Systems

FY 2025
- Accept handover of GOES-U after completion of on-orbit testing
- Maintain Search and Rescue Satellite-Aided Tracking (SARSAT) system infrastructure

FY 2026
- Accept handover of NEON QuickSounder after completion of on-orbit testing
- Accept handover of SWFO-L1 mission after completion of on-orbit testing
- Planned decommissioning of legacy Polar Operational Environmental Satellites (POES) satellites (NOAA-15, NOAA-18, NOAA-19)

FY 2028
- Accept handover of JPSS-4 after successful on-orbit testing

Deliverables:
- Delivery of satellite data and products to users
- Engineering support for NOAA on-orbit satellites
- Support search and rescue instrument performance checks on POES (NOAA-15, NOAA-18, and NOAA-19) and Metop B
- Maintain satellite operations facilities at Suitland, Maryland; Wallops, Virginia; Utqiaġvik and Fairbanks, Alaska; and Fairmont, West Virginia
- Maintain infrastructure for National/Mission High and Moderate Critical IT Systems
- Maintain SARSAT system infrastructure

Product Development, Readiness & Application (PDR&A)
Schedule and Milestones:
FY 2025 – FY 2029
- Conduct scientific research using satellite remote sensing observations to support earth systems science (land, water, atmosphere, and cryosphere) solutions and products including weather and climate change applications
- For JPSS missions, complete pre- and post-launch calibration/validation, and transition to routine calibration/validation, algorithm

development and maintenance, and anomaly resolution
- For GOES-R Series missions, complete post launch calibration/validation and transition to routine calibration, validation, algorithm maintenance and anomaly resolution
- Provide ocean *in situ* sensor network supporting satellite ocean color product calibration/validation
- Complete Global Observing SATellite: Advanced Microwave Scanning Radiometer-3 (GOSAT AMSR-3) algorithms, and initial calibration/validation and look up table delivery and transition to routine calibration, validation, algorithm maintenance and anomaly resolution
- For Sentinel-6B perform pre-launch development, post-launch evaluation, initial validation of products, implement work packages in the commissioning phase with Sentinel-6 Michael Freilich, and final validation of Sentinel-6B, transition of both to routine calibration/validation maintenance and anomaly resolution
- Develop ocean related products and transition them to sustained operations, continue to train users in the use of NOAA satellite data and products, and provide tailored ocean products and services for users
- Identify candidate algorithms and products for transition to operations
- Cease support for legacy algorithms, products, and services and reinvest resources in innovation to meet the NOAA mission

Deliverables:
- Maintain algorithms and data product validation to translate raw data into useful products meeting quality requirements for GOES-R Series, Jason-3, Sentinel-6, POES, Metop, Constellation Observing System for Meteorology, Ionosphere, and Climate (COSMIC), Commercial Weather Data Pilot (CWDP), NASA's Earth Observing System (EOS), Himawari, Meteosat, and lead for JPSS series and Global Change Observing Mission – Water (GCOM-W), GOSAT AMSR 3, Metop-SG, Sentinel 4 and 5
- Conduct pre-launch initial instrument calibration and product validation for satellites to be launched, and perform on-orbit sensor calibration and product validations for recently launched satellites
- Perform suitability assessment, and validation of non-NOAA data sources for NOAA use, and incorporate non-NOAA data flows into NOAA enterprise algorithms and NOAA models (in cooperation with NWS, OAR, NOS, NMFS)
- Provide national and international partners with science guidance and coordination
- Provide observing requirements inputs to future satellite sensor and mission studies and support their optimization for NOAA mission needs and subsequent development
- Transition 10 percent of Center for Satellite Applications and Research (STAR) operational-ready algorithms and products annually
- Divest of 20 percent of legacy algorithms, products, and services and reinvest those resource in innovative science

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

U.S. Group on Earth Observations (USGEO)
Schedule and Milestones:
FY 2025 – FY 2029

- Support the development and growth of the U.S. programmatic contributions to the GEO Work Programme in support of national and international policy and NOAA mission objectives
- Increase U.S. participation in the implementation of GEO's strategic plan through a grant to the GEO Trust Fund

Deliverables:

- Participation in major GEO meetings and activities to promote international engagement and coordination with stakeholders and outreach
- GEO Secretariat will devote resources to strengthen program integration, coordination and user engagement in areas of key interest to NOAA such as urban resilience
- Contractor support will strengthen the capacity of the Inter-American community to advance the application of Earth observations, geospatial, and statistical data through flexible training options to gain required knowledge, skills, and abilities

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Explanation and Justification

Comparison by Subactivity		2023 Actual Personnel	2023 Actual Amount	2024 Annualized CR Personnel	2024 Annualized CR Amount	2025 Base Program Personnel	2025 Base Program Amount
Office of Satellite and Product Operations (OSPO)	Pos/BA	306	243,908	325	245,915	326	263,980
	FTE/OBL	301	246,079	311	245,915	312	263,980
Product Development, Readiness & Application (PDR&A)	Pos/BA	77	59,054	87	57,500	87	60,740
	FTE/OBL	73	61,048	79	57,500	79	60,740
U.S. Group on Earth Observations (USGEO)	Pos/BA	0	749	0	750	0	750
	FTE/OBL	0	702	0	750	0	750
Total Environmental Satellite Observing Systems	Pos/BA	383	303,711	412	304,165	413	325,470
	FTE/OBL	374	307,829	390	304,165	391	325,470

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Office of Satellite and Product Operations (OSPO) (http://www.ospo.noaa.gov/): OSPO acquires and delivers accurate, timely, and reliable satellite observations and integrated products from NOAA-operated, commercially-acquired, and domestic and international non-NOAA satellites. OSPO provides support during launch, activation, and evaluation of recently launched satellites of interest; satellite health and safety monitoring, satellite operations, and data acquisition to meet user needs; and, assessment of satellite and ground station anomalies and support to appropriate recovery actions for those anomalies.

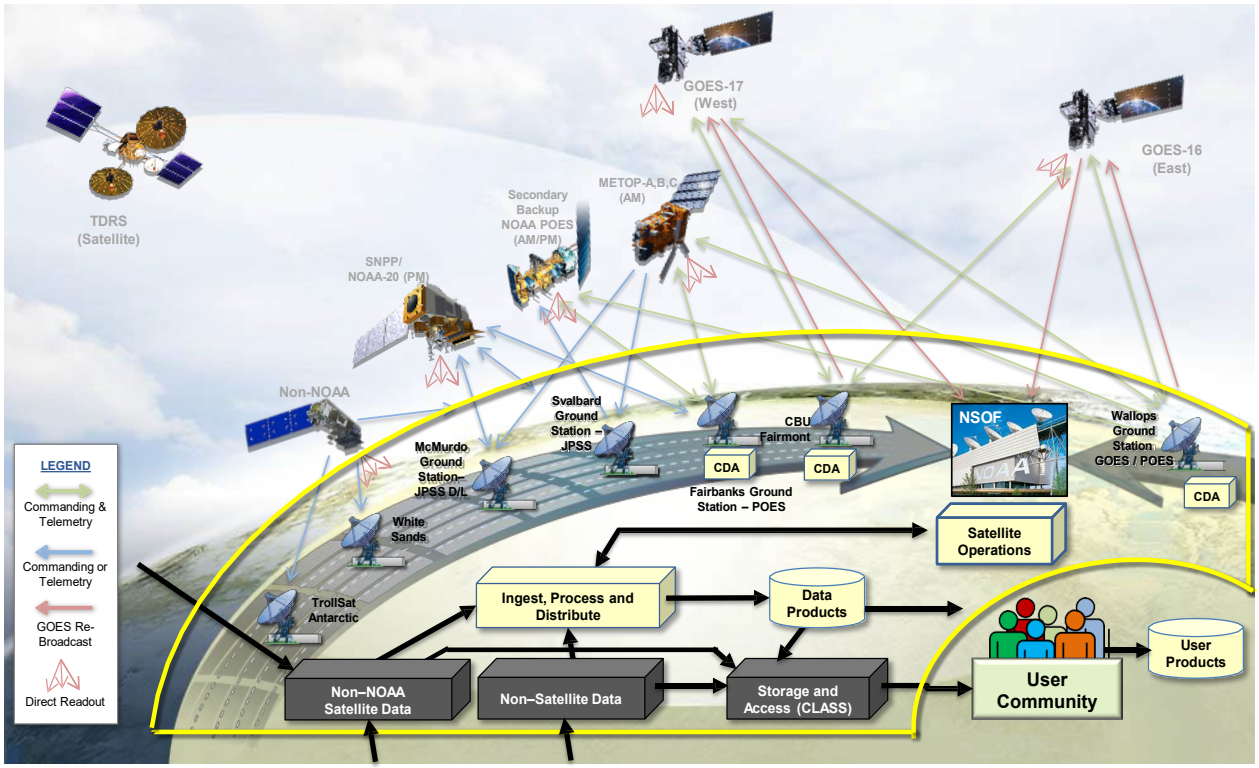
OSPO manages and directs NOAA's command and control of the suite of on-orbit satellites that supply the environmental data critical for developing weather and climate products used daily by Federal and state agencies, industry, and citizens across the Nation. To this end, OSPO works with NOAA's NWS to supply the satellite data that makes up over 90 percent of the information used in their numerical weather prediction models. OSPO collects space weather data, which is used to protect the aviation and electric power industries, Global Positioning System, radio communications, and satellites. OSPO provides satellite transmission services that provide operational data, derived products, and support for the worldwide direct readout community who are given free, unrestricted access to the scientific data from NOAA satellites. OSPO is also the United States operator for the international Search and Rescue Satellite-Aided Tracking (SARSAT) system, utilizing NOAA satellites, dedicated to saving persons in distress on land or in the water.

Overall, OSPO:

- Maintains and operates a system of polar-orbiting satellites which provides global imaging and sounding for medium and long-range weather forecasting and climate analysis crucial to numerical weather prediction models;
- Maintains and operates a system of geostationary satellites to provide near-continuous environmental observations of the Western Hemisphere critical for weather forecasting and severe storm tracking as well as to provide space weather observations resulting from changes in the sun's atmosphere;
- Maintains and operates the Deep Space Climate Observatory (DSCOVR) which provides real-time solar wind monitoring capabilities critical to the accuracy and lead time of NOAA's space weather alerts and forecasts;
- Performs long-term maintenance to preserve the form, fit, and function of legacy ground systems;
- Performs on-orbit anomaly support for the Geostationary Operational Environmental Satellites-R Series (GOES-R Series), the Joint Polar Satellite System (JPSS), legacy Polar Operational Environmental Satellites (POES) series of satellites, DSCOVR, and Jason-3;
- Supplies data and operational products to the public and decision-makers;
- Operates a continuous Data Collection System service, providing data relay services for multiple Federal and commercial users; and,
- Operates and maintains the U.S. Mission Control Center for the search and rescue satellite system

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

In FY 2024, OSPO operated and supported a total of13 NOAA on-orbit satellites including: legacy GOES and POES; Joint Polar Satellite System (JPSS) satellites; GOES-R Series satellites; DSCOVR; and Jason-3. OSPO also operated and supported five U.S. Space Force Satellites through reimbursable agreements, including three Defense Meteorological Satellite Program and two EO/IR Weather System – Geostationary satellites. OSPO's IT Security implements vulnerability management against the latest threats on satellite ground systems to lower the operational risk, which ensures continuity of critical satellite data flow to key customers such as NOAA's NWS.



Maintaining the operations and data acquisition from NOAA and our partner satellites is a 24/7 process. OSPO manages and directs operation of the central ground facilities which ingest, process, and distribute environmental satellite data and derived products to users.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

OSPO sustains NOAA's legacy ground systems through capability enhancements; periodic technology refresh, including hardware and software upgrades; and IT security. OSPO currently sustains ground segments supporting the following satellite constellations: GOES; POES; Jason-3; COSMIC; and DSCOVR. OSPO also supports elements of the GOES-R Series and JPSS ground segments and sustains their ground system antennas, which send and receive data to and from satellites.

OSPO supports:

- The NOAA Satellite Operations Facility (NSOF) for NOAA's 24 hours a day, 365 days a year, environmental satellite operations. Through NSOF, NOAA operates the ground systems that command, control, and acquire data from on-orbit satellites. Each day, NSOF processes more than 30 terabytes of raw environmental satellite data from on-orbit DOD, NOAA, and non-NOAA satellites. In addition to satellite operations, NSOF provides environmental data used to develop weather and climate products, as well as other information products used daily by industry and citizens across the Nation;
- The Satellite Operations Control Center and Environmental Satellite Processing Center, which serve as the vital link between satellites and users by providing uninterrupted availability of critical observations and real-time delivery of satellite data to product processing centers. These include the Command and Data Acquisition Stations at Wallops, Virginia; Utqiaġvik and Fairbanks, Alaska; consolidated backup at Fairmont, West Virginia; and data collection at McMurdo Station, Antarctica, and Svalbard Station, Norway;
- The Comprehensive Large Array-data Stewardship System, providing the long-term preservation of and access to the ever-increasing input of data from observing systems (e.g., satellites, radar, and other ground observations);
- The GOES Data Collection System and Argos Data Collection and Location Systems used by researchers, governmental and environmental organizations worldwide;
- The U.S. SARSAT system is an integral part of the Cospas-Sarsat Program, which is an international humanitarian search and rescue system that detects and relays distress signals from mariners, aviators, and recreational enthusiasts, anywhere in the world, to Mission Control Centers that coordinate with local rescue authorities to rescue the person(s) in distress. NOAA coordinates U.S. participation in the international Cospas-Sarsat Program, and operates and maintains the U.S. Mission Control Center and the Local User Terminals, which are the satellite receiving ground stations that receive emergency beacon distress alerts; and,
- The NOAA instruments on the Metop-B and Metop-C satellites by providing data processing and distribution of environmental data, as well as anomaly support.

Product Development, Readiness & Application (PDR&A) (http://www.star.nesdis.noaa.gov/star/index.php): PDR&A funds the core capabilities of the Center for Satellite Applications and Research (STAR) and post operational phase transition support for GOES-R Series, Jason, and JPSS. With PDR&A funds, STAR conducts innovative Earth System science to develop relevant data, products,

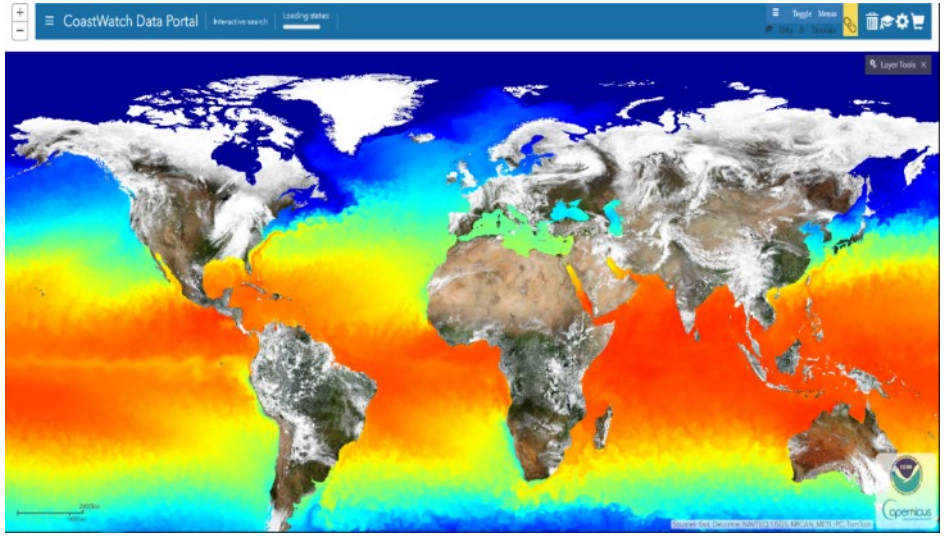
and services that enable delivery of actionable information to NOAA and its partners. STAR fosters accuracy, consistency, and usability of satellite-based information by providing calibration and validation of NOAA and non-NOAA satellite-based information, and collaborating with other satellite data providers. By using advanced satellite data assimilation methods to combine satellite and non-satellite data (*in situ* observing platforms, surveys, etc.), STAR better leverages the wealth of data already collected by NOAA and partners to meet the NOAA mission. These capabilities allow STAR to accelerate and improve the use of research and operational satellite data to address complex, global climate and environmental problems.

With these capabilities, PDR&A capitalizes on NOAA's investment in the acquisition and management of the Nation's operational environmental satellites, to:

- Collaborate with other NOAA Line Offices to combine environmental satellite measurements with other available information to create fit-for-purpose blended data, products, and services to meet NOAA missions, goals, and advance Earth science solutions;
- Utilize remote-sensing solutions to supply critical, near real-time and retrospective satellite data and information products to enhance NOAA services that protect lives, property, ecosystems and livelihoods. This includes increasing lead times for severe weather warnings; severe ocean condition warnings; and providing accurate warnings of related environmental phenomena such as hurricanes, tornadoes, floods, fire, droughts, volcanic ash, toxic algal blooms, sea ice, water quality, etc.;
- Provide user support, training, and distribution services, such as through NOAA's Coast/Ocean/Polar Watch, to enable easy access to a wide range of products and services that support the New Blue Economy and strengthen our understanding of the marine environment; assess the impacts of environmental change in ecosystems, weather, and climate; help build the economy and support recreational and commercial activities; increase the understanding of long-term trends in fire activity, emissions, and land surface properties, as well as assess the needs of gaps of the fire community;
- Support ongoing improvement of mission impact through proving ground efforts that explore and assess the value of new observations or products and facilitate user readiness;
- Develop future NOAA and partner satellite instrument and mission requirements to meet NOAA mission objectives, and support development through transition to operations of NOAA instruments and missions.

STAR's work supports Executive Order (EO) 14008, Tackling the Climate Crisis at Home and Abroad, and EO 13990, Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis, by conducting scientific research and developing new satellite products and applications to improve and expand the use of remote sensing data for monitoring global meteorological, climatological, and environmental conditions. STAR also provides the scientific expertise needed to support NESDIS and other NOAA line offices with carrying out activities supported by the *Disaster Relief Supplemental Appropriation Act, 2022* (P.L. 117-43), *The Infrastructure Investment and Jobs Act* (P.L. 117-58), and the *Inflation Reduction Act of 2022* (P.L. 117-169). The products and

applications STAR develops are used widely within NOAA's weather, climate, and environmental monitoring and prediction systems and include products ranging from fire, aerosols, greenhouse gases, and atmospheric temperature to snow and ice cover, ocean color and temperature, and tropical cyclones. STAR's work in calibrating and validating satellite instruments and developing new products and applications are integral to improving the quality and quantity of numerical weather predictions, climate observations, analysis, interpretation, and archives by maintaining a consistent climate record and improving our understanding of why changes are occurring.



The CoastWatch Data Portal provides users with visual access to CoastWatch oceanographic satellite data. Above is NOAA-20 VIIRS imagery with sea surface temperature.

U.S. Group on Earth Observations (USGEO) (https://usgeo.gov/): USGEO is a subcommittee of the White House National Science and Technology Council, with co-chairs from the Office of Science and Technology Policy, the National Aeronautics and Space Administration, NOAA, and the U.S. Geological Survey. USGEO provides program resources to support the U.S. Group on Earth Observations and supports NOAA's participation as part of the U.S. membership in the international Group on Earth Observations (GEO) organization. GEO is a partnership of 114 governments and more than 150 participating organizations and associates from the public and private sectors at international, regional, and national levels with a mission to coordinate comprehensive and sustained Earth observations. The United States is a founding member of GEO, and NOAA serves as the United States Principal to GEO.

Global environmental and resource issues are among the great global challenges of our time, including mitigating and adapting to climate change, reducing disaster risk, and supporting sustainable development and resilience of global communities in the face of public health crisis, stress on food systems and biodiversity, and environmental degradation. Integrated Earth observations from public and private sources, technological advances in the application of artificial intelligence and machine learning, cloud computing and data analytics are essential tools for addressing these challenges. NOAA works to maximize the impact of U.S. international climate assistance, including the partnerships developed in USGEO, by leveraging Federal agency technical expertise and the commitments, financial contributions, and capabilities of other nations and the private sector. USGEO fulfills legislative requirements to deliver a

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

National Plan for Civil Earth Observations and its associated implementation plan. One of the National Plan's objectives is to coordinate the United States' participation and representation to GEO. Specifically:

- Enhance international cooperation to enable more robust Earth observation architectures;
- Work through international frameworks to increase access to data from overseas sources;
- Promote and advance the United States' interests; and,
- Strengthen global and regional leadership through engagement in the intergovernmental GEO and advancement of the western hemisphere regional GEO community, Americas Group on Earth Observations (AmeriGEO)

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Office of Satellite and Product Operations (OSPO)	Pos./BA	326	263,980	326	262,480	0	(1,500)
	FTE/OBL	312	263,980	312	262,480	0	(1,500)

Enterprise Infrastructure Solutions (EIS) Decrease (-$1,500, 0 FTE/ 0 Positions) – NOAA requests a reduction for EIS. Funds provided to NESDIS through FY 2023 Enacted were sufficient to complete the transition of telecommunications services to the General Services Administration's EIS contract vehicle.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Environmental Satellite Observing Systems
Subactivity: Office of Satellite and Product Operations (OSPO)

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	40,257	43,908	45,281	45,281	0
11.3	Other than full-time permanent	92	92	92	92	0
11.5	Other personnel compensation	5,736	5,736	5,736	5,736	0
11.7	NOAA Corps	0	0	0	0	0
11.9	Total personnel compensation	46,085	49,736	51,109	51,109	0
12	Civilian personnel benefits	14,905	15,916	16,383	16,383	0
13	Benefits for former personnel	4	4	4	4	0
21	Travel and transportation of persons	402	402	407	407	0
22	Transportation of things	109	109	112	112	0
23	Rent, communications, and utilitites	0	0	0	0	0
23.1	Rental payments to GSA	10,019	10,019	10,128	10,128	0
23.2	Rental Payments to others	0	0	0	0	0
23.3	Communications, utilities and misc charges	2,399	2,399	2,399	899	(1,500)
24	Printing and reproduction	49	49	50	50	0
25.1	Advisory and assistance services	104,608	102,283	104,648	104,648	0
25.2	Other services from non-Federal sources	42,277	41,573	41,573	41,573	0
25.3	Other goods and services from Federal sources	17,476	17,185	30,794	30,794	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	1,493	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	1,081	1,081	1,107	1,107	0
31	Equipment	4,657	4,657	4,764	4,764	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	502	502	502	502	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	13	0	0	0	0
44	Refunds	0	0	0	0	0
99	Total obligations	246,079	245,915	263,980	262,480	(1,500)

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Increase from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
U.S. Group on Earth Observations (USGEO)	Pos./BA	0	750	0	1,000	0	250
	FTE/OBL	0	750	0	1,000	0	250

U.S. Group on Earth Observations (USGEO) (+$250, 0 FTE/ 0 Positions) – NOAA requests an increase to the GEO Trust Fund for the operations of the GEO Secretariat and to support the efforts of AmeriGEO in the Americas. This contribution supports a key objective of the USGEO – to strengthen global and regional leadership of the U.S. through engagement in the intergovernmental GEO and advancement of AmeriGEO. In doing so, the United States enables increased global use of its investment of Earth observations products and services.

The increased contribution to support the activities of GEO at global and regional levels will accelerate the implementation of the GEO Work Programme, Global Ecosystem Extent Atlas, and Global Heat Resilience Service. GEO will support the United Nations' 2030 Agenda for Sustainable Development[2] by contributing to efforts to integrate Earth observations and geospatial information into national development and monitoring frameworks for the 17 Sustainable Development Goals. Increases to the GEO Trust Fund will support increased uptake of Earth observations information and integration across the GEO Work Programme in areas such as ecosystem extent monitoring, integrated health issues, land-ocean pollution, and multi-hazard risk reduction and mitigation. The requested increase will enable the U.S. to play a stronger role in the GEO organization.

In terms of AmeriGEO, this increase will support sustained access in the Americas to flexible training options through online access to increase the utilization of the U.S. investment in Earth observation platforms including in tribal and indigenous communities throughout the Americas as well as supporting youth participation in AmeriGEO activities. In FY 2020, NOAA-led training on oil-spill monitoring led to increased capacity in the Caribbean nations, allowing individual countries to take on local oil spill monitoring instead of relying on the U.S. for assistance.[3]

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[2] Transforming our world: the 2030 Agenda for Sustainable Development. (https://sdgs.un.org/2030agenda)

[3] Wider Caribbean Oil Spill Information System Workshop Report. (https://geoblueplanet.org/wp-content/uploads/2020/09/Wider_Caribbean_Oil_Spill_Info_System_Workshop_Report_final_2020.pdf)

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

Schedule and Milestones:
FY 2025 – FY 2029

- Support the development and growth of the U.S. programmatic contributions to the GEO Work Programme in support of national and international policy and NOAA mission objectives
- Increase the U.S. participation in the implementation of GEO's strategic plan through a grant to the GEO Trust Fund

Deliverables:

- Participation in major GEO meetings and activities to promote international engagement and coordination with stakeholders and outreach
- GEO Secretariat will devote more resources to strengthen program integration, coordination and user engagement in areas of key interest to NOAA such as urban resilience
- New contractor support to strengthen the capacity of the Inter-American community to advance the application of Earth observations, geospatial, and statistical data through flexible training options to gain required knowledge, skills, and abilities

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

Performance Measures	2025	2026	2027	2028	2029
Increase in grant funding in support of the GEO Trust Fund					
With Increase	1	1	1	1	1
Without Increase	0	0	0	0	0
Contract to support the international GEO					
With Increase	1	1	1	1	1
Without Increase	0	0	0	0	0
Outyear Costs:					
Direct Obligations	250	250	250	250	250
Capitalized	0	0	0	0	0
Uncapitalized	250	250	250	250	250
Budget Authority	250	250	250	250	250
Outlays	153	223	235	245	250
FTE	0	0	0	0	0
Positions	0	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Environmental Satellite Observing Systems
Subactivity: U.S. Group on Earth Observations (USGEO)

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase from 2025 Base
11.1	Full-time permanent compensation	0	0	0	0	0
11.3	Other than full-time permanent	0	0	0	0	0
11.5	Other personnel compensation	0	0	0	0	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	0	0	0	0	0
12	Civilian personnel benefits	0	0	0	0	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	25	25	25	25	0
22	Transportation of things	0	0	0	0	0
23	Rent, communications, and utilitites	0	0	0	0	0
23.1	Rental payments to GSA	0	0	0	0	0
23.2	Rental Payments to others	0	0	0	0	0
23.3	Communications, utilities and misc charges	0	0	0	0	0
24	Printing and reproduction	0	0	0	0	0
25.1	Advisory and assistance services	0	0	0	0	0
25.2	Other services from non-Federal sources	35	35	35	35	0
25.3	Other goods and services from Federal sources	0	0	0	0	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	0	0	0	0	0
31	Equipment	0	0	0	0	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	642	690	690	940	250
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	0	0	0	0	0
44	Refunds	0	0	0	0	0
99	Total obligations	702	750	750	1,000	250

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Activity: National Centers for Environmental Information

Goal Statement

NOAA's National Centers for Environmental Information (NCEI) is the Nation's leading authority for environmental information, an operational provider of derived data products and services responsive to U.S. industry and policy requirements, and is responsible for preserving, hosting, and providing access to one of the most significant environmental archives on Earth, with comprehensive oceanic, coastal, atmospheric, and geophysical data and information, covering the depths of the ocean to the surface of the sun, spanning million-year-old sediment records to near real-time satellite images.

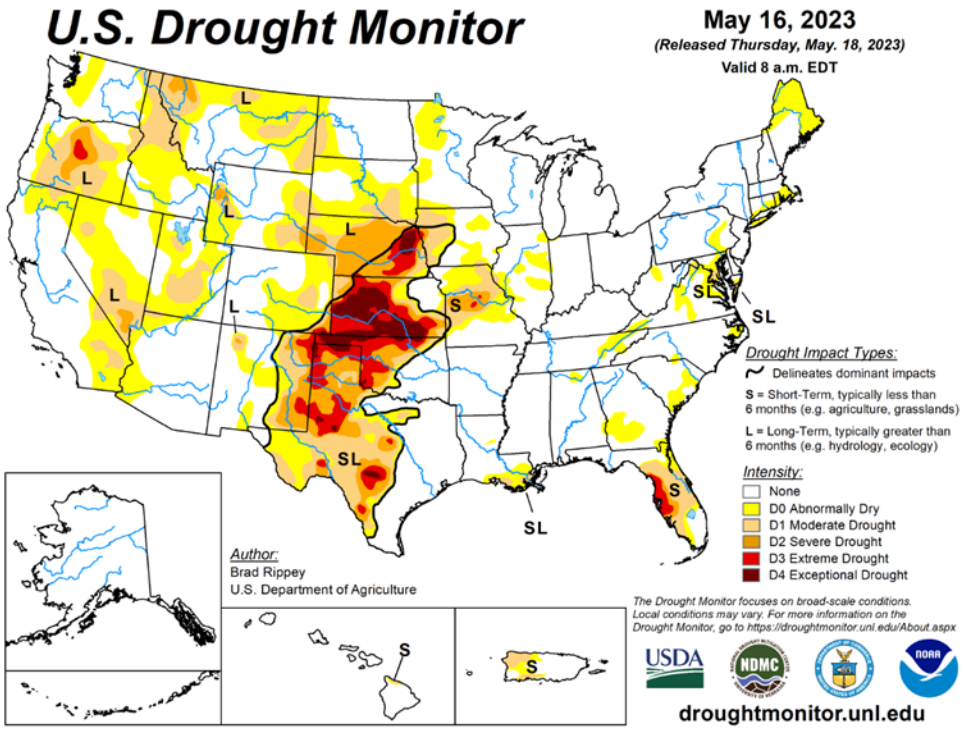
Base Program

Information provided by NCEI helps businesses and organizations across all sectors of the U.S. economy operate more efficiently, safely, environmentally responsible, and economically sustainable. Consequently, the amounts of and demand for high-value environmental data and information has dramatically increased in recent years, and continues to increase significantly. NCEI ingests raw observational and model environmental data from around the world, and calibrates and derives use-driven products, reports, assessments and services that power U.S. industry, policy and research. It also hosts and provides access to over 55 petabytes (PB) (55,000 TB or 55 million GB) of data (primary and secure copy), and projects an increase to over 1000 PB by 2030. NCEI directly assists data users, servicing over 13,000 individual contacts annually, by email, phone, mail, and online. NCEI also provides online access to more than 26,000 environmental datasets and products in easily-used, -understood, and -accessible formats, serving more than 14 million website visitors annually. In addition, NCEI information and expertise informs disaster decisions and declarations issued by the Department of Agriculture and the Department of Homeland Security, and various state, local and tribal authorities, to ensure timely and effective response at the community level. Data stewardship is a critical factor to realize the full value of the multi-billion-dollar investment NOAA makes in Earth system observations and to ensure these data are available for future generations. NCEI's data stewardship and archiving services provide trusted, authoritative, and open data that is the foundation for evidence-based decision making, and provides for the highest return on investments in NOAA's Earth observations by ensuring data, critical information products, and derived datasets are accessible, integrated, discoverable, traceable, and reusable. These data practices help expand data equality and expand usability to nontraditional users, such as minority serving institutions and underserved communities.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

NOAA has a long history of providing free and open access to massive volumes of data, preserving that data for perpetuity, and having scientific expertise to create high-value environmental intelligence. NCEI helps NOAA meet the growing need for high value data by supporting legislation like the *Weather Research and Forecasting Innovation Act* (P.L. 115-25), and by supporting initiatives in NOAA's FY 2022-2026 Strategic Plan. Specifically, NCEI develops critical climate services that are used every day by the NWS, state, local, territorial and tribal governments, and insurance/risk management, and retail and engineering industries, among others. NCEI actively partners with local, state, and regional entities to deliver place-based climate information, data, decision support tools, products, and services needed to help people make informed decisions as well as identify and amplify the climate services needs of traditionally underserved communities and populations. NCEI provides a significant portion of NOAA's public-facing climate services mission. As the Nation's treasure of Earth observations grows, our scientists ensure that analyses, methods, and data sets evolve with that growth.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)



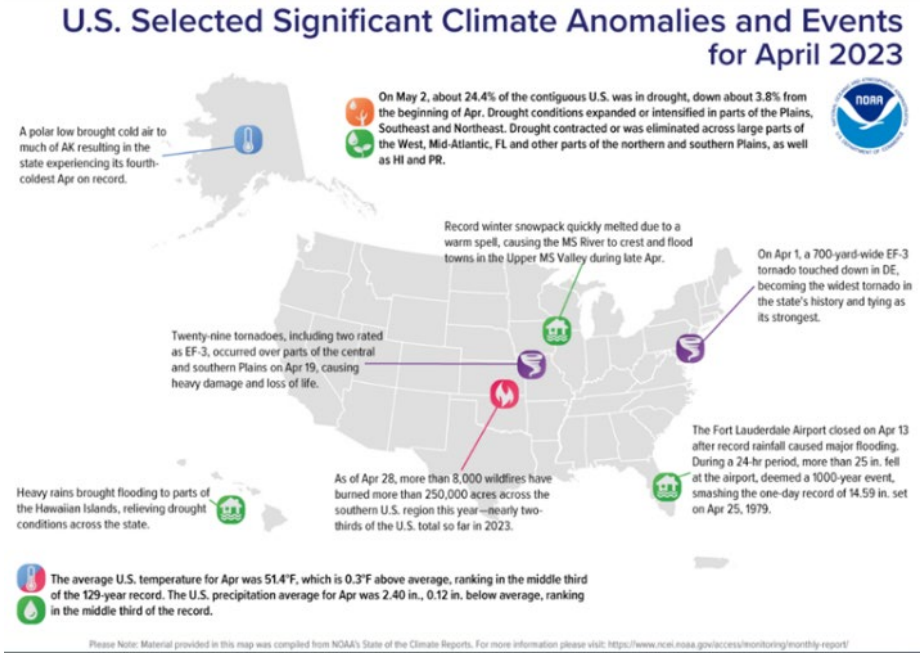
NCEI impacts most sectors of the Nation's economy by transforming data into scientific products and services that address specific challenges and reduce risk and exposure to environmental hazards, such as extreme weather and climate conditions. For example, U.S. cattle ranchers use the weekly U.S. Drought Monitor maps and comparisons to make timely, critical decisions on how best to manage their herds to avoid economic losses. U.S. drought and heat waves have an average cost of $10 billion per event, and drought is considered the second costliest weather disaster in the U.S., behind hurricanes.[4] NCEI supports the U.S. Drought Monitor with

[4] NOAA National Centers for Environmental Information (NCEI) U.S. Billion-Dollar Weather and Climate Disasters (2023). https://www.ncei.noaa.gov/access/billions/, DOI: 10.25921/stkw-7w73

scientific analysis and weather data that are used to describe drought conditions across the country, from abnormal dryness to exceptional drought. Having an easily accessible tool to monitor drought in near-real time is important to a range of additional stakeholders besides ranchers; its value extends to livestock prospectors and traders, landowners who lease grazing land, livestock associations, and Federal and state agencies that administer drought-relief programs or that manage federally owned land. Overall, the U.S. livestock industry generates more than $100 billion in annual revenues.

The data and access tools NCEI provides can be used in both public and private sectors throughout the U.S. economy including, but not limited to, agriculture, transportation, retail trade, energy and utilities, finance and insurance, health, coastal hazards, and water resources. Additional case studies that highlight specific products, use cases, and systems that rely on NCEI data to protect life and property, save money, and conserve natural resources can be found at https://www.ncei.noaa.gov/about/our-impact.

There are significant variations in information collected and needed across the U.S. For this reason, it is imperative that the services NOAA provides are tailored, and provide comprehensive support to help address the unique challenges and vulnerabilities created by regional weather and climate conditions. To do this, NCEI has built a nationwide presence to best support priorities and needs at the national, regional, local and international levels. NCEI is headquartered in Asheville, North Carolina, with significant presences in Boulder, Colorado; Stennis Space Center, Mississippi; and Silver Spring, Maryland. NCEI further supports regional outreach through Regional Climate Service Directors strategically located in Taunton, Massachusetts; Stennis Space Center, Mississippi; Kansas City, Missouri; Boulder, Colorado; Anchorage, Alaska; and Honolulu, Hawaii, with additional staff located in South Carolina. NCEI also hosts four World Data Centers, as part of the International Science Council, providing international leadership in environmental data management.

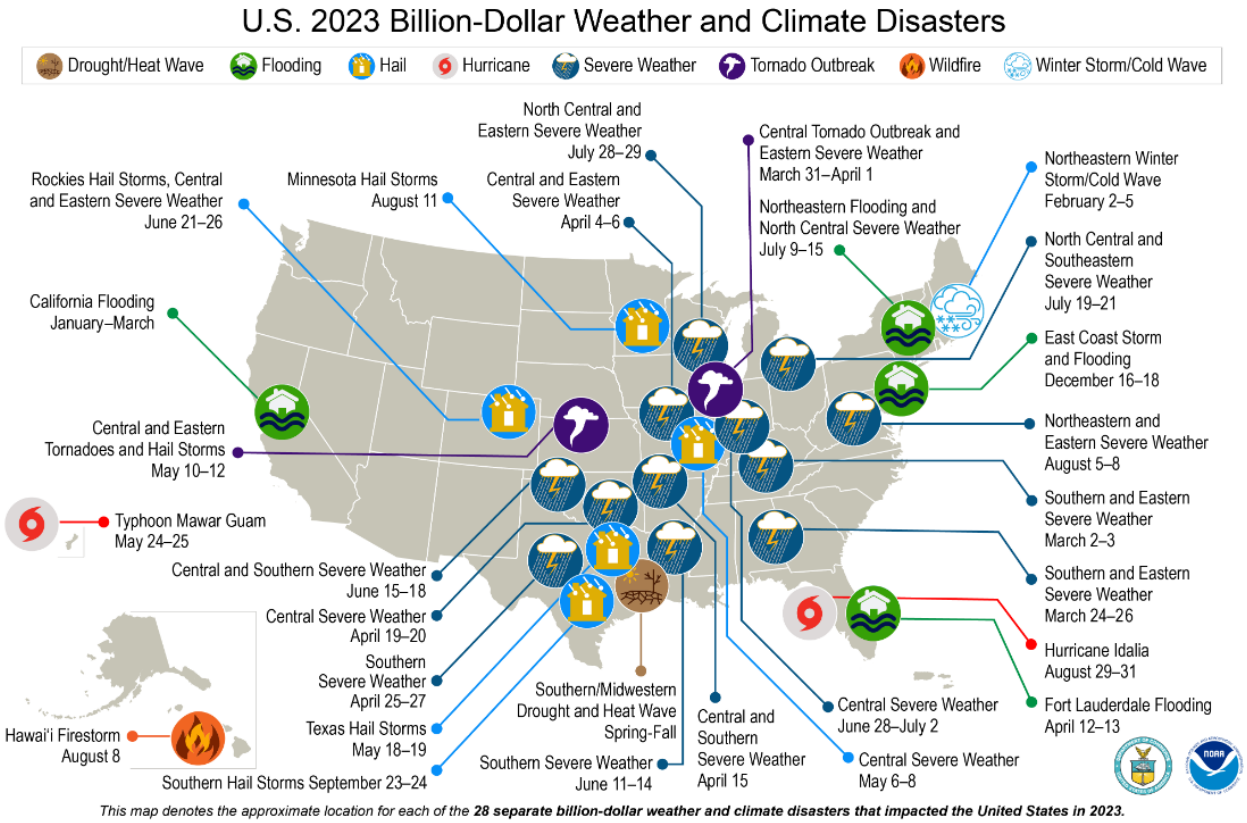


NCEI stewards over 55 PB of data from ground, ocean, and space-based observation platforms that measure from the bottom of the

ocean to the surface of the sun. The data holdings start with the present and go back millennia, and also include forward-looking model output. NCEI is the official archive of NOAA's GOES, POES, JPSS, GOES-R Series, Jason, DSCOVR, and COSMIC-2 satellite data, housing data covering from the 1970s to the present, and providing stewardship for over 2.3 PB of data delivered to the archive annually from active satellites. With improvements in observation platforms, data stored at NCEI is expected to increase exponentially in the next decade. NCEI works with NOAA offices to host data from programs, including OAR's Office of Ocean Exploration and Research, NWS's Tsunami Warning Program, NOS's Office of Coast Survey and National Geodetic Survey, NMFS's Office of Science and Technology, and OMAO ships, aircraft, and uncrewed systems. NCEI also provides a repository for other national and international data collectors. In addition, NCEI supports ongoing improvement of mission impact through proving ground efforts that explore and assess the value of new products and services and facilitate user readiness.

NCEI also utilizes its expertise, datasets, and nation-wide presence to support state and Federal agencies, international partners, and industry. This includes programs with the Department of Defense, Department of Homeland Security, Department of Agriculture, Department of Transportation, and Department of State. NCEI's timely transition to the NESDIS Common Cloud Framework (NCCF) will support a climate-ready nation by increasing public access to more user friendly and authoritative data sets, enhancing data innovation capability, and allowing economic exploitation of NCEI climate products and services. This effort is directly linked to the Data-source Agnostic Common Services initiative.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)



Through the activities described above, NCEI directly supports various Executive Orders, such as Tackling the Climate Crisis at Home and Abroad (EO 14008), and Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis (EO 13990). Specifically, NCEI's timely and accurate information helps local and state governments, regions, and national and international decision makers prepare for and build back better from natural disasters and climate-related hazards; enables communities and industries to make climate smart decisions about the future; and helps ensure the longevity, sustainability, and prosperity of our natural

resources, as well as the people, communities, and economies that rely on those resources. For example, NCEI:

- helps characterize global and U.S. coastal ocean surface wind patterns for the marine transportation and offshore wind industries;
- curates a microplastics database to facilitate a better understanding of the distribution and effects of microplastics on the ocean environment, recreation, and fisheries;
- monitors the impact of climate extremes, partnering with the private sector to identify and characterize the major Billion Dollar Disaster events that lead to significant economic losses and societal disruptions;
- supports water challenges in the western U.S., including unprecedented water stress and water shortages in inland areas and coastal flooding from repeated atmospheric rivers, by working at the local, regional, and tribal levels through NCEI's Regional Climate Services to help develop sustainable solutions;
- develops multi-decadal climate data records derived from NOAA and partner observations, which are used by government, industry, and academia to detect, monitor, and assess climate change-related trends and patterns as well as support climate adaptation and risk-assessment; and,
- provides improved ocean climatologies to better understand global and regional changes affecting coastal communities.

NCEI also supports NESDIS and other NOAA line offices' activities, assisting with implementing the *Foundations for Evidence-Based Policy Making Act* (P.L. 115-435) and providing the data stewardship and archiving for the large amount of data stemming from activities funded under the *Disaster Relief Supplemental Appropriation Act, 2022* (P.L. 117-43) *The Infrastructure Investment and Jobs Act* (P.L. 117-58) and *The Inflation Reduction Act* (P.L. 117-169).

Statement of Operating Objectives

National Centers for Environmental Information (NCEI)
Schedule and Milestones:
FY 2025 – FY 2029

- Provide access to environmental data and products for use in ecosystem baselines, monitoring, and assessments including Large Marine Ecosystem data; compiled from increasingly large, diverse, and complex sets of long-term data from observations
- Collect, adjudicate, and respond to user community needs across the U.S. economic and industrial sectors to identify the highest priority needs for improving existing products and service solutions, and informing new product development
- Continue a strategic and prioritized transition of environmental data ingest, preservation, access, and use-inspired information/services to the NCCF to provide scalability and facilitate transformation to analysis-ready information and ethical use

by artificial intelligence/machine learning (AI/ML) tools

Deliverables:

- Provide archive and access services for NOAA and NOAA partners' environmental data and their derived products, and promote increased availability of priority analysis-ready data for ethical AI/ML use
- Continue to archive and provide access to Large Marine Ecosystem data
- Provide an annual analysis of user engagement at the national and regional levels
- Deliver timely, high quality U.S. and Global Monthly and Annual Climate reports and Billion Dollar Weather and Climate events
- Begin to decommission on premises information technology infrastructure commensurate with the successful transition of archive, access, and information production/service capabilities to the NCCF

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Explanation and Justification

Comparison by Subactivity		2023 Actual Personnel	2023 Actual Amount	2024 Annualized CR Personnel	2024 Annualized CR Amount	2025 Base Program Personnel	2025 Base Program Amount
National Centers for Environmental Information (NCEI)	Pos/BA	195	73,487	210	71,372	210	73,290
	FTE/OBL	182	75,622	200	71,372	200	73,290
Total National Centers for Environmental Information (NCEI)	Pos/BA	195	73,487	210	71,372	210	73,290
	FTE/OBL	182	75,622	200	71,372	200	73,290

National Centers for Environmental Information (NCEI) (https://www.ncei.noaa.gov/): NCEI is continually working to foster innovative and value-added strategies, including the development of newly integrated products and services that span the science disciplines and enable better data discovery. By preserving, stewarding, and maximizing the utility of the Federal government's multi-billion-dollar investment in high-quality environmental data, NCEI remains committed to providing products and services to private industry and businesses, local and international governments, academia, and the general public. NCEI:

- Provides billions of dollars of benefit to the U.S. economy through authoritative and actionable environmental data that informs future investments across sectors such as finance, agriculture, fisheries, transportation, energy, insurance, and manufacturing;
- Transforms complex, long-term data from a variety of legacy and modern observing systems into use-inspired, operational products and information to meet the needs of government, academia, and U.S. industry;
- Provides data preservation and access services that enable full use of the Nation's multi-billion-dollar investment in satellite, ship, aircraft, uncrewed systems, and *in situ* observations;
- Advances and enables environmental science and decision making for resilient ocean and coastal communities, the Arctic, and space weather through derived products, assessments, and information services in support of customer requirements;
- Provides authoritative U.S. and global retrospective weather and climate data and information for decision making through use-inspired applied science, products, services, and assessments and monitoring;
- Maintains the Nation's archive of environmental information as well as international data holdings through the World Data System and leverages data portals and cloud services to maximize the availability and accessibility of official archived records;

- Conducts integrated scientific analyses of coastal and marine environmental datasets to better understand historical trends, anomalies, and the frequency of event occurrences; and,
- Provides regional and sectoral climate services in coordination with other NOAA and Federal entities to ensure that broad national comprehensive data and information, products, and services are available to public and private sector users at the local, state, regional, and Federal levels.

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Activity: Systems Acquisition

Goal Statement

NOAA's satellite portfolio provides the backbone for the operational data products that support NOAA's work related to weather, climate, oceans, coasts, and ecosystems. NOAA satellite data drives critical decision-making, impacts national security, and numerous sectors of the economy including agriculture, transportation, energy, construction, infrastructure, emergency management, and hazard mitigation.

Base Program

NOAA maintains three portfolios of environmental satellites and data acquisition that produce crucial sets of observations: low-earth orbiting, geostationary, and space weather. Systems Acquisition includes flight, ground, and architecture planning, risk reduction, and development activities, spread across eight Subactivities: GEO, GOES-R Series, LEO, PWS, SW Next, SWFO, SAE, and CGS. System Acquisition enables NOAA satellite programs to continue to meet milestones, as well as to plan for future programs and comprehensive engineering solutions. Detailed operating objectives for each Subactivity are described below.

Statement of Operating Objectives

GOES-R Series: See the Program Changes for the proposed schedule, milestones, deliverables, performance goals and measurement data, and the budget profile.

Polar Weather Satellites (PWS): See the Program Changes for the proposed schedule, milestones, deliverables, performance goals and measurement data, and the budget profile.

Space Weather Follow On (SWFO): See the Program Changes for the proposed schedule, milestones, deliverables, performance goals and measurement data, and the budget profile.

Common Ground Services (CGS): See below for schedule, milestones, deliverables, performance goals and measurement data associated with base funding levels. See the Program Changes for the proposed schedule, milestones, deliverables, performance goals and measurement data, and the budget profile for the requested program changes.

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Schedule and Milestones:

FY 2025

- Continue to develop and sustain the NESDIS Common Cloud Framework (NCCF)
- Sustain legacy data distribution capability and continue migration into the NCCF
- Sustain legacy archive capability and continue migration of system functionality into the NCCF
- Decommission legacy product generation hardware following completion of capability migration to NCCF
- Expand Public Data Access Platform to serve as the NESDIS storefront for data access
- Continue migration of archived environmental data holdings to the NCCF, to include migration of 30 percent of current non-satellite data and tools in support of climate and ocean initiatives
- Curate and transform at least 15 percent of migrated, non-satellite data into analysis-ready formats
- Begin migration of NESDIS science teams into the NCCF testing environment to support algorithm development activities
- Demonstrate a development sandbox connection from NOAA Line Offices to NESDIS for select datasets
- Begin development of automated algorithm deployment pipeline within NCCF
- Continue to develop cloud-enabled products from partner data sources

FY 2026

- Continue to develop and sustain the NCCF
- Sustain legacy data distribution capability and continue migration into the NCCF
- Complete migration of legacy archive capability into the NCCF and begin to decommission associated system
- Expand Public Data Access Platform from the NCCF data dissemination service
- Complete the migration of 50 percent of existing non-satellite data and tools to the cloud, accelerate the migration of additional satellite data and algorithms to the cloud in support of climate and ocean initiatives, and decommission associated legacy on-premises systems
- Curate and transform at least 25 percent of migrated, non-satellite data into analysis-ready formats and provide user readiness training
- Continue migration of NESDIS science teams into the NCCF testing environment to support algorithm development activities
- Develop plans to expand NCCF sandbox capability based off of NOAA Line Office demonstration
- Complete development of automated algorithm deployment pipeline within NCCF
- Continue to develop cloud-enabled products from partner data sources

FY 2027 - FY 2029

- Continue to sustain and optimize the NCCF
- Complete migration of legacy data distribution capability and decommission associated system
- Decommission legacy archive hardware following completion of capability migration to NCCF

- Fully operationalize Public Data Access Platform from the NCCF data dissemination service
- Complete the migration of all non-satellite data and tools to the cloud in support of climate and ocean initiatives, and decommission associated legacy systems
- Curate and transform 100 percent of data into analysis-ready formats and provide user readiness training
- Complete migration of NESDIS science teams into the testing environment to support algorithm development activities to the NCCF
- Transition to cross-line office development in the NESDIS sandbox service
- Enable artificial intelligence (AI) and machine learning workflows in the science testing environment
- Using the automated algorithm deployment pipeline, continue to develop cloud-enabled products from partner data sources

Deliverables:

- Sustainment of legacy on-premises systems until capabilities are transitioned to the NCCF and hardware is decommissioned
- Enterprise NCCF that provides operational ingest, product generation, science sandbox, data distribution, and archive common services of data from NOAA-managed missions and partner data sources
- Public Data Access Platform developed in the cloud, focused on improved data accessibility and discoverability
- NESDIS satellite and non-satellite data migrated and consolidated to the NCCF, converted to analysis-ready formats, and made available through the Public Data Access Platform
- Training materials and seminars provided to the public to support the effective and efficient use of the transformed NOAA data via the Public Data Access Platform
- An AI-enabled science development testing environment and an automated algorithm deployment pipeline within NCCF to more rapidly provision science products to users
- Approximately 17 new satellite data products from partner data sources in the operational development pipeline annually through FY 2029

Geostationary Earth Orbit (GEO): See the Program Changes for the proposed schedule, milestones, deliverables, performance goals and measurement data, and the budget profile.

Low Earth Orbit (LEO): See the Program Changes for the proposed schedule, milestones, deliverables, performance goals and measurement data, and the budget profile.

Space Weather Next (SW Next): See the Program Changes for the proposed schedule, milestones, deliverables, performance goals and measurement data, and the budget profile.

Systems/Services Architecture & Engineering (SAE):

Architecture, Requirements, & Planning (ARP)
Schedule and Milestones:
FY 2025 – FY 2029

- Continue guiding NESDIS future architecture decisions as a result of recent and ongoing architecture studies (e.g., NESDIS Ground Enterprise Study), program formulation studies, related targeted studies, and co-develop demonstrations and pilots as follow-on activities
- Initiate additional elements of next generation flight and ground architecture based on Analyses of Alternatives, demonstrations, and formulation progress to date
- Continue to develop and refine requirements documentation for next generation satellite programs and common services, including the NCCF
- Provide comprehensive assessments for integration, optimization, and sustainment of NOAA's Observing System Portfolio Management capability
- Continue to provide guidance and leadership of the NESDIS Product Baseline, Five-Year Plan, and innovative products development

Deliverables:

- Co-develop requirements documents for individual flight project series within the next generation of satellite programs and other NESDIS activities that flow down from the NESDIS Level Requirements document
- Active enterprise risk management
- Active enterprise configuration control/management
- Active requirements management and change process

Commercial Weather Data Pilot (CWDP)
Schedule and Milestones:
FY 2025

- Solicit pilot data as determined by capability assessments of commercial sector readiness and award pilot contracts, as appropriate

- Release a Request for Information (RFI) to assess the commercial marketplace; stand up a capability assessment team to determine commercial sector readiness
- Explore additional sources/types of data and capabilities available from the commercial sector through market research

FY 2026 – FY 2029

- Explore additional sources/types of data and capabilities available from the commercial sector through market research
- Initiate additional pilots, pending commercial sector readiness

Deliverables:

- Results of ongoing market research
- Results of evaluations regarding new data and capabilities
- Operational services contracts with commercial providers, pending pilot results

Commercial Data Purchase:
Schedule and Milestones:

FY 2025

- Solicit operational commercial data as determined by capability assessments and cost benefit analyses
- Execute GNSS RO IDIQ contract delivery order for an operational data purchase

FY 2026

- Issue annual RFIs to pulse the commercial sector on whether new data types are emerging
- Review existing RO commercial data streams and balance NOAA's commercial portfolio based on cost-benefit and future plans
- Execute a GNSS RO IDIQ contract delivery order for an operational data purchase
- Award commercial data purchase contract for previously piloted data types for operational use, as determined by proposal evaluation results and recommendations

FY 2027 – FY 2029

- Execute contract delivery order for additional operational data types if contracts were awarded in previous years
- Execute GNSS RO IDIQ contract Delivery Order for continued operational data purchases
- Issue solicitation for follow-on IDIQ contracts
- Review existing commercial data streams and balance NOAA's commercial portfolio based on cost-benefit and future plans

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Deliverables:

- Commercial GNSS RO data processed and delivered to NWS for use in operational numerical weather prediction (NWP) models and delivered to Space Weather Prediction Center for use in space weather models
- Provide data types (e.g., space weather) to the NWS for use in operational NWP models
- Results of evaluations regarding new data and capabilities
- Operational service contract with commercial providers, pending pilot results

Joint Venture Partnerships: See below for schedule, milestones, deliverables, performance goals and measurement data associated with base funding levels. See the Program Changes for the proposed schedule, milestones, deliverables, performance goals and measurement data, and the budget profile for the requested program change.

Schedule and Milestones:
FY 2025 – FY 2028

- Issue additional solicitations to industry or academia for priority next generation observational needs and award contracts based on proposals received
- Continue assessing opportunities to partner with other agencies for future missions or research opportunities, contributing funding to address NOAA mission needs as part of relevant Announcements of Opportunity
- Continue contracts with industry or academia on studies of instrument or other component concepts to evaluate new technologies to support NEON or next generation Space Weather mission needs

Deliverables:

- Solicitations to industry in support of future LEO sounding architecture
- Awards to industry or academia for studies of instrument or other component concepts for first NEON demonstration and/or Space Weather mission needs
- Development and demonstration of evolving capabilities for NOAA's operational use, including new observations and/or technologies that will inform NESDIS' future space architecture and suite of products
- Faster transition of research capabilities into operational use, and at a lower cost

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Explanation and Justification

Comparison by Subactivity		2023 Actual Personnel	2023 Actual Amount	2024 Annualized CR Personnel	2024 Annualized CR Amount	2025 Base Program Personnel	2025 Base Program Amount
Geostationary Systems-R (GOES-R)	Pos/BA	45	299,301	51	301,000	51	283,600
	FTE/OBL	72	298,390	48	301,000	48	283,600
Polar Weather Satellites (PWS)	Pos/BA	45	181,498	57	183,500	57	183,500
	FTE/OBL	50	199,588	52	183,500	52	183,500
Space Weather Follow On (SWFO)	Pos/BA	21	135,860	27	136,200	27	134,735
	FTE/OBL	14	135,675	22	136,200	22	134,735
Common Ground Services (CGS)	Pos/BA	54	100,778	78	105,433	78	115,833
	FTE/OBL	52	102,486	68	105,433	68	115,833
Geostationary Earth Orbit (GEO)	Pos/BA	26	284,135	34	285,000	34	285,000
	FTE/OBL	7	285,125	28	285,000	28	285,000
Low Earth Orbit (LEO)	Pos/BA	14	96,282	16	96,430	15	88,330
	FTE/OBL	12	61,044	13	96,430	12	88,330
Space Weather Next (SW Next)	Pos/BA	30	151,454	49	151,606	49	151,606
	FTE/OBL	30	151,533	32	151,606	32	151,606

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Comparison by Subactivity		2023 Actual		2024 Annualized CR		2025 Base Program	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Systems/Services Architecture &	Pos/BA	38	67,753	42	68,500	42	68,500
Engineering (SAE)	FTE/OBL	29	45,636	34	68,500	34	68,500
Total NESDIS System Acquisition	Pos/BA	273	1,317,061	354	1,327,669	353	1,311,104
	FTE/OBL	266	1,279,477	297	1,327,669	296	1,311,104

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Geostationary Earth Orbit Observations: NOAA's geostationary observational capability is managed by the Office of Geostationary Earth Orbit Observations. Geostationary observations are provided by NOAA assets, partner assets, or commercially procured. These observations contribute to weather forecast models and drive short-term weather forecasts and severe weather warnings. Geostationary data also provide advanced detection and monitoring of the atmosphere, oceans, and coasts including environmental hazards like wildfires, smoke, dust, volcanic ash, pollutants, drought, flooding, and harmful algal blooms. Geostationary programs comprise services and data products from specific missions, as well as from enterprise products and services that are source-agnostic. The programs support ongoing improvement of mission impact through proving ground efforts that explore and assess the value of new observations or products and facilitate user readiness. These activities also include ground system development and sustainment for geostationary Earth observations.

NOAA's geostationary observational capability is derived from two programs:

- **Geostationary Operational Environmental Satellites – R Series (GOES-R)** (http://www.goes-r.gov): The GOES-R Series provides NOAA's latest generation of GOES. The GOES-R Series, a four-satellite program, provides advanced imagery and atmospheric measurements of Earth's weather, climate, oceans and environment, real-time mapping of lightning activity, and improved monitoring of solar activity and space weather. Observations from these satellites provide coverage of the western hemisphere from a geostationary orbit, allowing continuous monitoring of severe storms, tropical cyclones, volcanic eruptions, fire hot spots, cloud and atmospheric moisture changes, long term climate trends, lightning, currents flow dynamics, and atmospheric smoke and dust. Observations from GOES-R Series space weather instruments enable NWS's Space Weather Prediction Center to significantly improve space weather forecasts and provide early warning of possible impacts to the Earth's space environment and potentially disruptive events on the ground. The system delivers critical real-time data and information needed for sound decision making, addresses needs to support expanded climate services, and works with global partners.

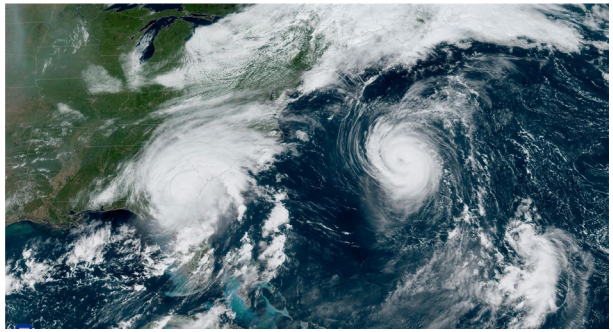

Artist rendering of GOES-R Series satellite (Credit: NASA)

The GOES program, which has provided essential observational data since 1975, supports NOAA's NWS in forecasting, tracking, and monitoring severe storms. The GOES-R Series satellites provide significant enhancements for all operational users of geostationary observations, in particular NWS. For example, calculating the probability that a developing storm will

produce severe weather within the next hour is improved in the GOES-R Series era given the additional information from the Advanced Baseline Imager (ABI) and total lightning data from the Geostationary Lightning Mapper (GLM). The products resulting from this data improve as a result of more frequent images, a factor of four improvement in spatial resolution, more spectral bands for inferring cloud properties, and lightning mapping. The increased quantity, quality, and accuracy of satellite data that the GOES-R Series produces have enabled NWS to issue improved and timelier weather watches, warnings, and advisories to the public, protecting life and property.

The GOES-R Series ABI provides data that enhances a number of NOAA products and services, including:

- Cloud images and precipitation estimates for hurricanes and other coastal storms;
- Images of the U.S. and adjacent ocean areas to enable the detection, tracking, and intensity changes of hurricanes and other major climate and weather events; and,
- Improved NWP models and flood/drought assessments.



Hurricanes Idalia and Franklin as seen by GOES-East on August 30, 2023.

The GLM provides real-time warnings of lightning threat, supporting decision making for outdoor venues, construction, and electrical grids. GLM also helps characterize the lightning risk and increases certainty for airline flight and airport ramp safety protocols, improving operational efficiency. Finally, it provides critical observations to forecast and combat wildfires providing direct benefit to the firefighting community through unique identification of continuing current lightning strikes most likely to ignite fires, improved pyrocumulonimbus characterization, and thunderstorm tracking in areas of reduced radar coverage. Used in tandem, space- and ground-based lightning observations help locate smoldering fires before they grow out of control.

The GOES-R Series satellites also include space weather observations provided by extreme ultraviolet and X-ray irradiance sensors (EXIS), magnetometer, solar ultraviolet imager (SUVI), and space environment in situ suite (SEISS) instruments. In addition to these instruments, the GOES-U satellite hosts a compact coronagraph (CCOR) to obtain coronal mass ejection (CME) imagery.

The first satellite in the series, GOES-R, launched on November 19, 2016, and became GOES-16 when it reached geostationary orbit. GOES-16 replaced GOES-13 as NOAA's operational GOES East satellite on December 18, 2017. The

GOES-R Series launched the second satellite, GOES-S, on March 1, 2018. GOES-S became GOES-17 when it reached geostationary orbit and became operational as GOES West on February 12, 2019. GOES-T launched on March 1, 2022, and became GOES-18 on March 14, 2022, when it reached geostationary orbit. GOES-18 completed its operational checkout and went into operational service as GOES West on January 4, 2023. GOES-17 moved into operational storage due to challenges with the ABI's loop heat pipe. GOES-U, the last satellite in the series, is planned to launch no earlier than May 2024. NOAA's approach of maintaining two operational geostationary satellites with one on-orbit spare is critical to maintaining vital uninterrupted coverage of the Western Hemisphere and will continue as the program transitions from the GOES-R Series to the next generation of geostationary satellites.

- **Geostationary Extended Observations (GeoXO)** (https://www.nesdis.noaa.gov/GeoXO): NOAA's GeoXO satellite program will advance Earth observations from geostationary orbit. The program will serve as the next generation of space-based environmental monitoring observatories, providing essential, sustained observations from geostationary earth orbit to meet ongoing needs and growing requirements. GeoXO will supply vital information to address major environmental challenges of the future in support of U.S. weather, ocean, and climate operations. NOAA is working to ensure these critical observations are in place by the early 2030s as the GOES-R Series nears the end of its operational lifetime. By 2033, GOES-16 and GOES-17 will have reached the end of their design lives and NOAA will no longer be able to provide an on-orbit spare geostationary satellite, putting continuity of real time imagery at risk. Any break in the continuous stream of real-time data would pose an enormous risk to millions of lives and billions of dollars in activity that ensure our national and economic security.

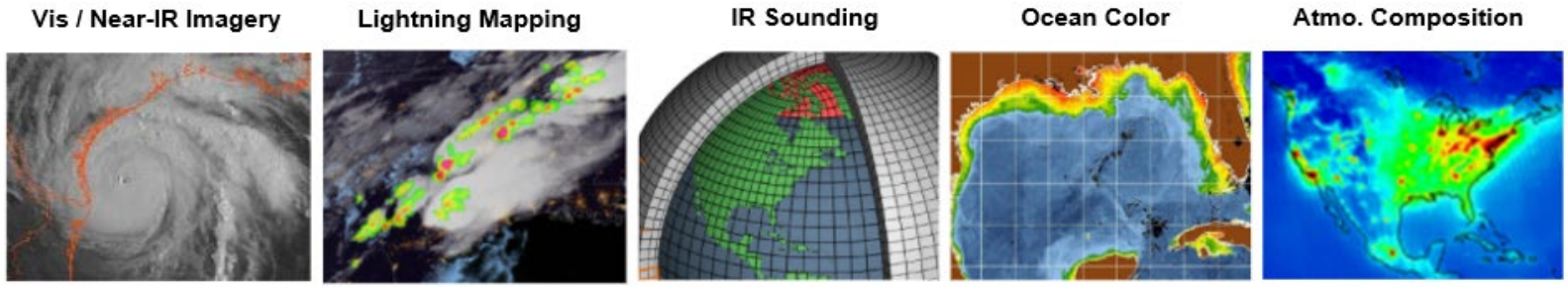
The six-satellite GeoXO program will continue and expand observations provided by the GOES-R Series and bring new capabilities to bear that address emerging environmental issues and challenges that threaten the security and well-being of every American. Weather and environmental observations provided by GeoXO satellites will support NOAA's Strategic Plan 2022-2026 by building a more climate-ready nation and helping advance the New Blue Economy.

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

The GeoXO program will provide improved performance of existing imager and GLM instruments for short-range forecasting, severe weather warnings, and hazardous conditions. It will also introduce new instruments to meet emerging requirements, such as local nowcasting; monitoring of coastal and ocean features and ecosystem change; and monitoring air quality. NOAA plans to include the following instruments on GeoXO: Imager, Hyperspectral Sounder, Lightning Mapper, Atmospheric Composition, and Ocean Color.

Imagers on GeoXO satellites will provide more detailed observation and precise forecasting capabilities than the GOES-R Series ABI, including higher spatial resolution imagery and additional spectral channels for water vapor detection. GeoXO satellites will also introduce new hyperspectral infrared sounders capable of measuring the vertical distribution of atmospheric temperature and water vapor. These sounders will increase atmospheric condition data in real time for weather modeling, nowcasting, and localized forecasts. Harnessing the combined capabilities of the imager, GLM, and sounder instruments, the GeoXO program will significantly improve weather forecasting and severe weather and storm warnings.

The GeoXO program will also include new atmospheric composition instruments that will provide comprehensive detection of air quality conditions and help mitigate health impacts from severe air pollution. Specialized ocean color imagers will monitor dynamic coast and ocean features, ecosystem changes, water quality, and other hazards. These observations will help to refine estimates of fisheries yield, reduce the risk and cost of harmful algae blooms, and track climate-driven ocean and coastal ecosystem changes. NOAA will utilize NASA research and development missions for risk reduction to ensure operational success for GeoXO.



Observations from GeoXO will provide vital data to complement those from NOAA partners in Europe and Asia, providing an essential global observing system.

In FY 2023, GeoXO established its program baseline at Milestone 2/3, and moved into the development and implementation phases. NOAA also awarded development contracts for the imager and sounder instruments in FY 2023. In FY 2024, NESDIS plans to award the remaining instruments and spacecraft development contracts.

The GeoXO program ground system will also provide services for NOAA's deep space weather satellites. Space weather requirements are funded by the SWFO and SW Next PPAs.

Low Earth Orbit Observations: NOAA's low Earth orbit (LEO) observational capability is managed by the Office of Low Earth Orbit Observations. Earth-observing satellites provide over 90 percent of the data routinely assimilated into NWS NWP models, and LEO (also known as polar-orbiting) satellites are the backbone of global NWP models.[5] These satellites detect and monitor hazards such as fires, droughts, floods, poor air quality, coral bleaching events, harmful coastal waters, and others. Low Earth Orbit Observations programs comprise services and data products from specific missions, as well as from enterprise products and services that are source-agnostic. The programs support ongoing improvement of mission impact through proving ground efforts that explore and assess the value of new observations or products and facilitate user readiness. These activities also include ground system development and sustainment for LEO observations.

A resilient constellation of LEO satellites, which can be quickly deployed to mitigate the risk of on-orbit failures, is essential for improving life-saving weather forecasts and warnings. Low Earth Orbit Observations programs respond to Congressional direction to improve weather forecast and prediction capabilities, as provided in the *Weather Research and Forecasting Innovation Act of 2017* (P.L. 115-25). In addition to acquiring new government-owned observing assets, the Low Earth Orbit Observations programs will support partnerships with other U.S. agencies, foreign governments, and private industry to provide critical LEO and future medium Earth observations, measurements and services. These opportunities will improve NOAA's weather and environmental forecast capabilities. The investments made will evolve NESDIS' current architecture into one with more small and medium-sized satellites, individual instruments on commercial hosts, data buys, and an increased number of partnerships with domestic and foreign space agencies. NOAA will leverage emerging opportunities, new innovations, and science within the commercial space industry as they become available.

[5] National Weather Service: www.nco.ncep.noaa.gov/sib/counts/April_2023.html

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

NOAA's LEO observational capability is derived from multiple programs:

- **Polar Weather Satellites (PWS)** (www.jpss.noaa.gov): PWS provides global meteorological observations to enable short-term (0-3 days), and mid-range (3-7 days) forecasts and warnings of severe weather events critical for emergency managers and communities to make timely decisions to protect life and property. In addition, PWS provides an array of global environmental observations for a wide variety of environmental phenomena that support and supplement seasonal monitoring and forecasting of weather. Data and imagery obtained from PWS helps increase timeliness, accuracy, and cost effectiveness of public warnings and forecasts of climate and weather events. These observations, warnings, and forecasts include:
  - Operational and short-term forecasts at high northern latitudes, in places such as Alaska, where observations from geostationary satellites are more challenging;
  - Severe storm and flood warnings;
  - Tropical cyclone and hurricane warnings;
  - Hydrologic forecasts;
  - Ocean surface temperature, ocean color for ocean monitoring (e.g., reef conditions, harmful algal bloom warnings)
  - Global sea level rise;
  - Aviation forecasts (domestic, military, and international);
  - Ice monitoring and forecasting;
  - Ozone monitoring;
  - Environmental air quality monitoring;
  - Detection and analysis of wildfires and volcanic eruptions including volcanic ash warnings for aviation safety;
  - Short-term and mesoscale forecasts;
  - Seasonal and inter-annual climate forecasts;
  - Decadal-scale monitoring of climate variability; and,
  - Assessment of long-term global environmental change.

PWS contributes to international partnerships between the U.S. and the European and Japanese space agencies focusing on operational civilian polar-orbiting satellites that provide the primary input data for all NWP models. Polar satellites contribute approximately 85percent of all data for NWP models.[6] This program also supports risk reduction efforts for future polar requirements as part of its continuing work with SAE on future LEO architecture efforts.

PWS includes the NOAA/NASA Suomi NPP, NOAA-20 (formerly known as JPSS-1), NOAA-21 (formerly known as JPSS-2), and the to-be-launched JPSS-3 and JPSS-4 satellite missions. It also encompasses a large ground system with facilities and data acquisition and distribution activities in the Antarctic, Norway, Alaska, New Mexico, Maryland, Virginia, and West Virginia, as well as the operational science, maintenance, and archiving for these missions through FY 2038 to ensure that NOAA continues to provide accurate and timely weather forecasts and warnings. NOAA/NASA Suomi NPP and NOAA-20 are currently operational in the early afternoon orbit. JPSS-2 was launched November 10, 2022, and was renamed NOAA-21 once it achieved its operational orbit after launch. NOAA built JPSS-3 and JPSS-4, and developed instruments and spacecraft buses for those satellites as copies of NOAA-21. This allowed NOAA to take advantage of the NOAA-21 instrument development and spacecraft bus contracts to reduce cost and risk. The NOAA-21, JPSS-3 and JPSS-4 missions are comprised of the Advanced Technology Microwave Sounder (ATMS), Cross-track Infrared Sounder (CrIS), Visible Infrared Imaging Radiometer Suite (VIIRS), and the Ozone Mapping Profiler Suite (OMPS) instruments. NASA's Radiation Budget Instrument was de-manifested from NOAA-21. NASA is now moving forward with a new instrument for radiation budget measurements, Libera. This instrument will be included on JPSS-4 which now has a launch commitment date (LCD) of FY 2028. Adding Libera to JPSS-4 avoids removing the JPSS-3 satellite from storage to retrofit and retest it with Libera, thereby minimizing unnecessary handling and potential over-testing. In FY 2025, JPSS-3 will enter extended storage, where it will be tested annually in anticipation of meeting its new launch commitment date in FY 2033. NOAA will also continue the development, maintenance, and sustainment of the ground systems, evolve ground systems to align with changing technologies and threats, and conduct risk reduction efforts to support current and future polar data acquisition requirements.

In FY 2022, the NOAA Unique Combined Atmospheric Processing System made vertical profile and trace gas products that improved global measurements of greenhouse gases (methane, carbon dioxide, ozone, nitrogen dioxide, others) from space operational in the NCCF. Based on an international agreement between NOAA and EUMETSAT, NOAA will receive hyperspectral sounding products from the European IASI-NG instrument following the launch of the Metop Second Generation (SG) A1 satellite in March 2024. These observations can be combined with NASA, Japan Aerospace Exploration Agency (JAXA), and European Space Agency (ESA) dedicated greenhouse gas missions. These dedicated missions identify

[6] National Weather Service: https://www.nco.ncep.noaa.gov/sib/counts/April_2023.html

the ground sources and sinks of greenhouse gases while the NOAA greenhouse gas products from JPSS and EUMETSAT satellites monitor transcontinental transport.

- **Near Earth Orbit Network:** The Near Earth Orbit Network program is the follow-on to PWS and supports other NESDIS LEO observation endeavors. NEON will continue, improve, and extend NESDIS' global observations for weather forecasting and climate monitoring.

  NEON includes satellites that host Earth-observing instruments. The scope also includes ground services, such as command and control, data processing, and product distribution. The ground services will be obtained through a diverse architecture of commercial capabilities, NESDIS-developed enterprise ground system capabilities, and NEON-developed capabilities. NEON scope also includes operations, maintenance, and sustainment over the program's operational lifetime. NEON is currently in the formulation and development stage and its full scope will be defined as it passes through DOC and NASA milestone reviews. In order to ensure that there are no potential gaps in data for environmental and weather forecasting in the 2030s, the NEON program will prepare for the replacement of the PWS satellites as that program approaches the end of its lifecycle. With an approximate design and build period of six to eight years prior to satellite launch readiness and an additional 24 months required to evaluate, validate and assimilate the data from new instruments, it is critical that NOAA begin planning and investing in the next generation of polar orbiting satellites now to ensure data continuity. The inability to launch the first next-generation instruments for NEON in the early 2030s will put NOAA at risk of meeting the requirement for one primary and one secondary operational satellite on-orbit and will severely increase the degradation risk of national weather and environmental forecasts and models. The loss of polar orbiting satellite data, which accounts for approximately 85 percent of all data used for NWP models,[7] would be detrimental to NOAA's ability to provide timely and accurate environmental data and products for forecasts and severe weather warnings to ensure the safety of U.S. citizens, public property, and infrastructure.

  NEON is intended to offer a framework to provide global measurements of earth systems through satellites managed by NOAA and Federal, commercial, and international partners. These environmental measurements will be able to support a wide variety of atmospheric, terrestrial, marine, and polar observations. The data uses include NWP models, fire and flood models, atmospheric chemistry observations, and multiple land imagery products that have been crucial pieces of the NOAA strategic goals to build both a Weather-Ready Nation and a climate-ready nation. The NEON program may utilize a combination of small and medium satellite platforms. This approach provides an efficient means of filling gaps quickly and

[7] National Weather Service: https://www.nco.ncep.noaa.gov/sib/counts/

taking advantage of emerging remote sensing technologies. To execute an agile and resilient architecture, and other NSOSA study recommendations, the NEON program may:

- Enable NESDIS to provide current and future mission critical and essential observations
- Maximize capabilities from partner and commercial assets
- Use industry's significant investment of funding, expertise, and innovation in space and space systems technology
- Deploy NOAA observation system assets where and when they are most needed, enabled by shorter development timelines and more frequent launches
- Leverage smaller instruments, satellites, and launch vehicles
- Explore the viability of a disaggregated constellation through demonstrations before use in an operational mission
- Incorporate continuous advancement, using new business models and seeking new partnerships

NOAA's vision is to achieve and sustain an observing system portfolio that is mission-effective, integrated, adaptable, and affordable. It will leverage inter-agency, international, and commercial partnerships to continually examine, coordinate, and improve its diverse array of observing systems. NESDIS is pursuing a resilient and agile NEON program to improve on the ability to manage the rate of change necessary to achieve NOAA's vision. The aspirational requirements for the NEON program are defined with a set of priorities and minimal thresholds for performance. Architecture trade studies are aimed at identifying strategic investments to ensure the highest priority observations are sustained while pursuing innovative pathways to achieve objective level performance. The level of success in adopting a "buy/partner where we can and build what we must" philosophy will determine how well NESDIS is able to achieve aspirational requirements beyond threshold performance with a level funding profile. The NEON program is loosely coupled, addressing DOC/NOAA objectives through multiple independent projects. Each project within the NEON program will have an allocated set of program requirements and defined life cycle cost. Leveraging innovative advances in commercial space (e.g., New Space) and anticipating the future capabilities of partnering organizations are key to an affordable NEON program but have inherent risk and uncertainty. The first two projects in formulation are aimed at determining the need to better understand how commercial industry can provide spacecraft, launch services, and ground services with reduced Government involvement and pursue the development of next generation microwave and infrared sounders.

- QuickSounder: is an initial demonstration mission for the NEON program. An engineering model of the ATMS instrument, versions of which are on each of the JPSS satellites, will be launched on a commercial spacecraft and

operated by commercial ground services. It will allow NOAA to gain experience with new commercial business models and to leverage new acquisition strategies.

As a secondary benefit, QuickSounder will help mitigate the projected gap in microwave sounding data that will form once the POES satellites are decommissioned, which have drifted into the early morning orbit. Furthermore, the Department of Defense currently occupies the early morning orbit for polar orbiting satellites that collect weather and climate observations which complement NOAA's NWP models. The Department of Defense has recently indicated that there is no intent to continue occupying this orbit with a microwave sounder payload once the remaining operational Defense Meteorological Satellite Program satellites are decommissioned in FY 2027. QuickSounder will help mitigate this anticipated gap in microwave sounding data as well, increasing forecast accuracy. Together, the early morning, mid-morning, and early afternoon orbits currently provide a distribution of sounding observations that are essential to the performance of NWP global models.

This demonstration mission will assess mission assurance practices relative to established commercial New Space missions and establish a referenceable knowledge base of rapid procurement practices that will benefit the future, high launch tempo NEON program. NESDIS intends to progress the QuickSounder mission from authorization to launch within approximately three years, or within FY 2026. Utilizing elements and best practices of the commercial space industry to meet Federal program-level requirements, the QuickSounder Mission will demonstrate that NOAA can provide observation capabilities with a small satellite on a compressed production schedule.

- Series 1 will focus on providing microwave and infrared sounding data that is essential to the performance of NWP global models. It includes the development of next generation microwave and infrared instruments with improved science performance over legacy instrument capabilities. A block of small, common, commercial spacecraft are planned to be acquired to individually accommodate the microwave and infrared instruments. Once integrated, the Series 1 sounder satellites are available to be launched into the desired orbit as needed to ensure the global NWP models have the critical sounding data needed to generate accurate weather forecasts. Leveraging commercial space innovations in the production of spacecraft, rapid response launch vehicles, and operations will improve agility and resiliency over legacy systems.

- Partnership Activities: Partnerships allow NOAA to supplement its core observations from NOAA satellites for a fraction of the cost of acquiring our own satellites. The NEON program will assess and pursue partnership opportunities with U.S. and international partners, such as NASA, DOD, ESA, and JAXA.

The NEON Program began in FY 2022 to ensure that a validated capability for observational data continuity is available prior to the end of the PWS program satellites' lifetime.

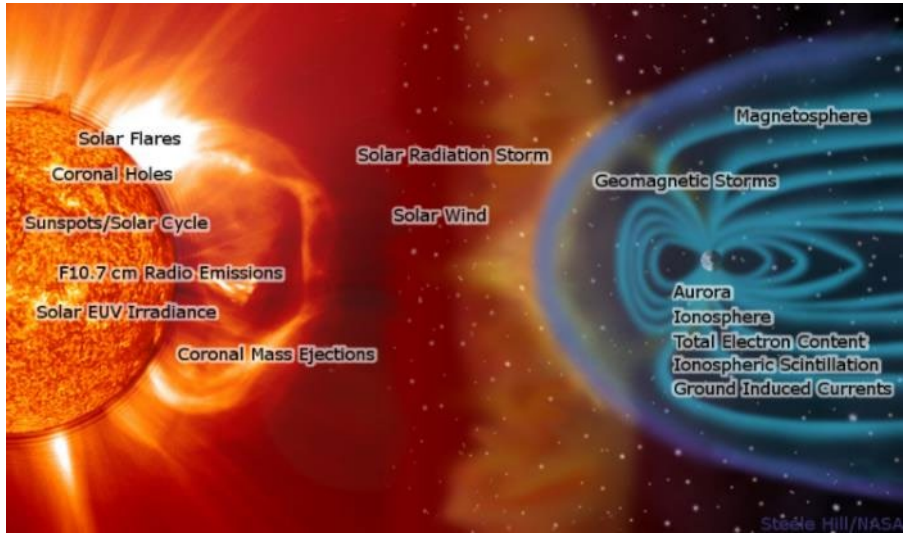
- **POES Extension:** The legacy POES satellites (NOAA-15, NOAA-18, and NOAA-19) currently occupy the early morning orbit. While the POES satellites are beyond their design life, the spacecraft and many instruments and channels are operational and continue to provide critical data to NWP models and for situational nowcasting needs. NWP impact studies show statistically significant degradation in forecast models when POES satellite data is removed. Extending POES also provides continuity for the Argos-DCS Program, which provides relays of meteorological data from ocean buoys and wildlife monitoring.

  In FY 2022 and FY 2023, NOAA upgraded legacy POES satellite ground systems and transitioned to a "Ground System as a Service" architecture to safely and securely extend the operation of the POES satellites. Additionally, NOAA's NEON program is developing replacement observations for the POES and PWS satellites. NOAA in using the expanded lifecycle to help define and initiate the most effective and cost-efficient architecture of the next generation of low earth orbit satellites.

Space Weather Observations (SWO): NOAA's space weather observational capability is managed by the Office of Space Weather Observations. Since its start, NOAA has deployed space weather monitoring and warning capability as part of its mission to monitor the environment and issue watches and warnings to protect lives and property. Space weather phenomena pose a significant threat to ground-based and space-based critical infrastructure, modern technological systems, and humans working in space. The effects of severe space weather on the electric power grid; satellites and satellite communications and information; aviation operations; astronauts living and working in space; and, space-based position, navigation, and timing systems have significant societal, economic, national security, and health impacts -- ultimately threatening our nation's economic and national security. In 2016, EO 13744, Coordinating Efforts to Prepare the Nation for Space Weather Events, directed the DOC and therefore NOAA to "provide timely and accurate operational space weather forecasts, watches, warnings, alerts" and to "ensure the continuous improvement of operational space weather services." In 2020, the *Promoting Research and Observations of Space Weather to Improve the Forecasting of Tomorrow (PROSWIFT) Act* (P.L. 116-181) further authorized NOAA to sustain, improve, and expand space-based

space weather observations.

NOAA's satellites collect essential data that serve as a long-term record for monitoring key environmental parameters, and NOAA's space weather programs are integral to meeting the Administration's science goals, including EO 14008, Tackling the Climate Crisis at Home and Abroad, through improved observations and forecasting for the American public. Observations provided by NOAA's space weather programs will support NOAA's Strategic Plan 2022-2026. Space weather also continues to be critical to all space assets and the establishment of space commerce.



Space Weather describes the phenomena that impact systems and technologies in orbit and on Earth. Space Weather can occur anywhere from the surface of the sun to the surface of the earth. (Credit: NOAA, NWS Space Weather Prediction Center)

Space weather observations programs develop, build, and deploy space-based observational capabilities to provide crucial data necessary to understand, forecast, and prepare for space weather phenomena. They comprise services and data products from NOAA and partner-operated space-based instruments and observatories as well as input derived from commercial services. The programs develop source-unique as well as enterprise products and services that are source-agnostic. They also support ongoing improvement of mission impact through proving ground efforts that explore and assess the value of new observations or products and facilitate user readiness. This includes ground system development and sustainment to support space weather observations.

Space weather programs will be coordinated with the Space Weather Operations, Research, and Mitigation (SWORM) Subcommittee, NWS, NASA, the Department of Defense, the National Science Foundation, our research and academic community, and our international partner satellite agencies.

Continuity of NOAA's space weather observations capability is derived from two programs:

- **Space Weather Follow On (SWFO):** The SWFO program is designed to meet NOAA and national needs for operational coronal mass ejections (CME) imagery and *in situ* solar wind measurements. NOAA is working to have instruments in place to

address the very high risk of loss of these observations before legacy space-based systems cease to provide useful data. CME and solar wind measurements are necessary for NOAA to provide warnings for the two major types of space weather events that affect the Earth: solar radiation storms and geomagnetic storms. Satellites are mostly impacted by solar radiation storms. Commercial airlines are rerouted during solar radiation and/or geomagnetic storms, as these storms cause communication blackouts and impacts to navigation accuracy. The most extreme geomagnetic storms have resulted in severe impacts to commercial power grids and impacted hundreds of millions of people. Satellite data, including CME imagery and measurement of solar wind plasma, are critical to providing accurate and early warnings of these potentially destructive space weather events. Requirements for these measurements derive from the NOAA Space Weather Mission Service Area Observational User Requirements Document baselined by the NOAA Observing System Council in November 2017.

Currently, CME measurements at the Earth-Sun Lagrange point 1 (L1) point are provided only by the NASA-European Space Agency research Solar and Heliospheric Observatory (SOHO) that was launched in 1995. SOHO is more than 25 years old and is operating well past its mission design life. Without CME imagery, the 1-4 day lead-time of likely storm conditions will be degraded, thereby affecting the accuracy of geomagnetic storm watches and endangering U.S. infrastructure. SWFO's design ensures the continuity of CME imagery for operational use by the NWS Space Weather Prediction Center for geomagnetic storm watches beyond SOHO. NOAA is working with the Naval Research Laboratory to develop flight CCORs to obtain CME imagery necessary for tracking eruptive events from the sun and provide initial estimates of the likelihood and severity of any impacts to Earth.

SWFO will also replenish the capability of detecting solar wind upstream from Earth. Currently, solar wind measuring capability is provided by NOAA's Deep Space Climate Observatory (DSCOVR), with the over 25-year-old Advanced Composition Explorer (ACE) providing backup. However, DSCOVR is a research-grade satellite, also past its mission life, and is susceptible to mission failure with the loss of any of several single string critical components. Loss of DSCOVR without a ready replacement will significantly reduce NOAA's ability to monitor solar wind and provide short-term warnings (15-45 minutes) of space weather storms. The Solar Wind Instrument Suite (SWIS) to be accommodated on the SWFO-L1 satellite mission will provide the required solar wind data. The SWIS will include a Solar Wind Plasma Sensor (SWiPS), a set of magnetometers (MAG), and a low-energy ion spectrometer called the SupraThermal Ion Sensor (STIS).

The SWFO Program will use a rideshare opportunity with NASA's Interstellar Mapping and Acceleration Probe (IMAP) mission scheduled for launch in 2025. NOAA has established an interagency agreement with NASA for assisted acquisition of the SWFO-L1 spacecraft and the SWIS instruments. NOAA is developing the ground segment including NOAA acquisition of the command and control for mission operations, acquisition of the SWFO Antenna Network for continuous real time data

acquisition, and the product generation and distribution capability to distribute products to operational and retrospective users. The Naval Research Laboratory, with NOAA oversight, is responsible for the development and delivery of the CCOR instruments under an interagency agreement. One CCOR will be accommodated on the SWFO-L1 mission that will launch as a rideshare on the IMAP launch in 2025. The other CCOR is hosted on the GOES-U satellite which plans to launch no earlier than May 2024. Flying two coronagraphs on the sun-earth line provides operational resilience and reliability to the CME imagery necessary for space weather warnings and forecasting.

The SWFO Program successfully completed the Milestone 2/3 review October 31, 2019. On November 19, 2019, the Deputy Secretary of Commerce signed the SWFO Milestone 2/3 Decision Memorandum establishing the program baseline. The SWFO-L1 instruments and spacecraft began assembly, integration, and testing during FY 2023. In FY 2024, the SWFO-L1 spacecraft provider will begin integrating the instruments onto the spacecraft and will begin testing of the completed observatory. Further, the operations phase of the CCOR on the GOES-U satellite will begin following the GOES-U launch in 2024.

- **Space Weather Next (SW Next):** SW Next sustains, improves, extends, and mitigates potential gaps in observations to support NOAA space weather forecast operations as authorized by the *PROSWIFT Act* (P.L. 116-181) and driven by the National Space Weather Strategy and Action Plan[8] and the Implementation Plan of the National Space Weather Strategy and Action Plan.[9] This work is required to sustain continuity of observations from all applicable orbits and operational product improvements within NOAA's NWS. The program will serve as the next generation of space weather monitoring observatories providing essential, sustained observations to meet NOAA mission needs.

  Pre-formulation and formulation activities establish and baseline SW Next and NESDIS continues to engage the space weather stakeholder community, industry, academia, interagency working groups, and advisory groups to define requirements. Concept designs, trade studies, and analysis of alternatives are necessary in preparation for Department of Commerce Milestones and NASA Key Decision Points. The program will provide observations from diverse vantage points. SW Next includes an L1 continuity series, an L5 project in partnership with the European Space Agency (ESA), and potentially observations from GEO, LEO, and other orbits, as appropriate to meet the NOAA mission need in the most cost-effective manner. The SW Next L1 Series will sustain and continue the CME and solar wind measurements established by SWFO, as the program reaches end of life. NOAA will continue formulation of space weather geostationary instrumentation to sustain and enhance the NOAA baseline

[8] Executive Office of The President Washington DC. "National Space Weather Strategy and Action Plan." (2019).

[9] Executive Office of The President Washington DC. " Implementation Plan of the National Space Weather Strategy and Action Plan." (2023).

capability for GEO space weather observations beyond the existing GOES-R Series. Space weather monitoring instruments for orbits such as GEO, LEO, and highly elliptical orbit, if included in the SW Next program, would improve and expand space-based weather observations for predicting geomagnetic and space weather storms and protecting vulnerable U.S. infrastructure.

NESDIS continues to develop a CCOR for deployment in partnership with the European Space Agency (ESA) L5 Vigil mission that is anticipated to launch in 2029. In the L5 partnership, ESA will provide the Vigil spacecraft with multiple instruments, launch, and operations. The coronagraph developed by NESDIS will be constructed under interagency agreement with the Naval Research Laboratory and will improve near-real time coronal mass ejection imagery. ESA's L5 mission provides a unique vantage point to observe the solar wind and coronal mass ejections all the way from the Sun to Earth. CMEs drive the most severe geomagnetic storms and their propagation is significantly impacted by structures in the solar wind. The addition of L5 observations will improve arrival and duration forecasts of CMEs, as well as characterization of interactions with Earth's magnetosphere (e.g., direct-hit, glancing blow, etc.). Watch and forecast products are necessary for protection of the bulk power industry, aviation, and GNSS users among others. The off sun-Earth line L5 solar wind data will increase the lead time and confidence in the predicted solar wind that will arrive at Earth 3-7 days in the future. This data will improve the Geomagnetic Storm Watch product and provide real-time validation of space weather forecasting models.

In support of the NOAA Space Weather Gap Mitigation plan (June 2020), NESDIS is solidifying plans to exploit mission data from NOAA partners for contingency observations. Partner observations under consideration include coronagraph observations from the upcoming NASA Polarimeter to Unify the Corona and Heliosphere mission, solar wind data from the NASA IMAP mission, and may include other partner assets that may provide temporary and partial coverage.

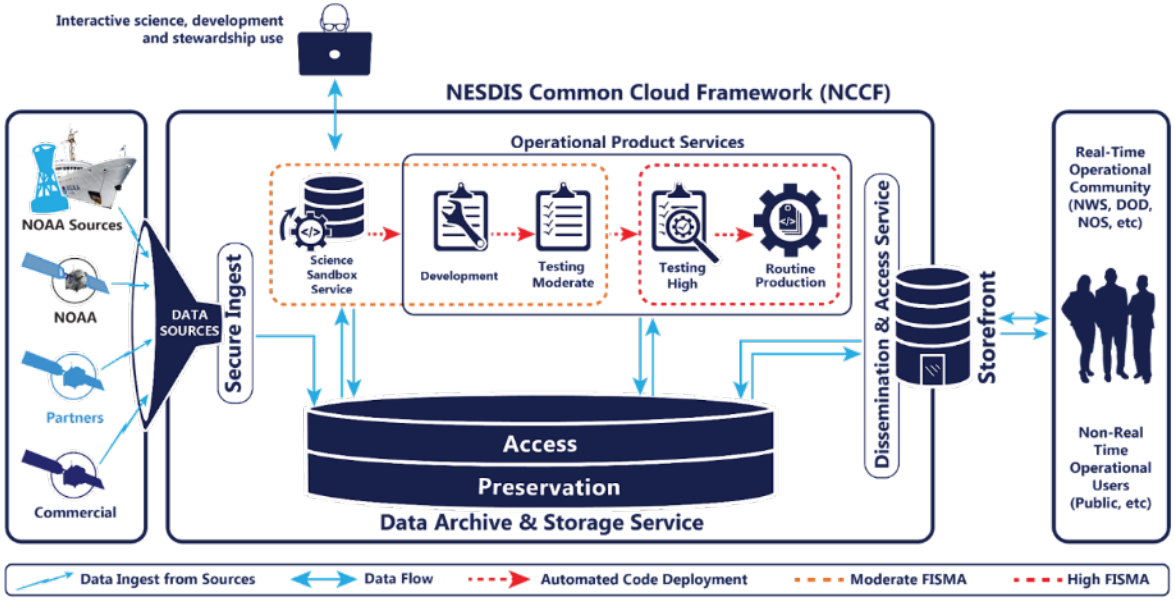
In November 2022, the Deputy Secretary of Commerce signed the SW Next Milestone 1 Decision Memorandum and authorized development of the SW Next portfolio. NESDIS will manage space weather observations as a portfolio, while maintaining transparency into the development schedule, and the annual and life cycle costs for all individual programs and projects comprising the observing system elements. NOAA plans to complete DOC Milestone 2 review for the SW Next L1 Series in FY 2024. Following the Milestone 2 review, NOAA will initiate the instrument and spacecraft development contracts.

Common Ground Services (CGS): CGS funds the Office of Common Services (OCS), which plans and executes common ground services for NOAA's satellite, data, and information capabilities. Ground services are critical to acquiring, processing, and managing the environmental data from satellite missions and deriving value from the investments other organizations have made in the space segment. CGS facilitates access to non-NOAA domestic and international satellites, as well as supports commercially-acquired data.

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

In collaboration with NCEI, CGS also provides long-term archive services for all approved NOAA and external partners' environmental data sources.

CGS' core responsibilities include developing and sustaining the NCCF, which facilitates ingesting, processing, and archiving of data from NOAA and non-NOAA sources, and product portfolio management to ensure delivery of high priority products aligned with and responsive to user needs. Consolidating data in the NCCF will significantly enhance access to and usability of NOAA's data, which is expected to grow from 55 to 1000 petabytes by 2030. This will also enable NOAA and other users to quickly develop new applications, facilitate research by the academic community, and facilitate the use of artificial intelligence and machine learning to exploit big data sets. CGS activities also include planning cloud-related acquisitions; sustainment of on-premise systems prior to transition to the cloud; and management, engineering, integration and testing, transition to operations, and overall sustainment of common ground services. In addition, CGS participates in system verification and validation efforts, as well as life cycle reviews for major satellite acquisition programs and projects.



In FY 2021, NOAA implemented the Data-source Agnostic Common Services (DACS) initiative, a cloud-enabled, end-to-end ground service capability that provides a secure, scalable, cost effective, portfolio approach of managing NOAA's data. The DACS initiative: 1) evolves the ground service enterprise to leverage cloud computing for data ingest, processing, collaborative science development, dissemination and access, and archive; 2) allows NOAA to utilize data and observations from an increasingly capable and diverse array of partner and commercial systems to meet mission requirements in a cost-effective manner; and 3) provides a framework for managing all of NOAA/NESDIS data. NOAA transitioned initial operational services to a cloud architecture in FY 2021. The FY 2022 investment continued development of the infrastructure framework by adding archive functionalities and generated products from

JPSS, Metop-SG, Meteosat Third Generation, and Sentinel satellites to support multiple NOAA mission service areas such as weather forecasting, ocean prediction, and ecosystem monitoring. FY 2023 concluded the initial NCCF core service capability providing a common platform across NESDIS programs enabling processing and scientific collaboration. NOAA also commenced an acceleration of data and science applications into NCCF, building on the successful continued migration of legacy product processing into the NCCF while providing continuity for NOAA's weather forecasting mission. NESDIS will continue utilizing the infrastructure framework and associated resources to integrate satellite programs into a common architecture.

Overall, the DACS investment will enable enhanced satellite data products to meet NOAA's needs and deliver a common cloud platform that will scale to meet NOAA's data holding growth while expanding data access. It will widely leverage complex data enabling derived datasets and AI applications that will deliver more weather, climate, and oceanic insights to stakeholders and the public. This NCCF solution will improve system resiliency with less enterprise complexity and will reduce costs for the organization. It will utilize an artificial intelligence to provide streamlined integration between developers and scientists, and support data visualization. It will bring NESDIS science teams into the testing environment to support algorithm development activities, and begin the development of an automated algorithm deployment pipeline within the NCCF. Further, DACS creates opportunities to enhance the use of partner satellite data for operational forecasting through innovative scientific development of new applications and datasets to serve the NOAA user community. Crucial to this initiative is enhanced user readiness, especially in regard to the preparation and guidance of internal stakeholders who will be able to utilize the higher capacity and volume of data. NOAA's stakeholders will be served through curated training that result in new science approaches. This allows our users to fully exploit the use of innovative satellite data and products that are enabled through the application of complex high-resolution inputs. NOAA recognizes the ever-evolving complexity of increased volumes of data as not just a technical challenge, but also an application challenge. From an infrastructure perspective, NCCF, with funding from the in DACS initiative, has the ability to manage this.

In FY 2023, NOAA implemented a Data Access and Distribution (DAD) initiative which expanded and accelerated the development and migration of non-satellite data to the NCCF, centralizing data from multiple processing systems into a single processing environment where users can more easily find, access, and use NOAA's data. NOAA began providing increased data volumes from a diverse suite of sources in concert with tools, platforms, information, and products and services to enhance discoverability, access, and usability of NOAA data for climate and other emerging applications. Moreover, NOAA is working to ensure that this data is interoperable, analysis-ready, and transformed into more useful formats (e.g., cloud-optimized, AI-ready formats), which will allow decision makers at all levels to leverage the information more rapidly and improve accessibility and usefulness of NOAA science and services for all users, including stakeholders in historically underrepresented communities. This initiative also expanded NOAA's capacity to host and serve data beyond satellite-centric observations, including airborne and maritime platforms that support hydrographic surveys, fish assessments, and conservation and recovery of protected species - areas where improved access to

analysis-ready data will help decision makers respond to events driven by the changing climate. Eventually, this initiative will result in a cloud-based repository of curated data that can be easily used by the broader Earth observation enterprise, as well as a user-facing data access portal in the cloud linked to the aforementioned data holdings. Further, this initiative supports international efforts to acquire and share data to advance weather and climate monitoring and prediction, and allows NOAA to meet the World Meteorological Organization's preliminary recommendation for sharing core and recommended data on a free and open basis to advance predictive and research capabilities globally.

Systems/Services Architecture & Engineering (SAE): SAE provides analysis based on emerging capabilities and user needs to identify the highest value approaches to the NESDIS enterprise architecture, including flight, ground, and related services, to meet NESDIS, NOAA, and National needs. SAE ensures NESDIS-wide activities are aligned to the enterprise architecture vision, including managing the mission concept development activities for the next generation LEO, GEO, and SWO programs; creating and maintaining NESDIS-wide systems engineering and program management policies and procedures; governing the suite of products and services NESDIS provides to users from our own systems, partner systems, and commercial data to optimally meet user needs; and managing NESDIS-wide risk assessments and strategic plan implementation. SAE also manages the Commercial Data Program and Joint Venture Partnerships.

The SAE Subactivity is divided into three Line Items:

- **Architecture, Requirements, & Planning:** SAE leads and manages NESDIS' assessments of and planning for future enterprise architectures to meet NESDIS Level Requirements. This includes performing architecture trade studies (within NOAA as well as with industry, partners, and the science community), pre-formulation activities, demonstrations, and the development of roadmaps to achieving future architectures. Starting from the foundation of the NESDIS Level Requirements, SAE manages the NESDIS requirements development and change process for NESDIS level and program level requirements, leads the prioritization and governance process for managing NESDIS' baseline products and services, and validates that baseline products are meeting requirements. SAE also guides NESDIS in the implementation of its strategic plan, interfaces with other agencies in service to NESDIS strategic goals, manages the NESDIS enterprise risk process, and develops and maintains systems engineering and program management guidance applicable to all NESDIS programs and activities.

  SAE's Architecture, Requirements, & Planning responsibilities also include:
  - Undertaking quantitative assessments for objective analyses to evaluate relative value and benefits of future data sources and satellite architectures;

- Creating and implementing NESDIS enterprise policies, processes and procedures for alignment of systems engineering and project management activities;
- Providing an independent assessment to the milestone decision authority for all DOC Acquisition Milestones and NASA Key Decision Points and other program or project milestones to ensure systemic compliance with architecture and effective implementation of requirements; and,
- Managing the implementation of the NOAA Administrative Order 212-16, Observing Systems Portfolio Management (November 2016), including validation of NOAA observation requirements, and conducting observing system impact and portfolio analyses. SAE supports all NOAA Line Offices and manages the NOAA Observing System Integrated Analysis tool, which is used to manage NOAA's current and future observing system investments.

Commercial Data Program: The NOAA Commercial Space Policy (January 2016)[10] calls for NOAA to: 1) undertake pilot projects to demonstrate the ability of the commercial sector to establish and sustain capabilities to meet NOAA's ongoing operational needs, and 2) purchase commercial data to support those operational needs once a pilot project has successfully demonstrated the commercial sector's capability and readiness. NESDIS conducts both of these activities via the Commercial Data Program. This approach is consistent with the *Weather Research and Forecasting Innovation Act of 2017* (P.L. 115-25), which directs NOAA to purchase weather data through contracts with commercial providers and assess the accuracy, value, and impact of that commercial data on NOAA's forecasts, products, and services, and *the PROSWIFT Act of 2020* (P.L. 116-181), which specifically directed NOAA to establish a pilot program to enter into contracts with one or more entities in the commercial space weather sector.

NESDIS regularly conducts assessments to determine the viability of commercial solutions to address NOAA observing system objectives prior to considering the purchase of commercial data for operational use. NOAA conducted the CWDP Round 1 in 2016-2018, as well as an expanded CWDP Round 2 in 2018-2020, both focused on demonstrating Global Navigation Satellite System Radio Occultation (GNSS RO) data. NOAA used Round 2 of the CWDP to confirm the readiness of the commercial sector to provide GNSS RO data for operational use in NOAA's NWP models. This approach is consistent with the *Weather Research and Forecasting Innovation Act of 2017* (P.L. 115-25), and NOAA's plans for obtaining GNSS RO data from a combination of government assets, partner contributions, and commercial purchases. In FY 2020, NOAA awarded its first contracts to purchase commercially available GNSS RO data for use in NOAA's operational weather forecasts, and NOAA began using this commercial RO data in operational NWP models in May 2021. A second multi-year contract vehicle was awarded in March 2023.

[10] https://www.noaa.gov/organization/administration/nao-217-109-noaa-commercial-space-policy

Results from additional RFIs released in 2020 (i.e., microwave) and 2021 (i.e., space weather) showed that there are data types beyond GNSS RO ready for piloting, which indicated a need to initiate CWDP Rounds for space weather data and related capabilities. Analysis conducted in FY 2022 revealed that microwave sensor data was not yet viable and therefore NOAA is no longer pursuing a pilot at this time. NOAA initiated a space weather data pilot in FY 2023 and is currently evaluating data for potential operational use. In FY 2023, NOAA solicited information on existing or planned commercial satellite environmental data and related capabilities that would be available in the FY 2023-FY 2030 timeframe, and approved pilots for GNSS reflectometry measurements and energetic particle space weather measurements in FY 2023 and FY 2024. NOAA's Space Weather Prediction Center plans to continue evaluation of the current space weather pilot using ionospheric measurement data for potential operational capability in the future.

Through CWDP, NESDIS will continue to:

- Test commercially available capabilities, including space weather, to assess the accuracy, value, and impact of the commercial data or service – new capabilities will be evaluated by comparison to established and validated NOAA operational products and deliverables;
- Ensure the necessary ground systems, services, IT security interfaces, and data processing are in place for ingesting the commercial data selected; and,
- Deliver assessment report(s) on the viability of the pilot data set(s) and the capabilities of the commercial systems to meet NOAA observation requirements for operational services.

If NOAA determines that data or services obtained and evaluated through the CWDP are cost effective, operationally viable, and appropriate for meeting a NOAA observation requirement, NESDIS will pursue purchase of the commercial data or service via the Commercial Data Purchase, within the Commercial Data Program.

Critical to the purchase of commercial data, NOAA will consistently evaluate the quality of the data offerings, assess the on-going impact of the commercial data on NOAA's mission objectives, and conduct cost-benefit analyses to determine appropriate amounts of data to be purchased in future years.

- **Joint Venture Partnerships:** The *National Integrated Drought Information System Reauthorization Act of 2018* (P.L. 115-423) amends the *Weather Research and Forecasting Innovation Act of 2017* (P.L 115-25) and directs NOAA to analyze data sources that can lower the cost of observations or provide value-adding technological advancements to help improve skill in climate and weather forecasting. Partners in industry and other government agencies are key to NESDIS' ability to meet this

mandate. Further, the *PROSWIFT Act of 2020* (P.L. 116-181) directs NOAA to facilitate advances in space weather prediction and forecasting; increase coordination of space weather research to operations and operations to research; and, improve preparedness for potential space weather phenomena. NESDIS conducts each of these directed activities via Joint Venture Partnerships.

Joint Venture Partnerships was established in FY 2020 to initiate activities with NASA, other agencies, and the commercial sector. Joint Venture Partnerships enables a consistent, prioritized approach across NESDIS, based on enterprise-wide architecture analysis, to initiate new NOAA programs, leverage partner data, and operationalize new technologies, focusing heavily on, but not limited to, innovations in LEO, GEO, and SWO instruments, spacecraft development, satellite operations, and ground communications. Joint Venture leverages the ongoing work of NOAA's U.S. government agency partners and industry to meet NOAA needs, with the potential for large return on investment of NOAA funds, and is the first critical step in designing any new NOAA system, leveraging any partner data source, and making use of any new technology.

Through Joint Venture Partnerships, NESDIS leverages capabilities being developed by other Federal partners and industry in four areas: exploiting partner data, exploiting partner technologies, partnering to supplement other agencies' initiatives that will add value to NOAA's mission, and initial concept development to operationalize new data and technology. Specifically, Joint Venture Partnerships allows NESDIS to:

- Assess non-NOAA data sources, including NASA's Earth Science and Heliophysics satellite programs and Department of Defense space-based environmental monitoring capabilities, for incorporation into NOAA operations;
- Evaluate new technology for incorporation into NOAA operations;
- Support other Federal agencies' data and technology development to cost effectively meet NOAA needs, including co-implementing NASA Announcements of Opportunity such as Earth Venture and Earth Science Technology Office opportunities. NOAA's support funds unique operational characteristics for the selected capabilities, such as download bandwidth, ingest and processing of data on operational timelines, and the development of operational algorithms for NOAA use;
- Determine the best concepts to transition to operations by leveraging ongoing industry development of new observation capabilities, spacecraft design, and/or ground system capabilities. NESDIS will use additional Broad Agency Announcements or other contract actions to industry and academia as the basis of NOAA's future satellite systems mission and instrument concept assessment and design.

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
GOES-R Series	Pos./BA	51	283,600	51	83,503	0	(200,097)
	FTE/OBL	48	283,600	48	83,503	0	(200,097)

GOES-R Series (-$200,097, 0 FTE/ 0 Positions) - NOAA requests a planned reduction to the GOES-R Series program. The remaining funds will support post-launch checkout and calibration activities of the GOES-U satellite, planned to launch no earlier than May 2024, as well as its transition to operations, and sustainment activities. GOES-U is the final satellite in the four-satellite GOES-R Series and operations are planned to continue through 2036.

Schedule and Milestones:
FY 2025
- Complete post launch checkout and calibration activities
- Complete GOES-U product validation and transition GOES-U to operations
- Continue sustainment activities

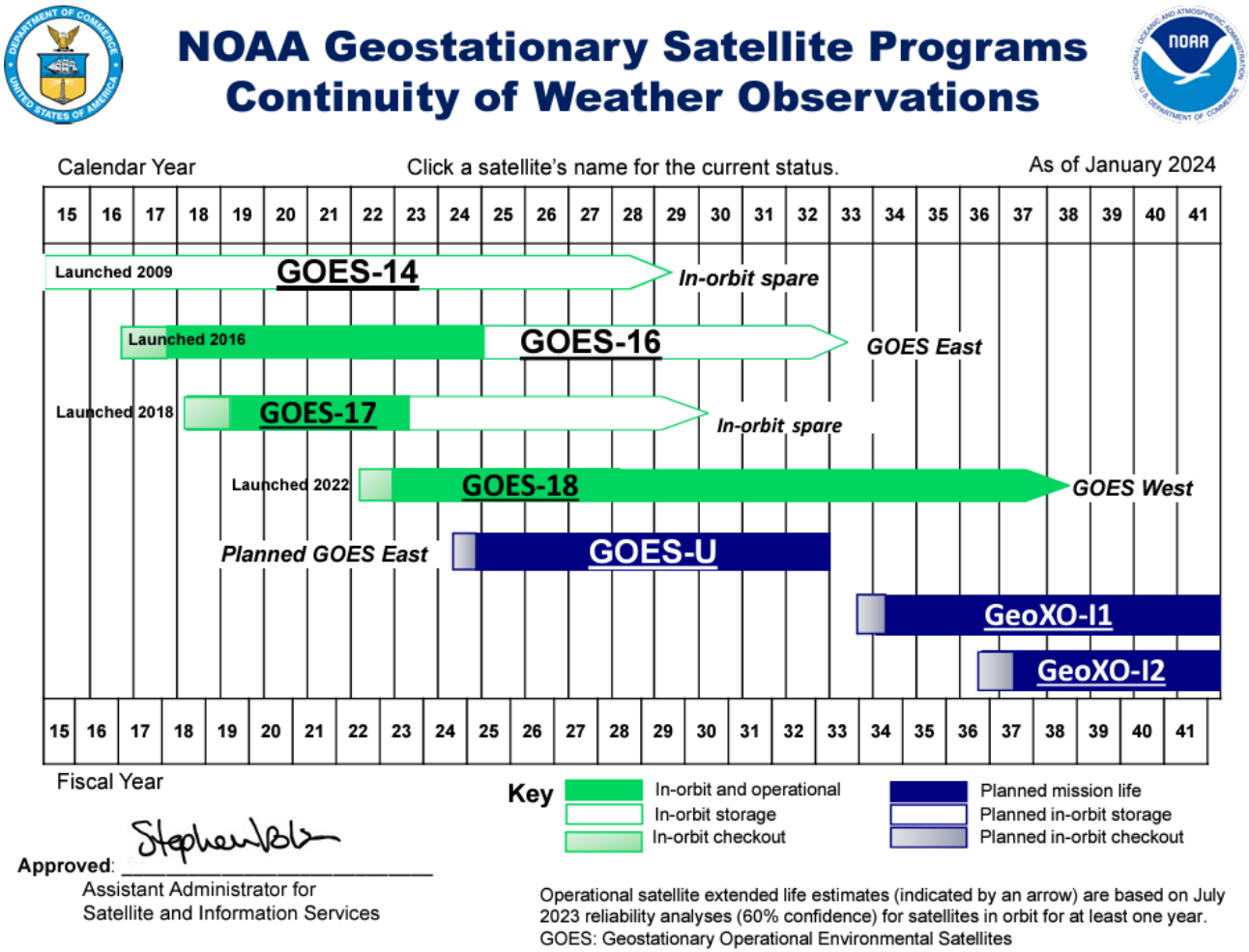
FY 2026 – FY 2029
- Continue sustainment activities

Deliverables:
- Launch of GOES-R Series satellites
- Sustainment of GOES-R Series ground system

Spacecraft	Launch Commitment Date	Target Launch Date
GOES-U	Q1 FY 2025	May 2024*

*Target Launch Date is no earlier than May 2024

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)



Note: GOES-15 was transferred to the U.S. Space Force in FY 2023. The launch date reflected for GOES-U is the target launch date of no earlier than May 2024. The extended life estimate for GOES-U will be updated one year after launch. The launch dates reflected for GeoXO-I1 and GeoXO-I2 are the launch commitment dates. The target launch dates for these missions are 2032 and 2035, respectively.

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

Performance Measures	2025	2026	2027	2028	2029
Percent of milestones completed on time					
With Decrease	75	75	75	75	75
Without Decrease	75	75	75	75	75
Outyear Costs:					
Direct Obligations	(200,097)	(205,000)	(205,000)	(205,000)	(205,000)
Capitalized	(200,097)	(205,000)	(205,000)	(205,000)	(205,000)
Uncapitalized	0	0	0	0	0
Budget Authority	(200,097)	(205,000)	(205,000)	(205,000)	(205,000)
Outlays	(68,033)	(165,747)	(190,111)	(202,656)	(204,951)
FTE	0	0	0	0	0
Positions	0	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

Outyear Funding Estimates*

GOES-R Series	2024 & Prior**	2025	2026	2027	2028	2029	CTC	Total
Change from 2025 Base	N/A	(200,097)	(205,000)	(205,000)	(205,000)	(205,000)	N/A	N/A
GOES-R Series PAC Request	10,177,828	83,503	78,600	78,600	78,600	78,600	259,936	10,835,667
Total GOES-R Series PAC Request^	10,177,828	93,903	89,000	89,000	89,000	89,000	310,356	10,938,087
Total GOES-R Series ORF Request	271,200	40,900	40,900	40,900	40,900	40,900	286,300	762,000
GOES-R Series LCC (PAC & ORF)	10,449,028	134,803	129,900	129,900	129,900	129,900	596,656	11,700,087

* Outyears are estimates. Future requests will be determined through the annual budget process. Therefore, the PAC profile will be updated on an annual basis.
** The FY 2024 & Prior column accounts for FY 2024 Annualized Continuing Resolution, as well as any reductions for deobligations of prior enacted appropriations.
^ Includes PAC funds for the GOES-R Series transferred to Common Ground Services via Operational Phase Transfer.

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Systems Acquisition
Subactivity: Geostationary Systems - R

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	10,960	8,478	8,648	8,648	0
11.3	Other than full-time permanent	11	11	11	11	0
11.5	Other personnel compensation	122	122	122	122	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	11,093	8,611	8,781	8,781	0
12	Civilian personnel benefits	3,529	2,756	2,810	2,810	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	112	112	112	112	0
22	Transportation of things	0	0	0	0	0
23	Rent, communications, and utilitites	0	0	0	0	0
23.1	Rental payments to GSA	1,216	1,216	1,216	1,216	0
23.2	Rental Payments to others	0	0	0	0	0
23.3	Communications, utilities and misc charges	0	0	0	0	0
24	Printing and reproduction	0	0	0	0	0
25.1	Advisory and assistance services	132,975	135,613	130,419	38,018	(92,401)
25.2	Other services from non-Federal sources	19,730	20,704	20,704	10,818	(9,886)
25.3	Other goods and services from Federal sources	120,564	123,722	116,592	18,782	(97,810)
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	903	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	41	41	41	41	0
31	Equipment	0	0	0	0	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	8,225	8,225	2,925	2,925	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	2	0	0	0	0
44	Refunds	0	0	0	0	0
99	Total obligations	298,390	301,000	283,600	83,503	(200,097)

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Increase from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Polar Weather Satellites (PWS)	Pos./BA	57	183,500	57	342,410	0	158,910
	FTE/OBL	52	183,500	52	342,410	0	158,910

Polar Weather Satellites (PWS) (+$158,910, 0 FTE/ 0 Positions) – NOAA proposes an increase to PWS to return to the resource level necessary to continue operations for Suomi-NPP, NOAA-20, and NOAA-21, as well as maintain schedule in the development of JPSS-3 and JPSS-4. During FY 2025, JPSS-3 will be placed into storage where instruments and spacecraft will be tested periodically. NOAA will also continue instrument and spacecraft satellite integration and test for JPSS-4, maintaining synergies and efficiencies of the block buy approach for these elements of the PWS. Finally, NOAA will continue the sustainment and development of the globally distributed ground system supporting the Suomi-NPP, NOAA-20, and NOAA-21 satellites.

Schedule and Milestones:

FY 2025
- Place JPSS-3 into storage with periodic instrument and spacecraft checkout
- Deliver JPSS-4 instruments and begin instrument integration and testing
- Continue JPSS-4 satellite integration and testing
- Develop and sustain JPSS ground system

FY 2026
- JPSS-3 periodic instrument and spacecraft checkout while in storage
- Complete JPSS-4 instrument integration and testing, pre-ship review
- Sustain JPSS ground system

FY 2027
- JPSS-3 periodic instrument and spacecraft checkout while in storage
- Deliver JPSS-4 satellite to launch site
- Conduct launch site integration and test in preparation for JPSS-4 launch
- Sustain JPSS ground system

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

FY 2028
- JPSS-3 periodic instrument and spacecraft checkout while in storage
- JPSS-4 Launch Commitment Date
- Sustain JPSS ground system

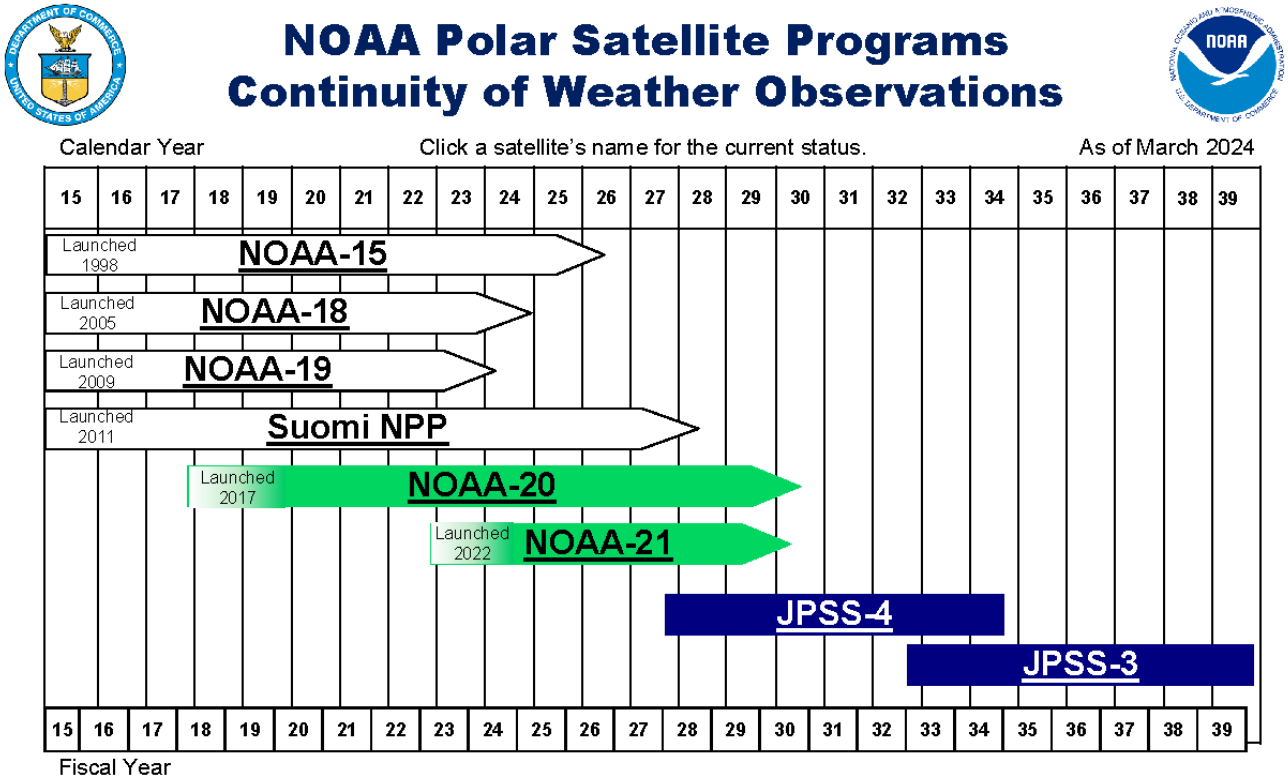
FY 2029
- JPSS-3 periodic instrument and spacecraft checkout while in storage
- Sustain JPSS ground system

Deliverables:
- Launch of JPSS satellites
- Sustainment of JPSS ground system

Satellite	Launch Commitment Date*	Target Launch Date**
JPSS-4	Q1 FY 2028***	TBD
JPSS-3	Q1 FY 2033***	TBD

* Launch commitment dates will be re-evaluated based on annual appropriations, the performance of on-orbit assets, and the overall constellation risk posture.
** Target Launch Date is only known after coordination with the launch services provider and in accordance with the NESDIS 1330 Polar-Orbiting Launch Policy.
*** The launch commitment dates were swapped between JPSS-3 and JPSS-4 in FY 2023 to integrate the Libera instrument on JPSS-4 while reducing technical, cost and schedule risk.

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)



Approved: _____
Assistant Administrator for
Satellite and Information Services

Operational satellite extended life estimates (indicated by an arrow) are based on July 2023 reliability analyses (60% confidence) for satellites in orbit for at least one year.
Suomi NPP: Suomi National Polar-orbiting Partnership; JPSS: Joint Polar Satellite System

Note: The launch commitment dates were swapped between JPSS-3 and JPSS-4 in FY 2023 to integrate the Libera instrument on JPSS-4 while reducing technical, cost and schedule risk. NOAA-21 launched in November 2022 and had not attained 12 months in orbit prior to the completion of the extended life analysis in October 2023. The extended life estimate will be updated in the FY 2026 President's Budget.

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

Performance Measures	2025	2026	2027	2028	2029
Percent of Milestones completed on time					
With Increase	75	75	75	75	75
Without Increase	75	75	75	75	75
Outyear Costs:					
Direct Obligations	158,910	158,910	158,910	158,910	108,910
Capitalized	158,910	158,910	158,910	158,910	108,910
Uncapitalized	-	-	-	-	-
Budget Authority	158,910	158,910	158,910	158,910	108,910
Outlays	54,029	130,306	147,786	157,321	141,910
FTE	0	0	0	0	0
Positions	0	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

Outyear Funding Estimates*

Polar Weather Satellites	2024 & Prior**	2025	2026	2027	2028	2029	CTC	Total
Change from 2025 PWS Base	N/A	158,910	158,910	158,910	158,910	108,910	N/A	N/A
Total PWS	13,327,104	342,410	342,410	342,410	342,410	292,410	1,789,432	16,778,585
JPSS (PAC)^	11,029,955	7,800	0	0	0	0	0	11,037,755
JPSS (ORF)	209,580	74,790	0	0	0	0	0	284,370
Total JPSS	11,239,535	82,590	0	0	0	0	0	11,322,125
PFO (PAC)^	2,312,749	342,410	350,210	350,210	350,210	300,210	1,859,631	5,865,630
PFO (ORF)^^	0	0	74,790	74,790	74,790	74,790	673,110	972,270
Total PFO	2,312,749	342,410	425,000	425,000	425,000	375,000	2,532,741	6,837,900

* Outyears are estimates. Future requests will be determined through the annual budget process. Therefore, the PAC profile will be updated on an annual basis.
** The FY 2024 & Prior column accounts for FY 2024 Annualized Continuing Resolution, as well as any reductions for deobligations of prior enacted appropriations.
^ JPSS (PAC) and PFO (PAC) includes PAC funding supporting PWS and CGS via Operational Phase Transfer.
^^ The PFO Operational Phase Transfer will be recalculated in FY 2026 to account for current economic conditions.

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Systems Acquisition
Subactivity: Polar Weather Satellites (PWS)

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase from 2025 Base
11.1	Full-time permanent compensation	8,023	8,805	8,981	8,981	0
11.3	Other than full-time permanent	0	0	0	0	0
11.5	Other personnel compensation	108	108	108	108	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	8,131	8,913	9,089	9,089	0
12	Civilian personnel benefits	2,603	2,852	2,908	2,908	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	264	264	264	264	0
22	Transportation of things	2	2	2	2	0
23	Rent, communications, and utilitites	0	0	0	0	0
23.1	Rental payments to GSA	591	591	591	591	0
23.2	Rental Payments to others	0	0	0	0	0
23.3	Communications, utilities and misc charges	103	103	103	103	0
24	Printing and reproduction	1	1	1	1	0
25.1	Advisory and assistance services	107,709	106,848	106,687	106,687	0
25.2	Other services from non-Federal sources	6,037	6,016	6,007	6,007	0
25.3	Other goods and services from Federal sources	54,290	41,877	41,815	200,725	158,910
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	3,815	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	113	113	113	113	0
31	Equipment	1,027	1,027	1,027	1,027	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	14,893	14,893	14,893	14,893	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	9	0	0	0	0
44	Refunds	0	0	0	0	0
99	Total obligations	199,588	183,500	183,500	342,410	158,910

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Space Weather Follow On (SWFO)	Pos/BA	27	134,735	27	39,735	0	(95,000)
	FTE/OBL	22	134,735	22	39,735	0	(95,000)

Space Weather Follow On (-$95,000, 0 FTE/ 0 Positions) – NOAA requests a planned decrease for the SWFO program. Funding will support a SWFO-L1 mission with a Solar Wind Instrument Suite for solar wind observations and a CCOR for CME imagery at L1.

The SWFO program is taking advantage of a rideshare launch opportunity with NASA's Interstellar Mapping and Acceleration Probe (IMAP) mission scheduled for launch in 2025. In FY 2025, NOAA will ship the SWFO-L1 spacecraft to NASA for integration on its IMAP launch vehicle. Funding is essential for SWFO to maintain the schedule and milestones to meet the NASA IMAP rideshare and will also support post-launch checkout and calibration activities. Leveraging the IMAP rideshare opportunity is the timeliest and most cost-effective mechanism to ensure space weather forecasting continuity.

Schedule and Milestones:
FY 2025
- SWFO-L1 Pre-ship Review
- Ship SWFO-L1 spacecraft to IMAP launch vehicle for integration
- Rideshare launch of SWFO-L1 spacecraft with IMAP
- Conduct post launch checkout and calibration activities
- SWFO-L1 mission Initial Operational Capability

FY 2026
- Complete post launch checkout and calibration activities
- Complete SWFO-L1 product validation and transition to operations
- SWFO-L1 mission Full Operational Capability

FY 2027
- Sustainment activities

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

FY 2028
- Sustainment activities

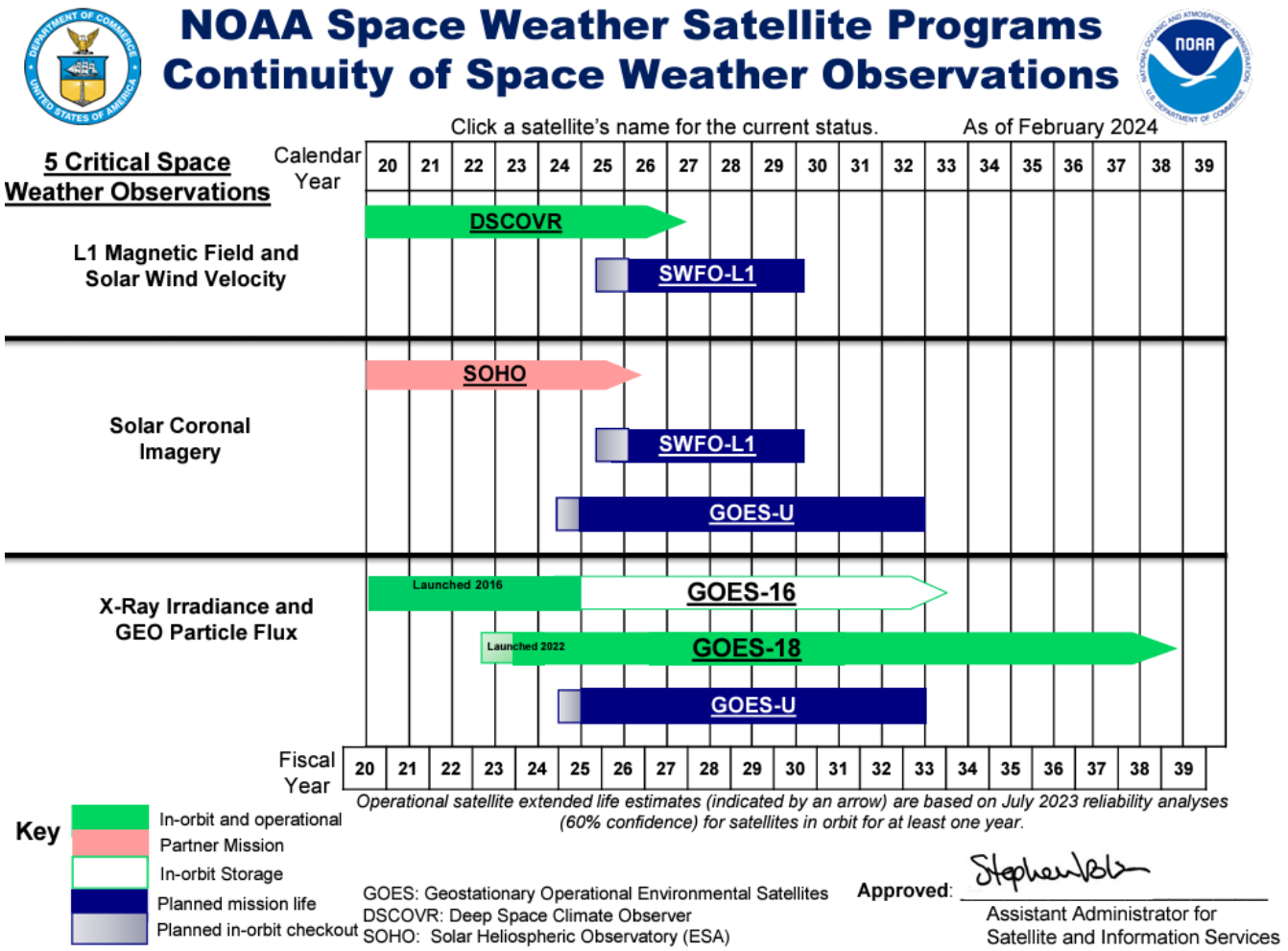
FY 2029
- Sustainment activities

Deliverables
- Launch of SWFO satellite
- Sustainment of SWFO ground system

Satellite	Launch Commitment Date*	Target Launch Date*
SWFO	N/A	Q3 FY 2025

*The SWFO program is taking advantage of a rideshare launch opportunity with NASA's IMAP mission; the target launch date is determined by NASA.

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)



Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

Performance Measures	2025	2026	2027	2028	2029
Percentage of projected milestones to be completed annually to meet the launch readiness date for SWFO-L1. This includes key decision points, major reviews, testing, and delivery of the following instruments: CCOR, SWiPS, MAG, and STIS					
With Decrease	75	75	75	75	75
Without Decrease	75	75	75	75	75
Outyear Costs:					
Direct Obligations	(95,000)	(131,523)	(131,523)	(131,523)	(131,523)
Capitalized	(95,000)	(131,523)	(131,523)	(131,523)	(131,523)
Uncapitalized	0	0	0	0	0
Budget Authority	(95,000)	(131,523)	(131,523)	(131,523)	(131,523)
Outlays	(32,300)	(90,318)	(118,299)	(128,016)	(131,158)
FTE	0	0	0	0	0
Positions	0	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

Outyear Funding Estimates*

Space Weather Follow On (SWFO)	2024 & Prior**	2025	2026	2027	2028	2029	CTC	Total
Change from 2025 Base	N/A	(95,000)	(131,523)	(131,523)	(131,523)	(131,523)	N/A	N/A
Total SWFO PAC Request	632,892	39,735	3,212	3,212	3,212	3,212	-	685,475
Total SWFO ORF Request	0	1,465	1,465	1,465	1,465	1,465	-	7,325
Total SWFO Request (PAC & ORF)	632,892	41,200	4,677	4,677	4,677	4,677	-	692,800

* Outyears are estimates. Future requests will be determined through the annual budget process. Therefore, the PAC profile will be updated on an annual basis.
** The FY 2024 & Prior column accounts for FY 2024 Annualized Continuing Resolution, as well as any reductions for deobligations of prior enacted appropriations.

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Systems Acquisition
Subactivity: Space Weather Follow On (SWFO)

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	2,248	3,412	3,480	3,480	0
11.3	Other than full-time permanent	0	0	0	0	0
11.5	Other personnel compensation	19	19	19	19	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	2,267	3,431	3,499	3,499	0
12	Civilian personnel benefits	736	1,098	1,120	1,120	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	73	73	73	73	0
22	Transportation of things	0	0	0	0	0
23	Rent, communications, and utilitites	0	0	0	0	0
23.1	Rental payments to GSA	0	0	0	0	0
23.2	Rental Payments to others	0	0	0	0	0
23.3	Communications, utilities and misc charges	0	0	0	0	0
24	Printing and reproduction	0	0	0	0	0
25.1	Advisory and assistance services	19,123	19,635	19,622	19,622	0
25.2	Other services from non-Federal sources	238	238	238	238	0
25.3	Other goods and services from Federal sources	110,221	108,708	107,566	12,566	(95,000)
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	0	0	0	0	0
31	Equipment	0	0	0	0	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	3,017	3,017	2,617	2,617	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	0	0	0	0	0
44	Refunds	0	0	0	0	0
99	Total obligations	135,675	136,200	134,735	39,735	(95,000)

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Increase from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Common Ground Services (CGS)	Pos./BA	78	115,833	78	131,311	0	15,478
	FTE/OBL	68	115,833	68	131,311	0	15,478

Data-source Agnostic Common Services (DACS) (+$15,478, 0 FTE/ 0 Positions) – NOAA requests an increase to realize the full functionality of the NCCF, continue to leverage partner and commercial observations, and deliver enhanced products and services to support NOAA's environmental and climate mission. With this funding, NOAA will complete the development of an artificial intelligence-enabled science testing environment within the NCCF, which will provide streamlined integration between developers and scientists, support data visualization, and deliver more weather, climate, and oceanic insights to stakeholders and the public. Further, NOAA will migrate NESDIS science teams into the testing environment to support algorithm development activities and begin the development of an automated algorithm deployment pipeline within the NCCF. NOAA will also support the preparation and migration of operational and stewardship requirements in the NCCF to provide timely core services for data discoverability and access. Finally, NOAA will use this funding to actively manage the IT security that is required to safely use non-NOAA data that is ingested and incorporated into NOAA models and systems.

Crucial to this initiative is enhanced user readiness, especially in regard to the preparation and guidance of stakeholders who will be able to utilize the higher capacity and volume of data. The increase in DACS will serve NOAA's stakeholders through curated trainings and new science approaches that allow users to fully exploit the use of innovative satellite data and products that are enabled through the application of complex, high-resolution data. NOAA recognizes the ever-evolving complexity of increased volumes of data as not just a technical problem, but also an application problem. From an infrastructure perspective, the NCCF, with funding from the DACS initiative, has the ability to manage this.

Without the FY 2025 investment, NOAA will not be able to expand use of the cloud infrastructure built over the past four years to accommodate the significant increase in volume and diversity of observations from partner missions, impacting NOAA's ability to: maintain and evolve global modeling with the Unified Forecast System; support healthy, productive, and resilient ocean and coastal ecosystems; and forecast severe weather events. In addition, NOAA science teams will remain on premises which will obstruct their ability to take advantage of new cloud-based tools that will provide data insights which leverage AI and ML techniques. In this way,

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

NOAA will continue to operate older on-premise science development systems in a hybrid environment within the NCCF, driving increases in egress costs as scientists access this vital data as opposed to working alongside it. Continued reliance on these legacy systems as the technology ages will increase NOAA's systems risk, impacting critical operational functions in place today.

Schedule and Milestones:

FY 2025

- Begin development of 20 new products from partner data sources (e.g., GOSAT-GW, MTG-S1)

FY 2026

- Complete development of initial five products, and transition into operations in NCCF using automated deployment pipeline
- Begin development of 20 new products from partner data sources
- Continue to develop, optimize, and provide trainings to enhance user readiness
- Support launch and product operations from partner data sources (e.g. Metop-SG-B1, Sentinel-6B, MTG-I2)

FY 2027 - FY 2029

- Continue to expand the diversity of cloud-enabled products and innovative science from NOAA and partner data sources, developing and transitioning into operations approximately 20 new products per year
- Maintain and update user readiness training for NESDIS data

Deliverables:

- Approximately 40 new satellite data products in the operational development pipeline through FY 2029

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

Performance Measures	2025	2026	2027	2028	2029
Enhanced or new products and services made available to the designated user community which utilize partner data sources based on NESDIS core mission data product categories (per year)*					
With Increase	12	22	32	37	37
Without Increase	12	17	17	17	17
Outyear Costs:					
Direct Obligations	15,478	15,478	15,478	15,478	15,478
Capitalized	0	0	0	0	0
Uncapitalized	15,478	15,478	15,478	15,478	15,478
Budget Authority	15,478	15,478	15,478	15,478	15,478
Outlays	5,263	12,692	14,395	15,323	15,478
FTE	0	0	0	0	0
Positions	0	0	0	0	0

*On average, it takes two years to develop and make products and services available.

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

Outyear Funding Estimates*

Common Ground Services (CGS)	2024 & Prior**	2025	2026	2027	2028	2029	CTC	Total
Change from 2025 Base	N/A	15,478	15,478	15,478	15,478	15,478	N/A	N/A
Total DACS Request^	94,457	45,500	45,500	45,500	45,500	45,500	N/A	N/A
Total Other CGS Programs^^	210,231	85,811	85,811	85,811	85,811	85,811	N/A	N/A
Total CGS Request	304,688	131,311	131,311	131,311	131,311	131,311	N/A	N/A

* Outyears are estimates. Future requests will be determined through the annual budget process. Therefore, the PAC profile will be updated on an annual basis.
** The FY 2024 & Prior column accounts for FY 2024 Annualized Continuing Resolution, as well as any reductions for deobligations of prior enacted appropriations.
^ DACS was established in FY 2021, so the 2024 & Prior column does not reflect any funding prior to FY 2021.
^^ Total other CGS Programs includes CGS Base Funding and Data Access and Distribution. Data Access and Distribution was established in FY 2023.

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Systems Acquisition
Subactivity: Common Ground Services

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase from 2025 Base
11.1	Full-time permanent compensation	7,972	10,981	11,201	11,201	0
11.3	Other than full-time permanent	0	0	0	0	0
11.5	Other personnel compensation	126	126	126	126	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	8,098	11,107	11,327	11,327	0
12	Civilian personnel benefits	2,832	3,887	3,958	3,958	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	73	73	73	73	0
22	Transportation of things	0	0	0	0	0
23	Rent, communications, and utilities	0	0	0	0	0
23.1	Rental payments to GSA	762	762	762	762	0
23.2	Rental Payments to others	0	0	0	0	0
23.3	Communications, utilities and misc charges	20	20	20	20	0
24	Printing and reproduction	0	0	0	0	0
25.1	Advisory and assistance services	54,757	56,211	61,110	68,849	7,739
25.2	Other services from non-Federal sources	25,473	25,311	25,222	32,961	7,739
25.3	Other goods and services from Federal sources	368	366	365	365	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	2,377	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	81	81	81	81	0
31	Equipment	359	359	359	359	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	7,256	7,256	12,556	12,556	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	30	0	0	0	0
44	Refunds	0	0	0	0	0
99	Total obligations	102,486	105,433	115,833	131,311	15,478

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Common Ground Services	Pos./BA	78	115,833	78	105,049	0	(10,784)
	FTE/OBL	68	115,833	68	105,049	0	(10,784)

Office of Common Services Decrease (-$10,784, 0 FTE/ 0 Positions) – This program change is requested to support other NOAA and Administration priorities. At this level of funding, NOAA will prioritize building and sustaining the NCCF, specifically the development of the data distribution and archive capabilities. NOAA will continue migration of environmental data holdings to the NCCF to reduce the risk of data loss from aging on-premise systems failure and to provide greater access to NOAA data. NOAA will also begin migration of NESDIS science teams into the NCCF testing environment to support algorithm development and begin automated algorithm deployment pipelines. Finally, NOAA will maintain legacy on-premise core ground capabilities.

NOAA will defer planned science and data innovation projects: specifically, NOAA will delay the start of approximately seven new innovative science algorithms for Meteosat Third Generation (MTG), Pre-Aerosol-Cloud Ecosystems (PACE), and Tropospheric Emissions: Monitoring of Pollution (TEMPO). Innovation of new enterprise cloud capabilities, such as elements of satellite mission management, will also be delayed, resulting in fewer opportunities to leverage common architecture to deliver new satellite mission success. Finally, NOAA will slow planned work to expand NCCF sandbox capability, which is expected to support NOAA science teams' ability to take advantage of new cloud-based tools

Schedule and Milestones:
FY 2025-2026
- Begin development of five new products from partner data sources from MTG, PACE, and TEMPO
- Curate and transform at least 15 percent of data into analysis-ready formats
- Continue to develop, optimize, and provide trainings to enhance user readiness

FY 2027-2029
- Complete development of initial five products and develop two more new products from MTG, PACE, and TEMPO
- Transition seven products into operations in NCCF using automated deployment pipeline
- Curate and transform at least 75 percent of data into analysis-ready formats

- Maintain and update user readiness training for NESDIS data

Deliverables:

- Seven new satellite data products from partner data sources in the operational development pipeline through FY 2029
- NESDIS satellite and non-satellite data migrated to the NCCF and converted to analysis-ready formats and made available through the Public Data Access Platform

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

Performance Measures	2025	2026	2027	2028	2029
Enhanced or new products and services made available to the designated user community which utilize partner data sources based on NESDIS core mission data product categories (per year)*					
With Decrease	5	10	12	17	17
Without Decrease	12	17	17	17	17
Percentage of prioritized data transformed into analysis-ready cloud and AI formats					
With Decrease	15%	15%	25%	50%	75%
Without Decrease	15%	25%	50%	75%	100%
Outyear Costs:					
Direct Obligations	(10,784)	0	0	0	0
Capitalized	0	0	0	0	0
Uncapitalized	(10,784)	0	0	0	0
Budget Authority	(10,784)	0	0	0	0
Outlays	(3,667)	(5,176)	(1,186)	(647)	(108)
FTE	0	0	0	0	0
Positions	0	0	0	0	0

*On average, it takes two years to develop and make products and services available.

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

Outyear Funding Estimates*

Common Ground Services (CGS)	2024 & Prior**	2025	2026	2027	2028	2029	CTC	Total
Change from 2025 Base	N/A	(10,784)	0	0	0	0	N/A	N/A
Total CGS Base Request	162,231	51,027	61,811	61,811	61,811	61,811	N/A	N/A
Total Other CGS Programs^	142,457	54,022	69,500	69,500	69,500	69,500	N/A	N/A
Total CGS Request	304,688	105,049	131,311	131,311	131,311	131,311	N/A	N/A

* Outyears are estimates. Future requests will be determined through the annual budget process. Therefore, the PAC profile will be updated on an annual basis.
** The FY 2024 & Prior column accounts for FY 2024 Annualized Continuing Resolution, as well as any reductions for deobligations of prior enacted appropriations.
^ Total Other CGS Programs includes DACS and Data Access and Distribution. DACS and Data Access and Distribution were established in FY 2021 and FY 2023, respectively; so, the 2024 & Prior column does not reflect any funding prior to these fiscal years.

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Systems Acquisition
Subactivity: Common Ground Services

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	7,972	10,981	11,201	11,201	0
11.3	Other than full-time permanent	0	0	0	0	0
11.5	Other personnel compensation	126	126	126	126	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	8,098	11,107	11,327	11,327	0
12	Civilian personnel benefits	2,832	3,887	3,958	3,958	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	73	73	73	73	0
22	Transportation of things	0	0	0	0	0
23	Rent, communications, and utilities	0	0	0	0	0
23.1	Rental payments to GSA	762	762	762	762	0
23.2	Rental Payments to others	0	0	0	0	0
23.3	Communications, utilities and misc charges	20	20	20	20	0
24	Printing and reproduction	0	0	0	0	0
25.1	Advisory and assistance services	54,757	56,211	61,110	52,206	(8,904)
25.2	Other services from non-Federal sources	25,473	25,311	25,222	23,342	(1,880)
25.3	Other goods and services from Federal sources	368	366	365	365	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	2,377	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	81	81	81	81	0
31	Equipment	359	359	359	359	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	7,256	7,256	12,556	12,556	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	30	0	0	0	0
44	Refunds	0	0	0	0	0
99	Total obligations	102,486	105,433	115,833	105,049	(10,784)

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Increase from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Geostationary Earth Orbit (GEO)	Pos./BA	34	285,000	34	798,400	0	513,400
	FTE/OBL	28	285,000	28	798,400	0	513,400

Geostationary Extended Observations (+$513,400, 0 FTE/ 0 Positions) - NOAA requests an increase of $513,400, for a total of $798,400, to continue the development of the GeoXO program. In FY 2025, NOAA will continue development of the spacecraft and the imager, sounder, ocean color, atmospheric composition, and lightning mapper. All six of these major flight elements are approaching peak development levels. The GeoXO program will utilize a bulk buy approach to acquire components for the entire series in order to manage costs and to mitigate supply chain challenges. Funding will also support flight hardware production and testing of spacecraft and instrument engineering unit hardware. NOAA will also conduct the Preliminary Design Review (PDR) for the overall GeoXO program as well as the PDRs for all instruments and spacecraft. The PDR demonstrates that the spacecraft and instruments' preliminary designs meet all system requirements with acceptable risk and within programmatic constraints.

In addition, funding will support ground system formulation studies and developing acquisition requirements; planning and executing cloud computing pilot projects; and evaluating commercial data delivery options. Resources will enable facilitation of employing data from existing NASA and international partner missions with sounder, ocean color, and atmospheric instruments to prepare users for the GeoXO data streams; initiate the development and/or modifications to algorithms to ensure the products are both usable and/or improved; labor costs; and support for other program needs. At the requested resource level, the GeoXO program will remain on its critical development schedule toward a first launch in 2032, providing continuity of observations from the GOES-R Series.

The GeoXO program advances NOAA's weather, ocean, and climate observational capabilities to support U.S. forecasting and prediction operations and meet growing environmental and health challenges facing the United States. GeoXO will provide continuity from the GOES-R Series by meeting users' ongoing needs for imager and lightning mapper observations to enable short-range forecasting, severe weather watches and warnings, and monitoring hazards environmental conditions. Applications addressed by these instruments will include tracking tropical cyclones; supporting wildfire management through means such as identifying hot spots and smoke plumes; enabling warning for dangerous weather conditions, including damaging winds, rainfall, flooding, and

snow; detecting aviation hazards such as volcanic ash; and tracking key climate variables, including cloud cover and lightning trends.

GeoXO also advances U.S. observational capabilities to meet growing user needs. The hyperspectral sounder will improve numerical weather prediction, provide increased atmospheric condition data for nowcasting, and increase the accuracy of hurricane predictions. The atmospheric composition instrument will detect hazardous pollutants and improve air quality forecasting to mitigate health hazards; support emergency response by tracking hazardous plume dispersion from industrial accidents and volcanic eruptions; and monitor greenhouse gases and emissions. The ocean color instrument will support public health and safety by detecting and tracking harmful algal blooms and oil spills, refining fisheries yield estimates to assist fisheries and ecosystem management; and support the U.S. Navy with observations for diver and submarine visibility and optical and sonar communication. GeoXO communications capabilities will enable the U.S. Geological Survey and Army Corps of Engineers to monitor surface and ground water, stream flow, river levels, and precipitation in order to predict flooding and manage dams, locks, and levees. The new capabilities for GeoXO also allow NOAA to meet World Meteorological Organization objectives; match current and planned European and Asian capabilities; and encourage foreign governments to acquire U.S. technology.

Schedule and Milestones:

FY 2025
- Complete GeoXO Mission Definition Review and Program PDR
- Complete Key Decision Point (KDP) -B
- Complete PDR for spacecraft and all instruments

FY 2026
- Complete KDP-C
- Complete Critical Design Review (CDR) for the imager and sounder instruments, and spacecraft
- Complete mission unique requirement definition for GeoXO Ground System

FY 2027
- Complete CDRs for the ocean color, atmospheric composition, and lightning mapper instruments
- Complete the GeoXO Program CDR
- Complete the Pre-Environmental Review for the Imager
- Initiate procurement activities for the mission unique elements of the GeoXO Ground System

FY 2028
- Award contract for the mission unique elements of the GeoXO Ground System
- Complete the System Requirements Review/System Design Review for the Ground System

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

- Complete the Pre-Environmental Review for the remaining instruments

FY 2029

- Complete CDR for Antenna ~~Ground System~~
- Delivery of Flight Model 1 imager instrument

Deliverables:

- GeoXO Baseline Report (FY 2026)

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

Performance Measures	2025	2026	2027	2028	2029
Percent of milestones completed on time					
With Increase	75	75	75	75	75
Without Increase	0	0	0	0	0
Outyear Costs:					
Direct Obligations	513,400	406,500	1,035,000	1,035,000	1,035,000
Capitalized	513,400	406,500	1,035,000	1,035,000	1,035,000
Uncapitalized	0	0	0	0	0
Budget Authority	513,400	406,500	1,035,000	1,035,000	1,035,000
Outlays	174,556	384,642	603,494	924,219	992,074
FTE	0	0	0	0	0
Positions	0	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

Outyear Funding Estimates*

GEO	FY 2024 & Prior**	2025	2026	2027	2028	2029	CTC^	Total^
Change from 2025 Base	N/A	513,400	406,500	1,035,000	1,035,000	1,035,000	N/A	N/A
Total GEO PAC Request	729,420	798,400	691,500	1,320,000	1,320,000	1,320,000	13,465,069	19,644,389

* Outyears are estimates. Future requests will be determined through the annual budget process. Therefore, the PAC profile will be updated on an annual basis.
** The FY 2024 & Prior column accounts for FY 2024 Annualized Continuing Resolution, as well as any reductions for deobligations of prior enacted appropriations

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Systems Acquisition
Subactivity: Geostationary Earth Orbit

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase from 2025 Base
11.1	Full-time permanent compensation	1,180	4,946	5,045	5,045	0
11.3	Other than full-time permanent	0	0	0	0	0
11.5	Other personnel compensation	35	35	35	35	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	1,215	4,981	5,080	5,080	0
12	Civilian personnel benefits	411	1,594	1,626	1,626	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	294	294	294	294	0
22	Transportation of things	2	2	2	2	0
23	Rent, communications, and utilitites	0	0	0	0	0
23.1	Rental payments to GSA	0	0	0	0	0
23.2	Rental Payments to others	0	0	0	0	0
23.3	Communications, utilities and misc charges	0	0	0	0	0
24	Printing and reproduction	0	0	0	0	0
25.1	Advisory and assistance services	400	400	400	400	0
25.2	Other services from non-Federal sources	46	46	46	46	0
25.3	Other goods and services from Federal sources	280,968	275,994	275,863	789,263	513,400
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	100	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	0	0	0	0	0
31	Equipment	0	0	0	0	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	1,689	1,689	1,689	1,689	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	0	0	0	0	0
44	Refunds	0	0	0	0	0
99	Total obligations	285,125	285,000	285,000	798,400	513,400

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Low Earth Orbit	Pos./BA	15	88,330	15	78,437	0	(9,893)
(LEO)	FTE/OBL	12	88,330	12	78,437	0	(9,893)

Near Earth Orbit Network (-$9,893, 0 FTE/ 0 Positions) – This program change is requested to support other NOAA and Administration priorities. At this level of funding, NOAA will support the development of the QuickSounder demonstration project and formulation activities for the NEON program. Understanding the opportunities and risks of commercial capabilities, including building spacecraft, launch vehicles, and ground services, is critical for developing and implementing a robust program to serve as the next generation of polar orbiting satellites. QuickSounder will help NOAA define an agile, disaggregated architecture using small and medium sized satellites and determine best practices for exploiting developments in commercial space.

In FY 2024, NOAA will continue the refurbishment of the ATMS Engineering Development Unit and development of the rapid development spacecraft for the QuickSounder. NOAA will also begin limited Phase A study contracts to evaluate the technological readiness, feasibility and cost effectiveness of candidate instruments for future NEON series. In addition, NOAA will be working on a LEO architecture study to formulate mission concepts and define the end state for the LEO architecture.

In FY 2025, NOAA will complete the refurbishment of the ATMS Engineering Development Unit and begin instrument integration into the spacecraft. FY 2025 funds will also continue to support the instrument development studies and exploration of innovative smallsat development approaches, including leveraging commercial capabilities and partnering with commercial entities.

Schedule and Milestones:
FY 2025

- Complete refurbishment of ATMS EDU
- Integrate ATMS EDU into QuickSounder spacecraft
- NEON Series 1 DOC Milestone 2

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

FY 2026
- QuickSounder Mission NASA KDP E
- QuickSounder Target Launch Date
- NEON Series 1 DOC Milestone 3
- QuickSounder DOC Milestone 4
- Initiate NEON Series 1 Microwave Sounder instrument development
- NEON Series 1 NASA System Definition Review

FY 2027 – FY 2029
- Continue NEON Series 1 Microwave Sounder instrument development
- Initiate NEON Series 1 Microwave Sounder satellite spacecraft development
- Initiate NEON Series 1 Infrared Sounder instrument development

Deliverables:
- Launch QuickSounder satellite mission

Satellite	Launch Commitment Date*	Target Launch Date**
QuickSounder	N/A	Q2 FY 2026

*QuickSounder is a demonstration project and therefore does not have a Launch Commitment Date.
** Target launch dates will be re-evaluated based on annual appropriations.

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

Performance Measures	2025	2026	2027	2028	2029
Percent of Milestones completed on time					
With Decrease	75	75	75	75	75
Without Decrease	75	75	75	75	75
Outyear Costs:					
Direct Obligations	(9,893)	121,670	121,670	121,670	121,670
Capitalized	(9,893)	121,670	121,670	121,670	121,670
Uncapitalized	0	0	0	0	0
Budget Authority	(9,893)	121,670	121,670	121,670	121,670
Outlays	(3,364)	36,619	98,681	112,560	120,354
FTE	0	0	0	0	0
Positions	0	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

Outyear Funding Estimates*

Low Earth Orbit (LEO)	2024 & Prior**	2025	2026	2027	2028	2029	CTC	Total
Change from 2025 Base	N/A	(9,893)	121,670	121,670	121,670	121,670	N/A	N/A
Total NEON Request	193,660	68,437	200,000	200,000	200,000	200,000	TBD	TBD
Total Other LEO Programs (PAC)#	181,089	10,000	0	0	0	0	TBD	TBD
Total LEO Request (PAC)^^	374,749	78,437	200,000	200,000	200,000	200,000	TBD	TBD

* Outyears are estimates. Future requests will be determined on an annual basis and informed by the various studies as the program moves through the formulation gateways.
** The FY 2024 & Prior column accounts for FY 2024 Annualized Continuing Resolution, as well as any reductions for deobligations of prior enacted appropriations.
# Total Other LEO Programs (PAC) include CDARS, COSMIC-2/GNSS RO, and POES Extension PAC funding only. Funding for CDARS was transferred to ORF in FY 2023 via an operational phase transfer. Funding for COSMIC-2/GNSS RO was transferred to ORF in FY 2025 via an operational phase transfer.
^^ Total LEO Request includes NEON, CDARS, COSMIC-2/GNSS RO, and POES Extension PAC funding only.

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Systems Acquisition
Subactivity: Low Earth Orbit (LEO)

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	1,736	2,201	2,089	2,089	0
11.3	Other than full-time permanent	0	0	0	0	0
11.5	Other personnel compensation	7	7	7	7	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	1,743	2,208	2,096	2,096	0
12	Civilian personnel benefits	568	707	671	671	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	54	54	54	54	0
22	Transportation of things	0	0	0	0	0
23	Rent, communications, and utilitites	0	0	0	0	0
23.1	Rental payments to GSA	0	0	0	0	0
23.2	Rental Payments to others	0	0	0	0	0
23.3	Communications, utilities and misc charges	0	0	0	0	0
24	Printing and reproduction	0	0	0	0	0
25.1	Advisory and assistance services	11,900	11,885	11,877	11,877	0
25.2	Other services from non-Federal sources	7,422	7,412	7,408	7,408	0
25.3	Other goods and services from Federal sources	34,233	69,814	61,874	51,981	(9,893)
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	773	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	51	51	51	51	0
31	Equipment	773	773	773	773	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	3,526	3,526	3,526	3,526	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	1	0	0	0	0
44	Refunds	0	0	0	0	0
99	Total obligations	61,044	96,430	88,330	78,437	(9,893)

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Low Earth Orbit	Pos./BA	15	88,330	15	78,330	0	(10,000)
(LEO)	FTE/OBL	12	88,330	12	78,330	0	(10,000)

Polar Operational Environmental Satellites (POES) Extension (-$10,000, 0 FTE/ 0 Positions) – NOAA requests a planned decrease for the POES Extension to conclude this investment effort that began in FY 2022. Operations will continue until FY 2025.

Schedule and Milestones:
FY 2025
- Commercial ground system operations and maintenance
- Polar satellite products processing and distribution
- IT Security fixes/upgrades and scanning/patching
- IT Security scanning and patching

FY 2026
- Planned decommissioning of legacy POES satellites (NOAA-15, NOAA-18, NOAA-19)

Deliverables:
- Strategic technology refresh of the polar products system
- Commercial ground system

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

Outyear Funding Estimates*

Low Earth Orbit (LEO)	2024 & Prior**	2025	2026	2027	2028	2029	CTC	Total
Change from 2025 Base	N/A	(10,000)	(10,000)	(10,000)	(10,000)	(10,000)	N/A	N/A
Total POES Extension	40,000	0	0	0	0	0	0	40,000
Total Other LEO Programs (PAC)#	334,749	78,330	200,000	200,000	200,000	200,000	TBD	TBD
Total LEO Request (PAC)	374,749	78,330	200,000	200,000	200,000	200,000	TBD	TBD

* Outyears are estimates. Future requests will be determined through the annual budget process. Therefore, the PAC profile will be updated on an annual basis.
** The FY 2024 & Prior column accounts for FY 2024 Annualized Continuing Resolution, as well as any reductions for deobligations of prior enacted appropriations.
# Total Other LEO Programs (PAC) includes CDARS, COSMIC-2/GNSS RO, and POES Extension PAC funding only. Funding for CDARS was transferred to ORF in FY 2023 via an operational phase transfer. Funding for COSMIC-2/GNSS RO is proposed to transfer to ORF in FY 2025 via an operational phase transfer (see pg. NESDIS-6).

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Systems Acquisition
Subactivity: Low Earth Orbit (LEO)

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	1,736	2,201	2,089	2,089	0
11.3	Other than full-time permanent	0	0	0	0	0
11.5	Other personnel compensation	7	7	7	7	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	1,743	2,208	2,096	2,096	0
12	Civilian personnel benefits	568	707	671	671	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	54	54	54	54	0
22	Transportation of things	0	0	0	0	0
23	Rent, Communications and Utilities	0	0	0	0	0
23.1	Rental payments to GSA	0	0	0	0	0
23.2	Rental Payments to others	0	0	0	0	0
23.3	Communications, utilities and misc charges	0	0	0	0	0
24	Printing and reproduction	0	0	0	0	0
25.1	Advisory and assistance services	11,900	11,885	11,877	11,877	0
25.2	Other services from non-Federal sources	7,422	7,412	7,408	7,408	0
25.3	Other goods and services from Federal sources	34,233	69,814	61,874	51,874	(10,000)
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	773	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	51	51	51	51	0
31	Equipment	773	773	773	773	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	3,526	3,526	3,526	3,526	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	1	0	0	0	0
44	Refunds	0	0	0	0	0
99	Total obligations	61,044	96,430	88,330	78,330	(10,000)

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Increase from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Space Weather Next (SW Next)	Pos./BA	49	151,606	49	236,754	0	85,148
	FTE/OBL	32	151,606	32	236,754	0	85,148

Space Weather Next (+$85,148, 0 FTE/ 0 Positions) – NOAA requests an increase for the Space Weather Next (SW Next) program. NOAA continues to develop and deploy space weather observational capabilities and perform actions as detailed in the NOAA Space Weather Gap Mitigation plan, including plans for contingency space weather observations by exploiting observations from NOAA partners. Space Weather Next provides critical data that are required by NOAA's Space Weather Prediction Center to provide warnings of incoming solar winds and other space weather phenomena.

With funds requested in FY 2025, NOAA will continue to execute a comprehensive space weather program plan. Current projects include an L1 Series continuity project and a partnership with the European Space Agency (ESA) in their Vigil mission to L5. The L1 Series project will provide continuity of observations as NOAA's Space Weather Follow On program reaches the end of its design life. NOAA plans to include the following instruments on the L1 Series Project: coronagraph, magnetometer, Suprathermal Ion Sensor, Solar Wind Plasma Spectrometer, and X-Ray Irradiance sensor. These instruments are expected to allow for the detection, tracking, and characterization of CMEs, solar flares, and other solar activity, which provides critical information to accurately model, predict, and provide early warnings of solar radiation storms and geomagnetic storms on Earth to protect lives and property.

In FY 2024, NOAA plans to complete DOC Milestone 2 review for the SW Next L1 Series. Following the Milestone 2 review, NOAA plans to award the L1 development contracts for the spacecraft and instruments. In FY 2025, NOAA will complete its Preliminary Design Review and continue development of the spacecraft and instruments. NOAA will also begin system assembly, integration, and testing for the L5 coronagraph for the partnership with ESA.

Schedule and Milestones:
FY 2025

- L1 Series project Preliminary Design Review
- L1 Series project NASA Key Decision Point (KDP) C
- L5 coronagraph NASA KDP D

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

FY 2026
- L1 Series project L1-A[11] Critical Design Review

FY 2027
- L1 Series Project L1-A NASA KDP D
- L5 coronagraph delivery for partner mission with ESA

FY 2028
- L1 Series project L1-A Pre-ship Review (PSR)
- L1 Series shipment of L1-A observatory to launch site

FY 2029
- L1 Series project L1-A KDP E
- L1 Series project L1-A launch and post launch checkout and calibration activities
- L1 Series project L1-A Post-Launch Acceptance Review (PLAR)
- L1 Series project L1-A Sustainment activities

Deliverables:
- Space Weather Next Baseline Report (FY 2026)

[11] L1-A denotes the first satellite planned within the L1 Series.

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

Performance Measures	2025	2026	2027	2028	2029
Percent of milestones completed on time					
With Increase	75	75	75	75	75
Without Increase	75	75	75	75	75
Outyear Costs:					
Direct Obligations	85,148	79,594	79,594	79,594	79,594
Capitalized	85,148	79,594	79,594	79,594	79,594
Uncapitalized	0	0	0	0	0
Budget Authority	85,148	79,594	79,594	79,594	79,594
Outlays	28,950	67,933	74,633	79,131	79,650
FTE	0	0	0	0	0
Positions	0	0	0	0	0

Outyear Funding Estimates*

Space Weather Next (SW Next)	**2024 & Prior****	**2025**	**2026**	**2027**	**2028**	**2029**	**CTC**	**Total**
Change from 2025 Base	N/A	85,148	79,594	79,594	79,594	79,594	N/A	N/A
Total SW Next Request#	358,212	236,754	231,200	231,200	231,200	231,200	TBD	TBD

* Outyears are estimates. Future requests will be determined through the annual budget process and informed by the various studies as the program moves through the formulation process.
** The FY 2024 & Prior column accounts for FY 2024 Annualized Continuing Resolution, as well as any reductions for deobligations of prior enacted appropriations.
# SW Next includes $6.6 million transferred from the Projects, Planning, and Analysis PPA in the FY 2023 Enacted, formerly referred to as SWO Base.

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Systems Acquisition
Subactivity: Space Weather Next

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase from 2025 Base
11.1	Full-time permanent compensation	4,349	4,963	5,062	5,062	0
11.3	Other than full-time permanent	64	64	64	64	0
11.5	Other personnel compensation	84	84	84	84	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	4,497	5,111	5,210	5,210	0
12	Civilian personnel benefits	1,443	1,636	1,667	1,667	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	115	115	115	115	0
22	Transportation of things	0	0	0	0	0
23	Rent, communications, and utilitites	0	0	0	0	0
23.1	Rental payments to GSA	405	405	405	405	0
23.2	Rental Payments to others	0	0	0	0	0
23.3	Communications, utilities and misc charges	20	20	20	20	0
24	Printing and reproduction	75	75	75	75	0
25.1	Advisory and assistance services	11,937	11,912	11,902	11,902	0
25.2	Other services from non-Federal sources	1,582	1,579	1,578	1,578	0
25.3	Other goods and services from Federal sources	130,777	130,077	129,958	215,106	85,148
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	17	17	17	17	0
31	Equipment	50	50	50	50	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	609	609	609	609	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	6	0	0	0	0
44	Refunds	0	0	0	0	0
99	Total obligations	151,533	151,606	151,606	236,754	85,148

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Systems/Services Architecture & Engineering	Pos./BA	42	68,500	42	48,500	0	(20,000)
	FTE/OBL	34	68,500	34	48,500	0	(20,000)

Joint Venture (-$20,000, 0 FTE/ 0 Positions) – NOAA requests a planned decrease to the Joint Venture program. There is a reduced need for this activity due to the progression of formulation studies with NOAA's next generation satellite programs. Therefore, NOAA plans to suspend the specific budget line for Joint Venture activity. Partnerships in coordination with the major programs will continue as opportunities arise.

Schedule and Milestones:
FY 2025

- Partner with Acquisition and Grants Office to ensure timely modification of contracts and awards

Deliverables:

- Relevant projects and partnerships may be funded by other NESDIS programs

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

Performance Measures	2025	2026	2027	2028	2029
Evaluation of new technology or data sources to meet NOAA needs					
With Decrease	0	0	0	0	0
Without Decrease	2	2	2	2	2
Outyear Costs:					
Direct Obligations	(20,000)	0	0	0	0
Capitalized	0	0	0	0	0
Uncapitalized	(20,000)	0	0	0	0
Budget Authority	(20,000)	0	0	0	0
Outlays	(6,800)	(9,600)	(2,200)	(1,200)	(200)
FTE	0	0	0	0	0
Positions	0	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

Outyear Funding Estimates*

SAE	2024 & Prior**	2025^	2026	2027	2028	2029	CTC	Total
Change from 2025 Base	N/A	(20,000)	(20,000)	(20,000)	(20,000)	(20,000)	N/A	N/A
Total Joint Venture Request	77,268	0	0	0	0	0	N/A	N/A
Total Other SAE Programs	197,783	48,500	54,500	54,500	54,500	54,500	N/A	N/A
Total SAE Request	275,051	48,500	54,500	54,500	54,500	54,500	N/A	N/A

* Outyears are estimates. Future requests will be determined through the annual budget process. Therefore, the PAC profile will be updated on an annual basis.
** SAE was established in FY 2020; 2024 & Prior column does not reflect any funding prior to FY 2020. Other SAE Programs include Architecture, Requirements, and Planning; Commercial Data Program; and GeoXO

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Systems Acquisition
Subactivity: Systems/Services Architecture & Engineering

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	4,492	5,643	5,756	5,756	0
11.3	Other than full-time permanent	0	0	0	0	0
11.5	Other personnel compensation	90	90	90	90	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	4,582	5,733	5,846	5,846	0
12	Civilian personnel benefits	1,598	2,007	2,043	2,043	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	117	117	117	117	0
22	Transportation of things	0	0	0	0	0
23	Rent, communications, and utilities	0	0	0	0	0
23.1	Rental payments to GSA	465	465	465	465	0
23.2	Rental Payments to others	2	2	2	2	0
23.3	Communications, utilities and misc charges	22	22	22	22	0
24	Printing and reproduction	3	3	3	3	0
25.1	Advisory and assistance services	25,468	48,674	48,548	28,548	(20,000)
25.2	Other services from non-Federal sources	1,170	1,163	1,160	1,160	0
25.3	Other goods and services from Federal sources	7,858	7,817	7,797	7,797	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	1,845	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	23	23	23	23	0
31	Equipment	120	120	120	120	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	2,354	2,354	2,354	2,354	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	9	0	0	0	0
44	Refunds	0	0	0	0	0
99	Total obligations	45,636	68,500	68,500	48,500	(20,000)

Department of Commerce
National Oceanic and Atmospheric Administration
Office of Marine and Aviation Operations
Budget Estimates, Fiscal Year 2025

Executive Summary

For FY 2025, NOAA requests a total of $568,559,000 and 1,335 FTE/ 1,388 positions for the Office of Marine and Aviation Operations (OMAO), including a net increase of $62,307,000 and an increase of 119 FTE/ 144 positions in program changes. OMAO manages a variety of specialized ships, aircraft, and uncrewed systems that make up the NOAA Fleet and plays a critical role in the in-situ collection of oceanographic, atmospheric, hydrographic, and fisheries data in support of NOAA's missions. The NOAA Fleet operates throughout the world supporting a wide array of NOAA missions including climate research, fisheries research, nautical charting, hurricane reconnaissance and research, snow surveys, and specialized atmospheric and ocean research. In addition, NOAA ships and aircraft provide emergency response capabilities. Following major natural and environmental disasters, NOAA ships and aircraft conduct emergency navigation hazard surveys that help ports reopen quickly and obtain aerial images of disaster-impacted areas. These surveys are often the only source of data providing critical information for first responders, disaster response, and residents.

NOAA ships range from large oceanographic research vessels capable of exploring the world’s deepest oceans to smaller ships responsible for charting the shallow bays and inlets of the United States. NOAA aircraft range from high altitude jets, capable of penetrating hurricanes and forecasting atmospheric rivers, to aircraft well-suited for water resource management data collection and marine mammal surveys where slower airspeeds and low altitudes are essential. OMAO also owns and operates NOAA’s corporate UxS assets and supports the transition of missions to UxS operations across the agency. OMAO is charged with the safe and efficient operation and maintenance of this NOAA fleet; developing annual Fleet Allocation Plans; conducting lifecycle maintenance; and providing centralized fleet management including: standard procedures, safety inspections, and medical services in partnership with the U.S. Public Health Service Commissioned Corps. OMAO also provides centralized coordination, support and guidance for uncrewed marine and aircraft systems across NOAA, and administers the NOAA-wide Diving and Small Boat Programs. OMAO is committed to maintaining a safe field environment through the coordination of training and certification of officers, crew members, and scientists in at-sea and airborne safety procedures.

OMAO staff includes civilians along with the NOAA Commissioned Officer Corps, one of the Nation’s eight uniformed services. NOAA is authorized for 505 NOAA Corps officers, including flag officers. The NOAA Corps has the skills to plan, prepare, and execute the acquisition of environmental and scientific data on land, at sea, and in the air. It supports all NOAA Line Offices, NOAA Headquarters, and the Department, and commands the NOAA fleet.

Department of Commerce
National Oceanic and Atmospheric Administration
Office of Marine and Aviation Operations
Budget Estimates, Fiscal Year 2025

Significant Adjustments:

Inflationary Adjustments

NOAA's FY 2025 Base includes a net increase of $8,607,000 and -2 FTE/ -2 positions to account for the full funding requirement for certain inflationary adjustments to current programs for OMAO activities. This includes inflationary increases for labor and non-labor activities including benefits and rent charges from the General Services Administration.

Department of Commerce
National Oceanic and Atmospheric Administration
PROGRAM AND PERFORMANCE: DIRECT OBLIGATIONS
(Dollar amounts in thousands)

		2023 Actuals		2024 Annualized CR		2025 Base		2025 Estimate		Increase/Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
OFFICE OF MARINE AND AVIATION OPERATIONS (OMAO)											
Marine Operations and	Pos/BA	559	203,956	704	204,000	704	208,786	791	250,074	87	41,288
Maintenance	FTE/OBL	571	211,594	688	204,000	688	208,786	753	250,074	65	41,288
Aviation Operations and Aircraft	Pos/BA	85	41,467	103	40,500	103	41,809	110	48,438	7	6,629
Services	FTE/OBL	81	42,732	97	40,500	97	41,809	102	48,438	5	6,629
Autonomous Uncrewed	Pos/BA	13	21,121	16	21,677	16	21,789	16	21,298	0	(491)
Technology Operations	FTE/OBL	10	20,855	13	21,677	13	21,789	13	21,298	0	(491)
NOAA Commissioned Officer Corps	Pos/BA	357	65,573	354	62,500	352	64,900	402	87,781	50	22,881
	FTE/OBL	348	65,044	354	62,500	352	64,900	401	87,781	49	22,881
TOTAL OMAO - ORF	**Pos/BA**	**1,014**	**332,117**	**1,177**	**328,677**	**1,175**	**337,284**	**1,319**	**407,591**	**144**	**70,307**
	FTE/OBL	**1,010**	**340,225**	**1,152**	**328,677**	**1,150**	**337,284**	**1,269**	**407,591**	**119**	**70,307**
Marine and Aviation Capital	Pos/BA	62	457,242	69	132,000	69	132,000	69	124,000	0	(8,000)
Investments	FTE/OBL	59	285,102	66	132,000	66	132,000	66	124,000	0	(8,000)
TOTAL OMAO - PAC	**Pos/BA**	**62**	**457,242**	**69**	**132,000**	**69**	**132,000**	**69**	**124,000**	**0**	**(8,000)**
	FTE/OBL	**59**	**285,102**	**66**	**132,000**	**66**	**132,000**	**66**	**124,000**	**0**	**(8,000)**
Medicare Eligible Retiree Health	Pos/BA	0	1,970	0	1,970	0	1,970	0	1,970	0	0
Care Fund	FTE/OBL	0	1,970	0	1,970	0	1,970	0	1,970	0	0
NOAA Corps Commissioned	Pos/BA	0	34,760	0	34,998	0	34,998	0	34,998	0	0
Officers Retirement	FTE/OBL	0	32,221	0	34,998	0	34,998	0	34,998	0	0
OMAO IRA PAC	Pos/BA	0	0	0	0	0	0	0	0	0	0
	FTE/OBL	0	100,624	0	0	0	0	0	0	0	0
TOTAL OMAO	**Pos/BA**	**1,076**	**826,089**	**1,246**	**497,645**	**1,244**	**506,252**	**1,388**	**568,559**	**144**	**62,307**
	FTE/OBL	**1,069**	**760,142**	**1,218**	**497,645**	**1,216**	**506,252**	**1,335**	**568,559**	**119**	**62,307**

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Activity: Marine Operations and Maintenance

Goal Statement

Optimize NOAA's observational platforms and unique workforce capabilities through continual development and diversification of our personnel. Attract, train and retain the skilled workforce required to maintain safe and efficient operations through employee focused organizational changes to optimize retention through quality of life and mission performance. Support present and future NOAA data collection requirements and priorities, maximize the service life of the NOAA Fleet through maintenance and repair and support NOAA's ship priorities through execution of the annual Fleet Allocation Plan (FAP), and increase utilization of the NOAA Fleet.

Base Program

Marine Operations and Maintenance supports centralized management for NOAA's research and survey vessels, which operate throughout the world supporting multiple missions including climate research, fisheries research, nautical charting and ocean research. Given the diverse portfolio of NOAA Line Office Program priorities and responsibilities, a single vessel type cannot meet all of NOAA's missions. Thus, NOAA ships range from large oceanographic research vessels capable of exploring the world's deepest oceans, to smaller ships responsible for charting the shallow bays and inlets of the United States. Marine Operations is based in Newport, Oregon, and manages OMAO's three Marine Centers located in Norfolk, Virginia, Newport, Oregon, and Honolulu, Hawaii, and additional port offices around the country. It also supports marine operation activities in Headquarters, including the Small Boat program and the NOAA Diving Program.

Statement of Operating Objectives

Schedule and Milestones:
FY 2025 - FY 2029

- Improve the diversity within the professional mariner workforce
- Improve the quality of life for deployed crews through staffing models, training, and onboard technologies
- Implement the revised Shore Leave Policy for Professional Mariners supported by 2:1 rotational staffing model across the fleet
- Implement professional mariner training within current job descriptions
- Integrate Fleet Maintenance Plan based on Material Condition Assessments for each vessel and developed through close collaboration with American Bureau of Shipping

- Ensure Operational Readiness Training for all ship personnel is completed
- Perform program funded and reimbursable DAS as scheduled in the FAP

Deliverables:

FY 2025

- Provide approximately 1,717 Days at Sea (DAS) to all NOAA Line Offices
- Survey Square Nautical Miles in support of NOS hydrographic survey activities
- More detailed deliverables are determined on a project-by-project basis as documented in the FAP
- *Ron Brown* returns to the fleet and is fully operational for the full Fiscal Year

FY 2025 – FY 2029

- Meet annual ship schedules and milestones as outlined in the FAP

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Explanation and Justification

		2023 Actual		2024 Annualized CR		2025 Base	
Comparison by subactivity		Personnel	Amount	Personnel	Amount	Personnel	Amount
Marine Operations and Maintenance	Pos/BA	559	203,956	704	204,000	704	208,786
	FTE/OBL	571	211,594	688	204,000	688	208,786
Total, Marine Operations and Maintenance	Pos/BA	559	203,956	704	204,000	704	208,786
	FTE/OBL	571	211,594	688	204,000	688	208,786

Hiring for NOAA's professional mariner workforce is being affected by attrition. With the implementation of the revised professional mariner shore leave policy in FY 2024, OMAO expects to improve crew retention through 2:1 rotational assignments. The 2:1 rotational assignments promote adequate staffing while ensuring mariners can take earned leave. In FY 2025, NOAA will continue to use its professional mariner hiring portal, recruitment and hiring bonuses, expanded employee recognition programs, and tuition reimbursement, to support hiring and retention of qualified professional mariners, improve diversity, crew readiness, and the quality of life aboard its vessels. Additional work includes continued transparency on career development and advancement paths for professional mariners and integrating and prioritizing mental health (Total Worker Health Program) for all OMAO personnel. Professional Mariner quality of life is an industry wide issue with competition for these positions across federal, state, private sector and international employers. When the ships do not have the appropriate staffing, it can create safety issues which can lead to lost days at sea integral to the assessment of living marine resources, charting and mapping, and oceanographic monitoring, research and modeling. Investments in our workforce that support crew retention are critical to both quality of life and future surveying and research operations.

As part of the preventative maintenance process, Marine Operations continues to implement a Material Condition Assessment (MCA) Program. The MCA is an in-depth survey that will uncover additional maintenance items that have become apparent between major maintenance cycles. MCAs will funnel items directly into work packages for repair periods in order to correct deficiencies and ensure

items are addressed before they impact fleet readiness. MCAs are conducted by Marine Operations engineering personnel with

assistance from NOAA's fleet inspection team and ship's crew.

Funds also support unscheduled maintenance costs. These costs can include unplanned maintenance discovered while completing scheduled operational maintenance; scheduled repairs requiring more extensive work than planned initially; costs in excess of the standard 20 percent estimated cost overrun; and urgent responses to machinery or equipment casualties.

NOAA vessels must adhere to safety and emissions requirements and regulations established by a variety of organizations. The American Bureau of Shipping certifies ships as seaworthy. OMAO uses their rules to design its maintenance program and conduct Ship Structure and Machinery Evaluations on the NOAA Fleet. Under the Clean Air Act, the Environmental Protection Agency issues regulations governing airborne emissions that affect ship engine and exhaust components. The U.S. Coast Guard issues regulations on all discharges from ships to ensure marine environments are protected from harmful discharges.

Under the FY 2025 base funding level, OMAO will provide approximately 1,717 DAS to support NOAA’s highest-priorities. DAS may include OMAO base funded days, DAS funded by other NOAA Line Office programs, and DAS funded by agencies external to NOAA, as determined during the year of budget execution, based on the availability of vessels and funds. Program funded DAS are established through Service Level Agreements with NOAA Line Office programs as well as reimbursable agreements with other agencies. NOAA estimates base DAS annually determined by a variety of factors including maintenance, staffing, training, outfitting, fuel, and other costs necessary to support reliable and safe ship operations.

The following table outlines the diversity of the active NOAA Fleet and primary mission areas of each vessel:

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Ship	Length	Class	Primary Mission	Homeport	Year Launched
Rainier	231 ft.	Ocean	2	Newport, OR	1967
Fairweather	231 ft.	Ocean	2	Ketchikan, AK	1967
Oregon II	170 ft.	Regional	1	Pascagoula, MS	1967
Oscar Elton Sette	224 ft.	Ocean	3	Honolulu, HI	1987
Okeanos Explorer	224 ft.	Ocean	1, 2	Newport, RI	1988
Gordon Gunter	224 ft.	Ocean	1	Pascagoula, MS	1989
Nancy Foster	187 ft.	Ocean	1	Charleston, SC	1990
Thomas Jefferson	208 ft.	Ocean	2	Norfolk, VA	1991
Ronald H. Brown	274 ft.	Global	3	Charleston, SC	1996
Oscar Dyson	209 ft.	Ocean	1	Kodiak, AK	2003
Henry B. Bigelow	209 ft.	Ocean	1	Newport, RI	2005
Pisces	209 ft.	Ocean	1	Pascagoula, MS	2007
Bell M. Shimada	209 ft.	Ocean	1	Newport, OR	2008
Ferdinand R. Hassler	124 ft.	Regional	2	New Castle, NH	2009
Reuben Lasker	209 ft.	Ocean	1	San Diego, CA	2012
Oceanographer	244.5 ft.	Ocean	1,2	Honolulu, HI	2024
Discoverer	244.5 ft.	Ocean	1,2	Newport, RI	2025

Mission 1: Assessment and Management of Living Marine Resources
Mission 2: Charting and Mapping
Mission 3: Oceanographic Monitoring, Research, and Modeling

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

In addition to vessel management, Marine Operations and Maintenance supports the following activities:

NOAA Dive Program: The NOAA Dive Center provides diver certification, technical advice, and a standardized equipment program. The NOAA Dive Center, in cooperation with the NOAA Diving Control and Safety Board, issues safe diving standards and practices, according to the Standards of Training, Certification and Watchkeeping for Seafarers and the International Maritime Organization conventions. NOAA maintains approximately 391 divers who perform over 12,000 dives annually in support of NOAA's mission. Fleet divers help maintain NOAA's ships with tasks such as cleaning propellers and sea strainers, surveying hulls for damage, and installing transducers. NOAA divers' work also includes installation of observing systems such as tide gauges. Scientists trained as divers to study and describe the habitats and species that NOAA is mandated to protect and manage. These activities enable NOAA meet priorities, enhance customer service and operational safety, and facilitate self-sufficiency at sea.

NOAA Small Boat Program: The Small Boat Program is designed to reduce risk, promote standardization, and enhance the safety of NOAA's small-boat operations. It enforces the policy of the safety program and ensures compliance through onsite inspections, risk assessments and marine incident investigations. NOAA maintains over 400 small boats, which are operated and funded within the Line Offices. The Small Boat Program provides technical and marine engineering assistance to Line Office field units as needed and to the NOAA Small Boat Safety Board to ensure compliance with the NOAA Small Boat Standards and Procedures Manual requirements.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Increase from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Marine Operations and Maintenance	Pos./BA	704	208,786	791	250,274	87	41,488
	FTE/OBL	688	208,786	753	250,274	65	41,488

Enhanced Fleet Operations (+$41,488, 65 FTE/ 87 Positions) – NOAA requests an increase for fleet operations to deliver 2,840 days at sea (DAS) to support NOAA's at-sea data collection, NOAA's Fleet requires increased staffing, additional funding for ship operations and maintenance, as well as funding for the preparation activities for NOAA's new ships, the *Oceanographer* and *Discoverer*. These activities are critical to fulfilling NOAA's program priorities, including fishery surveys, marine ecosystem assessments, and hydrographic surveys.

Funds in FY 2025 are imperative for NOAA to continue competitive incentive and quality of life initiatives to address the high attrition rate within the professional mariner workforce. In FY 2024, NOAA began implementation of the new authority provided in the 2023 National Defense Authorization Act for increased shore leave for professional mariners. This allows NOAA mariners to earn one day of shore leave for each three and half days of consecutive periods of assignment, equating to the required four days of shore leave for a 14-day pay period. An additional 82 professional mariner positions, to include relief pool positions, are needed to remain competitive with industry through increased shore leave, to sustain and expand the 2:1 rotation of mariners aboard NOAA vessels, and to fully staff NOAA ship *Oceanographer*, operational in FY 2025. The crew will need to be in place to complete contractually mandated crew familiarization training and assist in the development of operational and safety procedures. NOAA will also need to purchase fuel and consumables to complete the outfitting. The addition of five administrative staff positions will support the increase in mariners and the addition of new Vessels in the Fleet. Upon delivery of the *Discoverer*, NOAA will need to purchase fuel and consumables and complete the outfitting.

Funding for repair and maintenance is required for OMAO to provide ships capable of carrying out prioritized, geographical and temporal, at-sea NOAA activities. Without additional funds, deferred maintenance will grow, maintenance costs will increase in the out- years due to emergency work, and DAS will be lost.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

NOAA will continue to focus on ship habitability, enhanced mission system maintenance and upgrades, ship system updates, acoustic sonar refreshes, advancements in the marine operations safety management systems and fulfilling regulatory requirements, to ensure every DAS is maximized. Investments in mission systems are critical to sustaining Fleet readiness, expanding ship capabilities, and executing the Fleet Allocation Plan in support of NOAA's crucial scientific and regulatory missions.

Schedule and Milestones:
FY 2025
- Improve retention rates for professional mariners
- Continue Implementation of the 2023 National Defense Authorization Act for increased shore leave for professional mariners

Deliverables:
FY 2025
- Target execution of 2,840 DAS
- Operate NOAA's newest vessel, the *Oceanographer*
- Execute the Fleet Allocation Plan

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

Performance Measures	2025	2026	2027	2028	2029
Days at Sea					
With Increase	2,840	2,840	2,840	2,840	2,840
Without Increase	1,717	1,717	1,717	1,717	1,717
Outyear Costs:					
Direct Obligations	41,488	41,488	41,488	41,488	41,488
Capitalized	0	0	0	0	0
Uncapitalized	41,488	41,488	41,488	41,488	41,488
Budget Authority	41,488	41,488	41,488	41,488	41,488
Outlays	25,308	36,924	38,999	40,658	41,488
FTE	65	87	87	87	87
Positions	87	87	87	87	87

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE PERSONNEL DETAIL

Activity: Marine Operations and Maintenance
Subactivity: Enhanced Fleet Operations
Program Change: Enhanced Fleet Operations

Title		Grade	Number	Annual Salary	Total Salaries
Management and Program Analyst		ZA-3	3	125,000	375,000
Budget Analyst		ZA-0560-03	1	110,000	110,000
Financial Program Specialist		ZA-0501-02	1	100,000	100,000
Chief Engineer		WM-9931-01	12	185,000	2,220,000
1st Asst Engineer		WM-1	12	155,000	1,860,000
2nd Asst Engineer		WM-1	12	135,000	1,620,000
3rd Asst Engineer		WM-1	10	120,000	1,200,000
Chief Boatswain		WM-1	10	95,000	950,000
Chief Steward		WM-1	10	85,000	850,000
Senior Survey Tech		WM-1	10	90,000	900,000
Electronic Technician		ZT-4	6	85,000	510,000
Total			87		10,695,000
Less lapse	25.00%		(22)		(2,673,750)
Total full-time permanent (FTE)			65		8,021,250
2025 Pay Adjustment (2.0%)					160,425
					8,181,675

Personnel Data Summary	
Full-time Equivalent Employment (FTE)	
Full-time permanent	65
Total FTE	65
Authorized Positions:	
Full-time permanent	87
Total Positions	87

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS

(Direct Obligations amounts in thousands)

Activity: Marine Operations and Maintenance
Subactivity: Enhanced Fleet Operations

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase from 2025 Base
11.1	Full-time permanent compensation	42,256	52,000	53,300	61,482	8,182
11.3	Other than full-time permanent	131	0	0	0	0
11.5	Other personnel compensation	15,424	15,000	16,000	20,080	4,080
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	57,811	67,000	69,300	81,562	12,262
12	Civilian personnel benefits	21,493	30,000	31,000	35,873	4,873
13	Benefits for former personnel	16	0	0	0	0
21	Travel and transportation of persons	5,962	6,000	5,000	8,059	3,059
22	Transportation of things	770	0	0	0	0
23	Rent, communications, and utilitites	0	7,000	7,000	10,200	3,200
23.1	Rental payments to GSA	129	0	0	0	0
23.2	Rental Payments to others	2,761	0	0	0	0
23.3	Communications, utilities and misc charges	4,892	0	0	0	0
24	Printing and reproduction	14	0	0	0	0
25.1	Advisory and assistance services	1,367	0	0	0	0
25.2	Other services from non-Federal sources	79,421	73,000	72,331	87,925	15,594
25.3	Other goods and services from Federal sources	5,432	0	0	0	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	27,386	20,000	23,000	25,000	2,000
31	Equipment	1,239	1,000	1,155	1,655	500
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	0	0	0	0	0
42	Insurance claims and indemnities	2,880	0	0	0	0
43	Interest and dividends	21	0	0	0	0
44	Refunds	0	0	0	0	0
99	Total obligations	211,594	204,000	208,786	250,274	41,488

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Marine Operations and Maintenance	Pos./BA	704	208,786	704	208,586	0	(200)
	FTE/OBL	688	208,786	688	208,586	0	(200)

Enterprise Infrastructure Solutions (EIS) Decrease (-$200, 0 FTE/0 Positions) - NOAA requests a reduction for EIS. Funds provided to the Office of Marine and Aviation Operations in FY 2023 were sufficient to complete the transition of telecommunications services to GSA's EIS contract vehicle.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Marine Operations and Maintenance
Subactivity: Enterprise Infrastructure Solutions (EIS) Decrease

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	42,256	52,000	53,300	53,300	0
11.3	Other than full-time permanent	131	0	0	0	0
11.5	Other personnel compensation	15,424	15,000	16,000	16,000	0
11.8	Special personnel services payments	0	0	0	0	0
11.9	Total personnel compensation	57,811	67,000	69,300	69,300	0
12	Civilian personnel benefits	21,493	30,000	31,000	31,000	0
13	Benefits for former personnel	16	0	0	0	0
21	Travel and transportation of persons	5,962	6,000	5,000	5,000	0
22	Transportation of things	770	0	0	0	0
23	Rent, communications, and utilitites	0	7,000	7,000	6,800	(200)
23.1	Rental payments to GSA	129	0	0	0	0
23.2	Rental Payments to others	2,761	0	0	0	0
23.3	Communications, utilities and misc charges	4,892	0	0	0	0
24	Printing and reproduction	14	0	0	0	0
25.1	Advisory and assistance services	1,367	0	0	0	0
25.2	Other services from non-Federal sources	79,421	73,000	72,331	72,331	0
25.3	Other goods and services from Federal sources	5,432	0	0	0	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	27,386	20,000	23,000	23,000	0
31	Equipment	1,239	1,000	1,155	1,155	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	0	0	0	0	0
42	Insurance claims and indemnities	2,880	0	0	0	0
43	Interest and dividends	21	0	0	0	0
44	Refunds	0	0	0	0	0
99	Total obligations	211,594	204,000	208,786	208,586	(200)

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Activity: Aviation Operations and Aircraft Services

Goal Statement

Provide centralized aircraft systems operation, management and coordination of all airborne activity, support NOAA's airborne requirements and priorities through execution of the Aircraft Allocation Plan (AAP), and safely modify, maintain, and operate NOAA aircraft.

Base Program

NOAA's Aviation Operations and Aircraft Services provide scientists with airborne platforms equipped with comprehensive data collection systems that are capable of assessing severe weather, coastal and marine resources, and the dynamics of complex ecosystems and their climate induced changes. Among their missions, NOAA's diverse and versatile aircraft fly into hurricanes to help predict their track and intensity. They also collect: snowpack measurements to forecast water supplies and spring flooding events, species data critical to managing commercial and recreational fish stocks, and air chemistry data critical to public health. NOAA aircraft are capable of carrying specialized sensors for coastal mapping and shallow-water bathymetric data collection, providing essential data to nautical charting and safe navigation.

Statement of Operating Objectives

Schedule and Milestones:

FY 2025 – FY 2029

- Perform base funded, program funded and reimbursable flight hours as scheduled in the AAP

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Deliverables:

FY 2025

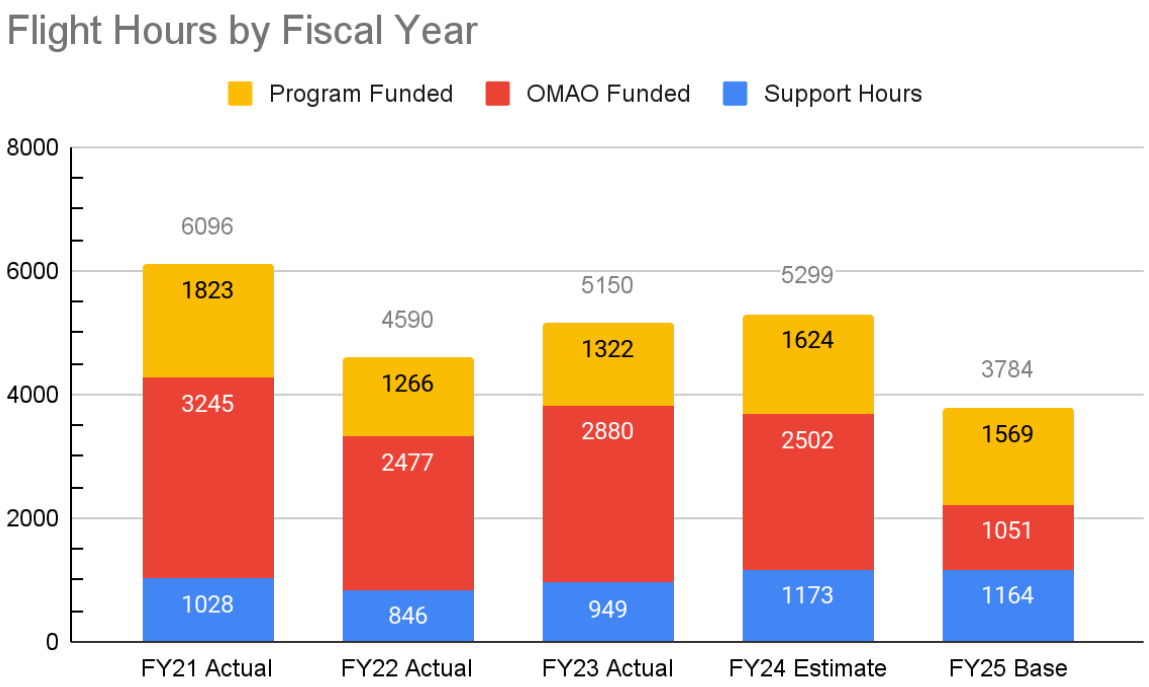
- Approximately 3,784 flight hours[1] to include an estimated 2,215 support and base funded hours and 1,569 program and reimbursable funded hours to all NOAA Line Offices
- Other deliverables determined on a project-by-project basis as documented in project flight instructions

FY 2025 - FY 2029

- Meet annual aircraft schedules and milestones as outlined on the AAP
- Maintain NOAA aircraft to continue to provide data to NOAA programs

[1] Flight hour estimates assume non-hurricane hours are distributed by aircraft type as they were in the FY 2024 Aircraft Allocation Plan. Heavy aircraft cost more than light aircraft to fly so changes in that distribution can cause significant variations in NOAA estimates.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)



Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Explanation and Justification

Comparison by subactivity		2023 Actual Personnel	2023 Actual Amount	2024 President's Budget Personnel	2024 President's Budget Amount	2025 Base Personnel	2025 Base Amount
Aviation Operations and	Pos/BA	85	41,467	103	40,500	103	41,809
Aircraft Services	FTE/OBL	81	42,732	97	40,500	97	41,809
Total, Aviation Operations	Pos/BA	85	41,467	103	40,500	103	41,809
and Maintenance	FTE/OBL	81	42,732	97	40,500	97	41,809

OMAO's Aircraft Operations Center (AOC), located at the Lakeland Linder Regional Airport in Lakeland, FL, operates NOAA's aircraft fleet in support of NOAA's mission to understand and predict changes in climate, weather, oceans and coasts, and to assist in conserving and managing coastal and marine ecosystems and resources.

The aircraft operate throughout the United States and around the world over open oceans, mountains, coastal wetlands, and the Arctic. AOC provides capable, mission-ready aircraft and professional crews to safely meet NOAA's scientific and operational mission requirements and priorities by assisting with coastal mapping, flood prediction, hurricane prediction modeling, marine mammal population assessments, coastal erosion surveys, oil spill investigations and air quality studies.

NOAA aircraft operate in some of the world's most demanding flight regimes, including flying into the eye of a hurricane and at low altitudes over mountainous terrain and open ocean areas. Each aircraft requires a minimum number of qualified NOAA Corps pilots to conduct operations safely and efficiently, relying on these personnel funded through the NOAA Commissioned Officer Corps PPA. OMAO also ensures that contracted aviation operations are conducted safely by providing technical support, services, and equipment to NOAA Line Offices.

In FY 2025, funding will allow AOC to provide approximately 3,784 flight hours in support of NOAA scientific airborne activities. The chart "Flight Hours by Fiscal Year" details the estimated flight hours at the FY 2025 base funding levels and compares those

estimates to prior years. At this base level of funding and flight hours, NOAA would be able to fully support the expected need for hurricane reconnaissance and surveillance, atmospheric rivers, and less than half of the NOAA requested hours for authorized coastal mapping surveys, emergency response operations, and snow surveys. In addition, progress on supporting innovative uncrewed systems and emerging technologies would halt due to the limited number of flight hours. The AAP details the objective and duration of individual NOAA projects and identifies OMAO scheduled repair and maintenance periods on specific NOAA aircraft. Demands for time aboard NOAA aircraft are prioritized by the NOAA Fleet Council and outlined in the AAP.

These include:

- OMAO funded hours, which are dedicated to NOAA's scientific missions and are entirely funded by the Aviation Operations and Aircraft services PPA

- Program funded hours, which may be funded by programs during the year of budget execution, based on funding and aircraft availability, and rely on OMAO's flight crews and maintenance for safe and efficient operations. Program-funded flight hours can support any NOAA mission approved by the Fleet Council, including hurricane surveillance and reconnaissance, and are established through Service Level Agreements with NOAA programs, and reimbursable agreements with other agencies

- Support hours, including training, calibration, and maintenance flights. These hours ensure the crew and aircraft can safely and accurately collect data in support of NOAA's scientific missions

NOAA's aircraft are versatile and can conduct a variety of missions. In FY 2025, NOAA will integrate the first of two G-550s into its fleet, replacing NOAA's G-IV that will be decommissioned in May of 2025. The G-550 will allow NOAA to continue to provide observations for critical missions, including hurricane and atmospheric rivers forecasts. This new aircraft will also directly support projects essential for floodplain mapping and global positioning system calibration as well as Arctic research, monitoring, and observations. The G-550 will have increased range and endurance to more effectively sample storms and have new instrument ports and capabilities to support innovative research. Operating costs are projected to be up to 20 percent more expensive than the G-IV due to higher fuel and crew staffing costs. NOAA will begin operating this new aircraft in the summer of 2025 once trained pilots are

available and the aircraft is calibrated to the G-IV baseline.[2]

In FY 2027, OMAO will add the second G-550 to its aircraft fleet in order to carry out NOAA's airborne data requirements and objectives and to satisfy the Weather Act requirement to have backup capability. NOAA will begin hiring the staff necessary to operate and maintain the second G-550 in FY 2025 to ensure proper personnel are in place to support the new asset when it comes online. Long lead time is needed to hire, train, and qualify aviators and mechanics on the new aircraft. The second G-550 will increase forecast accuracy of concurrent hurricanes in the same area and allow NOAA to collect data from tropical cyclones threatening two regions simultaneously.

[2] Additional information about pilots is available on page OMAO-35

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

The following table outlines the characteristics and primary mission areas of NOAA's current aircraft:

Type	Primary Mission	Weight	Combined Flight Hour Capacity	Aircraft	Age (years)
P-3	Weather Forecasting, Research, and Modeling	Heavy	800	***N42RF***	50
				N43RF	50
G-IV	Weather Forecasting, Research, and Modeling	Heavy	600	***N49RF*** [3]	26
G-550	Weather Forecasting, Research, and Modeling	Heavy	600	***N59RF*** [4]	NEW
Twin Otter	Assessment and Management of Living Marine Resources Weather Forecasting, Research, and Modeling	Light	3,000	***N57RF***	45
				N56RF	41
				N48RF	44
				N46RF	35
King Air	Charting and Surveying	Light	3,000	***N68RF***	16

[3] This aircraft will be decommissioned at the end of FY2025

[4] Delivery of this aircraft is anticipated at the beginning of FY2025 Q2

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Increase from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Aircraft Operations and Aircraft Services	Pos./BA	103	41,809	110	48,438	7	6,629
	FTE/OBL	97	41,809	102	48,438	5	6,629

Flight Hours in Support of Cross NOAA Climate Objectives (+$6,629, 5 FTE/ 7 Positions) - NOAA requests an increase for aircraft operations to deliver 6,283 flight hours to meet current demands for airborne data as detailed in the Aircraft Allocation Plan. Flight hours will support surveys to better manage water resources in the face of climate-induced flooding and droughts, flights to better understand climate impacts on marine resources and monitoring of shoreline changes. Specific missions conducted in FY 2025 will be determined through the NOAA Fleet Council.

Funds will also support preparation activities for NOAA's new aircraft, which are crucial to fulfilling NOAA's mission. The third King Air aircraft and the first G-550 will become operational in Q2 FY 2025, while the G-IV will be decommissioned following inter-comparison flights with the G-550. NOAA will begin staffing the second G-550 in 2025 with mechanics and pilots qualified on the new aircraft in order to be prepared to conduct operations in FY 2027. Support staff, including a dispatcher, flight director, and mechanic, will be added in support of NOAA's growing aircraft fleet. NOAA will also continue to focus on enhanced mission systems maintenance and upgrades to ensure the maximum number of flight hours. Investments in mission systems will enhance aircraft readiness, and support NOAA's execution of the Aircraft Allocation Plan (AAP).

Schedule and Milestones:
FY 2025
- Complete staffing for NOAA G-550 aircraft
- Invest in Aircraft Operations Center maintenance and IT infrastructure

Deliverables:
FY 2025
- Target of 6,283 flight hours
- More data to understand and mitigate the impacts of climate change

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

- Aviator and support staff training for new aircraft

Performance Measures	2025	2026	2027	2028	2029
Flight Hours					
With Increase	6,283	6,283	6,283	6,283	6,283
Without Increase	3,784	3,784	3,784	3,784	3,784
Outyear Costs:					
Direct Obligations	6,629	6,629	6,629	6,629	6,629
Capitalized	3,303	3,303	3,303	3,303	3,303
Uncapitalized	3,326	3,326	3,326	3,326	3,326
Budget Authority	6,629	6,629	6,629	6,629	6,629
Outlays	4,044	5,900	6,231	6,496	6,629
FTE	5	7	7	7	7
Positions	7	7	7	7	7

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE PERSONNEL DETAIL

Activity: Aviation Operations and Aircraft Services
Subactivity: Aviation Operations and Aircraft Services
Program Change: Flight Hours in Support of Cross-NOAA Climate Objectives

Title		Grade	Number	Annual Salary	Total Salaries
Dispatcher		ZA-3	1	81,718	81,718
G-550 Mechanic		GS-11	1	83,603	83,603
Flight Director		GS-13	3	140,811	422,432
Administrative Assistant		ZA-2	1	70,193	70,193
Budget Analyst		ZA-3	1	81,718	81,718
Total			7		739,664
Less lapse	25.00%		(2)		(184,916)
Total full-time permanent (FTE)			5		554,748
2025 pay Adjustment (2.0%)					11,095
Total					565,843

Personnel Data Summary	
Full-time Equivalent Employment (FTE)	
Full-time permanent	5
Total FTE	5
Authorized Positions	
Full-time permanent	7
Total FTE	7

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Aviation Operations and Aircraft Services
Subactivity: Aircraft Operations and Aircraft Services

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase from 2025 Base
11.1	Full-time permanent compensation	8,679	10,671	10,953	11,519	566
11.3	Other than full-time permanent	0	0	0	0	0
11.5	Other personnel compensation	848	891	891	891	0
11.7	Military Personnel Compensation	0	0	0	0	0
11.9	Total personnel compensation	9,527	11,562	11,844	12,410	566
12	Personnel benefits	3,208	3,893	3,974	4,144	170
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	2,714	2,714	2,734	2,734	0
22	Transportation of things	473	473	482	482	0
23	Rent, communications, and utilities	0	0	0	0	0
23.1	Rental payments to GSA	14	14	14	14	0
23.2	Rental Payments to others	2,156	2,156	2,190	2,190	0
23.3	Communications, utilities and misc charges	877	877	891	891	0
24	Printing and reproduction	1	1	1	1	0
25.1	Advisory and assistance services	1,542	1,542	1,630	1,630	0
25.2	Other services from non-Federal sources	9,753	4,801	5,074	8,003	2,929
25.3	Other goods and services from Federal	1,541	1,541	1,629	1,892	263
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	10,079	10,079	10,493	13,194	2,701
31	Equipment	841	841	847	847	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	0	0	0	0	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	6	6	6	6	0
44	Refunds	0	0	0	0	0
99	Total obligations	42,732	40,500	41,809	48,438	6,629

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Activity: Autonomous Uncrewed Technology Operations (AUTO)

Goal Statement

Execute NOAA missions with corporately owned and operated uncrewed systems (UxS) platforms. Transition NOAA missions onto UxS by developing, testing and evaluating new UxS platforms. Provide centralized uncrewed marine systems (UMS) services (data collection by private sector UMS service providers) to support NOAA's operational and research missions. Support uncrewed marine and aircraft system operations across NOAA by providing a center of technical expertise and through coordinated policies, training, and acquisition.

Base Program

UxS technology encompasses a wide range of platforms, from very small uncrewed aerial drones, to large multi-million-dollar surface and underwater marine systems designed to operate in diverse locations for extended periods of time. UxS include Uncrewed Aircraft Systems, Uncrewed Marine Systems surface and underwater vehicles, and Remotely Operated Vehicles. The technology continues to evolve rapidly and is invaluable in supporting NOAA priorities such as hydrographic and habitat mapping, fishery surveys, and climate and weather research.

To efficiently advance the use of this technology across NOAA, the UxS Operations Center centrally manages UxS and standardizes safety, training, and inspections, and strategically plans UxS acquisition and operations, consistent with NOAA's priorities and data needs. The UxS Operations Center provides UxS services to NOAA missions through private sector contracts and corporately owned, operated and maintained UxS. OMAO partners with OAR to develop and transition new technologies and applications of UxS to cost effectively meet NOAA's missions. The NOAA Uncrewed Systems Executive Oversight Board (co-chaired by OAR and OMAO) will continue to coordinate UxS activities across NOAA.

Statement of Operating Objectives

Schedule and Milestones:

FY 2025 – FY 2029

- Operate NOAA-owned UxS and execute contracted UxS for NOAA's operational and research activities

- Continue to transition UxS into routine operations by funding of development and transition activities
- Develop UxS concepts of operations and establish staffing, training, and maintenance regimes
- Provide UxS operational support to NOAA from field locations including Gulfport, MS, Lakeland, FL, and Newport, OR
- Partner with other NOAA programs, Federal agencies, academia, and industry to develop, evaluate, and operate UxS for NOAA missions
- Plan UxS platform and services acquisitions, and establish contracting vehicles within NOAA
- Provide UAS operational approvals, airworthiness inspections, standardization of training, and coordination of airspace approvals
- Train NOAA personnel to operate UxS
- Develop, maintain, and coordinate UxS policies and a community of practice in partnership with other NOAA Line Offices

Deliverables:

FY 2025 – FY 2029

- Corporately-owned and operated UxS
- UxS support of NOAA missions
- Routine operations of UxS for climate, mapping, and fisheries missions
- Transition of NOAA UxS missions to routine operations as resources permit
- Funding and technical support of UxS projects in support of NOAA priorities
- UMS services missions executed through private sector contracts across priority NOAA mission areas
- A trained workforce, refined priorities, and mature concepts of operations to integrate UxS on Class B ships
- Sound oversight of the purchase and/or lease of proven UxS
- Safety and compliance with aviation and maritime regulations and policy

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Explanation and Justification

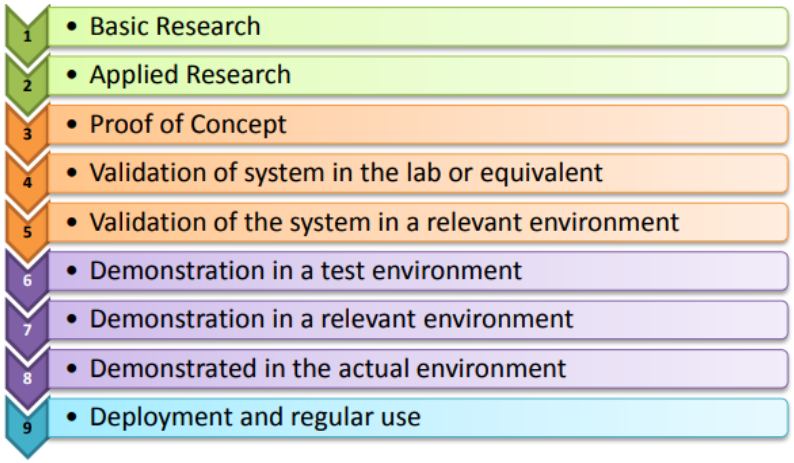
Comparison by subactivity		2023 Actual Personnel	2023 Actual Amount	2024 Annualized CR Personnel	2024 Annualized CR Amount	2025 Base Personnel	2025 Base Amount
Autonomous Uncrewed Technology Operations	Pos/BA	13	21,121	16	21,677	16	21,789
	FTE/OBL	10	20,855	13	21,677	13	21,789
Autonomous Uncrewed Technology Operations	Pos/BA	13	21,121	16	21,677	16	21,789
	FTE/OBL	10	20,855	13	21,677	13	21,789

The Autonomous Uncrewed Technology Operations program promotes the safe, efficient, and economical operation of UxS that NOAA uses to collect high-quality environmental data for the agency's science, products, and services. Deploying UxS has the potential to grow the blue economy while accelerating high-growth industry clusters consistent with the DOC Strategic Plan. UxS enable NOAA to collect mission critical data more efficiently, in higher resolution, or more safely. They also allow NOAA to collect data from remote, inaccessible locations. NOAA currently uses UxS for seafloor and habitat mapping, ocean exploration, marine mammal and fishery stock assessments, emergency response, and hurricane research. Often, emerging technologies struggle to move beyond the research stage because resources are unavailable for the final testing, development of concepts of operations, and other activities to integrate them into routine operations. The UxS Operations Center addresses this challenge. Through this program, NOAA has identified and is operationalizing the most promising technologies and best practices to use UxS across the organization.

The UxS Operations Center's diverse academic, intergovernmental and private sector partnerships, including efforts to conduct agency-wide data acquisition from UMS, expand UxS applications NOAA-wide. In FY 2023, the program ran a competitive process to award $7.5 million for UMS services and received over $36.4 million in requests from across NOAA. The UxS Operations Center used its centralized UxS contracting expertise to award these funds in record time, with the first contracted UMS operating in the water 142 days after the new appropriation was created and signed into law.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

As a result, NOAA deployed Uncrewed Marine Systems for over 2,900 days at sea mapping 674 sq nautical miles, conducting hurricane intercepts that were cited by the National Hurricane Center 19 times in forecast discussions, and providing 7,272 weather observations while acting as replacements for moored buoys, along with observations of the tropical pacific and evaluation of new commercial platforms for fisheries missions.



In FY 2025, the UxS Operations Center will regularly operate UxS for hydrography, hurricane, and fisheries missions. This delivers on years of investment in research to finally collect critical data from UxS. The program will operate UxS to:

- Increase the productivity of a hydrographic survey by operating uncrewed surface vehicles both from shore and in tandem with a survey ship. With two Drix Uncrewed Surface Vehicles (USVs) s acquired by OMAO in 2023 and 2024, OMAO will fully operationalize the use of USVs for hydrographic surveys. Using uncrewed surface vehicles that are corporately-owned and operated by the UxS Operations Center, NOAA will be able to increase the productivity of hydrographic survey ships by up to 25 percent allowing surveys to cover an area much more efficiently while also conducting near-shore surveys independently of ships

- Improve our understanding of low-altitude winds inside of hurricanes by operationalizing UAS launched from hurricane hunter aircraft. These air-launched small UAS can fly at lower altitudes than crewed aircraft safely can and provide a high-resolution picture of storm structure and air-sea interactions, improving situational awareness for hurricane forecasters.

- Expand our knowledge of changing ocean ecosystems by operating long-endurance buoyancy gliders to autonomously survey physical and biological oceanography in one region, feeding critical ecosystem information to fishery managers.

In addition, the UxS Operations Center will continue to support the transition of additional projects that have made significant technical progress but which need additional data validation to be accepted into critical NOAA products. This effort will help increase the productivity of Alaskan pollock surveys by continuing the development of tandem USV-ship operations for fisheries surveys.

Similar to hydrographic surveys, using USVs that are corporately-owned and operated by the UxS Operations Center, NOAA will be able to increase the productivity of the annual Alaskan pollock survey by teaming a USV with the survey ship, allowing surveys to cover an area much more efficiently. This project has made solid technical progress but further work will occur in FY25 to expand the potential weather window of operations and provide additional data that fisheries managers will need to see before making fishery management decisions based on the USV data.

The UxS Operations Center has also significantly advanced the use of UxS for several other NOAA missions. NOAA measures a technology's potential for operational use in readiness levels as shown in the graphic on the previous page. Beginning their transition projects in FY 2021, NOAA's Uncrewed Systems Operations Center has advanced nine projects toward becoming operational. Six of those projects are at or near readiness level 9 (deployment and regular use). On average, investments from the Center have raised these projects by three readiness levels. These projects have the potential to:

- Provide new near-real time information about whale populations in Hawaii to support agile management of marine mammal populations in Pacific Island Exclusive Economic Zone areas.

- Reduce risk to NOAA pilots and scientists by surveying remote Aleutian Steller Sea Lion populations with UAS instead of crewed aircraft.

- Use UAS to provide high-resolution maps of salmon habitat in California and Oregon rivers, aiding managers of critically endangered salmon populations.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Autonomous Uncrewed Technology Operations	Pos./BA	16	21,789	16	21,298	0	(491)
	FTE/OBL	13	21,789	13	21,298	0	(491)

Reduce research and external partnerships (-$491, 0 FTE/0 Positions) – This program change is requested to support other NOAA and Administration priorities. At this funding level, OMAO's Uncrewed Systems Operations Center (UxSOC) will reduce external research and development partnerships not related to current missions. OMAO will continue to prioritize operationalizing uncrewed systems that have demonstrated readiness for deployment and regular use; these include Uncrewed Surface Vessels teamed with hydrographic survey ships for ocean mapping, buoyancy gliders for a variety of oceanographic and ecosystem surveys, contracted USVs for meteorological and climate observations, and small UAS for a variety of mapping and marine mammal survey uses. OMAO's Uncrewed Systems Operations Center (UxSOC) will reduce external research and development partnerships not related to current missions.

	2025	2026	2027	2028	2029
Outyear Costs:					
Direct Obligations	(491)	(491)	(491)	(491)	(491)
Capitalized	0	0	0	0	0
Uncapitalized	(491)	(491)	(491)	(491)	(491)
Budget Authority	(491)	(491)	(491)	(491)	(491)
Outlays	(300)	(437)	(462)	(481)	(491)
FTE	0	0	0	0	0
Positions	0	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Autonomous Uncrewed Technology Operations
Subactivity: Autonomous Uncrewed Technology Operations

	Object Class	2023 Actual	2024 CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	1,823	1,780	1,874	1,874	0
11.3	Other than full-time permanent	0	0	0	0	0
11.5	Other personnel compensation	60	63	63	63	0
11.7	Military Personnel Compensation	0	0	0	0	0
11.9	Total personnel compensation	1,883	1,843	1,937	1,937	0
12	Personnel benefits	640	627	654	654	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	235	235	235	235	0
22	Transportation of things	127	127	127	127	0
23	Rent, communications, and utilities	0	0	0	0	0
23.1	Rental payments to GSA	0	0	0	0	0
23.2	Rental Payments to others	202	202	202	202	0
23.3	Communications, utilities and misc charges	953	953	953	953	0
24	Printing and reproduction	1	1	1	1	0
25.1	Advisory and assistance services	6,611	6,611	6,611	6,611	0
25.2	Other services from non-Federal sources	1,799	2,673	2,673	2,182	(491)
25.3	Other goods and services from Federal	185	185	185	185	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	18	18	18	18	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	578	578	578	578	0
31	Equipment	4,300	4,300	4,300	4,300	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	3,323	3,324	3,315	3,315	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	0	0	0	0	0
44	Refunds	0	0	0	0	0
99	Total obligations	20,855	21,677	21,789	21,298	(491)

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Activity: NOAA Commissioned Officer Corps

Goal Statement

Provide and support a highly specialized workforce to operate NOAA's fleet of research vessels and aircraft and execute and facilitate the scientific data collection that support NOAA's weather forecasts, fishery stock assessments, nautical charts, and other products and services critical to NOAA's mission and the nation.

Base Program

The NOAA Corps is one of the Nation's eight uniformed services. It is a critical national asset and central to the safe and effective execution of NOAA's mission. Thus, NOAA relies heavily on the leadership, operational and technical expertise, and flexibility inherent in NOAA Corps officers for the planning, management, and execution of the agency's diverse mission. NOAA Corps officers command and staff NOAA's fleet of ships and aircraft; deploy, test, and manage NOAA's uncrewed systems; support all NOAA's line and staff Offices; and serve other government offices and the legislative branch. They manage and facilitate design of scientific research projects, conduct diving operations, and serve in NOAA staff positions to advance NOAA's mission. This activity supports the actual cost of the NOAA Corps which includes officer salaries, benefits, retention incentives, accession, relocation, operational rotation tempo, training, promotions, separations, Tricare payments, and HR support for all NOAA Corps officers' programs, along with the civilian staff and infrastructure needed to sustain a uniformed service.

Statement of Operating Objectives

Schedule and Milestones:

FY 2025 - FY 2029

- Involuntarily extend officer assignments
- Balance recruitment, involuntary separations, and retention efforts to maintain an average annual strength of 328
- Coordinate assignment changes and permanent change of station moves for NOAA Corps officers
- Track and administer the medical requirements of active duty officers
- Conduct workforce planning to support prioritized missions

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Deliverables:
FY 2025 – FY 2029

- 328 average annual strength of the NOAA Corps, including admirals
- Expert pilots and mariners to support ship and aircraft mission priorities
- Scientific expertise to support weather forecasting, research and modeling, assessment and management of living marine species, and charting and surveying
- Medical readiness of active duty officers

Explanation and Justification

		2023 Actual		2024 Annualized CR		2025 Base	
Comparison by subactivity		Personnel	Amount	Personnel	Amount	Personnel	Amount
NOAA Commissioned Officer Corps	Pos/BA	357	65,573	354	62,500	352	64,900
	FTE/OBL	348	65,044	354	62,500	352	64,900
NOAA Commissioned Officer Corps	Pos/BA	357	65,573	354	62,500	352	64,900
	FTE/OBL	348	65,044	354	62,500	352	64,900

The NOAA Corps serves NOAA's critical climate, weather, economic, and environmental stewardship missions through the command of NOAA's ship, aircraft, and uncrewed systems fleet and expert assistance to NOAA's line and staff office programs. NOAA Corps officers offer an efficient and unique combination of scientific and operational expertise that allows them to serve as scientific collaborators while operating NOAA ships and aircraft in service to the Nation. The combined expertise of NOAA Corps officers enables operational expertise, upholds scientific data integrity, and protects natural resources. NOAA Corps officers not only understand and can execute proper experimental design, they also understand the need to conduct missions to ensure consistent calibration of data collection instruments to yield high quality data series. All NOAA Corps officers hold undergraduate degrees in science, technology, engineering or mathematics, while more than half hold higher degrees. NOAA Corps officers operate and manage NOAA's fleet of ships and aircraft, serve in positions of leadership and command across the Federal government, in essential positions in Congress, and in the military during times of war or national emergency.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Centrally managed within the NOAA Commissioned Personnel Center under OMAO in Silver Spring, MD, the NOAA Corps provides a unique and valuable capability to the Nation, and NOAA Corps officers provide a responsiveness and flexibility inherent in a commissioned personnel system. These benefits are evident among NOAA Corps aviators and mariners. Commanding Officers of NOAA's hydrography ships serve as the Chief Scientists for these missions, having received this rare and specialized training as part of becoming a NOAA Corps officer. These officers conduct the charting and mapping work that feeds into nautical charts, enabling cost- effective shipping paths for commerce, defense, fishing, and other activities. Among pilots, NOAA Corps officers' breadth of experience both within NOAA and as inter-service transfers allows NOAA Corps aviators to access extreme altitudes or restricted geopolitical areas - enabling NOAA to capture data that other agencies and commercial pilots cannot. This capability is only obtained after years of training, making the loss of any mid-career aviator that much more impactful to the support of critical severe weather research or other mission capabilities. Our pilots and ship captains also help test some of the most innovative weather and other sensing instruments, and equipment aboard NOAA planes and ships. The commercial sector does not have this same ability. More information on the NOAA Corps can be found at https://www.omao.noaa.gov/noaa-corps/about-noaa-corps.

Current Projections			
NOAA Corps Strength[5]	FY 2023	FY 2024	FY 2025 Base
Average Annual	330	330	328

The quality of NOAA data depends on having enough NOAA Corps officers to safely operate data collection platforms, critical to hurricane and atmospheric rivers forecasts, flood and drought prediction efforts, safe and efficient navigation, management of living marine resources, and global ocean monitoring. Each ship and aircraft have minimum staffing requirements to safely and effectively accomplish mission and performance objectives. Aviators also have hourly flight-time limits, and all officers are limited in the number of days they can be deployed. These limits are governed by various regulations. They also mean the NOAA Corps strength directly impacts days

[5] Including admirals

at sea, flight hours, location, and flexibility of missions to meet NOAA's scientific goals. NOAA Corps strength levels are the primary driver of NOAA Corps costs. The size of the Corps is measured by average annual strength, consistent with its authorizing language.[6] Average annual strength reflects the average number of officers on board over the course of the year, measuring how reliably the Corps can meet its operational priorities.

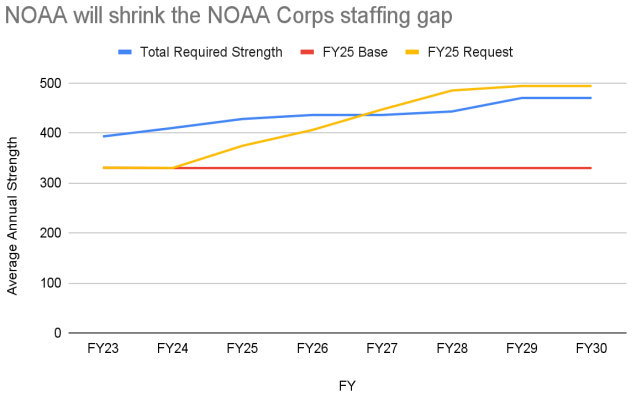
At this budget level, OMAO will support 328 officers including admirals. NOAA will start FY 2025 with 316 officers and will end the year with an AAS of 328. Funds for retired NOAA Corps officers are appropriated in the mandatory NOAA Corps Commissioned Officers Retirement funds (see OMAO-65), and the Medicare Eligible Retiree Health Care Fund discretionary account (see OMAO-71).

[6] 33 USC 3004(d)

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Increase from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
NOAA Comissioned Officer Corps	Pos./BA	352	64,900	402	87,781	50	22,881
	FTE/OBL	352	64,900	401	87,781	49	22,881

Grow the NOAA Corps (+$22,881, 49 FTE/ 50 Positions) – This request will allow the NOAA Corps to grow to keep pace with a larger fleet and support NOAA's scientific missions, including DAS and flight hours. As floods and droughts threaten communities, ecosystems shift, and billion-dollar disasters become more frequent, America increasingly needs data to better understand and mitigate the impacts of climate change. In response to this demand, NOAA added a third King Air in FY 2024, the *Discoverer* in 2026, and is expecting a 2nd G-550 for delivery in 2027. By FY 2025, the *Oceanographer* and the first G-550 will also come online.



Without this requested increase, the NOAA Corps can only support 328 officers. This could result in lost days at sea or flight hours as NOAA will also be unable to permanently relocate qualified officers to one of NOAA's ships or the Aircraft Operations Center in order to fill essential operational positions. Instead, NOAA will involuntarily extend assignments and mandate temporary deployments from shoreside positions. In FY 2023, NOAA temporarily assigned officers involuntarily from shoreside positions 115 times to be able to sail, and grounded a King Air for a week due to understaffing. This requested strength level will support NOAA's ability to conduct hurricane missions which depend on highly qualified pilots to fly the Hurricane Hunters, and where competition with the higher-paying private sector drives attrition. Since then, attrition has spiked to over 11 percent, and recent exit surveys indicate that over-tasking is a significant driver. Conditions will worsen in FY 2025 as officers must also staff a growing fleet. NOAA would need to make difficult decisions at this strength potentially including canceling missions, laying up ships and aircraft, and suspending shoreside billets.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

With additional funding, NOAA will grow from 328 officers to 374 in FY 2025, to better meet DAS and flight hour plans. This request also includes four civilians to support a larger Corps. NOAA will achieve this growth by adding a third BOTC focused on aviators, expanding retention efforts consistent with the NOAA Corps Act of 2020, and improving quality of life for NOAA Corps officers. In FY 2025, OMAO will temporarily increase targeted retention efforts such as bonuses in order to keep attrition low, yielding additional growth in FY 2026. NOAA will also restore its recruitment efforts, which have led to one of the largest applicant pools in years, ensuring strong and diverse candidates. With this multi-pronged approach, new pilots will begin flying missions like snow survey, coastal mapping, and marine mammal surveys. Hurricane hunter pilots, who also fly light aircraft, will experience reduced deployment times that are more consistent with DoD policy, improving the reliability of hurricane operations.

Schedule and Milestones:
FY 2025 - 2029

- Launch aviation-focused BOTC
- Host two standard BOTCs with up to 24 officers each
- Maximize interservice transfers and direct assignments to on-board experienced pilots
- Increase retention through targeted bonuses

Deliverables:

- 6,283 Flight Hours
- 2,840 Days at Sea
- 374 NOAA Corps officers in FY 2025 and 385 NOAA Corps officers in FY 2026

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

Performance Measures	2025	2026	2027	2028	2029
Percent of NOAA Corps Staffing Requirements met					
With Increase	87%	90%	88%	87%	82%
Without Increase	77%	76%	76%	74%	70%
Outyear Costs:					
Direct Obligations	22,881	22,881	22,881	22,881	22,881
Capitalized	0	0	0	0	0
Uncapitalized	22,881	22,881	22,881	22,881	22,881
Budget Authority	22,881	22,881	22,881	22,881	22,881
Outlays	13,957	20,364	21,508	22,423	22,881
FTE	49	50	50	50	50
Positions	50	50	50	50	50

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE PERSONNEL DETAIL

Activity: NOAA Commissioned Officer Corps
Subactivity: NOAA Commissioned Officer Corps
Program Change: Grow the NOAA Corps

Title		Grade	Number	Annual Salary	Total Salaries
Ensign		ZA-3	8	98,456	787,645
Lieutenant Junior Grade		GS-11	8	149,278	1,194,222
Lieutenant		GS-13	10	176,517	1,765,167
Lieutenant Commander		ZA-2	10	205,274	2,052,745
Commander		ZA-3	6	120,838	725,028
Captain			4	176,517	706,067
Total			46		7,230,874
Less lapse	25.00%		0		0
Total full-time permanent (FTE)			46		7,230,874
2025 pay Adjustment (4.5%)					325,389
Total					7,556,263

Title		Grade	Number	Annual Salary	Total Salaries
IT Specialist		ZP-03	1	154,943	154,943
Management Analyst		ZA-03	3	104,255	312,764
Total			4		467,707
Less lapse	25.00%		(1)		-116,927
Total full-time permanent (FTE)			3		350,780
2025 pay Adjustment (2%)					702
Total					351,482

Personnel Data Summary	
Full-time Equivalent Employment (FTE)	
Full-time permanent military	46
Full-time permanent civilian	3
Part-time permanent	0
Full-time temporary	0
Part-time temporary	0
Total FTE	49

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: NOAA Commissioned Officer Corps
Subactivity: NOAA Commissioned Officer Corps

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase from 2025 Base
11.1	Full-time permanent compensation	3,200	3,502	3,521	3,879	358
11.3	Other than full-time permanent	0	$0	0	0	0
11.5	Other personnel compensation	40	42	42	42	0
11.7	Military Personnel Compensation	43,568	48,781	50,251	57,807	7,556
11.9	Total personnel compensation	46,808	52,325	53,814	61,728	7,914
12	Personnel benefits	6,968	7,790	8,187	9,392	1,205
13	Benefits for former personnel	299	451	451	502	51
21	Travel and transportation of persons	545	521	524	1,423	899
22	Transportation of things	1,357	465	482	1,874	1,392
23	Rent, communications, and utilities	0	0	0	0	0
23.1	Rental payments to GSA	0	0	0	0	0
23.2	Rental Payments to others	0	5	54	54	0
23.3	Communications, utilities and misc charges	0	0	0	0	0
24	Printing and reproduction	14	11	11	22	11
25.1	Advisory and assistance services	0	0	0	0	0
25.2	Other services from non-Federal sources	6,780	0	0	8,382	8,382
25.3	Other goods and services from Federal	1,912	877	877	3,544	2,667
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	268	53	498	767	269
31	Equipment	91	0	0	91	91
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	0	0	0	0	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	2	2	2	2	0
44	Refunds	0	0	0	0	0
99	Total obligations	65,044	62,500	64,900	87,781	22,881

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Activity: Marine and Aviation Capital Investments

Goal Statement

Acquire effective and efficient aircraft and ship platforms to support NOAA's prioritized airborne and at-sea data requirements and priorities, maintain NOAA's current fleet at a high state of readiness, and advance coastal and worldwide ocean survey and data collection through investment in new vessel construction. Plan and perform cyclic depot-level capital investments across the fleet, designed to maintain and extend the service life of NOAA's vessel and aircraft fleet and ensure that the required upgrades to aircraft and ship- board systems and mission equipment comply with safety requirements and the needs of the programs.

Base Program

The Marine and Aviation Capital Investments activity includes three major Programs: Fleet Capital Improvements and Technology Infusion, Vessel Recapitalization and Construction, and Aircraft Recapitalization and Construction. Each program plays a specific part in ensuring the continued health of NOAA's vessel and aircraft fleet to ensure the continued support of NOAA's mission.

Statement of Operating Objectives

Fleet Capital Improvements and Technology Infusion
Schedule and Milestones:
FY2025 - FY 2029

- Perform phased overhauls, upgrades, and replacements of ship's systems through infrastructure improvement plans
- Restore and replace ship mission systems
- Address ship corrosion
- Develop and execute long-term maintenance plans to achieve the operational service life of all NOAA vessels
- Modify ships and aircraft to effectively deploy and recover uncrewed systems

Deliverables:
FY 2025 - FY 2029

- Improved reliability of the fleet and reduce lost Days at Sea from unscheduled maintenance

- Continued capability of the NOAA Fleet
- Planned operational service life of all vessels
- Uncrewed system capacity for climate-related mapping, ecosystem assessment and fisheries missions

Vessel Recapitalization and Construction
Schedule and Milestones:
FY 2025
- Initial operating capability for N/V *Oceanographer*
- *Ron Brown* exits Mid Life Repair period and is fully operational

FY 2026-FY 2029
- Contract close out and full operating capability for the N/V *Oceanographer* and *Discoverer*
- Initial operating capability for NOAA Vessel Class Bs
- Begin detailed design and construction of NOAA Vessel Class C
- Enter Mid-Life Repair Period for FSV *Oscar Dyson* FY 2026

Deliverables:
FY 2027
- Delivery of first NOAA Vessel Class B

FY 2028
- Delivery of second NOAA Vessel Class B

Aircraft Recapitalization and Construction
Schedule and Milestones:
FY 2025
- Delivery of the first G-550
- Install initial G-550 instruments and systems, test and calibrate
- Induct the G-550 into NOAA Fleet
- Decommission the G-IV

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

FY 2026
- Final operational testing and calibration of advanced instrumentation on first G-550

FY 2027
- Delivery of the second G-550, initial instrument and system installation and calibration
- Induct the second G-550 into the NOAA fleet

FY 2028
- Final operational testing and calibration of advanced instrumentation on second G-550
- G-550 Acquisition Program complete

Deliverables:
FY 2025
- Delivery of modified 1st G-550
- Initial Operational capability (IOC) for first G-550
- Begin disposal process for G-IV

FY 2026
- Full operational capability (FOC) for first G550

FY 2027
- Delivery of modified 2nd G-550

FY 2028
- Initial Operating Capability for 2nd G-550

FY 2030
- Full Operating Capability for 2nd G-550
- Keep NOAA's second P-3 operational through 2030

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Explanation and Justification

		2023 Actual		2024 Annualized CR		2025 Base	
Comparison by subactivity		Personnel	Amount	Personnel	Amount	Personnel	Amount
Fleet Capital Improvements & Technology Infusion	Pos/BA	17	27,764	17	28,000	17	28,000
	FTE/OBL	12	27,764	17	28,000	17	28,000
Vessel Recapitalization & Construction	Pos/BA	38	93,614	43	95,000	43	95,000
	FTE/OBL	44	235,684	40	95,000	40	95,000
Aircraft Recapitalization & Construction	Pos/BA	7	336,364	9	9,000	9	9,000
	FTE/OBL	3	21,654	9	9,000	9	9,000
Total, Marine & Aviation	Pos/BA	62	457,742	69	132,000	69	132,000

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

FLEET CAPITAL IMPROVEMENTS AND TECHNOLOGY INFUSION

The Fleet Capital Improvements and Technology Infusion Program allows NOAA to plan and perform cyclic depot-level capital investments across the fleet, designed to maintain and extend the service life of NOAA's vessel and aircraft fleet. It ensures that the required upgrades to aircraft and ship-board systems and mission equipment comply with safety requirements and the needs of the programs. Aircraft and ships receive regular upgrades and replacements of mission support equipment and technology infusions such as data processing and storage capacity, multi-beam sonars and sensors. The program also supports the future acquisition of UxS, and uncrewed launch and recovery systems.

OMAO monitors the material condition of aircraft through periodic Service Life Assessments and Service Life Extension Programs. The Service Live Assessments documents completed for all aircraft in FY 2016 by a third-party vendor provide key data on maintenance costs and trends; sustainability costs; reliability metrics and issues; all of which guide future capital investment decision making. In addition, OMAO uses manufacturer-provided Service Life Extension costs such as re-winging, major overhauls and upgrades to help determine economic feasibility, cost benefit and reliability data. These data are critical to maximizing future maintenance investments and capital investments.

For vessels, OMAO monitors their material condition through Ship Structure and Machinery Evaluation. The Ship Structure and Machinery Evaluation documents the results of inspections and identifies future work to guide capital investment decision making. Additionally, OMAO uses manufacturer-provided information for new ships to develop maintenance profiles. To address regular capital improvements for NOAA ships, progressive lifecycle maintenance ensures the service life of vessels by proactively overhauling, upgrading, or replacing shipboard systems before they fail. Repairs completed through progressive lifecycle maintenance improve the material condition of the ships, provide sustained critical technology refresh, and ensure NOAA ships remain capable of collecting environmental data to support NOAA's mission to provide accurate and reliable products services critical for national security, public safety, and economic security.

The chart below lists the types of capital investments that vary from year-to-year based on the results of Ship Structure and Machinery Evaluation that assess the material condition of the ships and determine priority repairs:

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Crew Space Refurbishment	Science/ Mission Space Refurbishment	Shipboard Systems	Underwater Body	Mission Systems Refresh
Refrigeration systems HVAC refurbishment Renovation of habitability spaces	Renovation of laboratory spaces Modifications to allow for emerging technologies	Propulsion & generation systems overhaul Re-piping Fire suppression upgrades Machinery monitoring upgrades Environmental equipment replacement	Blast hull Refurbish props/shafts Refurbish valves/ piping	Multi-beam sonars and sensors Ship-board electronic data processing and storage UxS Launch/ Recovery System Small boats and launches Cranes, winches, davits

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

VESSEL RECAPITALIZATION AND CONSTRUCTION

Acquisition of new ships is the best way for NOAA to reliably and consistently meet its at-sea mission data collection requirements and priorities. NOAA's Fleet Plan, released in 2016, assesses NOAA's at-sea observational infrastructure needs through 2028 for carrying out its mission of protecting lives, livelihoods, and valuable natural resources for the American public. It identifies an integrated approach consisting of best management practices and long-term recapitalization levers to extend and sustain capabilities. The plan includes the critical long-term strategy of designing and constructing up to eight new ships specifically designed to meet NOAA core capabilities based on mission and activities.

Since releasing the Fleet Plan, NOAA has made concerted efforts to strengthen its knowledge of the condition of the fleet. Material condition assessments paired with the American Bureau of Shipping SLAs have resulted in better confidence in the condition of NOAA ships; that and increased funding have improved the readiness of the fleet. As a result of these efforts and other best practices, the end of service lives for many of NOAA's ships have been extended from the dates published in the 2016 Fleet Plan. However, the trend of condition deterioration remains the same. To most efficiently meet its data requirements and priorities, NOAA needs new purpose-designed and constructed vessels to meet the NOAA mission.

NOAA's ships need to be multi-mission adaptable and provide the infrastructure and capabilities necessary to carry out its mission now and in the future. In contrast to the wide variety of vessel types that currently comprise the NOAA Fleet, NOAA intends to reduce the number of ship classes in the future. Each class will meet a core mission requirement with secondary missions that allow all NOAA vessels to provide multi-mission capabilities. The table below identifies the primary and secondary missions met by each ship. NOAA will standardize core equipment as much as possible and incorporate the latest technologies across the Fleet. Up to date technology and standardization are critical for NOAA to sustain optimal crewing and efficient operations and maintenance.

The Vessel Recapitalization and Construction program supports vessel acquisition, including instrumentation specific to NOAA missions. The program oversees these activities, which include a rigorous analysis of mission priorities, design, and alternative options to meet prioritized activities. The new ship acquisition process consists of four phases: analysis, concept design, preliminary design, and detail design and construction. These phases are immediately followed by warranty and fleet introduction activities before the ship is ready for full operation. Efforts will be made throughout the process to leverage design aspects of previous ship classes and to create standardization across the Fleet to meet multiple core mission activities.

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Ship	Primary Mission	Secondary Mission(s)
N/V Class A	Oceanographic Monitoring, Research and Modeling	Assessment and Management of Living Marine Resources (no trawl); Charting and Surveying
N/V Class B	Charting and Surveying	Assessment and Management of Living Marine Resources (no trawl); Oceanographic Monitoring, Research and Modeling
N/V Class C	Assessment and Management of Living Marine Resources (trawl-capable, shallow-draft)	Charting and Surveying
N/V Class D	Assessment and Management of Living Marine Resources (trawl capable, near-shore and deep ocean, longer endurance)	Charting and Surveying; Oceanographic Monitoring, Research and Modeling

Progress on NOAA's Fleet Plan has helped put NOAA on a steady path toward a more reliable fleet that supports NOAA's science needs. The annual appropriation of $75 million for ship recapitalization, from FY 2016 to the present, has been essential for NOAA to design and build a cohesive fleet.

In FY 2022, construction began on the first two vessels in NOAA's Fleet Plan—the NOAA Ships *Oceanographer* and *Discoverer.* These ships will be NOAA Class A vessels with primary missions of oceanographic monitoring, research and modeling. The *Oceanographer* will be homeported in Honolulu, Hawaii. The *Discoverer* will be homeported at Naval Station Newport, Rhode Island. The Class A vessels will incorporate the latest technologies, including emissions controls and high-efficiency diesel engines that support NOAA's goal of reducing its carbon footprint. Keel-laying ceremonies were conducted for the *Oceanographer* in June 2022 and the *Discoverer,* October 2022, a major step forward in the construction phase of the ship.

In FY 2023, NOAA began the detailed design and construction of two N/V Class B vessels. The award for construction of two Class B ships, with option for two additional vessels, was made on June 23, 2023. FY 2024 and FY 2025 funding will support part of the

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Class B acquisition and will continue to support program management of Class A construction. Funding will also support development of the Class C Analysis of Alternatives.

Designing and constructing ships specific to NOAA's missions provides multiple advantages and improvements over the current fleet. Efforts will be made throughout the design and construction process to leverage design aspects of previous NOAA ship classes. This standardization across the fleet will allow NOAA to meet multiple missions and is critical for efficient maintenance, upgrades, and optimal crewing models and to reduce operation and maintenance costs.

AIRCRAFT RECAPITALIZATION AND CONSTRUCTION

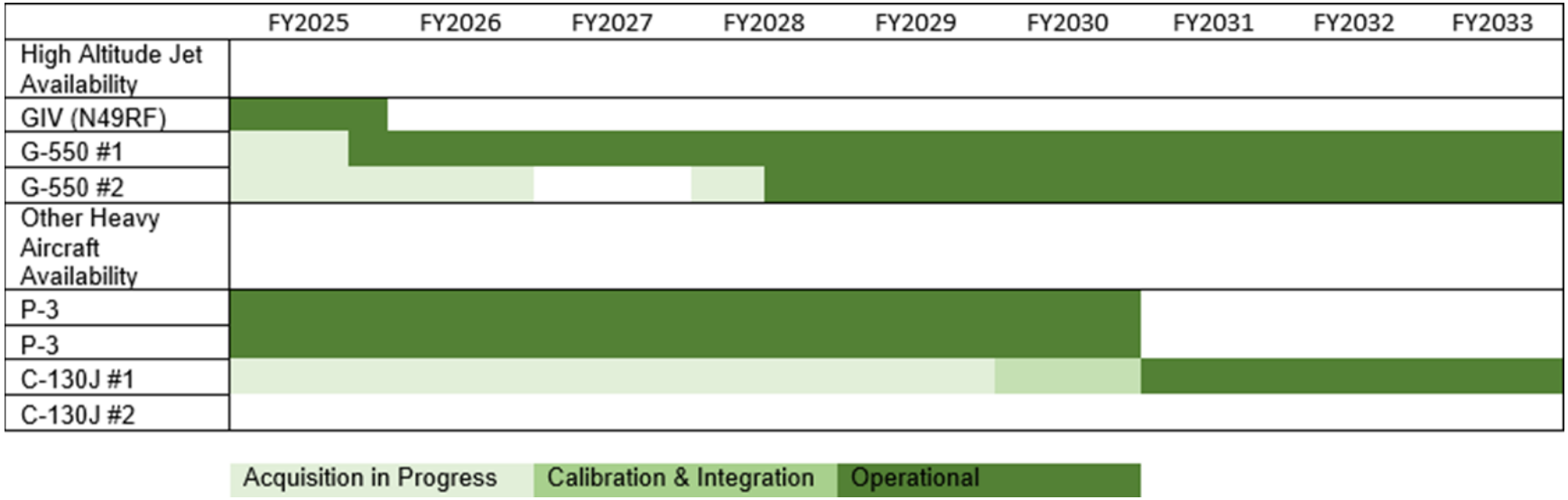
NOAA's aircraft are and will continue to be vital national assets for collecting observational data and providing critical products and services to communities and businesses around the country. Aircraft recapitalization is necessary for NOAA to keep its fleet of aircraft operational, and continue to provide essential services to the Nation, including accurate flood planning, hurricane and atmospheric rivers forecasting, and data used by the Nation's emergency managers. These services affect individuals throughout the country and beyond, contributing to the watches and warnings for weather-related disasters that cost the Nation $165.1 billion in 2022.

NOAA's aircraft are vital in providing observational data in support of hurricane, water supply and weather forecasting, nautical charting, and fisheries management. In FY 2025, NOAA will add the first of two G-550s. This new aircraft will allow NOAA to continue to provide observations for critical missions, including hurricane and atmospheric rivers forecasts. Once received, NOAA will install instrumentation, and calibrate and test the aircraft. NOAA received funding from the Inflation Reduction Act of 2022 for the acquisition of a second G-550; however additional funding is required for the instrumentation. The FY 2025 request provides funding for NOAA to finalize the acquisition of a second G-550 for its high-altitude jet program. The additional G-550 aircraft will provide longer lead times for atmospheric river forecasts, which aid in water prediction across the drought-stricken west coast, as well as expand NOAA's capacity across the western Pacific. Initial operating capacity of a second G-550 is projected in 2028 at the current funding level.

NOAA's weather research missions will be increasingly at risk if the WP-3D replacement program does not follow an acquisition schedule to be operational by 2030. Aircraft reconnaissance data from NOAA's P-3s is essential to provide accurate weather guidance, improve models and forecasts, refine storm surge and hurricane watches and warnings, and provide better information to core partners. These aircraft conduct hurricane observations that improve hurricane intensity forecasts by 10-15 percent and track forecasts by 15-20 percent. It is not practical to extend the life of the P-3s as most of the parts, equipment, and trained pilots needed to operate the aircraft are becoming obsolete due to increasingly restricted supply chains and transition by other operators to the C-130J. Analysis shows that acquiring, modifying, and operating C-130J aircraft is more cost-effective, resulting in increased reliability

compared to using P-3s. Through FY 2023 disaster supplemental funding, NOAA is in the process of replacing one of these aircraft; however, a second C-130J is required to maintain NOAA's current operations beyond 2030. It is essential to replace both P-3 aircraft to prevent a gap in hurricane research and reconnaissance missions. NOAA is authorized up to six aircraft per the FY 2023 National Defense Authorization Act (NDAA).

The chart[7] below outlines the availability of NOAA's heavy aircraft and acquisition timelines based on current plans and funding availability:



[7] The production slot for the second C-130J was reserved in Q1 FY 2024.

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Vessel Recpaitalization and Construction	Pos./BA	43	95,000	43	75,000	0	(20,000)
	FTE/OBL	40	95,000	40	75,000	0	(20,000)

New Vessel Construction Decrease (-$20,000, 0 FTE/0 Positions) - NOAA requests a reduction of $20 million within Vessel Recapitalization and Construction funds provided to the Office of Marine and Aviation Operations. The annual appropriation of $75 million for ship recapitalization, from FY 2016 to the present, has been essential for NOAA to begin to design and build a cohesive fleet.

	2025	2026	2027	2028	2029
Outyear Costs:					
Direct Obligations	(20,000)	(20,000)	(20,000)	(20,000)	(20,000)
Capitalized	(20,000)	(20,000)	(20,000)	(20,000)	(20,000)
Uncapitalized	0	0	0	0	0
Budget Authority	(20,000)	(20,000)	(20,000)	(20,000)	(20,000)
Outlays	(12,200)	(17,800)	(18,800)	(19,800)	(20,000)
FTE	0	0	0	0	0
Positions	0	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

Vessel Recap	2024 & Prior	2025	2026	2027	2028	2029	CTC	Total
Change from 2025 Base	N/A	(20,000)	(20,000)	(20,000)	(20,000)	(20,000)	TBD	TBD
Total Request	860,734	75,000	75,000	75,000	75,000	75,000	TBD	TBD

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Fleet Recapitalization and Construction
Sub Activity: New Vessel Construction

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	5,453	1,200	1,200	1,200	0
11.3	Other than full-time permanent	0	0	0	0	0
11.5	Other personnel compensation	16	20	20	20	0
11.7	Miltary Personnel Compensation	0	0	0	0	0
11.9	Total personnel compensation	5,469	1,220	1,220	1,220	0
12	Civilian personnel benefits	1,769	400	400	400	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	134	80	80	80	0
22	Transportation of things	3	0	0	0	0
23	Rent, communications, and utilitites	0	0	0	0	0
23.1	Rental payments to GSA	0	0	0	0	0
23.2	Rental Payments to others	0	0	0	0	0
23.3	Communications, utilities and misc charges	0	0	0	0	0
24	Printing and reproduction	30	26	26	26	0
25.1	Advisory and assistance services	242	0	0	0	0
25.2	Other services from non-Federal sources	224,680	92,245	92,245	72,245	(20,000)
25.3	Other goods and services from Federal	1	0	0	0	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	0	0	0	0	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	1,165	1,029	1,029	1,029	0
31	Equipment	2,175	0	0	0	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	0	0	0	0	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	16	0	0	0	0
44	Refunds	0	0	0	0	0
99	Total obligations	235,684	95,000	95,000	75,000	(20,000)

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Increase from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Aircraft Recapitalization and Construction	Pos./BA	9	9,000	9	26,000	0	17,000
	FTE/OBL	9	9,000	9	26,000	0	17,000

Second Aircraft to meet National Weather Research and Forecasting Needs (+$17,000, 0 FTE/ 0 Positions) - NOAA requests increased funding for a total of $21,000 to finalize a second specialized high-altitude G-550 Hurricane Hunter jet to meet national needs as outlined in the Weather Research and Forecasting Innovation Act of 2017 (the Weather Act). The Weather Act requires that NOAA have redundant capabilities for the high-altitude jet aircraft that fly through and around hurricanes, delivering data in near real-time for accurate track and intensity forecasts. This increase would complete the second aircraft to provide redundancy required in the Weather Act. Forecasts from the high- altitude jet directly inform evacuation guidance that impacts millions of Americans. The increasing severity of hurricanes coupled with NOAA's unique ability to collect data that cannot be obtained by any other means has placed increasing reliance and importance on NOAA's aircraft.

The Inflation Reduction Act of 2022 provided most of the funding for the acquisition of a second G-550 aircraft; however, additional funding is required for airframe instrumentation necessary to operate a highly specialized aircraft capable of flying hurricane reconnaissance and atmospheric river missions. The FY 2025 request will complete the funding for instrumentation and provide the funding for system integration, calibration and operational certification. This will complete the acquisition and outfitting effort for the second G-550. Measuring and predicting climate change impacts are core to NOAA's mission.

Schedule and Milestones:
FY2025
- Instrumentation and Science System Acquisition actions

FY2026
- Install G-550 instruments and systems

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

FY2027

- Test and calibrate systems
- Initial Operating Capability of 2nd G-550

FY2028

- Full Operating Capability of 2nd G-550
- G-550 acquisition program complete

Deliverables:

- Fully instrumented, calibrated and integrated 2nd G-550

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM INCREASE FOR 2025
(Dollar amounts in thousands)

	2025	2026	2027	2028	2029
Outyear Costs:					
Direct Obligations	17,000	0	0	0	0
Capitalized	17,000	0	0	0	0
Uncapitalized	0	0	0	0	0
Budget Authority	17,000	0	0	0	0
Outlays	5,780	8,160	1,870	1,020	170
FTE	0	0	0	0	0
Positions	0	0	0	0	0

Out-year Funding Estimates:

Second G-550	**2024 & Prior**	**2025**	**2026**	**2027**	**2028**	**2029**	**CTC**	**Total**
Change from 2025 Base	N/A	17,000	0	0	0	0	N/A	17,000
Total Request	104,000	21,000	0	0	0	0	N/A	125,000

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Marine and Aviation Capital Investments
Subactivity: Aircraft Recapitalization and Construction

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase from 2025 Base
11.1	Full-time permanent compensation	1,098	1,485	1,485	1,485	0
11.3	Other than full-time permanent	0	0	0	0	0
11.5	Other personnel compensation	10	10	10	10	0
11.7	Military Personnel Compensation	0	0	0	0	0
11.9	Total personnel compensation	1,108	1,495	1,495	1,495	0
12	Personnel benefits	327	442	442	442	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	84	29	29	85	56
22	Transportation of things	0	0	0	57	57
23	Rent, communications, and utilities	0	0	0	0	0
23.1	Rental payments to GSA	0	0	0	0	0
23.2	Rental Payments to others	0	0	0	0	0
23.3	Communications, utilities and misc charges	0	0	0	0	0
24	Printing and reproduction	0	0	0	0	0
25.1	Advisory and assistance services	1,713	598	598	598	0
25.2	Other services from non-Federal sources	1,867	654	654	16,319	15,665
25.3	Other goods and services from Federal	1	0	0	0	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	31	11	11	11	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	2,242	783	783	1,140	357
31	Equipment	14,263	4,982	4,982	5,847	865
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	0	0	0	0	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	18	6	6	6	0
44	Refunds	0	0	0	0	0
99	Total obligations	21,654	9,000	9,000	26,000	17,000

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

		2025 Base		2025 Estimate		Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount
Aircraft Recapitalization and Construction	Pos./BA	9	9,000	9	4,000	0	(5,000)
	FTE/OBL	9	9,000	9	4,000	0	(5,000)

P-3 Service Depot Level Maintenance Completed (-$5,000, 0 FTE/ 0 Positions) - This request reflects the FY 2024 completion of the Service Depot Level Maintenance of NOAA's second P-3 Hurricane Hunter aircraft. In FY 2024, NOAA will complete the required maintenance, extending the service life of the aircraft through 2030. This maintenance is required to operate the aircraft to 2030.

Aircraft Recapitalization and Construction	**2024 & Prior**	**2025**	**2026**	**2027**	**2028**	**2029**	**CTC**	**Total**
Change from 2025 Base	N/A	(5,000)	(5,000)	(5,000)	(5,000)	(5,000)	NA	NA
Total Request	15,000	0	0	0	0	0	N/A	15,000

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM DECREASE FOR 2025
(Dollar amounts in thousands)

	2025	2026	2027	2028	2029
Outyear Costs:					
Direct Obligations	(5,000)	(5,000)	(5,000)	(5,000)	(5,000)
Capitalized	(5,000)	(5,000)	(5,000)	(5,000)	(5,000)
Uncapitalized	0	0	0	0	0
Budget Authority	(5,000)	(5,000)	(5,000)	(5,000)	(5,000)
Outlays	(1,700)	(4,100)	(4,650)	(4,950)	(5,000)
FTE	0	0	0	0	0
Positions	0	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Procurement, Acquisition, and Construction
PROGRAM CHANGE DETAIL BY OBJECT CLASS
(Direct Obligations amounts in thousands)

Activity: Marine and Aviation Capital Investments
Subactivity: Aircraft Recapitalization and Construction

	Object Class	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Decrease from 2025 Base
11.1	Full-time permanent compensation	1,098	1,485	1,485	1,485	0
11.3	Other than full-time permanent	0	0	0	0	0
11.5	Other personnel compensation	10	10	10	10	0
11.7	Military Personnel Compensation	0	0	0	0	0
11.9	Total personnel compensation	1,108	1,495	1,495	1,495	0
12	Personnel benefits	327	442	442	442	0
13	Benefits for former personnel	0	0	0	0	0
21	Travel and transportation of persons	84	29	29	29	0
22	Transportation of things	0	0	0	0	0
23	Rent, communications, and utilities	0	0	0	0	0
23.1	Rental payments to GSA	0	0	0	0	0
23.2	Rental Payments to others	0	0	0	0	0
23.3	Communications, utilities and misc charges	0	0	0	0	0
24	Printing and reproduction	0	0	0	0	0
25.1	Advisory and assistance services	1,713	598	598	598	0
25.2	Other services from non-Federal sources	1,867	654	654	(4,346)	(5,000)
25.3	Other goods and services from Federal	1	0	0	0	0
25.4	Operation and maintenance of facilities	0	0	0	0	0
25.5	Research and development contracts	31	11	11	11	0
25.6	Medical care	0	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0	0
25.8	Subsistence and support of persons	0	0	0	0	0
26	Supplies and materials	2,242	783	783	783	0
31	Equipment	14,263	4,982	4,982	4,982	0
32	Lands and structures	0	0	0	0	0
33	Investments and loans	0	0	0	0	0
41	Grants, subsidies and contributions	0	0	0	0	0
42	Insurance claims and indemnities	0	0	0	0	0
43	Interest and dividends	18	6	6	6	0
44	Refunds	0	0	0	0	0
99	Total obligations	21,654	9,000	9,000	4,000	(5,000)

Department of Commerce
National Oceanic and Atmospheric Administration
NOAA Corps Retirement Pay (Mandatory)
SUMMARY OF RESOURCE REQUIREMENTS
(Dollars amounts in thousands)

	Positions	FTE	Budget Authority	Direct Obligations
Annualized CR, 2024	0	0	34,998	34,998
plus: 2025 Adjustments to Base	0	0	0	238
2023 Base	0	0	34,998	34,998
Plus: 2025 Program Changes	0	0	0	0
2025 Estimate	0	0	34,998	34,998

		2023 Actual		2024 Annualized CR		2025 Base		2025 Estimate		Increase/Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
NOAA Corps Retirement Pay	POS/BA	0	34,760	0	34,998	0	34,998	0	34,998	0	0
	FTE/OBL	0	32,221	0	34,998	0	34,998	0	34,998	0	0
Total: NOAA Corps Retirement Pay	POS/BA	0	34,760	0	34,760	0	34,998	0	34,998	0	0
	FTE/OBL	0	332,221	0	34,760	0	34,998	0	34,998	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
NOAA Corps Retirement Pay (Mandatory)
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollars amounts in thousands)

	2023 Actual		2024 Annualized CR		2025 Base		2025 Estimate		Increase/ Decrease from 2025 Base	
	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount
Direct Discretionary Obligation	0	32,221	0	34,998	0	34,998	0	34,998	0	0
Total Obligations	**0**	**32,221**	**0**	**34,998**	**0**	**34,998**	**0**	**34,998**	**0**	**0**
Adjustments to Obligations:										
Unobligated balance	0	2,539	0	0	0	0	0	0	0	0
Total Budget Authority	**0**	**34,760**	**0**	**34,998**	**0**	**34,998**	**0**	**34,998**	**0**	**0**
Financing from Transfers and Other:										
	0	0	0	0	0	0	0	0	0	0
Net Appropriation	**0**	**34,760**	**0**	**34,998**	**0**	**34,998**	**0**	**34,998**	**0**	**0**

Department of Commerce
National Oceanic and Atmospheric Administration
NOAA Corps Retirement Pay (Mandatory)
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollars amounts in thousands)

Activity: NOAA Corps Retirement Pay (Mandatory)

Goal Statement

Provide payment of benefits to retired NOAA Commissioned Officer Corps (NOAA Corps) Officers and their families.

Base Program

In FY 2022, there were 420 retired NOAA Corps officers receiving retired pay benefits, and 32 spouses or 37 dependents of deceased retired officers, who are eligible to receive benefits.

Statement of Operating Objectives

Schedule and Milestones:

- Transfer funds to the U.S. Coast Guard (USCG)
- Administer Healthcare funds for non-Medicare-eligible retirees, dependents, and annuitants

Deliverables:

- Benefits for retired NOAA Corps Officers and their families

Explanation and Justification

The retirement system for the uniformed services provides a measure of financial security after release from active duty for service members and their survivors. It is an important factor in the choice of a career in the uniformed services, and the legal mandate for rates to be paid is the same for all uniformed services, see 10 USC. Retired pay is an entitlement to NOAA Commissioned Corps officers under 33 USCA 3044, 33 USCA 3045, and 33 USCA 3046. Retired pay funds are transferred to the USCG, which handles the payments each year as adjusted pursuant to the National Defense Authorization Act (NDAA). Healthcare funds for non-Medicare-eligible retirees, dependents, and annuitants are administered by OMAO.

This line includes funding for the modernized retirement system, which includes matching Thrift Savings Plan contributions, continuation pay, and retirement itself. Public Law 114-92, the NDAA for FY 2016—provides the Secretary the authority to provide

Department of Commerce
National Oceanic and Atmospheric Administration
NOAA Corps Retirement Pay (Mandatory)
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollars amounts in thousands)

Thrift Savings Plan contributions for members of the uniformed services effective January 1, 2018. Public Law 114-92, as amended by P.L. 114-328, the NDAA for FY 2017—modifies section 356 of title 37 and the use of continuation pay for full TSP members. Members must have "completed not less than [eight] and not more than [twelve] years of service" and "[enter] into an agreement of not less than [three] additional years of obligated service." Continuation pay applies across the board to all military members who are in the modernized retirement system and is intended to help ensure retention after a member has the ability to acquire significant retirement benefits.

Legal authority for retirement of NOAA Corps officers is contained in 33 USCA 3044. Retired officers of the NOAA Corps receive retirement benefits that are administered by USCG, in accordance with a Memorandum of Agreement between the USCG and NOAA, with funds certified by the Commissioned Personnel Center within OMAO.

Department of Commerce
National Oceanic and Atmospheric Administration
NOAA Corps Retirement Pay (Mandatory)
SUMMARY OF RESOURCE REQUIREMENTS BY OBJECT CLASS
(Dollar amounts in thousands)

	2023 Actual	2024 Annualize CR	2025 Base	2025 Estimate	Increase/Decrease from 2024 Base
Object Class					
12.2 Military Benefits	2,591	2,500	2,500	2,500	0
13 Benefits for Former Personnel	29,630	32,498	32,498	32,498	0
Total Obligations	32,221	34,998	34,998	34,998	0
Less prior year recoveries	0	0	0	0	0
Less unobligated balance, SOY	0	0	0	0	0
Plus unobligated balance, EOY	2,539	0	0	0	0
Offsetting collections, Mandatory	0	0	0	0	0
Less: Previously Unavail. Unoblig. Bal.	0	0	0	0	0
Total Budget Authority Mandatory	34,760	34,998	34,998	34,998	0
Personnel Data					
Full-Time Equivalent Employment					
Full-time permanent	0	0	0	0	0
Other than full-time permanent	0	0	0	0	0
Total	0	0	0	0	0
Authorized Positions:					
Full-time permanent	0	0	0	0	0
Other than full-time permanent	0	0	0	0	0
Total	0	0	0	0	0

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Department of Commerce
National Oceanic and Atmospheric Administration
Medicare Eligible Retiree Health Contribution - NOAA Corps
SUMMARY OF RESOURCE REQUIREMENTS
(Dollars amounts in thousands)

	Positions	FTE	Budget Authority	Direct Obligations
Annualized CR, 2024	0	0	1,970	1,970
plus: 2025 Adjustments to Base	0	0	0	0
2023 Base	0	0	1,970	1,970
Plus: 2025 Program Changes	0	0	0	0
2025 Estimate	0	0	1,970	1,970

		2023 Actual		2024 Annualized CR		2025 Base		2025 Estimate		Increase/Decrease from 2025 Base	
		Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
NOAA Corps	POS/BA	0	1,970	0	1,970	0	1,970	0	1,970	0	0
Retirement Pay	FTE/OBL	0	1,970	0	1,970	0	1,970	0	1,970	0	0
Total: NOAA Corps	POS/BA	0	1,970	0	1,970	0	1,970	0	1,970	0	0
Retirement Pay	FTE/OBL	0	1,970	0	1,970	0	1,970	0	1,970	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Medicare Eligible Retiree Health Contribution - NOAA Corps
SUMMARY OF RESOURCE REQUIREMENTS
(Dollars amounts in thousands)

	2023 Actual		2024 Annualized CR		2025 Base		2025 Estimate		Increase/ Decrease from 2025 Base	
	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount
Direct Discretionary Obligation	0	1,970	0	1,970	0	1,970	0	1,970	0	0
Total Obligations	**0**	**1,970**	**0**	**1,970**	**0**	**1,970**	**0**	**1,970**	**0**	**0**
Adjustments to Obligations:										
Unobligated balance	0	0	0	0	0	0	0	0	0	0
Total Budget Authority	**0**	**1,970**	**0**	**1,970**	**0**	**1,970**	**0**	**1,970**	**0**	**0**
Financing from Transfers and Other:										
	0	0	0	0	0	0	0	0	0	0
Net Appropriation	**0**	**1,970**	**0**	**1,970**	**0**	**1,970**	**0**	**1,970**	**0**	**0**

Department of Commerce
National Oceanic and Atmospheric Administration
NOAA Corps Retirement Pay (Mandatory)
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollars amounts in thousands)

Activity: Medicare-Eligible Retiree Healthcare Fund Contribution - NOAA Corps

Goal Statement

This account is NOAA's contribution to a health care accrual fund for NOAA Commissioned Officer Corps officers. The accrual fund pays for the future health care benefits for current officers once they retire and become Medicare-eligible, as well as for their dependents and annuitants.

Base Program

For FY 2025, payments to the accrual fund are estimated at $1,970.

Statement of Operating Objectives

Schedule and Milestones: (On-going)
- Contribute to healthcare accrual fund
- Provide healthcare benefits to eligible retired NOAA Corps Officers and their dependents and annuitants

Deliverables:
- Healthcare benefits of present, active-duty NOAA offices and their dependents and annuitants

Explanation and Justification

The FY 2003 NDAA requires all uniformed services, including NOAA, to participate in an accrual fund for Medicare-eligible retirees. Payments into this accrual fund will cover the future health care benefits of present, active-duty NOAA officers and their dependents and annuitants.

Department of Commerce
National Oceanic and Atmospheric Administration
NOAA Corps Retirement Pay (Mandatory)
SUMMARY OF RESOURCE REQUIREMENTS BY OBJECT CLASS
(Dollar amounts in thousands)

	2023 Actual	2024 Annualized CR	2025 Base	2025 Estimate	Increase/Decrease from 2025 Base
Object Class					
13 Benefits for Former Personnel	1,970	1,970	1,970	1,970	0
25.3 Other goods and services from Federal sources	0	0	0	0	0
Total Obligations	1,970	1,970	1,970	1,970	0
Less prior year recoveries	0	0	0	0	0
Less unobligated balance, SOY	0	0	0	0	0
Plus unobligated balance, EOY	0	0	0	0	0
Offsetting collections, Mandatory	0	0	0	0	0
Less: Previously Unavail. Unoblig. Bal.	0	0	0	0	0
Total Budget Authority Mandatory	1,970	1,970	1,970	1,970	0
Personnel Data					
Full-Time Equivalent Employment					
Full-time permanent	0	0	0	0	0
Other than full-time permanent	0	0	0	0	0
Total	0	0	0	0	0
Authorized Positions:					
Full-time permanent	0	0	0	0	0
Other than full-time permanent	0	0	0	0	0
Total	0	0	0	0	0

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Department of Commerce
National Oceanic and Atmospheric Administration
APPROPRIATION LANGUAGE AND CODE CITATIONS

For expenses necessary for activities authorized by law for the National Oceanic and Atmospheric Administration,

5 USC 5348	15 USC 1514	16 USC 3645	33 USC 1952	51 USC 6061
5 USC 4703	15 USC 1517	16 USC 4101 et seq.	33 USC 2706	
7 USC 1622	15 USC 1537-40	16 USC 4701 et seq.	33 USC 2712	
10 USC 1072	15 USC 8511-8521	16 USC 5001 et seq.	33 USC 2801 et seq.	
10 USC 1116	16 USC 6804 note	16 USC 8206	33 USC 3001 et seq.	
10 USC 1409	16 USC 46a	196 USC 4732	33 USC 3402	
10 USC 2311	16 USC 661 et seq.	31 USC 1105	33 USC 3501	
10 USC 8931	16 USC 757a et seq.	31 USC 6401	33 USC 3601	
12 USC 1715m	16 USC 1361	33 USC 706 et seq.	33 USC 3703	
15 USC 313	16 USC 1431 et seq.	33 USC 883 a-i et seq.	33 USC 4001	
15 USC 313a	16 USC 1447a et seq.	33 USC 891 et seq.	33 USC 4213	
15 USC 313b	16 USC 1451 et seq.	33 USC 893 et seq.	42 USC 8902-05	
15 USC 313 note	16 USC 1456a	33 USC 1121 et seq.	42 USC 9601 et seq.	
15 USC 325	16 USC 1456-1	33 USC 1141	43 USC 1347e	
15 USC 330b	16 USC 1467	33 USC 1251 note	43 USC 3102	
15 USC 330e	16 USC 1531 et seq.	33 USC 1321	44 USC 1307	
15 USC 1511 b-e	16 USC 1801 et seq.	33 USC 1441-44	49 USC 44720	

Government Organization and Employees

5 USC 5348 - Crews of Vessels
"...the pay of officers and members of crews of vessels excepted from chapter 51 of this title by section 5102(c)(8) of this title shall be fixed and adjusted from time to time as nearly as is consistent with the public interest in accordance with prevailing rates and practices in the maritime industry."

5 USC 4703- Demonstration Projects
"…the Office of Personnel Management may, directly or through agreement or contract with one or more agencies and other public and private organizations, conduct and evaluate demonstration projects."

Department of Commerce
National Oceanic and Atmospheric Administration
APPROPRIATION LANGUAGE AND CODE CITATIONS

Agriculture

7 USC 1622 - Distribution and Marketing of Agricultural Products

"The Secretary ... is directed and authorized: ...

(a) to determine the needs and develop or assist in the development of plans for the proper assembly, processing, transportation, storage, distribution, and handling of agricultural (fish) products.

(f) to conduct and cooperate in consumer education for the more effective utilization and greater consumption of agricultural products (fish)...

(g) to collect and disseminate marketing information... for the purpose of ... bringing about a balance between production and utilization of agricultural (fish) products.

(h) to inspect, certify, and identify the class, quality, quantity and condition of agricultural (fish) products ...

(m) to conduct ... research ... to determine the most efficient ... processes for the handling, storing, preserving, protecting...of agricultural (fish) commodities ..."

(h) - Duties of Secretary relating to agricultural products; penalties

"Whoever knowingly shall falsely make, issue, alter, forge, or counterfeit any official certificate, memorandum, or other identification, with respect to inspection, class, grade, quality, size, quantity, or condition, issued or authorized under this section or knowingly cause or procure, or aid, assist in, or be a party to, such false making, issuing, altering, forging, or counterfeiting, or whoever knowingly shall possess, without promptly notifying the Secretary (of Commerce) or his representative, utter, published, or used as true, any such falsely made, altered forged, or counterfeited official certificate, memorandum, mark, identification, or device, or whoever knowingly represents that an agricultural product has been officially inspected or graded...when in fact such commodity has not been so graded or inspected shall be fined not more than $1,000 or imprisoned not more than one year, or both."

Armed Forces

10 USC 1072 Medical and Dental Care

"…The term "uniformed services" means the armed forces and the Commissioned Corps of the National Oceanic and Atmospheric Administration and of the Public Health Service."

10 USC 1116 Determinations of Contributions to the Fund

"At the beginning of each fiscal year after September 30, 2005, the Secretary of the Treasury shall promptly pay into the Fund from the General Fund of the Treasury--(1) the amount certified to the Secretary by the Secretary of Defense under subsection (c), which shall be the contribution to the Fund for that fiscal year required by section 1115; and (2) the amount determined by

each administering Secretary under section 1111(c) as the contribution to the Fund on behalf of the members of the uniformed services under the jurisdiction of that Secretary."

10 USC 1409 - Retired pay multiplier

"(4) Modernized retirement system.-(A) Reduced multiplier for full tsp members .-Notwithstanding paragraphs (1), (2), and (3), in the case of a member who first becomes a member of the uniformed services on or after January 1, 2018, or a member who makes the election described in subparagraph (B) (referred to as a "full TSP member")- (i) paragraph (1)(A) shall be applied by substituting "2" for "2½"; (ii) clause (i) of paragraph (3)(B) shall be applied by substituting "60 percent" for "75 percent"; and (iii) clause (ii)(I) of such paragraph shall be applied by substituting "2" for "2½". (B) Election to participate in modernized retirement system .-Pursuant to subparagraph (C), a member of a uniformed service serving on December 31, 2017, who has served in the uniformed services for fewer than 12 years as of December 31, 2017, may elect, in exchange for the reduced multipliers described in subparagraph (A) for purposes of calculating the retired pay of the member, to receive Thrift Savings Plan contributions pursuant to section 8440e(e) of title 5. (C) Election period.- (i) In general .-Except as provided in clauses (ii) and (iii), a member of a uniformed service described in subparagraph (B) may make the election authorized by that subparagraph only during the period that begins on January 1, 2018, and ends on December 31, 2018. (ii) Hardship extension .-The Secretary concerned may extend the election period described in clause (i) for a member who experiences a hardship as determined by the Secretary concerned. (iii) Effect of break in service .-A member of a uniformed service who returns to service after a break in service that occurs during the election period specified in clause (i) shall make the election described in subparagraph (B) within 30 days after the date of the reentry into service of the member."

10 USC 2311 Assignment and Delegation of Procurement Functions and Responsibilities

(a) In General.--Except to the extent expressly prohibited by another provision of law, the head of an agency may delegate, subject to his direction, to any other officer or official of that agency, any power under this chapter.

(b) Procurements For or With Other Agencies.--Subject to subsection (a), to facilitate the procurement of property and services covered by this chapter by each agency named in section 2303 of this title for any other agency, and to facilitate joint procurement by those agencies--

(1) the head of an agency may delegate functions and assign responsibilities relating to procurement to any officer or employee within such agency;

(2) the heads of two or more agencies may by agreement delegate procurement functions and assign procurement responsibilities from one agency to another of those agencies or to an officer or civilian employee of another of those agencies; and

(3) the heads of two or more agencies may create joint or combined offices to exercise procurement functions and responsibilities.

Department of Commerce
National Oceanic and Atmospheric Administration
APPROPRIATION LANGUAGE AND CODE CITATIONS

10 USC 8931 – National Oceanographic Partnership Program
The Secretary of the Navy shall establish a program to be known as the "National Oceanographic Partnership Program."

Banks and Banking

12 USC 1715m - Mortgage Insurance for Servicemen [NOAA Corps]
This section authorizes payment of Federal Housing Administration (FHA) home mortgage insurance premiums to NOAA Corps Officers.

Commerce and Trade

15 USC 313 - Duties of Secretary of Commerce [National Weather Service]
"The Secretary of Commerce...shall have charge of the forecasting of weather,...issue of storm warnings,...weather and flood signals,... gauging and reporting of rivers,...collection and transmission of marine intelligence...,...reporting of temperature and rainfall conditions..., the display of frost and cold-wave signals, the distribution of meteorological information..., and the taking of such meteorological observations as may be necessary to establish and record the climatic conditions of the United States, or as are essential for the proper execution of the foregoing duties."

15 USC 313a - Establishment of Meteorological Observation Stations in the Arctic Region
"... The Secretary of Commerce shall ... take such actions as may be necessary in the development of an international basic meteorological reporting network in the Arctic region of the Western Hemisphere..."

15 USC 313b - Institute for Aviation Weather Prediction
"The Administrator of the National Oceanic and Atmospheric Administration shall establish an Institute for Aviation Weather Prediction. The Institute shall provide forecasts, weather warnings, and other weather services to the United States aviation community.…"

15 USC 313d – National Integrated Drought Information System (NIDIS) Program
"The Under Secretary, through the National Weather Service and other appropriate weather and climate programs in the National Oceanic and Atmospheric Administration, shall establish a National Integrated Drought Information System to better inform and provide for more timely decisionmaking to reduce drought related impacts and costs."

Department of Commerce
National Oceanic and Atmospheric Administration
APPROPRIATION LANGUAGE AND CODE CITATIONS

15 USC 313 note - Weather Service Modernization Act (a)
As part of the budget justification documents submitted to Congress in support of the annual budget request for the department of Commerce, the Secretary shall include a National Implementation Plan for modernization of the National Weather Service for each fiscal year following fiscal year 1993 until such modernization is complete. The Plan shall set forth the actions, during the 2-year period beginning with the fiscal year for which the budget request is made, that will be necessary to accomplish the objectives described in the Strategic Plan.

15 USC 325 - Spending Authority for the National Weather Service
"...Appropriations now or hereafter provided for the National Weather Service shall be available for: (a) furnishing food and shelter...to employees of the Government assigned to Arctic stations; (b) equipment and maintenance of meteorological offices and stations, and maintenance and operation of meteorological facilities outside the United States... (c) repairing, altering, and improving of buildings occupied by the National Weather Service, and care and preservation of grounds...(d) arranging for communication services... and
(e) purchasing tabulating cards and continuous form tabulating paper.

15 USC 330b - Duties of Secretary relating to Weather Modification Activities or Attempts - Reporting Requirement
"The Secretary shall maintain a record of weather modification activities, including attempts, which take place in the United States and shall publish summaries thereof from time to time as he determines."
(a) "All reports, documents, and other information received by the Secretary under the provisions of this chapter shall be made available to the public to the fullest practicable extent."

15 USC 330e - Authorization of Appropriations relating to Weather Modification Activities or Attempts - Reporting Requirement
This section provides funding authority to support the reporting requirements specified in this chapter.

15 USC 1511b - United States Fishery Trade Officers
"For purposes of carrying out export promotion and other fishery development responsibilities, the Secretary of Commerce…shall appoint not fewer than six officers who shall serve abroad to promote United States fishing interests. These officers shall be knowledgeable about the United States fishing industry, preferably with experience derived from the harvesting, processing, or marketing sectors of the industry or from the administration of fisheries programs. Such officers, who shall be employees of the Department of Commerce, shall have the designation of fishery trade officers."

Department of Commerce
National Oceanic and Atmospheric Administration
APPROPRIATION LANGUAGE AND CODE CITATIONS

15 USC 1511c - NOAA Estuarine Programs Office

"... The Estuarine Programs Office shall develop, coordinate, and implement the estuarine activities of the administration with the activities of other Federal and State agencies. There are authorized to be appropriated to the Administration not to exceed $560,000 for fiscal year 1989, and $600,000 for fiscal year 1990."

15 USC 1511d - Chesapeake Bay Office

The Secretary of Commerce shall establish, within the National Oceanic and Atmospheric Administration, an office to be known as the Chesapeake Bay Office…which shall provide technical assistance on processes impacting the Chesapeake Bay system, its restoration and habitat protection; develop a strategy to meet the commitments of the Chesapeake Bay Agreement; and coordinate programs and activities impacting the Chesapeake Bay, including research and grants.

15 USC 1511e - Office of Space Commercialization

"There is established with the Department of Commerce an Office of Space Commercialization" which shall "promote commercial provider investment in space activities…assist United States commercial providers in [their efforts to] conduct business with the United States Government, [act] as an industry advocate within the executive branch…, ensure that the United States Government does not compete with United States commercial providers…, [promote] the export of space-related goods and services, [represent] the Department of Commerce in the development of United States policies…and [seek] the removal of legal, policy, and institutional impediments to space commerce."

15 USC 1514 - Basic Authority for Performance of Certain Functions and Activities of Department

"Appropriations are authorized for the following activities of the Department of Commerce:

(a) furnishing to employees...and their dependents, in Alaska and other points outside the continental United States, free emergency medical services...and supplies;
(b) purchasing, transporting, storing, and distributing food and other subsistence supplies for resale to employees...and their dependents, in Alaska and other points outside the continental United States at a reasonable value...; the proceeds from such resales to be credited to the appropriation from which the expenditure was made;
(c) ...establishment, maintenance, and operation of messing facilities, by contract or otherwise, in Alaska and other points outside the continental United States..., such service to be furnished to employees...and their dependents,...
(d) reimbursement...of officers or employees in or under the Department...for food, clothing, medicines, and other supplies furnished by them in emergencies for the temporary relief of dislocated persons in remote localities;
(e) providing motion-picture equipment and film for recreation of crews of vessels..., for recreation for employees in remote localities..., and for training purposes;

(f) erecting, altering, repairing, equipping, furnishing, and maintaining...such living and working quarters and facilities as may be necessary to carry out its authorized work at remote localities not on foreign soil where such living and working accommodations are not otherwise available."

15 USC 1517 - Transfer of Statistical or Scientific Work

"The President is authorized, by order in writing, to transfer at any time the whole or any part of any office, bureau, division, or other branch of the public service engaged in statistical or scientific work, from the Department of State, the Department of the Treasury, the Department of Defense, the Department of Justice, the United States Postal Service, or the Department of the Interior, to the Department of Commerce; and in every such case the duties and authority performed by and conferred by law upon such office, bureau, division, or other branch of the public service, or the part thereof so transferred, shall be thereby transferred with such office, bureau, division, or other branch of the public service, or the part thereof which is so transferred. All power and authority conferred by law, both supervisory and appellate, upon the department from which such transfer is made, or the Secretary thereof, in relation to the said office, bureau, division, or other branch of the public service, or the part thereof so transferred, shall immediately, when such transfer is so ordered by the President, be fully conferred upon and vested in the Department of Commerce, or the Secretary thereof, as the case may be, as to the whole or part of such office, bureau, division, or other branch of the public service so transferred."

15 USC 1537 Needs Assessment for Data Management

"Not later than 12 months after October 29, 1992, and at least biennially thereafter, the Secretary of Commerce shall complete an assessment of the adequacy of the environmental data and information systems of NOAA."

15 USC 1538 – Notice of reprogramming

(a) In general

The Secretary of Commerce shall provide notice to the Committee on Commerce, Science, and Transportation and Committee on Appropriations of the Senate and to the Committee on Merchant Marine and Fisheries, Committee on Science, Space, and Technology, and Committee on Appropriations of the House of Representatives, not less than 15 days before reprogramming funds available for a program, project, or activity of the National Oceanic and Atmospheric Administration in an amount greater than the lesser of $250,000 or 5 percent of the total funding of such program, project, or activity if the reprogramming-

(1) augments an existing program, project, or activity;

(2) reduces by 5 percent or more (A) the funding for an existing program, project, or activity or (B) the numbers of personnel therefor as approved by Congress; or

(3) results from any general savings from a reduction in personnel which would result in a change in an existing program, project, or activity.

Department of Commerce
National Oceanic and Atmospheric Administration
APPROPRIATION LANGUAGE AND CODE CITATIONS

(b) Notice of reorganization
The Secretary of Commerce shall provide notice to the Committees on Merchant Marine and Fisheries, Science, Space, and Technology, and Appropriations of the House of Representatives, and the Committees on Commerce, Science, and Transportation and Appropriations of the Senate not later than 15 days before any major reorganization of any program, project, or activity of the National Oceanic and Atmospheric Administration.

15 USC 1539 – Financial Assistance
(a) Processing of applications
Within 12 months after October 29, 1992, the Secretary of Commerce shall develop and, after notice and opportunity for public comment, promulgate regulations or guidelines to ensure that a completed application for a grant, contract, or other financial assistance under a nondiscretionary assistance program shall be processed and approved or disapproved within 75 days after submission of the application to the responsible program office of the National Oceanic and Atmospheric Administration.
(b) Notification of applicant
Not later than 14 days after the date on which the Secretary of Commerce receives an application for a contract, grant, or other financial assistance provided under a nondiscretionary assistance program administered by the National Oceanic and Atmospheric Administration, the Secretary shall indicate in writing to the applicant whether or not the application is complete and, if not complete, shall specify the additional material that the applicant must provide to complete the application.
(c) Exemption
In the case of a program for which the recipient of a grant, contract, or other financial assistance is specified by statute to be, or has customarily been, a State or an interstate fishery commission, such financial assistance may be provided by the Secretary to that recipient on a sole-source basis, notwithstanding any other provision of law.
(d) "Nondiscretionary assistance program" defined
In this section, the term "nondiscretionary assistance program" means any program for providing financial assistance—
(1) under which the amount of funding for, and the intended recipient of, the financial assistance is specified by Congress; or
(2) the recipients of which have customarily been a State or an interstate fishery commission.

15 USC 1540 – Cooperative Agreements
"The Secretary of Commerce, acting through the Under Secretary of Commerce for Oceans and Atmosphere, may enter into cooperative agreements and other financial agreements with any nonprofit organization to (1) aid and promote scientific and educational activities to foster public understanding of the National Oceanic and Atmospheric Administration or its programs; and (2) solicit private donations for the support of such activities."

Department of Commerce
National Oceanic and Atmospheric Administration
APPROPRIATION LANGUAGE AND CODE CITATIONS

15 USC 8511-8521 – United States Weather Research and Forecasting Improvement
In conducting research, the Under Secretary shall prioritize improving weather data, modeling, computing, forecasting, and warnings for the protection of life and property and for the enhancement of the national economy.

Conservation

16 USC 6804 note – John D. Dingell Jr. Conservation, Management, and Recreation Act
(b)EVERY KID OUTDOORS PROGRAM.—
"(1)ESTABLISHMENT.—The Secretaries shall jointly establish a program, to be known as the 'Every Kid Outdoors program', to provide free access to Federal land and waters for students and accompanying individuals in accordance with this subsection.

16 USC 46a - Marine Fisheries Program Authorization Act
This Act authorizes NMFS fisheries programs not otherwise authorized by law, including research to reduce entanglement of marine mammals in fishing gear, development of habitat restoration techniques, restoration of Chesapeake Bay, and conservation of Antarctic living marine resources.

16 USC 661 et seq.- Declaration of Purpose; Cooperation of Agencies; Surveys and Investigations; Donations
"...the Secretary of the Interior is authorized (1) to provide assistance to, and cooperate with, Federal, State, and public or private agencies and organizations in the development, protection, rearing, and stocking of all species of wildlife, resources thereof, and their habitat, in controlling losses of the same from disease or other causes, in minimizing damages from overabundant species, in providing public shooting and fishing areas, including easements across public lands for access thereto, and in carrying out other measures necessary to effectuate the purposes of said sections; (2) to make surveys and investigations of the wildlife of the public domain, including lands and waters or interests therein acquired or controlled by any agency of the United States; and (3) to accept donations of land and contributions of funds in furtherance of the purposes of said sections."

16 USC 757a et seq.- Anadromous, Great Lakes, and Lake Champlain Fisheries
The Act authorizes cooperative agreements with States "that are concerned with the development, conservation, and enhancement of [anadromous] fish" (section 757a(a)).

16 USC 1361 - Congressional Findings
"The Congress finds that - (1) certain species and population stocks of marine mammals are, or may be, in danger of extinction or depletion as a result of man's activities;"

Department of Commerce
National Oceanic and Atmospheric Administration
APPROPRIATION LANGUAGE AND CODE CITATIONS

"The Secretary is authorized to make grants, or to provide financial assistance in such other form as he deems appropriate, to any Federal or State agency, public or private institution, or other person for the purpose of assisting such agency, institution, or person to undertake research in subjects which are relevant to the protection and conservation of marine mammals, and shall provide financial assistance for, research into new methods of locating and catching yellow-fin tuna without the incidental taking of marine mammals."

16 USC 1431 et seq. - Findings, Purposes, and Policies [The National Marine Sanctuaries Act, as amended]
(b) Purposes and Policies

"The purposes and policies of this title are -

(1) to identify and designate as national marine sanctuaries areas of the marine environment which are of special national significance;
(2) to provide authority for ... conservation and management of these marine areas ...
(3) to support, promote, and coordinate scientific research on, and monitoring of, the resources of these marine areas...
(4) to enhance public awareness, understanding, appreciation, and wise use of the marine environment;
(5) to facilitate to the extent compatible with the primary objective of resource protection, all public and private uses of the resources of these marine areas not prohibited pursuant to other authorities;
(6) to develop and implement coordinated plans for the protection and management of these areas...;
(7) to create models of, and incentives for, ways to conserve and manage these areas..."
(8) to cooperate with global programs ...; and
(9) to maintain, restore, and enhance living resources ..."

16 USC 1447a et seq. - Regional Marine Research Programs
Authorizes NOAA/EPA and Governors of certain states to appoint members to a number of regional marine research boards. Each board is to develop a comprehensive four year marine research plan and "the Administrator of the National Oceanic and Atmospheric Administration shall administer a grant program to support the administrative functions of each Board."

Authorization for the Boards expires on October 1, 1999. The authorization for appropriations expired at the end of fiscal year 1996.

16 USC 1451 et seq. - Findings, Purposes, and Policies [Coastal Zone Management Act]
Establishes a voluntary partnership between the Federal Government and coastal States. It also establishes the National Estuarine Reserve Research program, in which the Secretary of Commerce may designate an estuarine area as a national estuarine research reserve in consultation with governor of affected state.

Department of Commerce
National Oceanic and Atmospheric Administration
APPROPRIATION LANGUAGE AND CODE CITATIONS

16 USC 1456a – Coastal Zone Management Fund
"(b) (1) The Secretary shall establish and maintain a fund, to be known as the 'Coastal Zone Management Fund', which shall consist of amounts retained and deposited into the Fund under subsection (a) of this section and fees deposited into the Fund under section 1456 (i) (3) of this title"

16 USC 1456-1 – Coastal and Estuarine Land Conservation Program
Amends the Coastal Zone Management Act of 1972 to authorize the Secretary of Commerce to conduct a Coastal and Estuarine Land Conservation Program to protect important coastal and estuarine areas. Requires related property acquisition grants to coastal states with approved coastal zone management plans or National Estuarine Research Reserve units. Authorizes appropriations.

16 USC 1467 – Establishment of the Digital Coast
(a)ESTABLISHMENT
(1)IN GENERAL
The Secretary shall establish a program for the provision of an enabling platform that integrates geospatial data, decision-support tools, training, and best practices to address coastal management issues and needs. Under the program, the Secretary shall strive to enhance resilient communities, ecosystem values, and coastal economic growth and development by helping communities address their issues, needs, and challenges through cost-effective and participatory solutions.

16 USC 1531 et seq. – Congressional Findings and Declaration of Purposes and Policy
The purposes of the Act are "to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, to provide a program for the conservation of such endangered species and threatened species, and to take such steps as may be appropriate to achieve the purposes of the treaties and conventions set forth in [the statute]" (section 1531(b)).

16 USC 1801 et seq, - Magnuson-Stevens Fishery Conservation and Management Act
The primary purpose of the Act is "to take immediate action to conserve and manage the fishery resources found off the coasts of the United States (section 1801(b)(1))."

16 USC 3645 - Pacific Coastal Salmon Recovery
"(A) For salmon habitat restoration, salmon stock enhancement, and salmon research, including the construction of salmon research and related facilities, there is authorized to be appropriated for each of fiscal years 2000, 2001, 2002, and 2003, $90,000,000 to the States of Alaska, Washington, Oregon, and California. Amounts appropriated pursuant to this subparagraph

shall be made available as direct payments. The State of Alaska may allocate a portion of any funds it receives under this subsection to eligible activities outside Alaska."

Amended in PL109-479 Section 302(d) as follows: Section 16(d)(2)(A) of the Pacific Salmon Treaty, as transferred by paragraph (1), is amended—

(1) by inserting "sustainable salmon fisheries," after "enhancement,";
(2) by inserting "2005, 2006, 2007, 2008, and 2009," after "2003"; and
(3) by inserting ''Idaho,'' after ''Oregon,''.

16 USC 4101 et seq. – Interjurisdictional Fisheries

"The purposes of this chapter are - (1) to promote and encourage State activities in support of the management of interjurisdictional fishery resources, and (2) to promote and encourage management of interjurisdictional fishery resources through their range" (3) to promote and encourage research in preparation for the implementation of the use of ecosystems and interspecies approaches to the conservation and management of interjurisdictional fishery resources throughout their range."

16 USC 4701 et seq. **-** Aquatic Nuisance Prevention and Control

Establishes an interagency Aquatic Nuisance Species Task Force, of which the Administrator of NOAA is a co-chair. The task force's responsibilities include developing and implementing "a program for waters of the United States to prevent introduction and dispersal of aquatic nuisance species; to monitor, control and study such species; and to disseminate related information."

16 USC 5001 et seq. - Purpose of Convention

"It is the purpose ... to implement the Convention for the Conservation of Anadromous Stocks in the North Pacific Ocean, signed in Moscow, February 11, 1992."

16 USC 8206 – America's Conservation Enhancement Act

(a) In general

The Director, the National Oceanic and Atmospheric Administration Assistant Administrator, the Environmental Protection Agency Assistant Administrator, and the Director of the United States Geological Survey, in coordination with the Forest Service and other appropriate Federal departments and agencies, may provide scientific and technical assistance to Partnerships, participants in fish habitat conservation projects, and the Board.

Department of Commerce
National Oceanic and Atmospheric Administration
APPROPRIATION LANGUAGE AND CODE CITATIONS

Customs Duties

19 USC 4732 – United States-Mexico-Canada Agreement Implementation
(a) IN GENERAL.—Upon the request of the Trade Representative, the Administrator of the Environmental Protection Agency, the Director of the U.S. Fish and Wildlife Service, and the Administrator of the National Oceanic Atmospheric Administration may detail, on a reimbursable basis, one employee of each such respective agency to the Office of the United States Trade Representative to be assigned to the United States Embassy in Mexico to carry out the duties described in subsection (b).

Money and Finance

31 USC 1105 - Budget Contents and Submission to Congress
(a) On or after the first Monday in January but not later than the first Monday in February of each year, the President shall submit a budget of the United States Government for the following fiscal year. Each budget shall include a budget message and summary and supporting information.

Amended in PL108-447 (FY 2005 Omnibus Appropriations Act) as follows: "*Provided further,* That beginning in fiscal year 2006 and for each fiscal year thereafter, the Secretary of Commerce shall include in the budget justification materials that the Secretary submits to Congress in support of the Department of Commerce budget (as submitted with the budget of the President under section 1105(a) of title 31, 10 United States Code) an estimate for each National Oceanic and Atmospheric Administration procurement, acquisition and construction program having a total multiyear program cost of more than $5,000,000 and simultaneously the budget justification materials shall include an estimate of the budgetary requirements for each such program for each of the 5 subsequent fiscal years."

31 USC 6401 - Grant Reporting - Efficiency and Agreements Transparency Act of 2019
To modernize Federal grant reporting and other purposes.

Navigation and Navigable Waters

33 USC 706 et seq. - Department of Commerce; Current Precipitation Information; Appropriation
"There is authorized an expenditure as required,..., for the establishment, operation, and maintenance by the Secretary of Commerce of a network of recording and non-recording precipitation stations, known as the Hydroclimatic Network, whenever...such service is advisable..."

Department of Commerce
National Oceanic and Atmospheric Administration
APPROPRIATION LANGUAGE AND CODE CITATIONS

33 USC 883a et seq. - Surveys and Other Activities
"...the Secretary...is authorized to conduct the following activities:

(1) Hydrographic and topographic surveys;
(2) Tide and current observations;
(3) Geodetic-control surveys;
(4) Field surveys for aeronautical charts;
(5) Geomagnetic, seismological, gravity, and related geophysical measurements and investigations, and observations ..."

33 USC 883b - Dissemination of Data; Further Activities
"...the Secretary is authorized to conduct the following activities:

(1) Analysis and prediction of tide and current data;
(2) Processing and publication of data...;
(3) Compilation and printing of nautical charts...;
(4) Distribution of nautical charts..."

33 USC 883c - Geomagnetic Data; Collection; Correlation, and Dissemination
"To provide for the orderly collection of geomagnetic data...the Secretary ... is authorized to collect, correlate, and disseminate such data."

33 USC 883d - Improvement of Methods, Instruments, and Equipments; Investigations and Research
"...the Secretary ... is authorized to conduct developmental work for the improvement of surveying and cartographic methods, instruments, and equipments; and to conduct investigations and research in geophysical sciences..."

33 USC 883e - Cooperative Agreements for Surveys and Investigations; Contribution of Costs Incurred by National Oceanic and Atmospheric Administration
"(1) The Secretary of Commerce is authorized to enter into cooperative agreements with, and to receive and expand funds made available by... for surveys or investigations... or for performing related surveying and mapping activities... and for the preparation and publication of the results thereof."

"(2) The Secretary of Commerce is authorized to establish the terms of any cooperative agreement entered into ... including the amount of funds to be received ... which the Secretary determines represents the amount of benefits derived ... from the cooperative agreement."

Department of Commerce
National Oceanic and Atmospheric Administration
APPROPRIATION LANGUAGE AND CODE CITATIONS

33 USC 883f - Contracts with Qualified Organizations
"The Secretary is authorized to contract with qualified organizations for the performance of any part of the authorized functions of the National Ocean Survey..."

33 USC 883h - Employment of Public Vessels
"The President is authorized to cause to be employed such of the public vessels as he deems it expedient to employ, and to give such instructions for regulating their conduct as he deems proper in order to carry out the provisions of this subchapter."

33 USC 883i - Authorization of Appropriations
"There are hereby authorized to be appropriated such funds as may be necessary to acquire, construct, maintain, and operate ships, stations, equipment, and facilities and for such other expenditures, including personal services at the seat of government and elsewhere and including the erection of temporary observatory buildings and lease of sites therefore as may be necessary..."

33 USC 891 et seq. - Fleet Replacement and Modernization Program
"The Secretary is authorized to implement... a 15-year program to replace and modernize the NOAA fleet."

33 USC 893 et seq. - Research, Development, and Education
"The Administrator….shall establish a coordinated program of ocean, coastal, Great Lakes, and atmospheric research and development….that shall focus on the development of advanced technologies and analytical methods that will promote United States leadership in ocean and atmospheric science and competitiveness in the applied uses of such knowledge."

33 USC 1121 et seq - National Sea Grant College Program Amendments Act of 2020
(a)FINDINGS - The Congress finds and declares the following:
(1)The national interest requires a strategy to—
(A) provide for the understanding and wise use of ocean, coastal, and Great Lakes resources and the environment;
(B) foster economic competitiveness;
(C) promote public stewardship and wise economic development of the coastal ocean and its margins, the Great Lakes, and the exclusive economic zone;
(D) encourage the development of preparation, forecast, analysis, mitigation, response, and recovery systems for coastal hazards;
(E) understand global environmental processes and their impacts on ocean, coastal, and Great Lakes resources; and
(F) promote domestic and international cooperative solutions to ocean, coastal, and Great Lakes issues.

Department of Commerce
National Oceanic and Atmospheric Administration
APPROPRIATION LANGUAGE AND CODE CITATIONS

33 USC 1141 Young Fisherman's Development Act
To preserve United States fishing heritage through a national program dedicated to training and assisting the next generation of commercial fishermen.

33 USC 1251 note - Water Pollution Prevention and Control
Through the National Shellfish Indicator Program, authorizes the Secretary of Commerce, in cooperation with the Secretary of Health and Human Services and the Administrator of EPA, to establish and administer a 5-year national shellfish research program for the purpose of improving existing classification systems for shellfish growing waters using the latest technological advancements in microbiology and epidemiological methods.

33 USC 1321 **-** Oil and Hazardous Substances [Clean Water Act]
Authorizes the recovery of damages to natural resources in the event of an oil spill in waters of the United States. This authority has been delegated to several Federal agencies, including the Department, pursuant to an Executive Order.

33 USC 1441 **-** Monitoring and Research Program [Marine Protection, Research and Sanctuaries Act]
Authorizes the Secretary of Commerce, in coordination with other agencies, to initiate a comprehensive and continuing program of monitoring and research regarding the effects of the dumping of material into ocean waters or other coastal waters where the tide ebbs and flows or into the Great Lakes or their connecting waters.

33 USC 1442 - Research Program Respecting Possible Long-range Effects of Pollution, Overfishing, and Man-induced Changes of Ocean Ecosystems
Authorizes the Secretary of Commerce, in consultation with other agencies, to … "initiate a comprehensive and continuing program of research with respect to the possible long-range effects of pollution, overfishing, and man-induced changes of ocean ecosystems."

33 USC 1443 - Regional Management Plans for Waste Disposal in Coastal Areas
Authorizes the Secretary of Commerce to assist the Environmental Protection Agency in assessing "the feasibility in coastal areas of regional management plans for the disposal of waste materials."

33 USC 1444 - Annual Report
Requires the Secretary of Commerce to provide Congress with an annual report on the Department's activities to monitor ocean dumping and research the long-range effects of pollution on ocean ecosystems.

Department of Commerce
National Oceanic and Atmospheric Administration
APPROPRIATION LANGUAGE AND CODE CITATIONS

33 USC 1952 – NOAA Marine Debris Program

a) Establishment of Program

There is established, within the National Oceanic and Atmospheric Administration, a Marine Debris Program to identify, determine sources of, assess, prevent, reduce, and remove marine debris and address the adverse impacts of marine debris on the economy of the United States, the marine environment, and navigation safety.

33 USC 2706 - Natural Resources [NOAA Oil and Hazardous Substance Spill Cost Reimbursement]

"...the National Oceanic and Atmospheric Administration acts as trustee of said marine environment and/or resources, shall be deposited in the Damage Assessment and Restoration Revolving Fund ... for purposes of obligation and expenditure in fiscal year 1991 and thereafter, sums available in the Damage Assessment and Restoration Revolving Fund may be transferred, upon the approval of the Secretary ..., to the Operations, Research, and Facilities appropriation of the National Oceanic and Atmospheric Administration."

33 USC 2712 – Use of Oil Spill Liability Trust Fund

Amends Section 1012(a)(5) of the Oil Spill Liability Trust Fund Act by: "(2) by inserting after subparagraph (A) the following:''(B) not more than $15,000,000 in each fiscal year shall be available to the Under Secretary of Commerce for Oceans and Atmosphere for expenses incurred by, and activities related to, response and damage assessment capabilities of the National Oceanic and Atmospheric Administration.''

33 USC 2801 et seq. - National Coastal Monitoring Act

"The purposes of this chapter are to -

(1) establish a comprehensive national program for consistent monitoring of the Nation's coastal ecosystems;
(2) establish long-term water quality assessment and monitoring programs for high priority coastal waters that will enhance the ability of Federal, State, and local authorities to develop and implement effective remedial programs for those waters;
(3) establish a system for reviewing and evaluating the scientific, analytical, and technological means that are available for monitoring the environmental quality of coastal ecosystems;
(4) establish methods for identifying uniform indicators of coastal ecosystem quality;
(5) provide for periodic, comprehensive reports to Congress concerning the quality of the Nation's coastal ecosystems;
(6) establish a coastal environment information program to distribute coastal monitoring information;
(7) provide state programs authorized under the Coastal Zone Management Act of 1972 (16 U.S.C. 1451 et seq.) with information necessary to design land use plans and coastal zone regulations that will contribute to the protection of coastal ecosystems; and

(8) provide certain water pollution control programs authorized under the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.) with information necessary to design and implement effective coastal water pollution controls."

33 USC 3001 et seq.- NOAA Corps Officers
There shall be in the National Oceanic and Atmospheric Administration a commissioned officer corps.

33 USC 3402 – Coordinated National Ocean Exploration Program
The Administrator of the National Oceanic and Atmospheric Administration shall, in consultation with the National Science Foundation and other appropriate Federal agencies, establish a coordinated national ocean exploration program within the National Oceanic and Atmospheric Administration that promotes collaboration with other Federal ocean and undersea research and exploration programs. To the extent appropriate, the Administrator shall seek to facilitate coordination of data and information management systems, outreach and education programs to improve public understanding of ocean and coastal resources, and development and transfer of technologies to facilitate ocean and undersea research and exploration.

33 USC 3501 – Ocean and Coastal Mapping Integration
Directs the President to establish a coordinated federal program to develop an ocean and coastal mapping plan for the Great Lakes and coastal state waters, the territorial sea, the exclusive economic zone, and the continental shelf of the United States that enhances ecosystem approaches in decision-making for conservation and management of marine resources and habitats, establishes research and mapping priorities, supports the siting of research and other platforms, and advances ocean and coastal science. Requires a plan for an integrated ocean and coastal mapping initiative within NOAA. Authorizes appropriations.

33 USC 3601 – Reauthorization of Integrated Coastal and Ocean Observation System Act
The purposes of this chapter are to—
(1) establish a national integrated System of ocean, coastal, and Great Lakes observing systems, comprised of Federal and non-Federal components coordinated at the national level by the National Ocean Research Leadership Council and at the regional level by a network of regional information coordination entities, and that includes in situ, remote, and other coastal and ocean observation, technologies, and data management and communication systems, and is designed to address regional and national needs for ocean information, to gather specific data on key coastal, ocean, and Great Lakes variables, and to ensure timely and sustained dissemination and availability of these data to—
(A) support national defense, marine commerce, navigation safety, weather, climate, and marine forecasting, energy siting and production, economic development, ecosystem-based marine, coastal, and Great Lakes resource management, public safety, and public outreach training and education;
(B) promote greater public awareness and stewardship of the Nation's ocean, coastal, and Great Lakes resources and the general public welfare; and

(C) enable advances in scientific understanding to support the sustainable use, conservation, management, and understanding of healthy ocean, coastal, and Great Lakes resources;
(2) improve the Nation's capability to measure, track, explain, and predict events related directly and indirectly to weather and climate change, natural climate variability, and interactions between the oceanic and atmospheric environments, including the Great Lakes; and
(3) authorize activities to promote basic and applied research to develop, test, and deploy innovations and improvements in coastal and ocean observation technologies, modeling systems, and other scientific and technological capabilities to improve our conceptual understanding of weather and climate, ocean-atmosphere dynamics, global climate change, physical, chemical, and biological dynamics of the ocean, coastal and Great Lakes environments, and to conserve healthy and restore degraded coastal ecosystems.

33 USC 3703 – Federal Ocean Acidification Research and Monitoring
the Joint Subcommittee on Ocean Science and Technology of the National Science and Technology Council to: (1) coordinate federal activities on ocean acidification and establish an interagency working group; and (2) develop a strategic plan for federal research and monitoring on ocean acidification. Requires specified ocean acidification programs in NOAA, the National Science Foundation (NSF), and the National Aeronautics and Space Administration (NASA). Authorizes appropriations.

33 USC 4001 **-** Harmful Algal Bloom and Hypoxia Research and Control Amendments Act of 2017
The President, through the Committee on Environment and Natural Resources of the National Science and Technology Council, shall establish an Inter-Agency Task Force on Harmful Algal Blooms and Hypoxia. The Task Force shall consist of a representative from—the Department of Commerce (who shall serve as Chairman of the Task Force) among others.

33 USC 4213 – Rights and Obligations of the Foundation
(f) Consultation with NOAA – The Foundation shall consult with the Under Secretary during the planning of any restoration or remediation action using funds resulting from judgments or settlements relating to the damage to trust resources of the National Oceanic and Atmospheric Administration.

The Public Health and Welfare

42 USC 8902-8905 - Acid Precipitation Program
Authorized the Administrator of NOAA to serve as co-chair of a task force to prepare a comprehensive research plan for a program to study the causes and effects of acid precipitation. Also authorizes the Administrator of NOAA to serve as the director of a related research program.

Department of Commerce
National Oceanic and Atmospheric Administration
APPROPRIATION LANGUAGE AND CODE CITATIONS

42 USC 9601 et seq. (CERCLA)
Through associated regulations and delegations, authorizes the Administrator to provide technical assistance to the Administrator, EPA, for hazardous waste response under CERCLA and the National Contingency Plan and authorizes the Administrator to act as a natural resource trustee with authority to bring a cause of action for damages resulting from an injury to, destruction of or loss of resources under NOAA's jurisdiction.

Public Lands

43 USC 1347e - Safety and Health Regulations
Authorizes the Secretary of Commerce in cooperation with other Federal entities, to conduct studies of underwater diving techniques and equipment "suitable for protection of human safety and improvement of diver performance…."

43 USC 3102 – National Landslide Preparedness Act
(a) ESTABLISHMENT.—The Secretary shall establish a program, to be known as the ''National Landslide Hazards Reduction Program'' (referred to in this section as the ''program'')— (1) to identify and understand landslide hazards and risks; (2) to reduce losses from landslides; (3) to protect communities at risk of landslide hazards; and (4) to help improve communication and emergency preparedness, including by coordinating with communities and entities responsible for infrastructure that are at risk of landslide hazards.
(3) there is authorized to be appropriated to the National Oceanic and Atmospheric Administration, $1,000,000 to carry out this section.

Public Printing and Documents

44 USC 1307 - Sale and Distribution of NOAA Nautical and Aeronautical Products
"All nautical and aeronautical products created or published ... shall be sold at ... prices ... the Secretary of Commerce shall establish annually ... so as to recover all costs attributable to data base management, compilation, printing, and distribution of such products."

Transportation

49 USC 44720 - Meteorological services
The Administrator of the Federal Aviation Administration shall make recommendations to the Secretary of Commerce on providing meteorological services necessary for the safe and efficient movement of aircraft in air commerce. In providing the services, the Secretary shall cooperate with the Administrator and give complete consideration to those recommendations.

Department of Commerce
National Oceanic and Atmospheric Administration
APPROPRIATION LANGUAGE AND CODE CITATIONS

"To promote safety and efficiency in air navigation to the highest possible degree, the Secretary shall -(1)observe, measure, investigate, and study atmospheric phenomena, and maintain meteorological stations and offices...(2) provide reports to the Administrator (3)cooperate with persons engaged in air commerce in meteorological services...(4)maintain and coordinate international exchanges of meteorological information... (5) participate in developing an international basic meteorological reporting network...(6)coordinate meteorological requirements in the United States to maintain standard observations...;(7)promote and develop meteorological science.

National and Commercial Space Programs

51 USC 60601 – Promoting Research and Observations of Space Weather to Improve the Forecasting of Tomorrow Act
(a)FINDINGS.—
(1) SPACE WEATHER.—Congress makes the following findings with respect to space weather:
(A) Space weather phenomena pose a significant threat to ground-based and space-based critical infrastructure, modern technological systems, and humans working in space.
(B) The effects of severe space weather on the electric power grid, satellites and satellite communications and information, aviation operations, astronauts living and working in space, and space-based position, navigation, and timing systems could have significant societal, economic, national security, and health impacts.
(C) Space-based and ground-based observations provide crucial data necessary to understand, forecast, and prepare for space weather phenomena.
(D) Clear roles and accountability of Federal departments and agencies are critical for efficient and effective response to threats posed by space weather.
(E) Space weather observation and forecasting are essential for the success of human and robotic space exploration.
(F) In October 2015, the National Science and Technology Council published a National Space Weather Strategy and a National Space Weather Action Plan seeking to integrate national space weather efforts and add new capabilities to meet increasing demand for space weather information.
(G) In March 2019, the National Science and Technology Council published an updated National Space Weather Strategy and Action Plan to enhance the preparedness and resilience of the United States to space weather.
(2)ROLE OF FEDERAL AGENCIES.—Congress makes the following findings with respect to the role of Federal agencies on space weather:
(A) The National Oceanic and Atmospheric Administration provides operational space weather monitoring, forecasting, and long-term data archiving and access for civil applications, maintains ground-based and space-based assets to provide observations needed for space weather forecasting, prediction, and warnings, provides research to support operational responsibilities, and develops requirements for space weather forecasting technologies and science.

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Department of Commerce
National Oceanic and Atmospheric Administration
ADVISORY AND ASSISTANCE SERVICES
(Dollar Amounts in Thousands)

	2023 Actual	2024 Estimate	2025 Estimate
Management and Professional Support Services	$236,317	$198,110	$169,457
Studies, Analysis and Evaluations	$48,813	$41,714	$35,681
Engineering and Technical Services	$581,421	$506,700	$433,414
Total	$866,551	$746,524	$638,552

Consulting Services are those services of a pure nature relating to the governmental functions of agency administration and management and agency problem management. These services are normally provided by persons or organizations generally considered to have knowledge and special abilities that are not usually available within the agency. Such services can be obtained through personnel appointments, procurement contracts, or advisory committees.

Management and professional services deal with management data collection, policy review or development, program development, review or evaluation, systems engineering and other management support services. Special studies and analyses deal with the highly specialized areas of agency activity, e.g., air quality, chemical, environmental, geophysical, oceanographic, technological, and etc. Management and support services for research and development are procurement actions that meet the description of management and professional services or special studies and analyses but are funded under research and development.

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Department of Commerce
National Oceanic and Atmospheric Administration
PERIODICAL, PAMPHLETS, AND AUDIOVISUAL PRODUCTS
(Dollar Amounts in Thousands)

	2023 Actual	2024 Estimate	2025 Estimate
Periodicals	$3,271	$3,326	$3,403
Pamphlets	$2,357	$2,396	$2,452
Audiovisuals	$1,118	$1,137	$1,163
Total	$6,746	$6,859	$7,018

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Department of Commerce
National Oceanic and Atmospheric Administration
AVERAGE GRADE AND SALARY

	2023 Actual	2024 Estimate	2025 Estimate
Average executive and SES level pay plans	$235,150	$246,202	$258,512
Average GS/GM grade	12	12	12
Average GS/GM salary	$157,099	$165,666	$173,949
Average Pay Band salary	$173,011	$182,484	$191,608
Average Commissioned Officers salary	$88,826	$93445	$97,650
Average salary for other positions (FWS/Wage Marine)	$92,917	$97,984	$102,884

Average salaries provided here reflect Federal Civilian and Military pay raises for 2024 and 2025, respectively.

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Department of Commerce
National Oceanic and Atmospheric Administration
IMPLEMENTATION STATUS OF GAO AND OIG RECOMMENDATIONS

31 U.S.C. 720, as amended January 3, 2019, requires the head of a federal agency to submit a written statement of the actions taken or planned on Government Accountability Office (GAO) recommendations to the House and Senate Committees on Appropriations with the agency's first request for appropriations made more than 180 calendar days after the date of the report. The Good Accounting Obligation in Government Act (GAO-IG Act), passed on January 3, 2019, (P.L. 115-414) requires each agency to include, in its annual budget justification, a report that identifies each public recommendation issued by GAO and the agency's Office of the Inspector General (OIG) which has remained unimplemented for one year or more from the annual budget justification submission date. In addition, the Act requires a reconciliation between the agency records and the IGs' Semiannual Report to Congress (SAR).

Section 1. Recommendations for which action plans were finalized since the last appropriations request.

Include information on recommendations for which an action plan has been completed since the last budget report. If you have nothing to report, state Nothing to Report."

Report Number	
Report Title	
Issue Date	
Recommendation Number	
Recommendation	
Action(s) Planned	
Action Status (Planned, In-Progress, or Complete)	
Target Completion Date	
Recommendation Status (Planned, In-Progress, or	

Alternative form if more than one report:

Report Number	Report Title	Issue Date	Rec. Number	Recommendation	Action(s) Planned	Action Status (Planned, In-Progress, or Complete)	Target Completion Date	Recommendation Status (Planned, In-Progress, or Complete)
GAO-23-105961	Emergency Alerts: NOAA Should Take Additional	5/16/23	1	The NOAA administrator should assess the extent to which	NOAA will continue to meet with FCC and FEMA to document agency roles and responsibilities along with a decision-making	In-Progress	03/31/24	In-Progress

	Actions to Help Ensure Tsunami Alerts Reach the Public at Risk.			NOAA weather radio coverage extends to populated areas at risk of tsunamis, and publicly communicate the results of the assessment.	process. NOAA recognizes recent changes in public alerting at FCC and FEMA and looks forward to greater engagement and consideration of changes that may be necessary to effectively warn the public of tsunamis through EAS.			
GAO-23-105961	Emergency Alerts: NOAA Should Take Additional Actions to Help Ensure Tsunami Alerts Reach the Public at Risk.	5/16/23	2	The NOAA administrator, in collaboration with FCC and FEMA, should clarify and document the agencies' responsibilities and a decision-making process for determining how to use IPAWS to deliver tsunami alerts to EAS.	NOAA will continue to meet with FCC and FEMA to document agency roles and responsibilities along with a decision-making process. NOAA recognizes recent changes in public alerting at FCC and FEMA and looks forward to greater engagement and consideration of changes that may be necessary to effectively warn the public of tsunamis through EAS.	In-Progress	12/31/25	In-Progress
GAO-23-105172	Federal Fisheries Management: Overfishing Determinations Vary Across Regions, And Data Challenges Complicate Management Efforts	10/13/22	1	The Assistant Administrator for NMFS should develop written documentation of the structural limitations of the species information system database, as well as general guidelines on how to conduct the manual editing needed for multiyear trend analysis and	NOAA will carefully document database-reporting limitations in the Species Information System (SIS) User Guide. Specific limitations described in this recommendation will be addressed via two SIS database development projects referenced in the report. Development for both projects is ongoing and anticipated to be complete by the end of fiscal year 2023.	In-Progress	04/01/24	In-Progress

Department of Commerce
National Oceanic and Atmospheric Administration
IMPLEMENTATION STATUS OF GAO AND OIG RECOMMENDATIONS

				reporting purposes.				
GAO-23-105172	Federal Fisheries Management: Overfishing Determinations Vary Across Regions, And Data Challenges Complicate Management Efforts	10/13/22	2	The assistant administrator for NMFS should develop a written plan for executing the species information system database improvement projects, including the project goals, the procedures to be followed, a timeline for completion, and a schedule for providing status updates.	NOAA proposes recommendation #2 be closed. NOAA's National Marine Fisheries Service (NMFS) completed actions 1 on March 1, 2023. NOAA will adopt a tailored project management approach for SIS development projects appropriate to the size of the team and project scope/budget. Current project documentation (describing project goals, scope, and requirements) will be expanded to more explicitly include sections focused on project process/procedures and reporting. These changes will be implemented by late March 2023. (2) NOAA will continue to utilize the Jira project management software to plan, track, manage, and report on SIS development projects. Additional project management details (e.g., timelines) will be added to the current Jira project management tracking and link to the documentation referenced in (1) above. This action will be completed by late March 2023.	Closed	03/31/2023	Closed 0n 05/04/23
GAO-23-105808	NOAA acquisitions fully aligning procedures with best practices could improve the	10/10/23	1	The Administrator of NOAA should establish agency-wide policy and guidance that are aligned with best practices in GAO's cost guide.	Taking a risk-based approach, NOAA will require that its offices utilize DOC's newly developed cost-estimate guidance and GAO's Cost Estimating and Assessment guide. NOAA's Office of the Chief	In-Progress	09/30/24	In-Progress

Department of Commerce
National Oceanic and Atmospheric Administration
IMPLEMENTATION STATUS OF GAO AND OIG RECOMMENDATIONS

	reliability of cost estimates.				Financial Officer (lead office) will help develop and implement NOAA procedures that strengthen DOC's released cost-estimate procedures. As part of these procedures, some offices may continue to outsource cost-estimation activities. Planned completion and implementation by September 30, 2024.			
GAO-23-105808	NOAA acquisitions fully aligning procedures with best practices could improve the reliability of cost estimates.	10/10/23	2	The administrator of NOAA should require each office within NOAA to have documented cost estimating procedures that are fully aligned with the best practices established in its agency-wide policy and guidance	Taking a risk-based approach, NOAA will require that its offices utilize DOC's newly developed cost-estimate guidance and GAO's Cost Estimating and Assessment guide. NOAA's Office of the Chief Financial Officer (lead office) will help develop and implement NOAA procedures that strengthen DOC's released cost-estimate procedures. As part of these procedures, some offices may continue to outsource cost-estimation activities. Planned completion and implementation by September 30, 2024.	In-Progress	09/30/24	In-Progress

Department of Commerce
National Oceanic and Atmospheric Administration
IMPLEMENTATION STATUS OF GAO AND OIG RECOMMENDATIONS

GAO-23-105172	Federal Fisheries Management: Overfishing Determinations Vary Across Regions, and Data Challenges Complicate Management Efforts	10/13/22	1	NOAA – The Assistant Administrator for NMFS should develop written documentation of the structural limitations of the Species Information System database, as well as general guidelines on how to conduct the manual editing needed for multiyear trend analysis and reporting purposes.	GAO - we still feel like there is some more work to do in order for us to close this one out. The agency met the first part of the recommendation about documenting structural limitations in SIS in the limitations section. On page 52, in the SIS user guide under "Assessment Multiyear Comparison Report," it doesn't look like anything has been changed here—not even a note about contacting the administrator. While the agency does say to contact the SIS administrator under the limitations section, we don't think that this counts as "written general guidelines"	In-Progress Partially complete	3/31/24	As of May 2023, NMFS added a section to its Species Information System database user guide that provides information on the structural limitations of the database, but the agency has not established written general guidelines for how to conduct these analyses and the manual editing needed for multiyear trend analysis and reporting purposes.
GAO-22-104449	Water Quality: Agencies Should Take More Actions to Manage Risks from Harmful Algal Blooms and Hypoxia	6/15/22	1	The Administrator of NOAA and the Administrator of EPA, in collaboration with the members of the working group, should document and define what a national HAB and hypoxia program would entail, including identifying the program's resource needs.	In February and March 2023, NOAA and EPA stated that they will work together and with the other agencies in the working group, to define a national program, identifying goals, objectives, milestones, and resource needs. The agencies also stated that their efforts will build on the information in a coordinated planning document the working group has already prepared. Both agencies said the efforts would be completed in late 2024. We will continue to follow up on the agencies' efforts and progress.	In-Progress	12/31/24	In-Progress

Department of Commerce
National Oceanic and Atmospheric Administration
IMPLEMENTATION STATUS OF GAO AND OIG RECOMMENDATIONS

GAO-22-104449	Water Quality: Agencies Should Take More Actions to Manage Risks from Harmful Algal Blooms and Hypoxia	6/15/22	2	The Administrator of NOAA and the Administrator of EPA, in collaboration with the members of the working group, should develop performance measures to assess the working group's efforts, including the extent to which the recommended goals from the Research Plan and Action Strategy have been achieved.	NOAA and EPA agreed with this recommendation and in late 2022 stated that they will work together, in collaboration with the working group members, to develop formal performance measures. They anticipate the measures will be complete by December 2024. We will continue to follow up on the agencies' efforts.	In-Progress	12/31/24	In-Progress
GAO-22-104449	Water Quality: Agencies Should Take More Actions to Manage Risks from Harmful Algal Blooms and Hypoxia	6/15/22	5	The Administrator of NOAA and the Administrator of EPA, in collaboration with the members of the working group, should develop a national goal for the group focused on efforts to prevent HABs and hypoxia.	NOAA and EPA agreed with this recommendation. In February and March 2023, the two agencies stated that they will work together, in collaboration with the working group members, to develop a national goal focused on prevention, building on the information provided in the 2016 and 2017 Research Plans and Action Strategies for the U.S. and Great Lakes. The agencies stated that this work will be completed by December 2023. We will continue to follow up on the work as it is completed.			
GAO-22-104449	Water Quality: Agencies Should Take More Actions to Manage	6/15/22	6	The Administrator of NOAA and the administrator of EPA, in collaboration with	NOAA and EPA agreed with this recommendation. In late 2022, the agencies stated that they will work together and in collaboration with the working group members	In-Progress	12/31/25	In-Progress

Department of Commerce
National Oceanic and Atmospheric Administration
IMPLEMENTATION STATUS OF GAO AND OIG RECOMMENDATIONS

	Risks from Harmful Algal Blooms and Hypoxia			the members of the working group, should coordinate the development of a more comprehensive body of information on the costs and benefits of mitigation, control, and prevention actions for use by state, local, and tribal governments.	to identify the resources and information needed to determine the costs and benefits of mitigation, control, and prevention actions. They also stated that they will build on efforts to engage state, local, and tribal governments in workshops, webinars, trainings, and other venues and to provide expertise, support, and assistance, including funding to assist with mitigation, control, and prevention activities.			

Section 2. Implementation of GAO public recommendations issued no less than one year ago that are designated by GAO as 'Open' or 'Closed-Unimplemented.'

Open Recommendation(s) the Department has decided not to implement

Include information on all open recommendations made one year or more ago that the Department / bureau do not plan to implement. GAO recommendations are open until officially closed by GAO.

Report Number	**None**
Report Title	
Issue Date	
Recommendation Number	
Recommendation	
Reason for the Decision not to Implement	

Alternative form if more than one report:

Report Number	Report Title	Issue Date	Recommendation Number	Recommendation	Reason for the Decision Not to Implement

Department of Commerce
National Oceanic and Atmospheric Administration
IMPLEMENTATION STATUS OF GAO AND OIG RECOMMENDATIONS

Open Recommendation(s) the Department plans to implement.

Include information on all open recommendations made one year or more ago that the Department / bureau plans to implement. GAO recommendations are open until officially closed by GAO.

Report Number	
Report Title	
Issue Date	
Recommendation Number	
Recommendation	
Target Implementation Date	
Closure Request Pending with GAO (Yes/No)	
Clear Budget Implications (Yes/No)	

Alternative form if more than one report:

Report Number	**Report Title**	**Issue Date**	**Rec. Number**	**Recommendation**	**Target Implementation Date**	**Closure Request Pending with GAO (Yes/No)**	**Clear Budget Implications (Yes/No)**
GAO-20-81	Federal Research: Additional Actions Needed to Improve Public Access to Research Results	11/21/19	36	As the subcommittee on open science moves forward, the NOAA co-chair, in coordination with other co-chairs and participating agencies, should take steps to fully implement leading practices that enhance and sustain collaboration.	9/30/23	Yes, Recommended for Closure on 06/30/21 In August 2022, the National Science and Technology Council's Committee on Science re-established the charter for the Subcommittee on Open Science. Under the new charter, NOAA is no longer listed as a co-chair of the subcommittee. 1/25/23 – Member agencies are working to address the corrective action under the	Yes

Department of Commerce
National Oceanic and Atmospheric Administration
IMPLEMENTATION STATUS OF GAO AND OIG RECOMMENDATIONS

						structural changes of the charter. NOAA provided an additional response to close out the request on 11/13/23 and are waiting or GAO's comment	
GAO-20-81	Federal Research: Additional Actions Needed to Improve Public Access to Research Results	11/21/19	27	The NOAA Administrator Should Fully Develop and Implement a Mechanism to Ensure Researcher Compliance with Their Public Access Plan and Associated Requirements.	12/31/20	Yes, Recommended for Closure on 07/31/20; 9/30/23. NOAA provided an additional response to close out the request on 11/13/23 and are waiting or GAO's comment	Yes
GAO-21-560	Sexual Assault and Harassment: NOAA Has Made Substantial Progress in Prevention and Response, But Could Further Improve Its Processes	9/27/21	1	The administrator of NOAA should ensure that future updates to the agency's sexual harassment and sexual assault prevention and response policy are consistent with all relevant legal requirements.	9/22/23 (extended)	No - Policy with OGC for review. Pending further action.	No

Department of Commerce
National Oceanic and Atmospheric Administration
IMPLEMENTATION STATUS OF GAO AND OIG RECOMMENDATIONS

GAO-21-560	Sexual Assault and Harassment: NOAA Has Made Substantial Progress in Prevention and Response, But Could Further Improve Its Processes	9/27/21	2	The administrator of NOAA should implement a mechanism requiring oversight by senior agency leaders of all disciplinary actions involving misconduct related to sexual assault and sexual harassment before such actions are finalized.	10/31/23	No - Awaiting signed NAO, which is contingent upon Recommendation #1	No
GAO-21-560	Sexual Assault and Harassment: NOAA Has Made Substantial Progress in Prevention and Response but Could Further Improve Its Processes	9/27/21	3	The Administrator of NOAA should ensure that the agency provides specific and readily accessible information on its website, through frequently asked questions (FAQs) and in staff training. The information should describe and explain the differences among complaint systems and what to expect from each when reporting allegations of sexual harassment or assault.	3/31/22 (original)	Yes – Closure requested on 3/31/22. There has been no response	Yes
GAO-21-560	Sexual assault and harassment: NOAA has made substantial progress in prevention and response, but could further improve its processes	9/27/21	4	the administrator of NOAA should require that training for supervisors and managers include critical NOAA-specific information, such as how to report allegations up the chain of command, how to identify and minimize potential risk factors, explanations of NOAA's confidentiality rules, and the consequences for failing to fulfill their supervisory responsibilities	12/30/22	Yes – Closure was requested 5/1/23. NOAA has provided GAO training slides/material that has met this requirement and are awaiting GAO response.	Yes

Department of Commerce
National Oceanic and Atmospheric Administration
IMPLEMENTATION STATUS OF GAO AND OIG RECOMMENDATIONS

GAO-21-560	Sexual Assault and Harassment: NOAA Has Made Substantial Progress in Prevention and Response but Could Further Improve Its Processes	9/27/21	5	The Administrator of NOAA should ensure the agency provides more information to specific individuals and the larger NOAA workforce about how the agency is responding to allegations of sexual assault and sexual harassment, as appropriate, such as regularly updating individuals on the status of their cases and by annually developing summary-level information for the workforce about the number, type, and resolution of cases.	3/31/22 (original)	Yes – Closure was requested on 4/1/22. There has been no response	Yes
GAO-21-560	Sexual Assault and Harassment: NOAA Has Made Substantial Progress in Prevention and Response but Could Further Improve Its Processes	9/27/21	6	The Administrator of NOAA should ensure that the central tracking system being developed will collect consistent data and appropriately document the number and type of incidents of sexual assault and sexual harassment across complaint systems.	6/30/22 (original) 8/30/22 (extended), 2/28/23 (extended)	Yes – Closure was requested on 11/02/23. NOAA - Met with vendor, provided data points for capture. Vendor asked for a flow chart to provide to developers for more accurate pricing. Database will have NOAA-wide use in early 2024	Yes
GAO-21-474	Spectrum Management: Agencies Should Strengthen Collaborative Mechanisms and Processes to Address Potential Interference	7/19/21	11	The NOAA Administrator should clarify and document NOAA's internal processes for identifying and raising concerns about potential interference to NOAA satellite instruments.	9/30/23 (original); 9/30/24 (extended)	No	No
GAO-22-104241	Alaska Native Issues: Federal Agencies Could Enhance Support for Native Village Efforts to	5/18/22	7	The administrator of NOAA should review NOAA's programs identified in this report, and where the agency determines it	10/31/23	No	No

Department of Commerce
National Oceanic and Atmospheric Administration
IMPLEMENTATION STATUS OF GAO AND OIG RECOMMENDATIONS

	Address Environmental Threats			feasible and appropriate, implement relevant changes to address program characteristics that are not established in statute that pose obstacles to Alaska native villages' obtaining assistance, including characteristics we (GAO) identified and others that NOAA may identify. NOAA should also document its review, any related consultation with tribes, and any changes made to its programs.			
GAO-22-105132	Federal Fisheries Management: Opportunities Exist to Enhance Climate Resilience	8/18/22	1	the assistant administrator for NMFS should regularly collect and publicly disseminate information on actions taken by the regional fishery management councils and NMFS' Atlantic highly migratory species division to enhance the climate resilience of federal fisheries, such as fishery management plans that use climate information.	2/29/24	No	No
GAO-21-103792	National Weather Service: Additional Actions Needed to Improve the Agency's Reform Efforts	9/29/21	1	The director of NWS should ensure that as NWS continues its efforts to develop performance measures for the evolve program’s reform efforts, it incorporates GAO’s key attributes of successful performance measures to the extent appropriate for the program.	1/31/24	No	No

Department of Commerce
National Oceanic and Atmospheric Administration
IMPLEMENTATION STATUS OF GAO AND OIG RECOMMENDATIONS

GAO-22-104449	Water Quality: Agencies Should Take More Actions to Manage Risks from Harmful Algal Blooms and Hypoxia	6/15/22	1	The Administrator of NOAA and the Administrator of EPA, in collaboration with the members of the working group, should document and define what a national HAB and hypoxia program would entail, including identifying the program's resource needs.	In February and March 2023, NOAA and EPA stated that they will work together and with the other agencies in the working group, to define a national program, identifying goals, objectives, milestones, and resource needs. The agencies also stated that their efforts will build on the information in a coordinated planning document the working group has already prepared. Both agencies said the efforts would be completed in late 2024. We will continue to follow up on the agencies' efforts and progress.	In-Progress	12/31/24

Department of Commerce
National Oceanic and Atmospheric Administration
IMPLEMENTATION STATUS OF GAO AND OIG RECOMMENDATIONS

GAO-22-104449	Water Quality: Agencies Should Take More Actions to Manage Risks from Harmful Algal Blooms and Hypoxia	6/15/22	2	The Administrator of NOAA and the Administrator of EPA, in collaboration with the members of the working group, should develop performance measures to assess the working group's efforts, including the extent to which the recommended goals from the Research Plan and Action Strategy have been achieved.	NOAA and EPA agreed with this recommendation and in late 2022 stated that they will work together, in collaboration with the working group members, to develop formal performance measures. They anticipate the measures will be complete by December 2024. We will continue to follow up on the agencies' efforts.	In-Progress	12/31/24
GAO-22-104449	Water Quality: Agencies Should Take More Actions to Manage Risks from Harmful Algal Blooms and Hypoxia	6/15/22	5	The administrator of NOAA and the administrator of EPA, in collaboration with the members of the working group, should develop a national goal for the group focused on efforts to prevent HABS and hypoxia.	12/31/23	No	No
GAO-22-104449	Water Quality: Agencies Should Take More Actions to Manage Risks from Harmful Algal Blooms and Hypoxia	6/15/22	6	The Administrator of NOAA and the administrator of EPA, in collaboration with the members of the working group, should coordinate the development of a more comprehensive body of information on the costs and benefits of mitigation, control, and prevention actions for use by state,	NOAA and EPA agreed with this recommendation. In late 2022, the agencies stated that they will work together and in collaboration with the working group members to identify the	In-Progress	12/31/25

				local, and tribal governments.	resources and information needed to determine the costs and benefits of mitigation, control, and prevention actions. They also stated that they will build on efforts to engage state, local, and tribal governments in workshops, webinars, trainings, and other venues and to provide expertise, support, and assistance, including funding to assist with mitigation, control, and prevention activities.		

Exhibit 41

Department of Commerce
National Oceanic and Atmospheric Administration
IMPLEMENTATION STATUS OF GAO AND OIG RECOMMENDATIONS

Recommendations designated by GAO as "Closed-Unimplemented for the past 5 years (2015-2019). Future reports will cover a one-year period.

Report Number	
Report Title	
Issue Date	
Recommendation Number	
Recommendation	
Reason Not Implemented	

Alternative form if more than one report:

Report Number	Report Title	Issue Date	Recommendation Number	Recommendation	Reason Not Implemented

Section 3. Implementation of OIG public recommendations issued no less than one year for which Final Action has not been Taken or Action Not Recommended has been Taken

Include information on all OIG recommendations that are still officially open. Commerce OIG recommendations are open until closed by the Department OIG Liaison.

Report Number	
Report Title	
Issue Date	
Recommendation Number	
Recommendation	
Target Implementation	
Reason No Final Action Taken or Action Not Recommended Taken	
Closure Request Pending	

Department of Commerce
National Oceanic and Atmospheric Administration
IMPLEMENTATION STATUS OF GAO AND OIG RECOMMENDATIONS

Alternative form if more than one report:

Report Number	Report Title	Issue Date	Rec. Number	Recommendation	Target Implementation Date	Reason No Final Action Taken or Action Not recommended taken	Closure Request Pending (Yes/No)
OIG-21-027-I	OMAO Must Define and Implement a Disciplined Requirements Management Process to Ensure Future Acquisitions Meet User Needs	5/21/21	1	That the NOAA Deputy Under Secretary for Operations ensure that OMAO develop and regularly update a long-range vessel acquisition plan that lays out the dependencies between fleet objectives, funding, inventory, technology, and sustainment costs, among others and supports program milestone requirements.	9/30/22 (original) 12/31/24 (extended)	OMAO is working to implement this recommendation.	No
OIG-20-006-A	NOAA's Office of Marine and Aviation Operations Needs to Improve the Planning and Governing of Its Ship Fleet Recapitalization Effort	11/12/19	1	That the Director of NOAA Corps and OMAO develop a detailed contingency plan to reduce the risks associated with delays. The plan should address (a) capability and capacity gaps and (b) the cost of maintaining aging ships and utilizing alternatives.	03/31/20 (original) 9/30/21 (extended) 6/30/22 (extended) 12/31/24 (extended)	NOAA requested closure on 8/31/20. OIG wanted the final contingency plan on 9/25/20, but NOAA is still making revisions and undergoing clearances. As of April 2023, implementation of this recommendation to align with the approval of the fleet plan associated with rec #1.1 of OIG-21-027-I.	Yes, In Progress
OIG-22-022-A	The Success of NOAA's Next-Generation Satellite System Architecture Depends on Sound Requirements Management Practices	6/8/22	1	That the NOAA deputy Under Secretary for operations update policies and procedures to ensure user observation requirements are validated in advance of next-generation satellite system acquisitions.	03/31/24	The draft requirements validation plan was sent for NESDIS leadership approval but was sent back for revision	In Progress

Department of Commerce
National Oceanic and Atmospheric Administration
IMPLEMENTATION STATUS OF GAO AND OIG RECOMMENDATIONS

OIG-22-022-A	The Success of NOAA's Next-Generation Satellite System Architecture Depends on Sound Requirements Management Practices	6/8/22	4	That the NOAA deputy Under Secretary for operations assign responsibility and design a process for determining the relative priority of each NOAA user observation requirement.	03/31/24	Prior to closure of this recommendation, we would like NESDIS to provide the "Aspirational-level" requirements documentation policy, which we assume would show how NESDIS ensures that program threshold requirements are aligned with NOAA user observation requirements as documented in the Consolidated Observation User Requirements List (COURL)	In Progress
OIG-22-022-A	The Success of NOAA's Next-Generation Satellite System Architecture Depends on Sound Requirements Management Practices	6/8/22	5	That the NOAA deputy Under Secretary for operations ensure that NESDIS standardizes requirement priority definitions for next-generation programs, to include information about the extent to which its programs contribute to meeting NOAA user observation requirements.	09/30/23	This meets the first part of our recommendation: that NESDIS standardize requirement priority definitions for next-generation programs. However, NESDIS did not include information on how its programs contribute to meeting NOAA user observation requirements.	Yes - Recommended for Closure on 9/29/23
OIG-22-022-A	The Success of NOAA's Next-Generation Satellite System Architecture Depends on Sound Requirements Management Practices	6/8/22	6	That the NOAA deputy Under Secretary for operations ensure that NESDIS revises policies and procedures for assigning requirements to next-generation satellite programs.	12/31/25	NESDIS has an unwritten process for assigning requirements to next generation satellite programs that was used to develop the NEON observations objective document. The process needs to fully documented and approved by NESDIS leadership	In Progress

Department of Commerce
National Oceanic and Atmospheric Administration
IMPLEMENTATION STATUS OF GAO AND OIG RECOMMENDATIONS

Section 4. Discrepancies between this report and the semiannual reports submitted by the Commerce Office of Inspector General or reports submitted by the GAO

Nothing to report.

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Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
Description of Tribal Consultations
(Dollar amounts in thousands)

While NOAA's Tribal consultation efforts do not relate to the FY 2025 budget submission, NOAA's recent engagement in tribal consultation focused on funding provided through the Inflation Reduction Act (IRA).[1]

Summary Description of Tribal Consultations:

- NOAA's Tribal consultation efforts support:
  - EO 13175: Consultation and Coordination With Indian Tribal Governments
  - Presidential Memorandum on Tribal Consultation and Strengthening the Nation-to-Nation Relationships
- NOAA has revised and updated its existing NOAA policies and guidance documents, which facilitate implementation of the Executive Order
  - NOAA has incorporated comments received under the Federal Register Notice[2] for the NOAA Tribal Consultation Handbook and Indigenous Knowledge guidance documents and has published these documents.[3]
  - Collectively, these documents will serve as a reference and the vital foundation of NOAA's work to build and strengthen our relationships with Indian tribes, Alaska Natives, and Native Hawaiian and Pacific Islanders.

Summary Description of Tribal Input: NOAA garnered input from tribal leaders or representatives on the important opportunities and decisions that the IRA funding provides and will engage interested tribal nations in a sustained dialogue about this funding. NOAA received comments regarding how the agency currently administers funding or proposes to administer funding through under Section 40001 of the IRA, including:

- Tribal nations provided comments concerning constraints on the amount of time and expertise they have available for locating and applying for funding, coordinating opportunities, leveraging resources, administration, planning, design, implementation, and reporting.
- Tribal nations provided comments on how NOAA administers and executes funding.
- Tribal nations provided comments on the priorities and project types that should be considered for funding.
- Tribal nations recommended that NOAA consider priorities to better meet the needs of tribal nations, including but not limited to applicant eligibility, flexible funding opportunities that support science, capacity building, and project implementation, and fisheries needs including habitat restoration and hatcheries.

[1] https://www.noaa.gov/sites/default/files/2023-06/IRA_Tribal_NOAA_Executive_Summary_and_Response_060523_508_0.pdf
[2] https://www.federalregister.gov/documents/2021/11/24/2021-25629/review-and-comment-of-national-oceanic-and-atmospheric-administration-tribal-consultation-policy-and
[3] https://www.noaa.gov/legislative-and-intergovernmental-affairs/noaa-tribal-resources-updates

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Department of Commerce
National Oceanic and Atmospheric Administration
Bipartisan Infrastructure Law
Budget Estimates, Fiscal Year 2025

EXECUTIVE SUMMARY

The Bipartisan Infrastructure Law (BIL; PL 117-58) signed on November 15, 2021, provides a total of $2.96 billion to NOAA over FY 2022 to FY 2026. As required, NOAA has submitted spend plans for each relevant BIL provision for FY 2022, FY 2023, and FY 2024. The FY 2025 BIL spend plan is presented herein.

In developing the BIL spend plans, NOAA sought to ensure consistency with Biden-Harris Administration priorities, including EO 14008,[1] the Justice40 Initiative,[2] EO 13985[3]/EO 14035,[4] the President's Emergency Plan for Adaptation and Resilience (PREPARE),[5] America the Beautiful,[6] EO 14052,[7] OSTP/OMB Multi Agency Research and Development Priorities;[8] the DOC Strategic Plan; and NOAA Administrator priorities. With the funding provided through the BIL, NOAA has a unique and critical opportunity to galvanize the agency's role as the federal government's authoritative source of climate products and services, aggressively address the climate crisis and advance climate services across the Nation and hold climate impacts in check. In combination with annual appropriations and other recent supplemental funding, NOAA's BIL investments will support the whole-of-government effort to tackle the climate crisis, boost resilience, and promote economic growth by building a climate-ready nation by 2030, by:

- Promoting private-sector climate enterprise and job creation;
- Getting information into the hands of decision-makers;
- Providing support for vulnerable and underserved communities; and
- Developing new and improving upon existing products and services that support climate readiness, response and resilience.

NOAA's BIL spend plans address climate risks and key impact areas, including floods, fire, drought, and extreme heat and build resilience in marine and coastal regions. NOAA's targeted and thoughtful investments will be scalable and responsive to societal needs for climate information and support. In addition, NOAA will maximize and leverage partnerships, including by:

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[1] EO 14008: https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/27/executive-order-on-tackling-the-climate-crisis-at-home-and-abroad/
[2] Justice40: https://www.whitehouse.gov/wp-content/uploads/2021/07/M-21-28.pdf
[3] Justice40: https://www.whitehouse.gov/wp-content/uploads/2021/07/M-21-28.pdf
01/20/executive-order-advancing-racial-equity-and-support-for-underserved-communities-through-the-federal-government/
[4] EO 14035: https://www.whitehouse.gov/briefing-room/presidential-actions/2021/06/25/executive-order-on-diversity-equity-inclusion-and-accessibility-in-the-federal-workforce/
[5] PREPARE: https://www.whitehouse.gov/wp-content/uploads/2021/10/Full-PREPARE-Plan.pdf
[6] America the Beautiful: https://www.doi.gov/sites/doi.gov/files/report-conserving-and-restoring-america-the-beautiful-2021.pdf
[7] EO 14052: https://www.whitehouse.gov/briefing-room/presidential-actions/2021/11/15/executive-order-on-implementation-of-the-infrastructure-investment-and-jobs-act/
[8] OSTP/OMB Multi Agency Research and Development Priorities: https://www.whitehouse.gov/wp-content/uploads/2021/07/M-21-32-Multi-Agency-Research-and-Development-Prioirties-for-FY-2023-Budget-.pdf

- Working with businesses and the private sector to enable a robust public-private product development and service delivery enterprise;
- Empowering communities and the public to act;
- Targeting service delivery to at-risk communities across the U.S.;
- Supporting other members of the Federal government in ensuring their investments and assets are climate resilient; and
- Serving climate needs within the Department of Commerce.

In addition to reflecting NOAA and Administration priorities, the spend plans also leverage cross-Line Office equities, Federal and non-federal partnerships, and include measurable results.

All told, NOAA's BIL spend plans support key Administration priorities and the building of a climate-ready nation. These investments will improve and significantly expand equitable access to our weather and climate prediction capabilities and services; enhance coastal resilience and habitat restoration efforts, including Pacific salmon recovery; and improve our modeling capacity through investments in supercomputing infrastructure.

The Nation's infrastructure of the future needs to be climate smart, climate ready, and climate resilient to prepare communities for the on the ground impacts of increasingly intense precipitation, hurricanes, flooding, drought, extreme heat, and fire weather events. As an integral part of the Department of Commerce, NOAA's data, analysis, and predictions are used by businesses of all sizes to make critical decisions on a daily basis. This significant increase in resources for NOAA will benefit the business community across a range of sectors from agriculture to energy to transportation, especially when it comes to products and services that help prepare for extreme weather and climate-driven events.

Department of Commerce
National Oceanic and Atmospheric Administration
Bipartisan Infrastructure Law (BIL)
SUMMARY OF RESOURCE REQUIREMENTS
(Dollar amounts in thousands)

	Positions	FTE	Budget Authority	Direct Obligations
Enacted, 2024	91	91	549,983	549,983
Plus: Inflationary adjustments to base	0	0	0	0
Plus: Technical adjustments to base	0	0	0	0
2025 Estimate	91	91	549,983	549,983

Department of Commerce
National Oceanic and Atmospheric Administration
Bipartisan Infrastructure Law (BIL)
SUMMARY OF RESOURCE REQUIREMENTS
(Dollar amounts in thousands)

Comparison by program		2023 Actual		2024 Enacted		2025 Estimate		Increase/Decrease from 2024 Enacted	
		Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
ORF									
National Ocean Service	Pos/BA	7	243,071	19	235,563	19	232,537	0	(3,026)
	FTE/Obl	13	320,423	19	235,563	19	232,537	0	(3,026)
National Marine Fisheries Service	Pos/BA	18	182,813	18	179,373	18	179,373	0	0
	FTE/Obl	41	249,975	18	179,373	18	179,373	0	0
Oceanic and Atmospheric Research	Pos/BA	18	39,468	24	36,055	24	36,555	0	500
	FTE/Obl	26	95,503	24	36,055	24	36,555	0	500
National Weather Service	Pos/BA	0	44,528	10	47,972	10	50,498	0	2,526
	FTE/Obl	0	52,196	10	47,972	10	50,498	0	2,526
National Environmental Satellite, Data, & Info Service	Pos/BA	0	4,581	0	5,675	0	5,675	0	0
	FTE/Obl	1	6,355	0	5,675	0	5,675	0	0
Mission Support	Pos/BA	12	2,514	20	8,000	20	8,000	0	0
	FTE/Obl	8	3,588	20	8,000	20	8,000	0	0
Office of Marine & Aviation Operations	Pos/BA	0	110	0	2,945	0	2,945	0	0
	FTE/Obl	3	628	0	2,945	0	2,945	0	0
Total ORF	Pos/BA	55	517,085	91	515,583	91	515,583	0	0
	FTE/Obl	92	728,668	91	515,583	91	515,583	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Bipartisan Infrastructure Law (BIL)
SUMMARY OF RESOURCE REQUIREMENTS
(Dollar amounts in thousands)

Comparison by program		2023 Actual		2024 Enacted		2025 Estimate		Increase/Decrease from 2024 Enacted	
		Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
PAC									
Oceanic and Atmospheric Research	Pos/BA	0	0	0	0	0	0	0	0
	FTE/Obl	1	41,978	0	0	0	0	0	0
National Weather Service	Pos/BA	0	0	0	0	0	0	0	0
	FTE/Obl	0	22,883	0	0	0	0	0	0
Total PAC	Pos/BA	0	0	0	0	0	0	0	0
	FTE/Obl	1	64,861	0	0	0	0	0	0
PCSRF									
National Marine Fisheries Service	Pos/BA	0	34,366	0	34,400	0	34,400	0	0
	FTE/Obl	0	34,366	0	34,400	0	34,400	0	0
Financing	Pos/BA	0	0	0	0	0	0	0	0
	FTE/Obl	0	0	0	0	0	0	0	0
Total	Pos/BA	55	551,485	91	549,983	91	549,983	0	0
	FTE/Obl	93	827,895	91	549,983	91	549,983	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Bipartisan Infrastructure Law (BIL)
SUMMARY OF RESOURCE REQUIREMENTS
(Dollar amounts in thousands)

	2023 Actual		2024 Enacted		2025 Estimate		Increase/Decrease from 2024 Enacted	
	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount
Direct Discretionary Obligation	92	728,668	91	515,583	91	515,583	0	0
Direct Discretionary Obligation	0	64,861	0	0	0	0	0	0
Direct Discretionary Obligation	0	34,366	0	34,400	0	34,400	0	0
Total Obligations	**92**	**827,895**	**91**	**549,983**	**91**	**549,983**	**0**	**0**
Adjustments to Obligations:								
Deobligations	0	(4,336)	0	0	0	0	0	0
Unobligated Balance, SOY ORF	0	(400,854)	0	(192,039)	0	(192,039)	0	0
Unobligated Balance, SOY PAC	0	(159,004)	0	(95,745)	0	(95,745)	0	0
Unobligated Balance, SOY PCSRF		(1)		0		0	0	0
Unobligated Balance, EOY ORF	0	192,039	0	192,039	0	192,039	0	0
Unobligated Balance, EOY PAC	0	95,745	0	95,745	0	95,745	0	0
Unobligated Balance, EOY PCSRF	0	1	0	0	0	0	0	0
Total Budget Authority	**92**	**551,485**	**91**	**549,983**	**91**	**549,983**	**0**	**0**
Financing from Transfers and Other:								
Transfer from USDA to ORF	0	(1,501)	0	0	0	0	0	0
Net Appropriation	**92**	**549,984**	**91**	**549,983**	**91**	**549,983**	**0**	**0**

Department of Commerce
National Oceanic and Atmospheric Administration
Bipartisan Infrastructure Law (BIL)
PROGRAM AND PERFORMANCE: DIRECT OBLIGATIONS
(Dollar amounts in thousands)

		2023 Actual		2024 Enacted		2025 Estimate		Increase/Decrease from 2024 Enacted	
		Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
OPERATIONS, RESEARCH, AND FACILITIES (ORF)									
NATIONAL OCEAN SERVICE (NOS)									
	Pos/BA	3	47,487	8	42,709	8	40,183	0	(2,526)
Navigation, Observations and Positioning	FTE/OBL	3	73,009	8	42,709	8	40,183	0	(2,526)
Coastal Science and Assessment	Pos/BA	2	29,854	5	29,535	5	29,535	0	0
	FTE/OBL	3	57,417	5	29,535	5	29,535	0	0
	Pos/BA	2	165,730	6	163,319	6	162,819	0	(500)
Ocean and Coastal Management and Services	FTE/OBL	7	189,997	6	163,319	6	162,819	0	(500)
TOTAL NOS - ORF	**Pos/BA**	**7**	**243,071**	**19**	**235,563**	**19**	**232,537**	**0**	**(3,026)**
	FTE/OBL	**13**	**320,423**	**19**	**235,563**	**19**	**232,537**	**0**	**(3,026)**
NATIONAL MARINE FISHERIES SERVICE (NMFS)									
	Pos/BA	9	4,198	9	2,678	9	2,678	0	0
Protected Resources Science and Management	FTE/OBL	14	4,786	9	2,678	9	2,678	0	0
Habitat Conservation & Restoration	Pos/BA	9	178,615	9	176,695	9	176,695	0	0
	FTE/OBL	27	245,189	9	176,695	9	176,695	0	0
TOTAL NMFS - ORF	**Pos/BA**	**18**	**182,813**	**18**	**179,373**	**18**	**179,373**	**0**	**0**
	FTE/OBL	**41**	**249,975**	**18**	**179,373**	**18**	**179,373**	**0**	**0**

Department of Commerce
National Oceanic and Atmospheric Administration
Bipartisan Infrastructure Law (BIL)
PROGRAM AND PERFORMANCE: DIRECT OBLIGATIONS
(Dollar amounts in thousands)

		2023 Actual		2024 Enacted		2025 Estimate		Increase/Decrease from 2024 Enacted	
		Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
OCEANIC AND ATMOSPHERIC RESEARCH (OAR)									
Climate Research	Pos/BA	5	5,057	6	5,059	6	5,059	0	0
	FTE/OBL	4	9,185	6	5,059	6	5,059	0	0
Weather & Air Chemistry	Pos/BA	13	18,047	17	13,360	17	13,360	0	0
Research	FTE/OBL	16	58,319	17	13,360	17	13,360	0	0
Ocean, Coastal, and Great	Pos/BA	0	16,364	1	17,636	1	18,136	0	500
Lakes Research	FTE/OBL	6	27,629	1	17,636	1	18,136	0	500
Innovative Research &	Pos/BA	0	0	0	0	0	0	0	0
Technology	FTE/OBL	0	370	0	0	0	0	0	0
TOTAL OAR - ORF	**Pos/BA**	**18**	**39,468**	**24**	**36,055**	**24**	**36,555**	**0**	**500**
	FTE/OBL	**26**	**95,503**	**24**	**36,055**	**24**	**36,555**	**0**	**500**
NATIONAL WEATHER SERVICE (NWS)									
Observations	Pos/BA	0	9,733	0	10,532	0	10,532	0	0
	FTE/OBL	0	9,530	0	10,532	0	10,532	0	0
Central Processing	Pos/BA	0	10,312	0	12,025	0	700	0	(11,325)
	FTE/OBL	0	9,395	0	12,025	0	700	0	(11,325)

Department of Commerce
National Oceanic and Atmospheric Administration
Bipartisan Infrastructure Law (BIL)
PROGRAM AND PERFORMANCE: DIRECT OBLIGATIONS
(Dollar amounts in thousands)

		2023 Actual		2024 Enacted		2025 Estimate		Increase/Decrease from 2024 Enacted	
		Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
Analyze, Forecast and Support	Pos/BA	0	1,479	0	1,800	0	750	0	(1,050)
	FTE/OBL	0	1,086	0	1,800	0	750	0	(1,050)
Science and Technology Integration	Pos/BA	0	23,004	10	23,615	10	38,516	0	14,901
	FTE/OBL	0	32,185	10	23,615	10	38,516	0	14,901
Total NWS – ORF	**Pos/BA**	**0**	**44,528**	**10**	**47,972**	**10**	**50,498**	**0**	**2,526**
	FTE/OBL	**0**	**52,196**	**10**	**47,972**	**10**	**50,498**	**0**	**2,526**
NATIONAL ENVIRONMENTAL SATELLITE, DATA, AND INFORMATION SERVICE (NESDIS)									
Environmental Satellite Observing Systems	Pos/BA	0	1,898	0	1,900	0	1,900	0	0
	FTE/OBL	0	3,424	0	1,900	0	1,900	0	0
National Centers for Environmental Information (NCEI)	Pos/BA	0	2,683	0	3,775	0	3,775	0	0
	FTE/OBL	1	2,931	0	3,775	0	3,775	0	0
TOTAL NESDIS - ORF	**Pos/BA**	**0**	**4,581**	**0**	**5,675**	**0**	**5,675**	**0**	**0**
	FTE/OBL	**1**	**6,355**	**0**	**5,675**	**0**	**5,675**	**0**	**0**
MISSION SUPPORT (MS)									
Mission Services and Management	Pos/BA	12	1,998	20	8,000	20	8,000	0	0
	FTE/OBL	8	2,820	20	8,000	20	8,000	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Bipartisan Infrastructure Law (BIL)
PROGRAM AND PERFORMANCE: DIRECT OBLIGATIONS
(Dollar amounts in thousands)

		2023 Actual		2024 Enacted		2025 Estimate		Increase/Decrease from 2024 Enacted	
		Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
Hollings Scholarship	Pos/BA	0	516	0	0	0	0	0	0
	FTE/OBL	0	768	0	0	0	0	0	0
TOTAL MISSION SUPPORT - ORF	**Pos/BA**	**12**	**2,514**	**18**	**8,000**	**18**	**8,000**	**0**	**0**
	FTE/OBL	**8**	**3,588**	**18**	**8,000**	**18**	**8,000**	**0**	**0**
OFFICE OF MARINE AND AVIATION OPERATIONS (OMAO)									
Marine Operations and	Pos/BA	0	110	0	585	0	585	0	0
Maintenance	FTE/OBL	0	211	0	585	0	585	0	0
	Pos/BA	0	0	0	1,250	0	1,250	0	0
Aviation Operations and Aircraft Services	FTE/OBL	0	0	0	1,250	0	1,250	0	0
NOAA Commissioned Officer Corps	Pos/BA	0	0	0	1,110	0	1,110	0	0
	FTE/OBL	3	417	0	1,110	0	1,110	0	0
TOTAL OMAO - ORF	**Pos/BA**	**0**	**110**	**0**	**2,945**	**0**	**2,945**	**0**	**0**
	FTE/OBL	**3**	**628**	**0**	**2,945**	**0**	**2,945**	**0**	**0**
TOTAL ORF	**Pos/BA**	**55**	**517,085**	**91**	**515,583**	**91**	**515,583**	**0**	**0**
	FTE/OBL	**92**	**728,668**	**91**	**515,583**	**91**	**515,583**	**0**	**0**

Department of Commerce
National Oceanic and Atmospheric Administration
Bipartisan Infrastructure Law (BIL)
PROGRAM AND PERFORMANCE: DIRECT OBLIGATIONS
(Dollar amounts in thousands)

		2023 Actuals		2024 Enacted		2025 Estimate		Increase/Decrease from 2024 Enacted	
		Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
PROCUREMENT, ACQUISITION, AND CONSTRUCTION (PAC)									
OCEANIC AND ATMOSPHERIC RESEARCH (OAR)									
Systems Acquisition	Pos/BA	0	0	0	0	0	0	0	0
	FTE/OBL	1	41,978	0	0	0	0	0	0
TOTAL OAR - PAC	**Pos/BA**	**0**	**0**	**0**	**0**	**0**	**0**	0	0
	FTE/OBL	**1**	**41,978**	**0**	**0**	**0**	**0**	0	0
NATIONAL WEATHER SERVICE (NWS)									
Systems Acquisition	Pos/BA	0	0	0	0	0	0	0	0
	FTE/OBL	0	22,883	0	0	0	0	0	0
TOTAL NWS - PAC	**Pos/BA**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	FTE/OBL	**0**	**22,883**	**0**	**0**	**0**	**0**	**0**	**0**
TOTAL PAC	**Pos/BA**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	FTE/OBL	**1**	**64,861**	**0**	**0**	**0**	**0**	**0**	**0**

Department of Commerce
National Oceanic and Atmospheric Administration
Bipartisan Infrastructure Law (BIL)
PROGRAM AND PERFORMANCE: DIRECT OBLIGATIONS
(Dollar amounts in thousands)

		2023 Actuals		2024 Enacted		2025 Estimate		Increase/Decrease from 2024 Enacted	
		Personnel	Amount	Personnel	Amount	Personnel	Amount	Personnel	Amount
Pacific Coastal Salmon Recovery Fund	**Pos/BA**	**0**	**34,366**	**0**	**34,400**	**0**	**34,400**	**0**	**0**
	FTE/OBL	**0**	**34,366**	**0**	**34,400**	**0**	**34,400**	**0**	**0**
TOTAL	**Pos/BA**	**55**	**551,485**	**91**	**549,983**	**91**	**549,983**	**0**	**0**
	FTE/OBL	**93**	**827,895**	**91**	**549,983**	**91**	**549,983**	**0**	**0**

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Provision 1: National Oceans and Coastal Security Fund Grants

Description

Communities in coastal areas of the United States are experiencing more extreme weather events due to the impacts of climate change. To protect coastal communities from the negative impacts of these events, the National Coastal Resilience Fund (NCRF) restores, increases and strengthens natural infrastructure to protect communities while also enhancing habitats for fish and wildlife. The program invests in projects that restore or expand natural features such as coastal marshes and wetlands, dune and beach systems, oyster and coral reefs, forests, coastal rivers and floodplains, and barrier islands that minimize the impacts of coastal flooding on nearby communities. The program, established in 2018, is administered by the National Fish and Wildlife Foundation in coordination with NOAA's Office for Coastal Management.

New funding from the Bipartisan Infrastructure Law (BIL) will significantly increase annual investments to support natural and nature-based infrastructure projects in coastal areas. These projects help to tackle the climate crisis and advance support for underserved communities by enhancing coastal resilience, conserving our lands, waters and biodiversity, providing storm protection and flood reduction, and increasing carbon sequestration and storage. In combination with other NOAA habitat restoration investments, NOAA will greatly reduce the impacts of coastal flooding in coastal communities and enhance the ecological integrity and functionality of coastal and inland ecosystems and floodplains. These NCRF funds will support projects that build resilience of coastal communities and their infrastructure from flooding and erosion, in addition to their co-benefits for fish and wildlife. They will also contribute to the New Blue Economy, supporting job creation in design and implementation of restoration projects, from monitoring and assessment to engineering design and construction jobs.

The additional new BIL funding will also enable NCRF to provide increased support for communities most vulnerable to climate impacts, including those who have been historically disadvantaged. NCRF funding will include enhanced engagement and technical assistance to support applicants and grantees, including partnerships with organizations that address issues related to equity and justice. It also includes private sector partnerships and investments, given their mutual interest in building community resilience and avoiding future damages and costs to individuals, communities, and businesses. These efforts will complement the NFWF's ongoing equity focused efforts to ensure effective coordination with state, local, tribal, and territorial governments in program implementation.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

The FY 2025 funding for this provision is divided between two PPAs:

- NOS/National Oceans and Coastal Security Fund: These funds will support the non-competitive cooperative agreement with National Fish and Wildlife Foundation for the ongoing administration of the National Coastal Resilience Fund.
- MS/Mission Services and Management: Support for execution, oversight, and reporting on BIL, as well as other mission support functions related to implementation of BIL.

Explanation and Justification

Line Office	PPA	FY 2025 Amount ($000)
NOS	National Oceans and Coastal Security Fund	$96,872
MS	Mission Services and Management	$1,528
Total Provision 1		$98,400

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Provision 2: Habitat Restoration

Description

NOAA's Office of Habitat Conservation's Restoration Center (OHC), in partnership with NOAA headquarters, will implement the habitat restoration provision of the Bipartisan Infrastructure Law (BIL) by providing funding through a competitive grant process over five years to restore marine, estuarine, coastal, and Great Lakes ecosystem habitats, as well as construct and protect ecological features that protect coastal communities from flooding or coastal storms.

This program will allow NOAA to make significant progress on Administration priorities for more effective, enduring, and inclusive conservation that delivers current and future benefits to all Americans. This includes emphasizing the essential role of communities in strengthening coastal resilience and increasing carbon sequestration through the restoration of coastal ecosystems (EO 14008). It also will help NOAA meet the goals set in the America the Beautiful initiative by pursuing locally-led and collaborative conservation and economic vitality, while fostering the development of the New Blue Economy. These investments will complement and leverage the outcomes of other BIL provisions for habitat restoration.

OHC will provide technical assistance to our partners, through existing staff with expertise from a diverse array of fields including fisheries biology, engineering, project management, and natural resource economics. This collective expertise spans every step in the restoration process, from project conception to completion and adapts over time as projects evolve. OHC will also rely upon decades of experience executing competitive grant programs with a high degree of financial accountability and complexity.

OHC will apply environmental justice and equity priorities (EO 13985/EO 14035) to this funding and place particular emphasis on building capacity in underserved communities. OHC's technical assistance will help partners build capacity across all project phases including laying the groundwork for future projects in these communities.

NOAA will rely upon the broad expertise in habitat conservation and coastal resilience found across many offices at NOAA including NOS. It is expected that a diversity of projects will be funded, reflecting broader NOAA priorities including restoring coastal wetlands, coral and oyster reefs, and riverine habitat that would be complementary to the fish passage provision of the BIL (Provision 14). Restoration will result in meaningful ecological change and community resilience through habitat-based approaches to rebuild productive and sustainable fisheries, contribute to the recovery and conservation of protected resources, and promote resilient ecosystems and communities.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

The FY 2025 funding for this provision is divided between two PPAs:

- NMFS/Habitat Conservation and Restoration: NOAA's Office of Habitat Conservation's Restoration Center will implement the habitat restoration provision by providing funding through a competitive grant process to restore marine, estuarine, coastal, and Great Lakes ecosystem habitats, as well as construct and protect ecological features that protect coastal communities from flooding or coastal storms.
- MS/Mission Services and Management: Support for execution, oversight, and reporting on BIL, as well as other mission support functions related to implementation of BIL.

Explanation and Justification

Line Office	PPA	FY 2025 Amount ($000)
NMFS	Habitat Conservation and Restoration	$96,676
MS	Mission Services and Management	$1,524
Total Provision 2		$98,200

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Provision 3: Flood Inundation Mapping and Forecasting

Description

As a Nation, we face many water-related challenges that affect infrastructure including floods, water availability, safe and efficient navigation, and water quality. Water challenges affect economic and national security, and the impacts are escalating, exacerbated by a changing climate. In response to these challenges, NOAA will transform water prediction within five years by delivering the first-ever, coupled, continental-scale, operational coastal and inland flood forecasting and inundation mapping services. These include critically-needed, user-friendly, actionable decision support services, including flood and inundation information equitably delivered to communities nationwide. To support the design, development, and operation of our Nation's built infrastructure, from new power plants to transportation systems, NOAA will update and revise precipitation frequency atlases for the United States that account for climate change, develop 21st century modernized probable maximum precipitation (PMP) studies, and develop the capability to provide total water prediction at the coast on sub-seasonal to annual timescales.

This plan realizes transformational capabilities through the following societal outcomes:

Societal Outcome 1: Disadvantaged, underserved, and/or socially vulnerable communities, including urban and rural areas, will have equitable access to information that enables them to improve their preparedness, responsiveness and resilience to water availability and flood risks.
Societal Outcome 2: Decision makers and the public will have access to the actionable information from the fully coupled NextGen-based National Water Model (NWM) and associated coastal models, informed by social science, to optimally manage, mitigate, and build resilience to inland and coastal flood threats, optimize commercial port infrastructure, ensure safe and efficient navigation on inland waterways, and support life-sustaining water management.
Societal Outcome 3: Decision makers and the public will have access to the actionable information leveraged from Atlas 14 (and future climate change aware versions) as well as those facilities that require PMP, to optimally design, build, and operate critical national infrastructure.
Societal Outcome 4: Decision makers will have access to the actionable information, informed by social science, to understand and manage water quality risks to critical infrastructure and support recreation opportunities in rivers, lakes, estuaries, fisheries, and coastal environments.

Real-time Coastal and Inland Forecast Flood Inundation Mapping: For more than two decades, the emergency management community has articulated a need for real-time, street-level flood inundation maps depicting the areal extent, depth, and

infrastructure impacted by flood waters, to inform critical decisions that save lives and property before during, and, after a flood event. NOAA will collect and integrate high-resolution bathymetric and topographic data to advance flood and inundation mapping capabilities. Expanding model capability and geographic coverage, particularly in previously underserved coastal communities, will allow for total water prediction along the coastal boundaries for flood inundation mapping (FIM) applications, and depth-varying water quality information in riverine, estuarine, and near-shore coastal environments. Resulting FIM services will be expanded from 300 miles to over 3.4 million miles of rivers and streams, specifically reaching previously underserved communities inland and along the coast.

Improve Overall Forecasting Skill and Services through the Next-Generation of NOAA's National Water Model: Based upon the success of NOAA's National Water Model, and the growing need for higher fidelity geospatial water information nationwide, the water resources enterprise has expressed a desire to work with NOAA to collaboratively develop a Next Generation Water Resources Modeling capability. To support this collaboration, NOAA will develop and implement an open source, modern, and modular computational water resources modeling framework using coding, coupling, and data standards. This next-generation framework will provide a collaborative open-source environment that accelerates development and promotes interoperability of a wide range of hydrologic, hydraulic, coastal, and water quality models engaging all sectors to develop tools to address water resources challenges in a changing climate. It will leverage investments across the water enterprise, accelerate the research to operations cycle, and yield more rapid increases in prediction skill supporting NOAA's development of the unified forecast system.

Build out Sub-seasonal to Annual Integrated Water Capabilities: Coastal communities are increasingly impacted by periods of flooding, even in the absence of storms or heavy rainfall. NOAA will develop the capability to predict the location and timing of these impacts, and document how this risk varies from month to month and year to year. This new information and related services will enable the nation to quantify and communicate certain impacts of inundation due to sea level rise, high tide flooding, and Great Lakes water level fluctuations.

Update and Revise Precipitation Frequency Atlases for the U.S. including Probable Maximum Precipitation: NOAA is the authoritative source for precipitation design data used by all engineering entities across the nation. Updates to NOAA precipitation frequency atlases and revisions will account for climate change, and make these data publicly available. NOAA Atlas 14 precipitation frequency and probable maximum precipitation estimates are critical to design and construct all infrastructure.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Apply NOAA's Service Delivery Framework: Understanding how the opportunities our products and data can inform business and society are critical to informing NOAA's future investments in science and service. NOAA will invest in sustained user engagement to improve product and service use and effectiveness. In accordance with EO 14058, NOAA will: improve service delivery based on a virtuous cycle of collecting and analyzing social, behavioral and interdisciplinary observations; advance the understanding and application of complex social and economic impacts of coastal and inland flooding in communities throughout the U.S., especially historically underserved and socially vulnerable communities, to inform response strategies and resilience and adaptation planning; and advance fundamental social science research capacity and infrastructure through new and archival data collection, storage, and management, analysis, and archival visualizations, decision-models, and best practices compilations.

The activities described above support EO 14008 in tackling the climate crisis and will advance the New Blue Economy. They will be conducted in a collaborative manner across all NOAA Line Offices, and will leverage the efforts being conducted across other Provisions of the BIL, as well as those conducted under annual appropriations and other supplementals. From optimally managing, mitigating, and building resilience to inland and coastal flood threats, optimizing the design and operation of critical national infrastructure, including commercial ports, managing water quality risks to infrastructure, and supporting recreational opportunities in rivers, lakes, estuaries, fisheries and coastal environments, the efforts supported in this provision will effectively transform the way NOAA addresses real-time coastal and inland flooding and

inundation challenges. Never before delivered, neighborhood scale geospatial water information will revolutionize NOAA's data delivery capabilities to decision-makers and the public, especially vulnerable/underserved communities, thus allowing them to improve their preparedness, responsiveness and resilience to water availability and flood risk in a manner that protects infrastructure, prevents job loss, and saves lives. Resources will be obligated via contracts, cooperatives institutes, grants, and the hiring of approximately 67 term Federal employees.

The FY 2025 funding for this provision is divided between 17 PPAs:

- NOS/Navigation, Observations and Positioning: These funds will collect foundational bathymetric, shoreline, and vertical land motion data, integrate into regional coastal models, and couple those models with the NWM. This funding will also establish a cloud-based community development platform and develop a next generation real-time, probabilistic storm surge forecast.
- NOS/Coastal Zone Management and Services: These funds will support mapping of impervious surface coverage in coastal areas, integrate data and map visualizations into NOAA decision support tools and into a centralized framework.

Community-based adaptation research and social science methodologies will be developed to work with underserved and vulnerable populations in coastal locations.

- OAR/Climate Laboratories & Cooperative Institutes: These funds will apply improved understanding of coupled contributions to mean and extreme water levels at the coast and work with NOS to develop the first ever prediction system for determining the mean and extreme water levels across sub-seasonal to annual time scales for the open coast and Great Lakes.
- OAR/Climate Competitive Research: This funding will improve the understanding and modeling of coupled - ocean, climate, land, hydrologic, hydrodynamic, wave - drivers/contributions to mean and extreme total water levels at the coast.
- OAR/Regional Climate Data and Information: This funding will evaluate co-developed and co-designed research with frontline coastal communities, to enhance NOAA's efforts to align fundamental science and services development with the priority resilience needs of these communities. This funding will also provide support for the Climate Mapping for Resilience and Adaption (CMRA) and Climate Resilience Information System (CRIS).
- OAR/Weather Laboratories & Cooperative Institutes: These funds will enable the advancement of hydrologic process representation across multiple platforms and improve real time precipitation analysis and model forcings.
- OAR/U.S. Weather Research Program: This funding will enable coupling the NextGen NWM to the NOS 3-D numerical coastal model and establish a NOAA Social and Behavior Observation Database.
- OAR/Ocean Laboratories & Cooperative Institutes: This funding will deliver regional/national coastal models (including Great Lakes) to inform coupled system development. The funding will also support the development of the first ever prediction system for determining the mean and extreme water levels to provide the foundation for defining risk of coastal inundation impacts across sub-seasonal to annual time scales for the open coast and Great Lakes as well as working to transition the research into operations.
- NWS/Analyze, Forecast and Support: These funds will accelerate the operational implementation of inland and coastal inundation products and services and related training. Additionally, these funds support the completion and operationalization of NOAA Atlas-14.
- NWS/Central Processing: These funds will be used to develop and apply a data standard from cross-sectional information of topo-bathy river channels and utilize newly acquired high-resolution terrain (1m lidar) and bathymetric information to revise NWS Height Above Nearest Drainage FIM libraries for forecast applications. The resources will also support acceleration of the NextGen NWM framework development including test interoperability of process modules to mimic existing models and create new formulations, and the completion and operationalization of NOAA Atlas-14
- NWS/Science and Technology Integration: These funds will be used to utilize new data standards for cross-sectional river channels and revised NWS Height Above Nearest Drainage Flood and Inundation Mapping forecasts, and accelerate development of operational inundation products and services and couple with the NextGen NWM. Funds will also support

acceleration of the NextGen NWM framework development and water cycle process module development, and test interoperability of process modules to mimic existing models and create new formulations. Further, new Atlas techniques including projection of climate variability will be developed and equitable service delivery will be supported.

- NESDIS/Product Development, Readiness & Application: These funds will integrate satellite flood imagery and provide satellite observations including historical analyses for vegetation fraction, greenness, leaf area indices, soil moisture from current and partner high spatial resolution satellites, and integrate into developing coastal models and validate model output.
- NESDIS/National Centers for Environmental Information: These funds will process and curate topobathymetric data and integrate with satellite data into products to assess flood extent for all time scales. This funding will also support operationalize data ingest, archive, quality assurance, and create open source access to precipitation data used in Atlas-14, streamlining operational data access, reducing server downtime, and allowing open access to quality-controlled datasets.
- OMAO/NOAA Commissioned Officer Corps: This funding will provide additional aviator time as required to support additional flight hours in support of coastal and inland flood inundation mapping.
- OMAO/Aviation Operations and Aircraft Services: This support will provide flight hours in support of coastal flooding and inundation mapping.
- OMAO/Marine Operations and Maintenance: This funding will utilize innovative solutions to improve near-shore hydrographic surveys (e.g., use of launches) and improve data transmission while vessels are underway by expanding very small aperture terminal capabilities.
- MS/Mission Services and Management: Support for execution, oversight, and reporting on BIL, as well as other mission support functions related to implementation of BIL.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Explanation and Justification

Line Office	PPA	FY 2025 Amount ($000)
NOS	Navigation, Observations and Positioning	$27,714
NOS	Coastal Zone Management and Services	$840
OAR	Climate Laboratories & Cooperative Institutes	$2,685
OAR	Climate Competitive Research	$1,200
OAR	Regional Climate Data and Information	$928
OAR	Weather Laboratories & Cooperative Institutes	$9,440
OAR	U. S. Weather Research Program	$3,920
OAR	Ocean Laboratories & Cooperative Institutes	$1,560
NWS	Analyze, Forecast and Support	$750
NWS	Central Processing	$700
NWS	Science and Technology Integration	$38,516
NESDIS	Product Development, Readiness & Application	$1,900
NESDIS	National Centers for Environmental Information	$3,775
OMAO	NOAA Commissioned Officer Corps	$1,110
OMAO	Aviation Operations and Aircraft Services	$1,250
OMAO	Marine Operations and Maintenance	$585
MS	Mission Services and Management	$1,527
Total Provision 3		$98,400

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Provision 4: Water Resources Development Act (WRDA) data acquisition

Description

Section 511(b)(1) and (2) of the Water Resources Development Act (WRDA) of 2020 (division AA of Public Law 116–260) requires NOAA to establish a pilot program within the National Mesonet Program (NMP) for the acquisition and use of data generated by a U.S. Army Corps of Engineers (USACE)-led initiative. USACE is augmenting existing mesonet sites in 5 networks in the Upper Missouri River Basin (UMRB) with new soil moisture and snowpack instrumentation and installing new sites to reach a total of 540 sites outfitted with the new instrumentation by the end of FY 2026.

NOAA will establish the Soil Moisture and Snowpack Monitoring Pilot Program (SMPP), which will acquire data that is generated by the network being installed in the UMRB from 2023 through 2025. The NWS NMP supports a public-private partnership of nearly four-dozen mesonet networks operated by the states and the private sector providing hydrometeorological observational data at more than 30,000 sites nationwide.

The SMPP will:

1. Improve software and systems of the Meteorological Assimilation Data Ingest System (MADIS) to ensure the appropriate infrastructure is in place for efficient and effective data management, dissemination, and for quality control and quality assurance of the data received from the UMRB. These improvements will not only support this effort, but have cross-functional benefits of improving MADIS to support other mission areas such as fire weather and climate.
2. Establish and manage required agreements/contracts for the additional data from the UMRB from 2023 through 2025 as the USACE continues to install new equipment and sensors.
3. Support Sec. 511(b)(3) of the WRDA (Provision 6) which is a study/report to assess the contribution of this data to 1) water resources and weather, sub-seasonal and seasonal, and climate forecasting products on the local, regional, and national levels; 2) enhancements made to the National Integrated Drought Information System, the National Water Model, and the United States Drought Monitor; 3) the contribution of data generated by the network to remote sensing products and approaches; and 4) the viability of the ownership and operational structure of the network.

The FY 2025 funding for this provision is divided between two PPAs:

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

- NWS/Observations: This funding will support the quality assurance/quality control data handling system to ensure all key stakeholders in the Upper Missouri River Basin project are able to access the data, and will continue to fund the agreement for the data dissemination.
- MS/Mission Services and Management: Support for execution, oversight, and reporting on BIL, as well as other mission support functions related to implementation of BIL.

Explanation and Justification

Line Office	PPA	FY 2025 Amount ($000)
NWS	Observations	$8,204
MS	Mission Services and Management	$129
Total Provision 4		$8,333

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Provision 6: Soil Moisture and Snowpack Study

Description

Section 511(b)(1) and (2) of the Water Resources Development Act (WRDA) of 2020 (and included in the Omnibus Bill, pp. 1614-1622) requires NOAA to establish a pilot program within the National Mesonet Program (NMP) for the acquisition and use of data generated by a U.S. Army Corps of Engineers (USACE)-led initiative. Sec. 511(b)(3) defines the requirement to study the value of the data for water resource models, drought monitoring capabilities, and other applications.

To support the report required in Sec. 511(b)(3), NOAA's National Integrated Drought Information System (NIDIS) will coordinate an inter-agency team to study both a) the value of the data generated by the UMRB Soil Moisture and Snowpack Pilot Program (SMPP) and b) the viability of the pilot program's data acquisition structure. This study will be delivered to Congress by FY 2026. For the study, NIDIS will utilize existing collaboration channels established under the National Coordinated Soil Moisture Monitoring Network, as well as engagement across NOAA line offices.

The study will examine: (i) the contribution of the soil moisture, snowpack, and other relevant data generated by the network to weather, sub-seasonal and seasonal, and climate forecasting products on the local, regional, and national levels; (ii) the enhancements made to NIDIS, the National Water Model, the U.S. Drought Monitor, and other relevant national modeling efforts, using data and derived data products generated by the network; (iii) the contribution of data generated by the network to remote sensing products and approaches; (iv) the viability of the ownership and operational structure of the network; and (v) any other matters NOAA considers appropriate, in coordination with USACE, U.S. Department of Agriculture/Natural Resource Conservation Service, U.S. Geological Survey, and Bureau of Reclamation.

NOAA will receive $1 million in funding, to be spread over four years starting in FY 2022.

The FY 2025 funding for this provision is divided between two PPAs:

- OAR/Regional Climate Data & Information: NIDIS will coordinate an inter-agency team to study both a) the value of the data generated by the UMRB Soil Moisture and Snowpack Pilot Program to support natural resource decision making and weather and climate research, and b) the viability of the Pilot Program's data acquisition structure.
- MS/ Mission Services and Management: Support for execution, oversight, and reporting on BIL, as well as other mission support functions related to implementation of BIL.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Explanation and Justification

Line Office	PPA	FY 2025 Amount ($000)
OAR	Regional Climate Data and Information	$246
MS	Mission Services and Management	$4
Total Provision 6		$250

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Provision 7: Marine Debris - Assessment, Prevention, Mitigation, and Removal

Description

Marine debris is one of the most pervasive global threats to the health of the ocean and our waterways and is an issue of growing local, regional, national, and international concern. The NOAA Marine Debris Program (MDP), a division of the Office of Response and Restoration within the National Ocean Service, is the U.S. Federal lead for addressing marine debris.

The Bipartisan Infrastructure Law (BIL) funded two provisions enabling marine debris removal and prevention - $150 million through this provision, and $50 million through the National Sea Grant Program (Provision 8). The two programs will coordinate to optimize the unique opportunity to ensure a significant and measurable impact. The goals and execution strategy over the next five years aligns closely with the Administration priority of coastal resilience given the direction to better understand the problem, remove legacy debris, and prevent future debris to reduce stress on ecosystem services.

Eligible projects expected to advance national goals and priorities of the Marine Debris Act, include but are not limited to:

- Removal and cleanup of significant legacy debris such as abandoned and derelict vessels (ADVs) and derelict fishing gear (DFG), as well as other priority debris types, that pose a threat to NOAA trust resources, the economy or navigation safety.
- Prevention of the re-accumulation of marine debris, as well as preventing common consumer debris from entering the marine environment.
- Assessment (including monitoring and detection of marine debris) of the scope, scale, and distribution of marine debris in the environment through marine debris monitoring and detection investments.

NOAA anticipates that the execution strategy over the five years will include competitive grant funding, contract funding, non-competitive grant funding, and personnel, with the majority of the funding in the first years going through competitive grant funding.

The FY 2025 funding for this provision is divided between two PPAs:

- NOS/Coastal Science, Assessment, Response and Restoration: This funding will support marine debris assessment, prevention, mitigation and removal of significant legacy debris such as abandoned and derelict vessels and derelict fishing gear, as well as other priority debris types, that pose a threat to NOAA trust resources, the economy, or navigational safety.

- MS/Mission Services and Management: Support for execution, oversight, and reporting on BIL, as well as other mission support functions related to implementation of BIL.

Explanation and Justification

Line Office	PPA	FY 2025 Amount ($000)
NOS	Coastal Science, Assessment, Response and Restoration	$29,535
MS	Mission Services and Management	$465
Total Provision 7		$30,000

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Provision 8: Marine Debris OAR

Description

Marine debris is one of the most pervasive global threats to the health of the ocean and our waterways and is an issue of growing local, regional, national, and international concern. The National Sea Grant College Program (Sea Grant) has been involved in marine debris research, extension, and education for decades at the local level and has worked closely with the NOS Marine Debris Program (MDP) since 2006. The Bipartisan Infrastructure Law (BIL) funded two provisions enabling marine debris removal and prevention through Sea Grant and MDP, and these programs will work closely to coordinate and optimize the unique opportunity afforded through the BIL to ensure a significant and measurable impact in preventing and removing marine debris in U.S. coastal and Great Lakes ecosystems. Given that Sea Grant is located in OAR, NOAA's research entity, much of the work in this provision will focus on physical and social science, engineering, and legal research, and increasing community capacity and expertise through extension and education to eliminate barriers to marine debris prevention and removal. This work through Sea Grant will complement NOS' MDP efforts (Provision 7) focused on active removal, cleanup, mitigation, and prevention of marine debris.

As directed in the language of the BIL, NOAA will execute $50 million over five years for the prevention and removal of marine debris with an emphasis on addressing local/state/regional priorities by advancing new approaches to prevention and removal, and by connecting academic, government, industrial, and entrepreneurial partners to develop and transition these new approaches. These efforts will build on the existing strength of Sea Grant's network of 34 programs and the National Sea Grant Office, located in every coastal and Great Lakes state, Puerto Rico, and Guam. Sea Grant has invested $1.4 million over the past two years in marine debris research from base funds and invested additionally in marine debris extension and education. Through Sea Grant's network of research, extension, and education professionals and its network of local, regional, and national partners, Sea Grant will be able to act quickly to address the critical need and challenges of marine debris prevention and removal. Over five years, this work will result in answers to key knowledge gaps in the physical, social and behavioral aspects of marine debris pollution, the creation and transition of innovative new technologies to prevent marine debris from entering the environment, and the development of a national cohort of experts in marine debris outreach, education, and engagement to work with partners and communities to change the trajectory of the marine debris challenge in coastal and Great Lakes environments.

NOAA anticipates the execution strategy will include grant funding through Sea Grant. The pillars of Sea Grant marine debris activities include:

- **Investing in Competitive Marine Debris Research:** Supporting physical and social science, engineering and legal research to provide significant advances in the prevention of marine debris introduction to coastal and Great Lakes ecosystems and the removal of marine debris from those systems, including the social, economic, legal, and technological barriers to marine debris prevention identified in the 2021 National Academy of Sciences Marine Debris report.
- **Supporting Marine Debris Prevention Through Formal and Informal Education and Workforce Development:** The current Sea Grant Education Network engages more than 800,000 K-12 students per year to develop a marine debris literate generation committed to improving the health of our coastal and Great Lakes ecosystems through marine debris prevention.
- **Increasing Community Capacity in Marine Debris Prevention and Removal through Extension:** While more than 50 percent of Sea Grant programs currently support marine debris extension specialists and more than 80 percent of Sea Grant programs have addressed local marine debris issues in some form in coordination with local advisory teams, these efforts have to date been limited and directed at local issues.

The FY 2025 funding for this provision is divided between two PPAs:

- OAR/National Sea Grant College Program: Funding to support marine debris prevention and removal, with an emphasis on addressing local/state/regional priorities in the short-term while advancing new approaches to prevention and removal through Sea Grant's network of research, extension and education professionals and their partners.
- MS/Mission Services and Management: Support for execution, oversight, and reporting on BIL, as well as other mission support functions related to implementation of BIL.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Explanation and Justification

Line Office	PPA	FY 2025 Amount ($000)
NOS	National Sea Grant College Program	$9,845
MS	Mission Services and Management	$155
Total Provision 8		$10,000

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Provision 9: Coastal Zone Management

Description

The Coastal Zone Management Act (CZMA) established a national system of state and territorial Coastal Zone Management Programs and stated that there is a national interest in the effective management, beneficial use, protection, and development of the coastal zone. The CZMA notes that the habitat areas of the coastal zone are ecologically fragile and vulnerable to degradation or destruction by human alterations. Infrastructure Investment and Jobs Act funds will enable approved coastal programs to protect and restore these ecologically significant habitats, including conserving lands that play a critical role in helping communities become more resilient to natural hazards including storms, flooding, inundation, erosion, tsunamis, sea level rise and lake level changes.

Projects funded through Coastal Zone Management grants are expected to advance the national goals and priorities of the CZMA, NOAA and the Administration including America the Beautiful and the New Blue Economy. They will result in an increase in the number of acres of coastal ecosystems protected and restored including wetlands, corals, and natural shorelines, through direct investment by coastal states and territories in ecologically significant habitats. In turn, the restoration and conservation of these ecosystems will help decrease economic losses from the impacts of coastal hazards, including flooding and climate change, to property and infrastructure, and at the same time provide economic benefits to coastal communities. These Coastal Zone Management investments will complement and leverage the outcomes of other BIL provisions for habitat restoration.

The funding will also enable coastal management programs to deliver increased support for communities most vulnerable to climate impacts, including those, which have historically been underserved and often lack access to resources, and advance the principles of diversity and inclusion.

The FY 2025 funding for this provision is divided between two PPAs:

- NOS/Coastal Zone Management Grants: Funding will support competitive grants to Coastal Zone Management programs for restoration, conservation, and engineering and planning projects; and non-competitive capacity grants for BIL project coordination and planning.
- MS/Mission Services and Management: Support for execution, oversight, and reporting on BIL, as well as other mission support functions related to implementation of BIL.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Explanation and Justification

Line Office	PPA	FY 2025 Amount ($000)
NOS	Coastal Zone Management Grants	$40,758
MS	Mission Services and Management	$642
Total Provision 9		$41,400

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Provision 10: National Estuarine Research Reserve System

Description

The National Estuarine Research Reserve System (NERRS) consists of estuarine areas of the United States and its territories designated and managed for research and educational purposes, called Reserves. Each Reserve within the NERRS is chosen to represent a different biogeographic region and to include a variety of ecosystem types in accordance with the classification scheme of the national program as specified in 15 CFR 921.

Projects funded through National Estuarine Research Reserve (NERR) grants are expected to advance the national goals and priorities of the NERR system, NOAA and the Administration including America the Beautiful and the New Blue Economy. This will result in an increase in the number of acres of coastal ecosystems protected and restored in priority reserve watersheds (including wetlands, corals, and natural shorelines) through direct investment in ecologically significant habitats. In turn, the restoration and conservation of these ecosystems will help decrease economic losses from the impacts of coastal hazards, including flooding and climate change, to property and infrastructure, and at the same time provide economic benefits to coastal communities. These investments will enhance long-term protection of Reserves for research, education, and habitat protection and strengthen the protection of key land and water areas. Lastly, these investments will complement and leverage the outcomes of other BIL provisions for habitat restoration.

The funding will also enable Reserves to deliver increased support for communities most vulnerable to climate impacts, including those which have historically been underserved and often lack access to resources, and advance the principles of diversity and inclusion.

The FY 2025 funding for this provision is divided between two PPAs:

- NOS/National Estuarine Research Reserve System: These funds will support competitive grants to NERR for restoration, conservation, and engineering and planning projects; and non-competitive capacity grants for BIL project coordination and planning.
- MS/Mission Services and Management: Support for execution, oversight, and reporting on BIL, as well as other mission support functions related to implementation of BIL.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Explanation and Justification

Line Office	PPA	FY 2025 Amount ($000)
NOS	National Estuarine Research Reserve System	$15,161
MS	Mission Services and Management	$239
Total Provision 10		$15,400

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Provision 11: Coastal, ocean, and Great Lakes observing systems

Description

NOAA will support the fortification of critical ocean observing assets to ensure the long-term sustainability of the U.S. ocean observing enterprise. Together, these BIL investments capitalize on an opportunity to transform the ocean observing community into a true sustainable oceanography enterprise that will fuel the development of the New Blue Economy. The New Blue Economy is the knowledge-based ocean economy that uses data and information to support coastal resilience, climate change adaptation, and inform stewardship and resource management.

NOAA is an authoritative provider of weather, ocean, and climate information, services, and predictions to the Nation. However, the ocean remains vastly under-observed and the demand signal for ocean information is growing dramatically. Additionally, many of NOAA's ocean observing systems have been operating for decades and are showing their age, impacting both the reliability and geographic coverage of the data they produce. This spend plan is a holistic and balanced approach to sustaining federal and non-federal observing systems essential to NOAA's mission.

The priority projects to be executed with these funds include work to support the refurbishment and sustaining of observing systems at risk of operational failure. This largely complements recent budget requests to expand and enhance a number of the same systems:

- Refurbishments and technology upgrades of critical observing infrastructure in the U.S. Integrated Ocean Observing System (IOOS) Regional Associations (RAs)
- Support for the National Water Level Observation Network (NWLON)
- Complete design engineering for Airborne Phased Array Radar (APAR)
- Sustaining global ocean monitoring and observing
- Ship time for deployment and system verification of the new recapitalized Tropical Atmosphere-Ocean TAO moorings

Investing in these observing systems now will address this need to minimize risk and gaps in service. The BIL funding will stabilize, modernize, and enhance the national network of coastal, ocean, and Great Lakes observing systems to deliver data and information necessary to support coastal communities as they respond to changing coastal conditions, including flooding, increased harmful algal blooms, extreme storms, and other risks for society. This funding will also modernize and improve parts of the global ocean observing system, in support of predictions of sub-seasonal to seasonal weather, climate, and extremes.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

NOAA will receive $100 million in funding, to be spread over five years starting in FY 2022.

The FY 2025 funding for this provision is divided between five PPAs:

- NOS/Navigation, Observations and Positioning: These funds will significantly improve the National Water Level Observation Network (NWLON)'s operational readiness by: eliminating a backlog of major recapitalization projects that rebuild station infrastructure; by accelerating and completing the transition of water measurement technology from acoustic to microwave technology; and by modernizing the underlying information technology infrastructure to eliminate legacy code, reduce security risks, gain efficiencies, and ensure continuity of operations. In addition, this funding will enable the U.S. IOOS Office and IOOS Regional Associations to recapitalize and modernize the system, including new technologies to address sustained coastal conditions including climate, physics, chemistry, marine life/biology, marine sound, and other needs such as acquiring contract support for planning, coordination, and tracking of the funds and outcome.
- NOS/IOOS Regional Observations: These funds will recapitalize and modernize the system, including new technologies to address sustained coastal conditions including climate, physics, chemistry, marine life/biology, marine sound, and other needs. The funding supports critical repairs, replacements, and spares to enhance resilience of the U.S. Integrated Ocean Observing System assets and services to prevent failures.
- OAR/Sustained Ocean Observations and Monitoring: These funds will recapitalize and enhance high-priority NOAA global ocean and Great Lakes observing system assets to ensure and improve quality products, services, and capabilities at NOAA, the Department of Defense, and forecast centers around the world.
- NWS/Observations: These funds will support deployment and ongoing maintenance of the recapitalized TAO moorings, sensors and equipment and includes required resources for additional contract ship time.
- MS/Mission Services and Management: Support for execution, oversight, and reporting on BIL, as well as other mission support functions related to implementation of BIL.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Explanation and Justification

Line Office	PPA	FY 2025 Amount ($000)
NOS	Navigation, Observations and Positioning	$2,318
NOS	IOOS Regional Observations	$8,313
OAR	Sustained Ocean Observations and Monitoring	$6,731
NWS	Observations	$2,328
MS	Mission Services and Management	$310
Total Provision 11		$20,000

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Provision 12: Regional Ocean Partnerships

Description

Regional Ocean Partnerships (ROPs) are regional organizations voluntarily convened by governors working in collaboration with other governments (including tribal, Federal, and local) and stakeholders to address ocean and coastal issues of common concern in that region. ROPs, along with equivalent organizations such as IOOS Regional Associations, also serve to enhance associated sharing and integration of Federal and non-federal data.

The BIL funds to ROPs will support priorities established through their shared goals, objectives, plans, and strategies. Seventy percent of the funds will enable ROPs to conduct projects that support Administration priorities on tackling the climate crisis (EO 14008) and the goals of the America the Beautiful initiative, as well as directing resources to underserved communities (EO 13985).

ROPs have vetted work plans and strategies which reflect the management priorities of each region, including offshore energy, aquaculture, coastal resilience, education and engagement, data access, and tribal participation. Potential projects, based on ROP goals, include:

- Identifying, integrating and supplementing observations related to ocean acidification and pursuing strategies to tackle increased acidification of ocean waters;
- Convening government, industry and stakeholders to consider large-scale current and future uses of ocean areas, identify best practices for ocean co-use, and work with industry and agencies to augment data portal products for use in projects planning;
- Engaging Tribes in discussions about ocean management, including effective tribal consultation and incorporation of traditional knowledge into data products;
- Identifying and preserving aquatic habitats (such as wetlands and mangroves) that provide protection from sea level rise and storm surge, and other benefits;
- Documenting the extent of marine debris in coastal waters and implementing strategies to reduce the sources and use of the debris; and
- Coordinating across jurisdictions and agencies to leverage data, services and technical assistance to better serve disadvantaged communities in becoming more resilient, while adapting to coastal hazards and a changing climate for the future.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

The work conducted as a result of the remaining 30 percent of these funds will enhance regional capacity for sharing and integration of Federal and non-federal data, including the development of information portals to facilitate user access to data and products to support regional coastal, ocean, and Great Lakes management priorities. This includes collaborating to identify goals and steps to address data challenges; characterizing regional data sharing and maintenance capabilities; implementing the priority actions; and improving data accessibility and usability, data products, and data platforms. As a result, the Nation will benefit from increased access to and usefulness of Federal and non-federal data, strengthened and expanded partnerships across NOAA and the regions, and the ability to apply higher quality data directly to stated management challenges. These improvements will be critical to address increasing ocean uses (such as reaching the Administration goal of 30GW of offshore wind by 2030), supporting sustainability and tracking climate impacts on shifting ecosystems, and making data accessible to all, including the underserved.

The FY 2025 funding for this provision is divided between three PPAs:

- NOS/Coastal Zone Management and Services: These funds will support established Regional Ocean Partnerships in the Northeast, mid-Atlantic, Gulf of Mexico, and West Coast to coordinate the interstate and intertribal management of ocean and coastal resources and to implement their priority actions, as well as to enhance regional data sharing and integration of Federal and non-federal data. In addition, these funds will enable the Office of Coastal Management to ensure that a portion of the funds be devoted to Federally-recognized tribal priorities.
- NOS/IOOS Regional Observations: These funds will recapitalize and modernize the system, including new technologies to address sustained coastal conditions including climate, physics, chemistry, marine life/biology, marine sound, and other needs.
- MS/Mission Services and Management: Support for execution, oversight, and reporting on BIL, as well as other mission support functions related to implementation of BIL.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Explanation and Justification

Line Office	PPA	FY 2025 Amount ($000)
NOS	IOOS Regional Observations	$1,838
NOS	Coastal Zone Management and Services	$9,188
MS	Mission Services and Management	$174
Total Provision 12		$11,200

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Provision 13: Consultations and Permitting

Description

NMFS conducts consultations with Federal action agencies under both the Endangered Species Act (ESA) and the Magnuson-Stevens Fishery Conservation and Management Act (MSA). NOAA Fisheries also authorizes take under the Marine Mammal Protection Act (MMPA). Completion of these consultations will enable the Administration to advance priorities to improve the Nation's infrastructure while ensuring the conservation of our most vulnerable species and important habitats. NMFS will address consultation and permitting requests for infrastructure projects such as large-scale construction, dredging, hydro-electric, oil and gas, and offshore wind energy development.

The ESA requires Federal action agencies to consult with NOAA when an action they take might affect an ESA-listed species or designated critical habitat. The MSA requires Federal agencies to consult with NMFS on all actions or proposed actions that they authorize, fund or undertake that may adversely affect Essential Fish Habitat (EFH). The MMPA prohibits the "take" of marine mammals, but allows for authorization of incidental take, upon request by U.S. citizens, for otherwise lawful activities that are likely to result in the take of marine mammals, such as construction projects and oil and gas development. Incidental take authorization requests are typically for activities that produce underwater sound, and a large portion of the authorizations issued are for coastal construction projects.

With the significant funding that the BIL is providing to many Federal agencies, there will be an immense increase in the demand for NMFS consultations and MMPA permits. To meet this need, NMFS will strategically allocate the $4 million per year to completing consultations and incidental harassment authorizations (IHAs) for infrastructure projects planned by other Federal agencies across the country. Completing these consultations and authorizations depends on labor, so funding to carry out this activity will be used for term employees or labor contracts. Guided by NMFS experts, these new team members will learn the consultation and permitting processes and be able to quickly contribute to the increased demand in our work.

The FY 2025 funding for this provision is divided between three PPAs:

- NMFS/Marine Mammals, Sea Turtles, and Other Species: These funds will allow NMFS to conducts consultations with Federal action agencies under both the ESA and the MSA and also authorizes take under the MMPA. Additionally, NMFS

will strategically allocate $2.0 million for ESA Section 7 consultations and $0.7 million for MMPA incidental harassment authorization for infrastructure projects planned by other Federal agencies across the country.

- NMFS/Habitat Conservation and Restoration: These funds will enable NMFS to conduct consultations with Federal action agencies under both the ESA and the MSA and also authorizes the take under the MMPA. NMFS will strategically allocate funding for EFH consultations under MSA for infrastructure projects planned by other Federal agencies across the country.
- MS/Mission Services and Management: Support for execution, oversight, and reporting on BIL, as well as other mission support functions related to implementation of BIL.

Explanation and Justification

Line Office	PPA	FY 2025 Amount ($000)
NMFS	Marine Mammals, Sea Turtles, and Other Species	$2,678
NMFS	Habitat Conservation and Restoration	$1,260
MS	Mission Services and Management	$62
Total Provision 13		$4,000

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Provision 14: Fish Passage

Description

The Office of Habitat Conservation's Restoration Center (OHC) will implement the fish passage provision of the BIL by providing technical assistance and funding through a competitive grant process over five years to restore fish passage under the Community-based Restoration Program, authorized under the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006 (16 U.S.C. 1891a) to restore marine, estuarine, coastal, and Great Lakes ecosystem habitat.

This program will allow NOAA to make significant progress on Administration priorities for more effective, enduring, and inclusive conservation that delivers current and future benefits to all Americans. This includes emphasizing the essential role of communities in strengthening climate resilience against the impact of climate change by restoring connectivity in rivers and streams (EO 14008). It also will help NOAA meet the goals set in the America the Beautiful initiative by pursuing locally-led and collaborative conservation and economic vitality.

OHC will provide technical assistance to our partners, through existing staff with expertise from a diverse array of fields including fisheries biology, fish passage engineering, hydrology, project management, and natural resource economics. This collective expertise spans every step in the restoration process, from project conception to completion and adapts over time as projects evolve. OHC will also rely upon decades of experience executing competitive grant programs with a high degree of financial accountability and complexity.

OHC anticipates funding projects that eliminate in-stream barriers to restore fish passage while applying a watershed approach that addresses fish passage barriers throughout a waterway/ecosystem, and increases resilience to climate change by removing or improving outdated infrastructure. OHC will also consider the removal of privately-owned hydroelectric structures that are no longer economically viable or have been abandoned, which may include coordination with the Federal Energy Regulatory Commission. OHC has also been in touch with the Department of Transportation regarding BIL funding for their Culvert Removal, Replacement, and Restoration Program and will continue to coordinate during planning and implementation.

OHC will explore ways in which environmental justice and equity priorities (EO 13985/EO 14035) can be applied to this funding and place particular emphasis on building capacity in underserved communities. Additionally, OHC will direct up to 15 percent of funds to Indian Tribes through a focused grant competition to address tribal priority restoration needs, including building capacity for

planning and implementation. OHC intends to be responsive to requests for technical assistance from interested tribal partners desiring to build capacity across all project phases including laying the groundwork for future projects in these communities.

The FY 2025 funding for this provision is divided between two PPAs:

- NMFS/Habitat Conservation and Restoration: This funding allows the OHC Restoration Center to provide technical assistance and funding through a competitive grant process over five years to restore fish passage under the Community-based Restoration Program, to restore marine, estuarine, coastal, and Great Lakes ecosystem habitat. Funds will be used for direct program support including consultations requirements, administrative, financial management, programmatic, technical support costs to ensure effective management of the program and projects. Up to 15 percent of funds will be directed to Indian Tribes through a focused grant competition to address tribal priority restoration needs, including building capacity for planning and implementation.
- MS/Mission Services and Management: Support for execution, oversight, and reporting on BIL, as well as other mission support functions related to implementation of BIL.

Explanation and Justification

Line Office	PPA	FY 2025 Amount ($000)
NMFS	Habitat Conservation and Restoration	$78,759
MS	Mission Services and Management	$1,241
Total Provision 14		$80,000

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Provision 18: Pacific Coastal Salmon Recovery Fund

Description

The Pacific Coastal Salmon Recovery Fund (PCSRF) program objective is to supplement existing state and tribal programs for salmon and steelhead restoration and conservation by allocating Federal funding using a scientific and merit-based competitive grant process to activities that provide demonstrable and measurable benefits to Pacific salmon and steelhead and their habitat. Eligible projects include activities that contribute to (1) recovering Pacific salmon and steelhead listed under the Endangered Species Act (ESA) or that are identified by a State as at-risk to be so listed, (2) supporting Pacific salmon and steelhead species important to tribal treaty and trust fishing rights and native subsistence fishing, and (3) conserving Pacific salmon and steelhead habitat.

PCSRF supports activities that implement climate adaptation and resilience solutions, including those associated with both natural (land, water, coasts, oceans) and human/built systems (e.g., transportation, communication, and infrastructure), with the goal of improving the ability of these systems to anticipate, respond to, withstand, or recover from acute or gradual climate change impacts. PCSRF will continue to encourage the development and restoration of natural infrastructure, invasive species management, and the integration of adaptation and resilience across land management responsibilities throughout the program's geography.

This program will allow NOAA to make significant progress on Administration priorities for more effective, enduring, and inclusive conservation that delivers current and future benefits to all Americans. This includes emphasizing the essential role of communities in strengthening coastal resilience through the restoration of coastal ecosystems (EO 14008). It also will help NOAA meet the goals set in the America the Beautiful initiative by pursuing locally-led and collaborative conservation and economic vitality.

Bipartisan Infrastructure Law (BIL) PCSRF funds will also help power the American Blue Economy (including the New Blue Economy) and contribute to NOAA's leadership in achieving tourism, recreation, and coastal resiliency goals by:

- Strengthening our collaboration with public-private partners
- Restoring and protecting coasts and estuaries
- Supporting coastal communities in becoming more resilient to a changing climate

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Eligible applicants are the states of Washington, Oregon, Idaho, Nevada, California, and Alaska, and federally recognized Tribes of the Columbia River and Pacific Coast (including Alaska).

Grants are issued based on guidelines developed by the Secretary of Commerce. To maximize the impact of the Federal funds, the guidelines follow scientific conservation principles that prioritize projects that directly increase the productivity of at-risk populations or populations where the Federal government has tribal treaty or trust obligations. This ensures the majority of funds go toward projects that will actively benefit those populations at the greatest risk and improve the conditions on the ground for their successful recovery.

BIL funds for the PCSRF program are instrumental in supporting tribal participation in several local, state, and Federal processes including recovery plan implementation, project development and design, and project prioritization. In addition to contributing to numerous activities that have led to project implementation, the West Coast Tribes are active practitioners of on-the-ground habitat protection and restoration projects.

The FY 2025 funding for this provision is in:

- NMFS/Pacific Coastal Salmon Recovery Fund: These funds will be used to supplement existing state and tribal programs for salmon and steelhead restoration and conservation by allocating Federal funding using a scientific and merit-based competitive grant process to activities that provide demonstrable and measurable benefits to Pacific salmon, steelhead, and their habitat. Additionally, the eligible projects include activities that contribute to (1) recovering Pacific salmon and steelhead listed under the ESA or that are identified by a State as at-risk, (2) supporting Pacific salmon and steelhead species that are important to tribal treaty and trust fishing rights and native subsistence fishing, and (3) conserving Pacific salmon and steelhead habitat.

Department of Commerce
National Oceanic and Atmospheric Administration
Operations, Research, and Facilities
JUSTIFICATION OF PROGRAM AND PERFORMANCE
(Dollar amounts in thousands)

Explanation and Justification

Line Office	PPA	FY 2025 Amount ($000)
NMFS	Pacific Coastal Salmon Recovery Fund	$34,400
Total Provision 18		$34,400

Department of Commerce
National Oceanic and Atmospheric Administration
Bipartisan Infrastructure Law
Operations, Research, and Facilities
SUMMARY OF REQUIREMENTS BY OBJECT CLASS
(Dollar amounts in thousands)

	Object Class	2023 Actual	2024 Enacted	2025 Estimate	Increase/Decrease from 2024 Enacted
11.1	Full-time permanent compensation	11,394	11,856	12,094	237
11.3	Other than full-time permanent	88	92	94	2
11.5	Other personnel compensation	58	61	63	1
11.7	Military Personnel	396	416	414	(3)
11.9	**Total personnel compensation**	11,936	12,426	12,664	237
12.1	Civilian personnel benefits	4,120	4,287	4,611	324
12.2	Military personnel benefits	21	22	22	(0)
13	Benefits for former personnel	1	1	1	0
21	Travel and transportation of persons	477	487	497	10
22	Transportation of things	35	36	36	1
23.1	Rental payments to GSA	113	116	118	2
23.2	Rental payments to others	4	4	4	0
23.3	Communications, utilities, and misc. charges	207	211	215	4
24	Printing and reproduction	1	1	1	0
25.1	Advisory and assistance services	74,849	61,346	60,581	(765)
25.2	Other services from non-Federal sources	33,513	24,183	24,065	(119)
25.3	Other goods and services from Federal sources	9,187	6,917	7,055	138
25.4	Operation and maintenance of facilities	0	0	0	0
25.5	Research and development contracts	1,706	1,740	1,774	35
25.7	Operation and maintenance of equipment	0	0	0	0
26	Supplies and materials	4,141	4,224	4,309	84

Department of Commerce
National Oceanic and Atmospheric Administration
Bipartisan Infrastructure Law
Operations, Research, and Facilities
SUMMARY OF REQUIREMENTS BY OBJECT CLASS
(Dollar amounts in thousands)

	Object Class	2023 Actual	2024 Enacted	2025 Estimate	Increase/Decrease from 2024 Enacted
31	Equipment	2,334	2,380	2,428	48
32	Lands and structures	551	0	0	0
33	Investments and loans	0	0	0	0
41	Grants, subsidies and contributions	585,468	397,502	397,502	0
42	Insurance claims and indemnities	0	0	0	0
43	Interest and dividends	4	0	0	0
44	Refunds	0	0	0	0
99.9	Total obligations	**728,668**	**515,883**	**515,883**	**0**
	Personnel Data				
	Full-time Equivalent Employment				
	Full-time permanent	92	91	91	0
	Other than full-time permanent	0	0	0	0
	Total	92	91	91	0
	Authorized Positions:				
	Full-time permanent	55	91	91	0
	Other than full-time permanent	0	0	0	0
	Total	55	91	91	0

Department of Commerce
National Oceanic and Atmospheric Administration
Bipartisan Infrastructure Law
Pacific Coastal Salmon Recovery Fund
SUMMARY OF REQUIREMENTS BY OBJECT CLASS
(Dollar amounts in thousands)

	Object Class	2023 Actual	2024 Enacted	2025 Estimate	Increase/Decrease from 2024 Enacted
11.1	Full-time permanent compensation	0	0	0	0
11.3	Other than full-time permanent	0	0	0	0
11.5	Other personnel compensation	0	0	0	0
11.7	Military Personnel	0	0	0	0
11.9	**Total personnel compensation**	0	0	0	0
12.1	Civilian personnel benefits	0	0	0	0
12.2	Military personnel benefits	0	0	0	0
13	Benefits for former personnel	0	0	0	0
21	Travel and transportation of persons	0	0	0	0
22	Transportation of things	0	0	0	0
23.1	Rental payments to GSA	0	0	0	0
23.2	Rental payments to others	0	0	0	0
23.3	Communications, utilities, and misc. charges	0	0	0	0
24	Printing and reproduction	0	0	0	0
25.1	Advisory and assistance services	0	0	0	0
25.2	Other services from non-Federal sources	0	0	0	0
25.3	Other goods and services from Federal sources	0	0	0	0
25.4	Operation and maintenance of facilities	0	0	0	0
25.5	Research and development contracts	0	0	0	0
25.7	Operation and maintenance of equipment	0	0	0	0
26	Supplies and materials	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
Bipartisan Infrastructure Law
Pacific Coastal Salmon Recovery Fund
SUMMARY OF REQUIREMENTS BY OBJECT CLASS
(Dollar amounts in thousands)

	Object Class	2023 Actual	2024 Enacted	2025 Estimate	Increase/Decrease from 2024 Enacted
31	Equipment	0	0	0	0
32	Lands and structures	0	0	0	0
33	Investments and loans	0	0	0	0
41	Grants, subsidies and contributions	34,366	34,400	34,400	0
42	Insurance claims and indemnities	0	0	0	0
43	Interest and dividends	0	0	0	0
44	Refunds	0	0	0	0
99.9	Total obligations	34,366	34,400	34,400	**0**
	Personnel Data				
	Full-time Equivalent Employment				
	Full-time permanent	0	0	0	0
	Other than full-time permanent	0	0	0	0
	Total	0	0	0	0
	Authorized Positions:				
	Full-time permanent	0	0	0	0
	Other than full-time permanent	0	0	0	0
	Total	0	0	0	0

Department of Commerce
National Oceanic and Atmospheric Administration
ADVISORY AND ASSISTANCE SERVICES
(Dollar Amounts in Thousands)

	2023 Actual	2024 Enacted	2025 Estimate
Management and Professional Support Services	$16,048	$13,153	$12,989
Studies, Analysis and Evaluations	$4,047	$3,317	$3,276
Engineering and Technical Services	$54,754	$44,876	$44,316
Total	$74,849	$61,346	$60,581

Consulting Services are those services of a pure nature relating to the governmental functions of agency administration and management and agency problem management. These services are normally provided by persons or organizations generally considered to have knowledge and special abilities that are not usually available within the agency. Such services can be obtained through personnel appointments, procurement contracts, or advisory committees.

Management and professional services deal with management data collection, policy review or development, program development, review or evaluation, systems engineering and other management support services. Special studies and analyses deal with the highly specialized areas of agency activity, e.g., air quality, chemical, environmental, geophysical, oceanographic, technological, and etc. Management and support services for research and development are procurement actions that meet the description of management and professional services or special studies and analyses but are funded under research and development.

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Department of Commerce
National Oceanic and Atmospheric Administration
Bipartisan Infrastructure Law
CONTROL TABLE
(Dollar amounts in thousands)

NATIONAL OCEAN SERVICE

Direct Obligations

Proposed Operating Plan	FY 2022 IIJA Supplemental Spend Plan	FY 2023 IIJA Supplemental Spend Plan	FY 2024 IIJA Supplemental Spend Plan	FY 2025 IIJA Supplemental Spend Plan
Navigation, Observations and Positioning				
Navigation, Observations and Positioning	50,795	38,057	32,558	30,032
Hydrographic Survey Priorities/Contracts	0	0	0	0
IOOS Regional Observations	8,912	9,478	10,151	10,151
Total, Navigation, Observations and Positioning	**59,707**	**47,535**	**42,709**	**40,183**
Coastal Science and Assessment				
Coastal Science, Assessment, Response and Restoration	29,892	29,884	29,535	29,535
Competitive Research	0	0	0	0
Total, Coastal Science and Assessment	**29,892**	**29,884**	**29,535**	**29,535**
Ocean and Coastal Management and Services				
Coastal Zone Management and Services	18,060	11,298	10,528	10,028
Coastal Zone Management Grants	41,251	41,239	40,758	40,758
National Oceans and Coastal Security Fund	98,047	98,018	96,872	96,872
Coral Reef Program	0	0	0	0
National Estuarine Research Reserve System	15,345	15,340	15,161	15,161
Sanctuaries and Marine Protected Areas	0	0	0	0
Total, Ocean and Coastal Management and Services	**172,703**	**165,895**	**163,319**	**162,819**
Total, NOS - Discretionary ORF	**262,302**	**243,314**	**235,563**	**232,537**
Total, NOS - Discretionary PAC	0	0	0	0
Discretionary Total - NOS	**262,302**	**243,314**	**235,563**	**232,537**
GRAND TOTAL NOS	**262,302**	**243,314**	**235,563**	**232,537**

Department of Commerce
National Oceanic and Atmospheric Administration
Bipartisan Infrastructure Law
CONTROL TABLE
(Dollar amounts in thousands)

NATIONAL MARINE FISHERIES SERVICE

Direct Obligations

Proposed Operating Plan	FY 2022 IIJA Supplemental Spend Plan	FY 2023 IIJA Supplemental Spend Plan	FY 2024 IIJA Supplemental Spend Plan	FY 2025 IIJA Supplemental Spend Plan
Protected Resources Science and Management				
Marine Mammals, Sea Turtles, and Other Species	2,700	2,700	2,678	2,678
Species Recovery Grants	0	0	0	0
Atlantic Salmon	0	0	0	0
Pacific Salmon	0	0	0	0
Total, Protected Resources Science and Management	**2,700**	**2,700**	**2,678**	**2,678**
Fisheries Science and Management				
Fisheries and Ecosystem Science Programs and Services	0	0	0	0
Fisheries Data Collections, Surveys, and Assessments	0	0	0	0
Observers and Training	0	0	0	0
Fisheries Management Programs and Services	0	0	0	0
Aquaculture	0	0	0	0
Salmon Management Activities	0	0	0	0
Regional Councils and Fisheries Commissions	0	0	0	0
Interjurisdictional Fisheries Grants	0	0	0	0
Total, Fisheries Science and Management	**0**	**0**	**0**	**0**
Enforcement				
Enforcement	0	0	0	0
Total, Enforcement	**0**	**0**	**0**	**0**
Habitat Conservation and Restoration				
Habitat Conservation and Restoration	178,846	178,794	176,695	176,695
Total, Habitat Conservation & Restoration	**178,846**	**178,794**	**176,695**	**176,695**
Total, NMFS - Discretionary ORF	**181,546**	**181,494**	**179,373**	**179,373**

Department of Commerce
National Oceanic and Atmospheric Administration
Bipartisan Infrastructure Law
CONTROL TABLE
(Dollar amounts in thousands)

NATIONAL MARINE FISHERIES SERVICE

Direct Obligations

Proposed Operating Plan	FY 2022 IIJA Supplemental Spend Plan	FY 2023 IIJA Supplemental Spend Plan	FY 2024 IIJA Supplemental Spend Plan	FY 2025 IIJA Supplemental Spend Plan
Total, NMFS - Discretionary PAC	0	0	0	0
Total, NMFS - Other Discretionary Accounts	34,400	34,400	34,400	34,400
Discretionary Total - NMFS	**215,946**	**215,894**	**213,773**	**213,773**
GRAND TOTAL NMFS	**215,946**	**215,894**	**213,773**	**213,773**

Department of Commerce
National Oceanic and Atmospheric Administration
Bipartisan Infrastructure Law
CONTROL TABLE
(Dollar amounts in thousands)

OFFICE OF OCEANIC AND ATMOSPHERIC RESEARCH

Direct Obligations

Proposed Operating Plan	FY 2022 IIJA Supplemental Spend Plan	FY 2023 IIJA Supplemental Spend Plan	FY 2024 IIJA Supplemental Spend Plan	FY 2025 IIJA Supplemental Spend Plan
Climate Research				
Climate Laboratories and Cooperative Institutes	2,686	2,685	2,685	2,685
Regional Climate Data and Information	2,175	1,177	1,174	1,174
Climate Competitive Research	1,200	1,200	1,200	1,200
Total, Climate Research	**6,061**	**5,062**	**5,059**	**5,059**
Weather and Air Chemistry Research				
Weather Laboratories and Cooperative Institutes	30,875	9,410	9,440	9,440
Subtotal, Weather Laboratories and Cooperative Institutes	**30,875**	**9,410**	**9,440**	**9,440**
Weather and Air Chemistry Research Programs				
U.S. Weather Research Program (USWRP)	17,598	8,655	3,920	3,920
Tornado Severe Storm Research / Phased Array Radar	0	0	0	0
Joint Technology Transfer Initiative	0	0	0	0
Subtotal, Weather and Air Chemistry Research Programs	**17,598**	**8,655**	**3,920**	**3,920**
Total, Weather and Air Chemistry Research	**48,473**	**18,065**	**13,360**	**13,360**
Ocean, Coastal, and Great Lakes Research				
Ocean Laboratories and Cooperative Institutes	2,920	2,920	1,060	1,560
Subtotal, Laboratories and Cooperative Institutes	**2,920**	**2,920**	**1,060**	**1,560**
National Sea Grant College Program				
National Sea Grant College Program	9,964	9,961	9,845	9,845
Sea Grant Aquaculture Research	0	0	0	0
Subtotal, National Sea Grant College Program	**9,964**	**9,961**	**9,845**	**9,845**

Department of Commerce
National Oceanic and Atmospheric Administration
Bipartisan Infrastructure Law
CONTROL TABLE
(Dollar amounts in thousands)

OFFICE OF OCEANIC AND ATMOSPHERIC RESEARCH

Direct Obligations

Proposed Operating Plan	FY 2022 IIJA Supplemental Spend Plan	FY 2023 IIJA Supplemental Spend Plan	FY 2024 IIJA Supplemental Spend Plan	FY 2025 IIJA Supplemental Spend Plan
Ocean Exploration and Research	0	0	0	0
Integrated Ocean Acidification	0	0	0	0
Sustained Ocean Observations and Monitoring	3,500	3,500	6,731	6,731
National Oceanographic Partnership Program	0	0	0	0
Total, Ocean, Coastal, and Great Lakes Research	**16,384**	**16,381**	**17,636**	**18,136**
Innovative Research & Technology				
High Performance Computing Initiatives	0	0	0	0
Uncrewed Systems	499	0	0	0
Total, Innovative Research & Technology	**499**	**0**	**0**	**0**
Total, OAR - Discretionary ORF	**71,417**	**39,508**	**36,055**	**36,555**
Total, OAR - Discretionary PAC	95,000	0	0	0
Discretionary Total - OAR	**166,417**	**39,508**	**36,055**	**36,555**
GRAND TOTAL OAR	**166,417**	**39,508**	**36,055**	**36,555**

Department of Commerce
National Oceanic and Atmospheric Administration
Bipartisan Infrastructure Law
CONTROL TABLE
(Dollar amounts in thousands)

NATIONAL WEATHER SERVICE

Direct Obligations

Proposed Operating Plan	FY 2022 IIJA Supplemental Spend Plan	FY 2023 IIJA Supplemental Spend Plan	FY 2024 IIJA Supplemental Spend Plan	FY 2025 IIJA Supplemental Spend Plan
Observations	1,441	9,743	10,532	10,532
Central Processing	3,450	10,322	12,025	700
Analyze, Forecast and Support	980	1,480	1,800	750
Dissemination	0	0	0	0
Science and Technology Integration	21,495	23,027	23,615	38,516
Total, NWS - Discretionary ORF	**27,366**	**44,572**	**47,972**	**50,498**
Total, NWS - Discretionary PAC	83,000	0	0	0
Discretionary Total - NWS	**110,366**	**44,572**	**47,972**	**50,498**
GRAND TOTAL NWS	**110,366**	**44,572**	**47,972**	**50,498**

Department of Commerce
National Oceanic and Atmospheric Administration
Bipartisan Infrastructure Law
CONTROL TABLE
(Dollar amounts in thousands)

NATIONAL ENVIRONMENTAL SATELLITE, DATA AND INFORMATION SERVICE

Direct Obligations

Proposed Operating Plan	FY 2022 IIJA Supplemental Spend Plan	FY 2023 IIJA Supplemental Spend Plan	FY 2024 IIJA Supplemental Spend Plan	FY 2025 IIJA Supplemental Spend Plan
Environmental Satellite Observing Systems				
Office of Satellite and Product Operations	0	0	0	0
Product Development, Readiness & Application	6,892	1,900	1,900	1,900
Commercial Remote Sensing Regulatory Affairs	0	0	0	0
U.S. Group on Earth Observations	0	0	0	0
Total, Environmental Satellite Observing Systems	**6,892**	**1,900**	**1,900**	**1,900**
National Centers for Environmental Information				
National Centers for Environmental Information	3,597	2,686	3,775	3,775
Total, National Centers for Environmental Information	**3,597**	**2,686**	**3,775**	**3,775**
Total, NESDIS - Discretionary ORF	**10,489**	**4,586**	**5,675**	**5,675**
Total, NESDIS - Discretionary PAC	2,000	0	0	0
Discretionary Total - NESDIS	**12,489**	**4,586**	**5,675**	**5,675**
GRAND TOTAL NESDIS	**12,489**	**4,586**	**5,675**	**5,675**

Department of Commerce
National Oceanic and Atmospheric Administration
Bipartisan Infrastructure Law
CONTROL TABLE
(Dollar amounts in thousands)

MISSION SUPPORT

Direct Obligations

Proposed Operating Plan	FY 2022 IIJA Supplemental Spend Plan	FY 2023 IIJA Supplemental Spend Plan	FY 2024 IIJA Supplemental Spend Plan	FY 2025 IIJA Supplemental Spend Plan
Mission Support Services				
Executive Leadership	0	0	0	0
Mission Services and Management	2,000	2,000	8,000	8,000
IT Security	0	0	0	0
Payment to the DOC Working Capital Fund	0	0	0	0
Facilities Maintenance	0	0	0	0
Office of Space Commerce	0	0	0	0
Total, Mission Support Services	**2,000**	**2,000**	**8,000**	**8,000**
Office of Education				
Office of Education	0	0	0	0
Hollings Scholarship	0	0		
Total, Office of Education	**0**	**0**	**0**	**0**
Total, MS - Discretionary ORF	**2,000**	**2,000**	**8,000**	**8,000**
Total, MS - Discretionary PAC	0	0	0	0
Discretionary Total - MS	**2,000**	**2,000**	**8,000**	**8,000**
GRAND TOTAL MS	**2,000**	**2,000**	**8,000**	**8,000**

Department of Commerce
National Oceanic and Atmospheric Administration
Bipartisan Infrastructure Law
CONTROL TABLE
(Dollar amounts in thousands)

OFFICE OF MARINE AND AVIATION OPERATIONS

Direct Obligations

Proposed Operating Plan	FY 2022 IIJA Supplemental Spend Plan	FY 2023 IIJA Supplemental Spend Plan	FY 2024 IIJA Supplemental Spend Plan	FY 2025 IIJA Supplemental Spend Plan
Marine Operations and Maintenance	800	110	585	585
Aviation Operations and Aircraft Services	458	0	1,250	1,250
Autonomous Uncrewed Technology Operations (AUTO)*	0	0	0	0
NOAA Commissioned Officer Corps	872	0	1,110	1,110
Total, OMAO - Discretionary ORF	**2,130**	**110**	**2,945**	**2,945**
Total, OMAO - Discretionary PAC	0	0	0	0
Total, OMAO - Other Discretionary Accounts	0	0	0	0
Discretionary Total - OMAO	**2,130**	**110**	**2,945**	**2,945**
GRAND TOTAL OMAO	**2,130**	**110**	**2,945**	**2,945**

Department of Commerce
National Oceanic and Atmospheric Administration
Bipartisan Infrastructure Law
CONTROL TABLE
(Dollar amounts in thousands)

ORF SUMMARY

LINE OFFICE DIRECT DISCRETIONARY OBLIGATIONS

Proposed Operating Plan	FY 2022 IIJA Supplemental Spend Plan	FY 2023 IIJA Supplemental Spend Plan	FY 2024 IIJA Supplemental Spend Plan	FY 2025 IIJA Supplemental Spend Plan
National Ocean Service	262,302	243,314	235,563	232,537
National Marine Fisheries Service	181,546	181,494	179,373	179,373
Office of Oceanic and Atmospheric Research	71,417	39,508	36,055	36,555
National Weather Service	27,366	44,572	47,972	50,498
National Environmental Satellite, Data and Information Service	10,489	4,586	5,675	5,675
Mission Support	2,000	2,000	8,000	8,000
Office of Marine and Aviation Operations	2,130	110	2,945	2,945
SUBTOTAL LO DIRECT DISCRETIONARY ORF OBLIGATIONS	**557,250**	**515,584**	**515,583**	**515,583**

Department of Commerce
National Oceanic and Atmospheric Administration
Bipartisan Infrastructure Law
CONTROL TABLE
(Dollar amounts in thousands)

ORF ADJUSTMENTS

Proposed Operating Plan	FY 2022 IIJA Supplemental Spend Plan	FY 2023 IIJA Supplemental Spend Plan	FY 2024 IIJA Supplemental Spend Plan	FY 2025 IIJA Supplemental Spend Plan
SUBTOTAL ORF DIRECT OBLIGATIONS	557,250	515,584	515,583	515,583
FINANCING				
Total ORF Financing	0	0	0	0
SUBTOTAL ORF BUDGET AUTHORITY	557,250	515,584	515,583	515,583
TRANSFERS				
Total ORF Transfers	0	0	0	0
SUBTOTAL ORF APPROPRIATION	557,250	515,584	515,583	515,583

Department of Commerce
National Oceanic and Atmospheric Administration
Bipartisan Infrastructure Law
CONTROL TABLE
(Dollar amounts in thousands)

PROCUREMENT, ACQUISITION, AND CONSTRUCTION

Direct Discretionary Obligations

Proposed Operating Plan	FY 2022 IIJA Supplemental Spend Plan	FY 2023 IIJA Supplemental Spend Plan	FY 2024 IIJA Supplemental Spend Plan	FY 2025 IIJA Supplemental Spend Plan
NOS				
Construction				
National Estuarine Research Reserve Construction	0	0	0	0
Marine Sanctuaries Construction	0	0	0	0
Subtotal, NOS Construction	**0**	**0**	**0**	**0**
Total, NOS - PAC	**0**	**0**	**0**	**0**
Total, NMFS - PAC	**0**	**0**	**0**	**0**
OAR				
Systems Acquisition				
Research Supercomputing/ CCRI	80,000	0	0	0
Research Acquisition and Management	15,000	0	0	0
Subtotal, OAR Systems Acquisition	**95,000**	**0**	**0**	**0**
Total, OAR - PAC	**95,000**	**0**	**0**	**0**
NWS				
Systems Acquisition				
Observations	63,500	0	0	0
Central Processing	10,500	0	0	0
Dissemination	9,000	0	0	0
Subtotal, NWS Systems Acquisition	**83,000**	**0**	**0**	**0**
Construction				
Facilities Construction and Major Repairs	0	0	0	0
Subtotal, NWS Construction	**0**	**0**	**0**	**0**

Department of Commerce
National Oceanic and Atmospheric Administration
Bipartisan Infrastructure Law
CONTROL TABLE
(Dollar amounts in thousands)

PROCUREMENT, ACQUISITION, AND CONSTRUCTION

Direct Discretionary Obligations

Proposed Operating Plan	FY 2022 IIJA Supplemental Spend Plan	FY 2023 IIJA Supplemental Spend Plan	FY 2024 IIJA Supplemental Spend Plan	FY 2025 IIJA Supplemental Spend Plan
Total, NWS - PAC	**83,000**	**0**	**0**	**0**
NESDIS				
Systems Acquisition				
Geostationary Systems - R	0	0	0	0
Polar Weather Satellites	0	0	0	0
Space Weather Follow On	0	0	0	0
Common Ground Services (CGS)	2,000	0	0	0
Geostationary Earth Orbit (GEO)	0	0	0	0
Low Earth Orbit (LEO)	0	0	0	0
Space Weather Next	0	0	0	0
Systems/Services Architecture and Engineering (SAE)	0	0	0	0
Subtotal, NESDIS Systems Acquisition	**2,000**	**0**	**0**	**0**
Construction				
Satellite CDA Facility	0	0	0	0
Subtotal, NESDIS Construction	**0**	**0**	**0**	**0**
Total, NESDIS - PAC	**2,000**	**0**	**0**	**0**
Mission Support				
Construction				
NOAA Construction	0	0	0	0
Subtotal, Mission Support Construction	**0**	**0**	**0**	**0**
Total, Mission Support - PAC	**0**	**0**	**0**	**0**

Department of Commerce
National Oceanic and Atmospheric Administration
Bipartisan Infrastructure Law
CONTROL TABLE
(Dollar amounts in thousands)

PROCUREMENT, ACQUISITION, AND CONSTRUCTION

Direct Discretionary Obligations

Proposed Operating Plan	FY 2022 IIJA Supplemental Spend Plan	FY 2023 IIJA Supplemental Spend Plan	FY 2024 IIJA Supplemental Spend Plan	FY 2025 IIJA Supplemental Spend Plan
OMAO				
Fleet Capital Improvements & Technology Infusion	0	0	0	0
Vessel Recapitalization and Construction	0	0	0	0
Aircraft Recapitalization and Construction	0	0	0	0
Subtotal, Fleet Replacement	**0**	**0**	**0**	**0**
Total, OMAO - PAC	**0**	**0**	**0**	**0**
GRAND TOTAL PAC DISCRETIONARY OBLIGATIONS	**180,000**	**0**	**0**	**0**

Department of Commerce
National Oceanic and Atmospheric Administration
Bipartisan Infrastructure Law
CONTROL TABLE
(Dollar amounts in thousands)

PAC ADJUSTMENTS

Proposed Operating Plan	FY 2022 IIJA Supplemental Spend Plan	FY 2023 IIJA Supplemental Spend Plan	FY 2024 IIJA Supplemental Spend Plan	FY 2025 IIJA Supplemental Spend Plan
SUBTOTAL PAC DIRECT OBLIGATIONS	**180,000**	**0**	**0**	**0**
FINANCING				
Total PAC Financing	**0**	**0**	**0**	**0**
SUBTOTAL PAC BUDGET AUTHORITY	**180,000**	**0**	**0**	**0**
TRANSFERS				
Total PAC Transfers	**0**	**0**	**0**	**0**
SUBTOTAL PAC APPROPRIATION	**180,000**	**0**	**0**	**0**

Department of Commerce
National Oceanic and Atmospheric Administration
Bipartisan Infrastructure Law
CONTROL TABLE
(Dollar amounts in thousands)

OTHER ACCOUNTS DISCRETIONARY

Proposed Operating Plan	FY 2022 IIJA Supplemental Spend Plan	FY 2023 IIJA Supplemental Spend Plan	FY 2024 IIJA Supplemental Spend Plan	FY 2025 IIJA Supplemental Spend Plan
NMFS				
Pacific Coastal Salmon Recovery Fund Obligations	34,400	34,400	34,400	34,400
Pacific Coastal Salmon Recovery Fund Budget Authority	34,400	34,400	34,400	34,400
Pacific Coastal Salmon Recovery Fund Appropriation	34,400	34,400	34,400	34,400
Subtotal, NMFS Other Discretionary Direct Obligations	**34,400**	**34,400**	**34,400**	**34,400**
Subtotal, NMFS Other Discretionary Budget Authority	**34,400**	**34,400**	**34,400**	**34,400**
Subtotal, NMFS Other Discretionary Appropriation	**34,400**	**34,400**	**34,400**	**34,400**
TOTAL, OTHER DISCRETIONARY DIRECT OBLIGATIONS	**34,400**	**34,400**	**34,400**	**34,400**
TOTAL, OTHER DISCRETIONARY BUDGET AUTHORITY	**34,400**	**34,400**	**34,400**	**34,400**
TOTAL, OTHER DISCRETIONARY APPROPRIATION	**34,400**	**34,400**	**34,400**	**34,400**

Department of Commerce
National Oceanic and Atmospheric Administration
Bipartisan Infrastructure Law
CONTROL TABLE
(Dollar amounts in thousands)

GRAND TOTAL SUMMARY DISCRETIONARY APPROPRIATIONS

Proposed Operating Plan	FY 2022 IIJA Supplemental Spend Plan	FY 2023 IIJA Supplemental Spend Plan	FY 2024 IIJA Supplemental Spend Plan	FY 2025 IIJA Supplemental Spend Plan
Operations, Research, and Facilities	557,250	515,584	515,583	515,583
Procurement, Acquisition, and Construction	180,000	0	0	0
Fisherman's Contingency Fund	0	0	0	0
Pacific Coastal Salmon Recovery Fund	34,400	34,400	34,400	34,400
Fisheries Disaster Assistance Fund	0	0	0	0
Marine Mammal Unusual Mortality Event Fund	0	0	0	0
Medicare Eligible Retiree Health Care Fund	0	0	0	0
GRAND TOTAL DISCRETIONARY APPROPRIATION	**771,650**	**549,984**	**549,983**	**549,983**

Department of Commerce
National Oceanic and Atmospheric Administration
Bipartisan Infrastructure Law
CONTROL TABLE
(Dollar amounts in thousands)

SUMMARY OF DISCRETIONARY RESOURCES

Proposed Operating Plan	FY 2022 IIJA Supplemental Spend Plan	FY 2023 IIJA Supplemental Spend Plan	FY 2024 IIJA Supplemental Spend Plan	FY 2025 IIJA Supplemental Spend Plan
Direct Discretionary Obligations				
ORF Direct Obligations	557,250	515,584	515,583	515,583
PAC Direct Obligations	180,000	0	0	0
OTHER Direct Obligations	34,400	34,400	34,400	34,400
TOTAL Direct Discretionary Obligations	**771,650**	**549,984**	**549,983**	**549,983**
Discretionary Budget Authority				
ORF Budget Authority	557,250	515,584	515,583	515,583
PAC Budget Authority	180,000	0	0	0
OTHER Budget Authority	34,400	34,400	34,400	34,400
TOTAL Discretionary Budget Authority	**771,650**	**549,984**	**549,983**	**549,983**
Discretionary Appropriations				
ORF Appropriation	557,250	515,584	515,583	515,583
PAC Appropriation	180,000	0	0	0
OTHER Appropriation	34,400	34,400	34,400	34,400
TOTAL Discretionary Appropriation	**771,650**	**549,984**	**549,983**	**549,983**

Department of Commerce
National Oceanic and Atmospheric Administration
Bipartisan Infrastructure Law
CONTROL TABLE
(Dollar amounts in thousands)

LINE OFFICE SUMMARY

Proposed Operating Plan	FY 2022 IIJA Supplemental Spend Plan	FY 2023 IIJA Supplemental Spend Plan	FY 2024 IIJA Supplemental Spend Plan	FY 2025 IIJA Supplemental Spend Plan
National Ocean Service				
ORF	262,302	243,314	235,563	232,537
OTHER	0	0	0	0
TOTAL, NOS	262,302	243,314	235,563	232,537
National Marine Fisheries Service				
ORF	181,546	181,494	179,373	179,373
PAC	0	0	0	0
OTHER	34,400	34,400	34,400	34,400
TOTAL, NMFS	215,946	215,894	213,773	213,773
Oceanic and Atmospheric Research				
ORF	71,417	39,508	36,055	36,555
PAC	95,000	0	0	0
TOTAL, OAR	166,417	39,508	36,055	36,555
National Weather Service				
ORF	27,366	44,572	47,972	50,498
PAC	83,000	0	0	0
TOTAL, NWS	110,366	44,572	47,972	50,498
National Environmental Satellite, Data and Information Service				
ORF	10,489	4,586	5,675	5,675
PAC	2,000	0	0	0
TOTAL, NESDIS	12,489	4,586	5,675	5,675

Department of Commerce
National Oceanic and Atmospheric Administration
Bipartisan Infrastructure Law
CONTROL TABLE
(Dollar amounts in thousands)

LINE OFFICE SUMMARY

Proposed Operating Plan	FY 2022 IIJA Supplemental Spend Plan	FY 2023 IIJA Supplemental Spend Plan	FY 2024 IIJA Supplemental Spend Plan	FY 2025 IIJA Supplemental Spend Plan
Mission Support				
ORF	2,000	2,000	8,000	8,000
PAC	0	0	0	0
SUBTOTAL, Mission Support	2,000	2,000	8,000	8,000
Office of Marine and Aviation Operations				
ORF	2,130	110	2,945	2,945
PAC	0	0	0	0
TOTAL, OMAO	2,130	110	2,945	2,945
DIRECT DISCRETIONARY OBLIGATIONS				
ORF	557,250	515,584	515,583	515,583
PAC	180,000	0	0	0
OTHER	34,400	34,400	34,400	34,400
TOTAL, DIRECT DISCRETIONARY OBLIGATIONS	**771,650**	**549,984**	**549,983**	**549,983**
ORF Adjustments (Deobligations/Rescissions)	0	0	0	0
ORF Transfers	0	0	0	0
PAC Adjustments (Deobligations/Rescissions)	0	0	0	0
PAC Transfers	0	0	0	0
OTHER Discretionary Adjustments	0	0	0	0
TOTAL, DISCRETIONARY APPROPRIATIONS	**771,650**	**549,984**	**549,983**	**549,983**

National Oceanic and Atmospheric Administration

FY 2025 Annual Performance Plan

FY 2023 Annual Performance Report

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

Overview of NOAA Accomplishments:

NOAA

- **SO 3.1 - U.S. Global Change Research Program (USGCRP) released the Fifth National Climate Assessment (NCA5) -** In November 2023, the Biden-Harris Administration and the U.S. Global Change Research Program (USGCRP) released the Fifth National Climate Assessment (NCA5) to help every community, every business and every American prepare for and respond to climate change. NOAA's contributions to the report included 35 authors and 13 chapter leaders, and NOAA's work on regionally based climate resiliency, community engagement and environmental justice are reflected in the report. NOAA also contributed new chapters to the NCA on Earth system processes, economics, and social systems and justice.

NOAA NESDIS (National Environmental Satellite, Data, and Information Service)

- **SO 3.1 - NOAA Launches JPSS-2 Satellite** - NOAA successfully launched the JPSS-2 satellite on November 10, 2022, from the Vandenberg Space Force Base, California. JPSS-2, which was renamed NOAA-21 once in orbit, is part of the Joint Polar Satellite System and is the third of five satellites in NOAA's latest generation of polar-orbiting satellites that allow for continuous global observations for short- and long-term weather forecasts, extreme weather events, and monitoring of climate change.
- **SO 3.1 - GOES-18 Becomes Operational as GOES West -** The GOES-18 satellite (formerly GOES-T) went into operational service as NOAA's GOES West satellite on January 4, 2023. In this role, GOES-18 serves as NOAA's primary geostationary satellite for detecting and monitoring Pacific hurricanes, atmospheric rivers, coastal fog, wildfires, volcanic eruptions, and other environmental phenomena that affect the western contiguous United States, Alaska, Hawaii, Mexico, and Central America.
- **SO 1.7 - NOAA's Commercial Data Program (CDP) Begins First Operational Delivery Under Commercial Radio Occultation Data Buy 2 (RODB-2)** - On July 18, 2023, NOAA's CDP began its data delivery period under the RODB-2 contract, comprising the first operational delivery of radio occultation data and the first commercial buy for PlanetiQ. Commercial data will be processed into satellite products that will inform NOAA's operational weather and space weather systems, as well as weather, climate, and atmospheric research.
- **SO 3.1 - Argos-4 Hosted Payload Successfully Launches -** NOAA's Argos-4 hosted payload was successfully launched aboard its commercial host satellite, General Atomics' GAzelle, on October 7, 2022. The Centre National D'études Spatiales, NOAA's international partner, completed Argos-4 commissioning in July 2023, integrating the instrument into the wider Argos Data Collection System Network. Argos-4 will collect a variety of data from stationary and mobile transmitters around the world, providing a better understanding of the Earth's weather, climate, biodiversity, and ecosystems, and assisting with maritime security, offshore pollution, humanitarian assistance, and compliance with environmental protection regulations.

- **SO 3.1 - GeoXO Mission Formally Approved -** On December 14, 2022, NOAA's next-generation geostationary satellite program, Geostationary Extended Observations (GeoXO), was formally approved by the Department of Commerce and entered the Program Development Phase of the mission. GeoXO awarded instrument development contracts for its imager and sounder in 2023. GeoXO will continue and expand NOAA's Earth observations from geostationary orbit to improve observations for weather forecasting, and will provide new ocean and atmospheric measurements, detect and monitor a range of environmental hazards, and provide advanced warning to decision-makers.
- **SO 3.1 - QuickSounder Mission Enters Project Development Phase and Awards Instrument, Spacecraft, and Mission Operations Contracts -** On December 16, 2022, NOAA's QuickSounder mission, a component of the Near Earth Orbit Network (NEON) Program, completed DOC Milestone 2 and received authorization to enter the Project Development Phase and proceed to Key Decision Point-C. Also in December 2022, on behalf of NOAA, NASA awarded a sole source contract modification for the refurbishment of QuickSounder's Advanced Technology Microwave Sounder Engineering Development Unit. The QuickSounder mission is designed to demonstrate new business and programmatic models that can be leveraged in future NEON activities that will recapitalize the current Polar Weather Satellites.
- **SO 3.1 - Space Weather Next Satellite Program Completed MS 1 and KDP-1** - NOAA's Space Weather Next (SW Next) program successfully completed DOC Milestone 1 in November 2022, as well as NASA Key Decision Point A, receiving approval to proceed with project definition and formulation. The SW Next program is responsible for NOAA's next generation of space weather data in all appropriate orbits, and its projects will provide data continuity and enhancement for the National Weather Service's Space Weather Prediction Center to meet operational needs and support national priorities for space weather forecasting.
- **SO 3.1 - NextGen Climate Data Record Completed** - In February 2023, NOAA's Center for Satellite Applications and Research completed the development of the NextGen Climate Data Record (CDR) to help make data more discoverable, accessible, and usable, advancing NOAA's climate ready nation goals. The NextGen CDR information enhances our understanding of how human activities have changed our atmosphere.

NOAA NMFS (National Marine Fisheries Service)

- **SO 2.1 - Bipartisan Infrastructure Law (BIL) Funds Distributed Through Pacific Coastal Salmon Recovery Fund (PCSRF) -** NOAA awarded more than $106M in recommended funding for 16 West Coast and Alaska state and tribal salmon recovery programs and projects under the PCSRF. The funds, including $34.4M under the BIL and $7.5 M under the Inflation Reduction Act (IRA), will support the recovery, conservation and resilience of Pacific salmon and steelhead in Alaska, California, Idaho, Oregon, and Washington.
- **SO 2.1 - BIL and Inflation Reduction Act (IRA) Funds Made Available -** NOAA distributed $87M funding for 23 projects selected through the Restoring Fish Passage through Barrier Removal funding opportunity, and more than $16M in funding for 13 projects selected through the Restoring Tribal Priority Fish Passage through Barrier Removal funding opportunity. These projects will help restore access to healthy habitat for migratory fish across the country through efforts including on-the-ground fish passage restoration, engineering

and design, future project development, and building the capacity of new and existing partners to design projects and manage multi-faceted restoration efforts.

- **SO 2.1 - All Consolidated Appropriations Act of 2021 (CAA) Funds Obligated and Nearly Two-Thirds Disbursed** - All fishery assistance funding under the CAA have been obligated. Funds were allocated in three portions: $255.0M for coastal states and territories, $15M for Great Lakes states, and $30M for Tribes. As of September 30, 2023, $181.7M (72 percent) of coastal state funds and $13.7M (91 percent) in Great Lakes state funds have been disbursed, for a cumulative percentage of 76.6 percent disbursed. All $30M (100 percent) for Tribes have been transferred to the Bureau of Indian Affairs through an interagency agreement and disbursed using P.L. 93-638 (Indian Self Determination and Education Assistance Act) contracts.
- **SO 2.1 - U.S. Fish Stocks Maintain Sustainability -** The Status of the U.S. Fisheries report for 2022 shows 93 percent of the stocks managed with known status are not subject to overfishing and nearly 81 percent are not overfished. There are two fewer stocks subject to overfishing and three fewer that are overfished. Ninety percent did not exceed their annual catch limits. Two additional stocks were rebuilt for a total of 49 since 2000. Ending overfishing and rebuilding stocks supported $253B of commercial and recreational sales and 1.7M jobs in 2020. This shows that the U.S. fishery management system is achieving its long-term sustainability goals.
- **SO 2.1 - Island-Based Fishery Management Approach Implemented -** Island-based fishery management plans were implemented for Puerto Rico, St. Thomas and St. John, and St. Croix. This action consolidated four existing Caribbean fishery management plans into three island-based plans, and added 32 stocks and stock complexes to our list of managed stocks. These plans transition fisheries management in federal waters from the historic U.S. Caribbean-wide approach to an island-based approach, to be attentive to the unique biological, economic, and cultural attributes of each island or island group. This island-based approach to management facilitates a more responsive and nuanced fishery management framework and provides the foundation for an ecosystem-based approach to managing fisheries in the U.S. Caribbean region.
- **SO 3.1 - Strategy to Address Impacts of Offshore Wind Energy Development on Scientific Surveys** - On December 5, 2022, the Bureau of Ocean Energy Management (BOEM) and NOAA announced a Federal Survey Mitigation Strategy to address impacts of offshore wind energy development on NOAA's scientific surveys. NOAA's survey data form the basis of the science-based management and conservation of America's marine resources. During the environmental review of the first offshore wind energy project on the U.S. Outer Continental Shelf, BOEM and NMFS identified major adverse impacts on surveys conducted in the Northeast region. While focused on New England and the mid-Atlantic, this strategy will serve as a model to address the impacts of offshore wind on NOAA surveys in other regions.

NOAA NOS (National Ocean Service)

- **SO 3.2 - BIL & IRA Investments in Climate Ready Coasts -** To date, NOAA NOS has allocated nearly $141M in BIL funding towards 51 competitive projects in 27 states and territories, addressing challenges including coastal resilience, restoration, marine debris, and tribal priorities. NOS also invested $22.6M in noncompetitive funds into state-managed Coastal Zone Management programs and National

Estuarine Research Reserves (NERRs) as well as approximately $285M to the National Coastal Resilience Fund administered by the National Fish and Wildlife Foundation. NOS also has a number of active competitive funding opportunities open funded by year two of BIL funding, as well as funding from the IRA. IRA-funded opportunities include the $575M Climate Resilience Regional Challenge and the $60M Ocean-Based Climate Resilience Accelerators program.

- **SO 3.2 - NOAA Advancing Designation and Expansion Processes for Conservation -** Federally-managed National Marine Sanctuaries (NMS) and state-run NERRs help conserve the nation's important ocean, coastal, and Great Lakes habitat and cultural resources. In FY 2023, NOAA initiated or advanced designation and expansion processes to consider protecting approximately 1.36 million square miles in sanctuaries or NERRs, including potential designation of six proposed new sanctuaries – Papahānaumokuākea, Chumash Heritage, Lake Ontario, Hudson Canyon, Pacific Remote Islands, and Lake Erie Quadrangle – and three proposed new NERRs in Louisiana (Atchafalaya Reserve), Wisconsin (Bay of Green Bay Reserve), and the U.S. Virgin Islands. These designation processes support the Administration's America the Beautiful Initiative.
- **SO 2.1 - Advancing Navigation, Observations, and Positioning -** NOAA led the way for the achievement of several significant milestones in navigation, observations, and positioning. The fourth annual interagency Progress Report on Unmapped U.S. Waters shows that, as of January 2023, 50 percent of U.S. waters have been mapped to 100-m resolution. This represents a significant advancement of the global Seabed 2030 initiative, and NOAA-led projects were responsible for much of the reported 2 percent increase in mapped area since January 2022. NOAA also completed its 15-year effort to collect gravity data over the entire area of U.S. states and territories, which will support improved floodplain mapping, coastal resource management, construction, agriculture, and emergency evacuation planning. It also established the 38th Physical Oceanographic Real-time System (PORTS®) system in Freeport, Texas. The PORTS® system now supports nearly 87 – or approximately 50 percent – of the top 175 U.S. seaports.
- **SO 3.2 - Coastal Flooding and Adaptation Support -** NOAA made significant enhancements to its suite of high tide flooding products, advancing NOAA's coastal flooding predictions. NOAA released the new Monthly High Tide Flooding Outlook, which provides the daily likelihood of high tide flooding at locations nationwide in an interactive, geospatial format. NOAA also improved the accessibility of its Annual High Tide Flooding Outlook with upgrades to its web map and layout. NOAA also released its new coastal adaptation guide to provide beginners with an easy-to-follow framework to help coastal communities know where to start when it comes to adapting to coastal change.
- **SO 2.1 - BIL & IRA Investments in Ocean and Coastal Observing -** Both the BIL and IRA have included historic investments for the Integrated Ocean Observing System (IOOS) and coastal observing systems. BIL funds will be used to improve and enhance coastal, ocean, and Great Lakes observing systems while IRA funds will be used to deliver non-competitive funds to the eleven IOOS Regional Associations. As part of NOAA's mission to improve overall flood and inundation mapping and forecasting, NOS also received funding for rebuilding and upgrading National Water Level Observation Network (NWLON) stations and acquiring bathymetric data in the mid-Atlantic and northwest Florida to improve flood predictions and update nautical charts.
- **SO 3.3 - Informing and Advancing Offshore Wind Projects -** NOAA mapping products in the Gulf of Mexico and other regions are helping advance the President's clean energy goal of deploying 30 gigawatts of offshore wind energy by 2030, while minimizing the wind industry's impacts on protected species, habitats, and commercial and recreational fishing. In FY 2023, NOAA delivered four models to

support siting, development and management of offshore wind in the Gulf of Mexico, Gulf of Maine, and Pacific Northwest. These products are getting used – this year, BOEM designated two Wind Energy Areas in the Gulf of Mexico with the potential to produce enough renewable energy to power nearly three million homes.

- **SO 3.2 - Rescuing and Conserving Corals -** NOAA's Mission: Iconic Reefs project aims to restore nearly three million square feet of coral reefs in Florida over the next 20 years. This year, NOAA scientists transferred and settled larvae from two threatened coral species in a coral culture facility for further study. Also, when water temperatures spiked suddenly in Florida Keys National Marine Sanctuary, leading to coral bleaching, disease, and death, NOAA managers successfully organized an effort to collect specimens of all known living elkhorn and staghorn coral for land-based living gene banks. While current populations of these species in Florida are at less than 1 percent of their former abundance, these forward-looking approaches aim to ensure that coral diversity and resilience are preserved for the future.
- **SO 3.2 - Recovering Funding from Pollution Settlements -** NOAA and our partners recovered $92.8M through pollution settlements for restoration, including three oil spills and four hazardous waste (Superfund) settlements, often in communities disproportionately affected by pollution. These actions add to over 30 years of pollution settlements recovering $10.6B for restoration of fisheries, wildlife, and coastal economies across the country. This work is conducted in partnership with federal, state and tribal partners.

NOAA NWS (National Weather Service)

- **SO 3.1 - NWSChat 2.0 Implemented Utilizing Slack -** NOAA implemented NWSChat 2.0 using the modern cloud based SLACK platform as a commercial-off-the-shelf solution, transforming the way the NWS communicates both internally and with core stakeholders and partners for impact-based decision support services (IDSS) when significant weather threatens. NOAA NWS onboarded 20,000 partners without service disruption and in time for the 2023 Hurricane Season.
- **SO 3.1 - Language Translation Pilot Programs -** NOAA completed an adaptive, AI-powered Spanish language translation pilot in Weather Forecast Office (WFO) San Juan, PR, which will significantly reduce the translation burden by reducing human work time from 45 minutes to only 5-10 minutes in time for the 2023 hurricane season. NOAA also initiated a simplified Chinese language translation pilot in WFO Upton, NY, an office serving a population that includes two million limited English proficiency individuals.
- **SO 3.1 - NOAA Introduces New Models to Enhance Hurricane Forecasts -** The National Hurricane Center and the Environmental Modeling Center introduced the Hurricane Analysis and Forecast System, the first model in the community model concept. This new model will provide improvements to track and intensity forecasts, especially in circumstances of rapid intensification, allowing improved IDSS to be provided ahead of landfalling tropical cyclones. Additionally, recent storm surge model upgrades offer improvements to inundation mapping for decision makers.
- **SO 3.1 - NOAA Progresses Multiple Cloud-related Initiatives -** NOAA made substantial progress on several Cloud-related initiatives, including a contract award to initiate the restructure of the Advanced Weather Interactive Processing System (AWIPS) software baseline for future transition to cloud-based environment and a contract award to initiate 24x7 Operational Support for the NWS Dissemination

Enterprise Cloud System. Additionally, NOAA transitioned all its Geographic Information Services (GIS) operations to a 24x7 supported and secure cloud environment.

- **SO 3.1 - NOAA Completes Upgrade to Weather and Climate Supercomputer System -** NOAA recently expanded the capacity of the nation's Weather and Climate Operational Supercomputing System (WCOSS) by 20 percent. Faster supercomputing will allow NOAA to run more complex forecast models, while increased storage space will enable more data to be fed and assimilated into the system, helping weather forecasters deliver more accurate weather forecasts, watches and warnings and improved certainty in a forecast.
- **SO 3.1 - NWS Posts Initial Sixth Lead Forecaster Vacancies -** The NOAA NWS posted the first 30 "Sixth Lead Forecaster" vacancies to USAJobs in July. An additional GS-13 Meteorologist at Weather Forecast Offices (WFOs) will provide greater shift flexibility for NWS employees and enable the NWS to be more nimble, mobile, and flexible with the services it provides.
- **SO 3.1 - Spot Fire Weather Program Undergoes Requirements Upgrades -** NOAA developed enhanced Spot program requirements to improve reliability, security, and increased functionality to modernize the web-based application and migrate it to the Integrated Dissemination Program (IDP). The Spot application allows partners to request specialized fire weather forecasts that provide an incident commander or fire behavior analyst with meteorological intelligence to aid with wildland fires and prescribed burns.
- **SO 3.1 - NOAA Makes Significant Changes to Pacific Buoy Array -** NOAA's National Data Buoy Center (NDBC) is making significant updates to the Pacific TAO (Tropical Atmosphere-Ocean) array, one of the most relied-upon ocean observational arrays in the world, through additional capabilities, updated instruments, more strategic placement, and higher-frequency observations. An initial buoy deployment and transmission of data has already been successful. The updates, which will continue through 2027, mark the first time the network in the central and eastern Pacific Ocean has seen such a substantial upgrade since completion of the original array in 1994. The updates will ensure reliable data for improved climate monitoring, including the monitoring, prediction, and improved understanding of the El Niño-Southern Oscillation (ENSO).
- **SO 3.1 - NOAA Procures New Incident Meteorologist Equipment to Aid Fire Weather Operations -** NOAA successfully procured all new incident meteorologist (IMET) deployment equipment, including laptops and upper air observing instruments, and increased the overall IMET capacity by adding ten new IMETs to enhance services in fire weather forecasting and IDSS.
- **SO 3.1 - Contract Awarded for NOAA Atlas 15 Utilizing BIL Funds -** NOAA awarded the initial contract for NOAA Atlas 15, enabling the NWS to begin development. Atlas 15 will enhance the production and provision of rigorously produced authoritative precipitation frequency estimates in order to provide critical information to support the design of state and local infrastructure nationwide under a changing climate.
- **SO 3.1 - BIL Supported Flood Inundation Mapping (FIM) Workshop Conducted -** Utilizing BIL funding, NOAA conducted a FIM workshop in November 2022 at the National Water Center with all affected Weather Forecast Offices, River Forecast Centers, and Regional Operating Centers as part of the effort to provide neighborhood-level FIM services and related decision support to emergency managers and the public for the first 10 percent of the nation by the end of the fiscal year. This effort is an important first step toward National implementation in FY 2026.

- **SO 3.1 - NOAA Implements Update to National Blend of Models (NBM) -** NBM version 4.1 was implemented to fill existing product gaps requested by the Aviation, Water Resources, Marine, Winter, and Tropical NWS Service Programs. It is anticipated that these upgrades will continue to benefit the NWS in its goal toward providing better IDSS.

NOAA OAR (Oceanic and Atmospheric Research)

- **SO 3.1 - Short Range Fire Weather Research -** NOAA, using the BIL, has successfully generated, tested and delivered two non-standard low-resolution grids for short range fire weather. This is the first step in creating high-resolution modeling improvements and data assimilation activities to improve urban scale forecasts of smoke, fire weather, and fire behavior impacts for at-risk communities directly adjacent to forest lands. This research will also provide advanced fire weather (winds, precipitation, temperatures, lightning) and fire behavior forecasts for daytime and nighttime fire operations.
- **SO 3.1 - NOAA 'Omics home page -** NOAA announced the release of the NOAA 'Omics landing page. This web portal offers insight into NOAA 'Omics priorities and research accomplishments and provides access to recordings of NOAA 'Omics seminars via the NOAA Science Council's 'Omics informational site. The data obtained from 'Omics research benefit a myriad of national priorities including fisheries management, aquaculture development, food and water safety, species and habitat conservation, seafood consumer protection, biodiversity monitoring, and natural products discovery.
- **SO 3.1 - Heat.gov -** NOAA in collaboration with other National Integrated Heat Health Information System (NIHHIS) partners launched Heat.gov in summer 2022, and it quickly grew to become a widely used resource in FY 2023. Since its launching, the website has had over half a million visits. The website serves as the premier source of heat and health information for the Nation to reduce the health, economic, and infrastructural impacts of extreme heat.
- **SO 3.1 - Climate Science and Community Resilience -** NOAA supported substantial advancements in climate science and community resilience. As one example, NOAA's Climate Program Office awarded over $15M in October 2022 for projects to advance the understanding of wildfire pollutants, assessing the fiscal aspects of and capacity for adaptation in rural communities, improving modeling of atmospheric aerosols and refining the understanding of these aerosols' role in potential climate intervention, supporting the management of National Marine Sanctuaries and Marine National Monuments through better understanding of climate variability and change in the sanctuary system, and strengthening the understanding and management of drought's impact on ecosystems.
- **SO 3.1 - Hybrid Single-Particle Lagrangian Integrated Trajectory (HYSPLIT) Fully Implemented -** NOAA fully implemented a new version of the HYSPLIT model. It is a complete system for computing simple air parcel trajectories, as well as complex transport, dispersion, chemical transformation, and deposition simulations. It is used for tracking hazardous and toxic emissions from industrial, transportation, accidents, smoke from wildfires and prescribed fires, ash from volcanic eruptions, and dust from dust storms. Among other new capabilities, the new version has expanded and enhanced capability for volcanic ash modeling.

- **SO 3.2 - Marine Debris BIL Funds Awarded -** NOAA's National Sea Grant Program, using BIL funds, has awarded nine grants to support proposals that invest in transformative marine debris research-to-application projects that will highlight clear and measurable outcomes and applications for marine debris prevention and removal.
- **SO 3.2 - Predicting the future of ocean acidification -** NOAA and its partners have published a landmark paper describing newly created data products to help people adapt to ocean acidification. Combining observational data with computer simulations, scientists used models of the changing ocean to determine how chemistry, biology and physical forces could work together in a changing ocean. These data points are important because the growth, behavior and survival of clams, oysters, corals, and other marine species that depend on minerals as building blocks for their shells and skeletons are especially adversely affected. In turn, so are the economic sectors that rely on these species.

NOAA OMAO (Office of Marine and Aviation Operations)

- **SO 3.1 - Fleet Recapitalization** - NOAA continued acquisition of two general purpose Oceanographic Ships (Class A) through a Navy assisted acquisition. Contract oversight continues as the lead ship is approximately 47 percent complete with construction and follow-on ship is at 32 percent complete. Another new ship class acquisition (Class B), with a primary mission of charting and surveying, was awarded in Q3 FY 2023. The Post Award Conference was successfully conducted in Q4 FY 2023. The new Class C ship acquisition (primary mission of Assessing Living Marine Resources with trawl capability) had its Analysis of Alternatives completed in Nov 2023.
- **SO 3.1 - Aircraft Recapitalization -** NOAA continued its acquisition of a new Gulfstream G550 aircraft. The Critical Design review was successfully conducted in June 2023 and the aircraft was well along in its physical modifications. The G550 is a replacement for NOAA's current Gulfstream G-IV, but offers enhanced data collection technologies including those for advanced climate data. The acquisition of a third King Air aircraft was delivered in Dec 2023. The P-3 Replacement Program was initiated in FY 2023, and the initial award to reserve production slots was awarded at the end of FY 2023.
- **SO 3.1 - Uncrewed Systems (UxS)** - NOAA continued to fund and advance the transition of NOAA missions to uncrewed marine and aircraft systems (together: UxS). Two of these projects completed their transition work and achieved readiness for routine operations in FY 2023, with the others tracking towards operational status in the FY 2024-2026 timeframe. NOAA also established a new capability to centrally manage and fund acquisition vehicles (IDIQ contracts) for uncrewed marine system data-as-a-service projects in the following NOAA mission areas: meteorological and oceanographic observations, ocean exploration and characterization, and living marine resources. Other accomplishments include a DriX for hydrographic surveys working in tandem with fisheries surveys on greenhouse gasses, and flying an uncrewed aircraft beyond line-of-sight with Vandenberg Space Force.
- **SO 5.2 - Diversity, Equity and Inclusion** - NOAA OMAO established its Diversity, Equity, and Inclusion Advisory Council, chaired by the OMAO Deputy Assistant Administrator for Programs and Administration, comprising twelve individuals across OMAO's centers and divisions. All members (12) have completed the e-Cornell Diversity, Equity, and Inclusion certification program. Additionally, OMAO's AA directed all 226 OMAO supervisors to complete a D&I Certificate Course from the University of South Florida. Nearly 65 percent

supervisors completed the program and OMAO has extended USF program completion to the end of Q1 FY 2024. OMAO AA has also completed eight monthly dialogue sessions, with each of NOAA's Employee Resource Groups, that have been highly beneficial in building partnership and community with employees. In September 2023, OMAO supported the Blacks In Government National Training Conference by funding 12 OMAO members to attend the conference.

NOAA OCIO (Office of Chief Information Officer)

- **SO 3.1 - High Performance Computing (HPC)** - The NOAA OAR HPC program added more than 8 petaflops of computing capacity across Oak Ridge (Gaea, C5) and Mississippi State University (Orion, Hercules). The program increased network capability and redundancy for all sites and doubled the archive capacity for research computing. Incubator awards for novel and cutting-edge AI/machine learning research projects increased 50 percent in FY 2023. NOAA Cloud adoption continues to increase as the program heightens focus on the UX and provides technical solutions to allow both long-time and non-traditional HPC users access to the Cloud compute environment.
- **SO 3.1 – NOAA Open Data Dissemination (NODD) -** NOAA NODD increased its data holdings from 23 petabytes to 41 petabytes, a 78 percent increase. The technical team improved visualization and access to the NODD Metrics Portal, which provides information on data usage to data managers and owners. Upgrades to this system improved access by allowing approved individuals to login via their NOAA email credentials. From a user engagement perspective, the team procured and implemented Customer Relationship Management software to better track and address customer inquiries around data and the program itself. In addition, the team generated a new engagement approach called NODD Office Hours which brings together NOAA scientists, data experts, cloud partners, and customers to give better insight into NOAA data and its use generally, as well as on the platform.

NOAA OSC (Office of Space Commerce)

- **SO 1.7 - Supporting Basic Space Situational Awareness (SSA) Data and Basic Space Traffic Management (STM) Services -** NOAA, working closely with its partners at Department of Defense (DoD) and NASA, made good progress on the implementation of the Traffic Coordination System for Space (TraCSS) program. NOAA is pursuing a phased development approach for TraCSS to build up capabilities and ensure a smooth offloading of SSA and Space Traffic Coordination (STC) responsibilities from the DoD. TraCSS will ingest unclassified data from DoD and integrate commercial SSA data and services to promote spaceflight safety, space sustainability, and international coordination. NOAA continued to progress in the architecture and procurement strategy to deploy Phase 1.0 initial capabilities in Q4 2024. In FY 2023, the OSC developed a distinct procurement strategy for TraCSS, awarded a cloud utility contract, and is progressing on major procurements.
- **SO 1.7 - Solicitation of Space Industry Input -** NOAA published a request for information (RFI) via the Federal Register requesting additional input from interested parties on NOAA's currently planned scope of basic safety services to be provided via the TraCSS program. This input will inform NOAA's development of capabilities to share SSA data, information and services to space operators and

the public. NOAA hosted two workshops, a virtual workshop on July 12, 2023, and an in-person workshop on July 19, 2023, for commercial SSA data/products and service providers to discuss TraCSS, as part of a series of continuing engagements with the user community to discuss the future of TraCSS. On April 12, 2023, the NOAA hosted a live video presentation about TraCSS to share its findings from the Basic SSA Services RFI. On July 28, 2023, NOAA released a second video presentation updating the progress of TraCSS.

- **SO 1.7 - Collaboration and Coordination with DoD -** On December 5, 2022, NOAA took a step forward in its plans to provide STC services to commercial and civil satellite operators operating in the increasingly congested orbits around Earth. As part of a pilot project to assess spaceflight safety mission assurance to select spacecraft in the medium Earth orbit and geostationary Earth orbit, NOAA partnered with the Department of Defense to award seven contracts to U.S. commercial space firms for space situational awareness data analysis. DoD and NOAA engage in several weekly working groups and semi-annual in-person workshops on collaboration and coordination related to SSA.
- **SO 1.7 - International Engagements -** In November 2022, at the request of the National Space Council, NOAA organized the first-ever "Track 1.5" bilateral government-industry space dialogue as part of the U.S.-France Comprehensive Space Dialogue. In March 2023, NOAA led a second Track 1.5 session as part of the U.S.-Japan Comprehensive Space Dialogue. Based on the success of these events in fostering space business partnerships, NOAA arranged similar government-industry space engagements with Singapore, Korea, and Italy. In CY 2023, NOAA also promoted commercial space interests in civil space dialogues with India, Canada, and Argentina; the Commercial Space Stakeholders Meeting with the African Union; the Space Five meeting with Australia, Canada, New Zealand, and the United Kingdom; and at international forums including the U.S.-Africa Leaders' Summit, Space Symposium, and International Astronautical Congress.
- **SO 1.7 - Regulatory Streamlining for the Commercial Space Industry -** On August 7, 2023, NOAA's Commercial Remote Sensing Regulatory Affairs Office — a division of NOAA OSC — announced the modification of operating licenses of multiple commercial satellite systems. The changes lifted restrictions that had previously prevented U.S. commercial imaging satellites from offering their full capabilities to the public. The licensing modifications, which continued through the rest of the year, have empowered the U.S. commercial remote sensing industry to compete at its full potential, and cut significant regulatory red tape to accelerate U.S. leadership in the fast-growing commercial space industry.
- **SO 1.7 - Developing STM Standards and Practices -** NOAA and NIST continue to coordinate and engage to share input from the U.S. Government and commercial industry to develop internationally accepted common standards, best practices, and guidelines for space situational awareness and space traffic coordination.

NOAA OEd (Office of Education)

- **SO 3.1 - Urban Heat Island Virtual Reality Experience Provides an Immersive View into Environmental Justice -** A cross-NOAA team from the OEd, NESDIS, and OAR showcased the Washington, D.C., urban heat islands virtual reality experience during the 2023 Esri

Federal GIS Conference, COP 27, and the White House Demonstration Day. Projects like this position NOAA as an innovator in the use of emerging technologies used to rethink science communication.

- **SO 3.1 - New cohort of Environmental Literacy Program Grantees** - NOAA's Environmental Literacy Program is funding six projects that will use education to build the foundation for resilience to extreme weather and climate change in their communities. Together, these projects will receive a total of $2.9M to empower people to protect themselves and their communities from local climate impacts. More than ever before, the newest cohort of grant recipients, represents organizations that are directly serving the most underserved and vulnerable communities. The grantees are using environmental justice approaches to create resilience in frontline communities, such as working with faith-based communities to create climate resilience leaders, and creating solar installation work-based learning opportunities in public schools.
- **SO 3.2 - Young Changemakers Fellowship** - NOAA expanded efforts to uplift youth voices through a pilot program connecting youth perspectives to NOAA leaders. In 2023, the North American Association for Environmental Education, eeBLUE Young Changemakers Fellowship, selected nine participants for a year-long program designed to empower high school students to take action on ocean and environmental issues and bring their perspectives into NOAA's decision-making process. This adds to NOAA's growing portfolio of youth leadership programs, which also includes the Coastal Ecosystem Learning Centers youth engagement initiative and the Ocean Guardians Youth Ambassadors Program.
- **SO 3.2 - Citizen Science Action Plan** - NOAA released the new NOAA Citizen Science Action Plan, which details how NOAA will advance public participation in NOAA's mission. The plan ensures that collaboration, inclusiveness, and data quality remain core considerations of the projects that NOAA offers. Citizen Science is one of NOAA's six science and technology focus areas.
- **SO 5.2 - Conservation Corps Act Direct Hire Authority Brings New Talent into the NOAA Workforce** - Changes in 2019 to the Conservation Corps Act language has allowed NOAA to directly hire postsecondary graduates who participated in qualifying experiential opportunities. In FY 2023, NOAA OEd and Office of Human Capital Services created a database of more than 90 eligible student alumni to connect with hiring managers. This is an important step in connecting the workforce pipeline from graduates who were supported by NOAA programs to federal employment. OEd also launched a new student opportunities database and created a landing page for student opportunities alumni, including information about the direct hire authority.

Planned Actions through FY 2025

NOAA NESDIS (National Environmental Satellite, Data, and Information Service)

- **SO 1.7 - Continue Commercial Data Program** - NOAA will assess the expansion of commercial satellite data buys that could deliver new or augment existing types of Earth observation and space weather data. These data purchases support the continued development and

sustainment of NOAA's infrastructure and capabilities to securely ingest, process, assimilate, distribute, and archive data from commercial space providers for operational use.

- **SO 3.1 - Transition GOES-U Satellite and Space Weather Follow-On Compact Coronagraph (CCOR) Instrument to Operations -** GOES-U, the final satellite in NOAA's GOES-R Series, will transition to operations in FY 2025 following its planned launch in April 2024. Unlike prior GOES-R Series satellites, GOES-U includes a CCOR instrument capable of monitoring coronal mass ejections that will also transition to operations in FY 2025.
- **SO 3.1 - Continue to Deploy and Operate the Joint Polar Satellite System (JPSS)** - NOAA's JPSS-3 satellite will be placed into storage for periodic instrument and spacecraft testing. NOAA will also continue instrument and spacecraft satellite integration and testing for JPSS-4 and continue development and sustainment of the ground system.
- **SO 3.1 - Launch Space Weather Follow-On (SWFO) Satellite -** NOAA's SWFO satellite will launch via a rideshare on NASA's Interstellar Mapping and Acceleration Probe (IMAP) mission planned for 2025. The SWFO mission will provide coronal mass ejections imagery and *in situ* solar wind measurements that will provide warnings of solar radiation and geomagnetic storms.
- **SO 3.1 - Continue Development of the Geostationary Extended Observations (GeoXO) Satellites** - NOAA will continue development of the GeoXO spacecraft and imager, sounder, ocean color, atmospheric composition, and lightning mapper instruments. The GeoXO Program plans to complete Key Decision Point-B, Preliminary Design Review, and Key Decision Point-C milestones in FY 2025. NOAA is working to ensure GeoXO observations are in place by the early 2030s as the GOES-R Series nears the end of its operational lifetime.
- **SO 3.1 - Design Near Earth Orbit Network (NEON) Satellite Missions** - FY 2025 funds will continue to support the instrument development studies and exploration of innovative smallsat development approaches, including leveraging commercial capabilities and partnerships. Funds also support the QuickSounder project, the first NEON mission aiming for launch in Q1 FY 2026.
- **SO 3.1 - Space Weather Next Program Plan -** In FY 2025, NOAA will continue to execute a comprehensive space weather program plan and determine Milestone 2 approval. Projects include an L1 Series continuity project and an L5 mission in partnership with the European Space Agency.
- **SO 3.1 - Complete Development of AI-Enabled Testing Environment in NESDIS Common Cloud Framework (NCCF)** - NOAA will complete the development of an artificial intelligence-enabled science testing environment within the NCCF, which will provide streamlined integration between developers and scientists, support data visualization, and deliver more weather, climate, and oceanic insights to stakeholders and the public. NOAA will also migrate NESDIS science teams into the testing environment to develop an automated algorithm deployment pipeline within the NCCF, support migration of operational and stewardship requirements in the NCCF and manage the IT security that is required to safely use non-NOAA data in NOAA models and systems.
- **SO 3.1 - Strengthen Infrastructure Resilience to Extreme Weather and Climate Change** - With support from BIL, NOAA will advance flood mapping and precipitation frequency products to aid water resource managers, transportation planners, and engineering organizations in planning infrastructure upgrades. In addition, NOAA will develop game-changing fire detection products and services that address urgent needs of firefighters and first responders, such as more accurate predictions of fire behavior in the early hours of wildfire events. Through the Industry Proving Grounds initiative, funded by the IRA, NOAA will partner with the private sector to improve delivery of climate data and services, and develop risk models for underserved communities.

NOAA NMFS (National Marine Fisheries Service)

- **SO 2.1 - Fish Passage for Coastal Marine Species –** NOAA will use BIL and IRA funds for grant activities to improve fish passage for coastal marine fishes, such as salmon; these include species associated with commercial and recreational fisheries, and those listed as threatened or endangered under the Endangered Species Act. NOAA will fund projects that reopen migratory pathways and restore access to habitat for fish through removal of dams and in-stream barriers, helping to recover endangered fish and support our Nation's fisheries.
- **SO 2.1 - Pacific Coastal Salmon Recovery -** NOAA will use BIL and IRA funds to enhance salmon recovery through a competitive grant program for states and tribes by protecting, conserving, and restoring salmon and steelhead populations and their habitat. NOAA will fund habitat restoration and climate resiliency projects that will result in measurable and lasting benefits to salmon and steelhead populations.
- **SO 2.1 - Habitat Restoration and Coastal Resilience -** NOAA will use BIL and IRA funds to strengthen the climate resilience of coastal ecosystems through transformational projects that will restore habitat for our nation's fisheries, recover endangered species, and strengthen the resilience of coastal ecosystems and communities. NOAA will fund projects that will have a transformative impact for coastal communities and tribes across the country. They will support efforts such as reconnecting rivers to their historic floodplains, outplanting corals to rebuild reefs, building living shorelines that protect coasts from erosion and sea level rise, and build capacity of tribes and underserved communities to more fully participate in restoration activities.
- **SO 2.1 - Climate-Ready Fisheries -** NOAA will use IRA funds to enable NOAA to build a dynamic fisheries management system that incorporates climate and ecosystem environmental data to support management decisions and the resilience of communities that depend on our nation's fisheries. NOAA will help build an operational system to provide resource managers and resource-dependent communities the information they need to prepare and respond to rapidly changing oceans. Decision Support Teams at all six NMFS Science Centers will provide decision-makers with advice on the best strategies for resilience and adaptation through regional ocean, ecosystem and fisheries projections, risk assessments, and management strategy evaluations needed for climate-informed fisheries management. Targeted research will fill critical gaps in our understanding of climate impacts on stock productivity.
- **SO 2.1 - Tribal Priorities -** NOAA will use IRA funds to support fish hatcheries that produce Pacific Salmon and Steelhead that are important to tribes. Deferred maintenance and repairs to hatcheries that produce Pacific salmon and steelhead in support of federally recognized tribes will be addressed. NOAA will conduct a minimum of five tribal engagement sessions on hatchery funding.
- **SO 2.1 - NOAA BIL Funds -** NOAA will use BIL funds to expedite federal projects aimed at tackling the Nation's climate crisis by completing Endangered Species Act and Essential Fish Habitat consultations, and incidental harassment authorizations, for federal infrastructure projects or those permitted or authorized by federal agencies.
- **SO 3.3 - Offshore Wind Energy Impact Analysis -** NOAA will analyze the potential impacts of proposed offshore wind energy areas and projects on NOAA trust resources to support the regulatory review process, including technical review, data analysis, and generation of

recommendations for Essential Fish Habitat (EFH), Endangered Species Act (ESA), and National Environmental Policy Act consultation processes. NOAA will carry out increased EFH and ESA section 7 consultation and Marine Mammal Protection Act authorization work associated with new BOEM activities, and support early engagement with BOEM and project proponents to streamline efficiency of regulatory reviews, while minimizing impacts and delays to the existing workload carried by consultation biologists and authorization analysts.

- **SO 3.3 - Offshore Wind Advance Scientific Understanding -** NOAA will conduct studies and activities that advance scientific understanding on the interaction of offshore wind on NOAA trust resources, including fish stocks, protected species and ecosystems, with a focus on the Northeast and Mid-Atlantic regions. In addition, comprehensive and complex environmental impact statements will be reviewed to ensure that NOAA can provide BOEM with best available science and sufficient analyses to assess and address impacts to fish, fisheries, protected resources, habitats, and communities.
- **SO 3.3 - Offshore Wind Survey Mitigation -** NOAA will continue to implement a nationwide federal survey mitigation program that will need to occur over the operational lifespan of offshore wind developments (30+ years). The survey mitigation program will address impacts from offshore wind development on NOAA surveys that are arising from the excluding NOAA sampling platforms from the wind development area due to operational and safety limitations; impacts on the random-stratified statistical design that is the basis for scientific assessments, advice and analysis; and alteration of benthic and pelagic habitats, and airspace in and around the wind energy development. NOAA will evaluate existing survey designs, as well as identify and develop new survey approaches that will then be calibrated to existing surveys.

NOAA NOS (National Ocean Service)

- **SO 2.1 - Facilitate Growth of the Ocean Enterprise -** NOAA will engage with the Ocean Enterprise – the businesses, agencies, academia, and other groups that support ocean observations or generate value-added products and services using ocean data – to build coalitions and partnerships that will accelerate the growth of this information-focused sector of the Blue Economy. NOAA will also work with the academic, philanthropic, and private sector to equitably expand educational opportunities that help build a diverse workforce with the skills needed to advance the Ocean Enterprise.
- **SO 2.1 - Sustain and Advance Coastal, Ocean, and Great Lakes Observing and Positioning -** NOAA is dedicated to enhancing coastal, ocean, and Great Lakes observing systems and foundational data. This will include advancing the modernization of the National Spatial Reference System, supporting the International Great Lakes Datum Update, expanding real-time PORTS® data accessibility for top U.S. seaports, maintaining and improving the NWLON, and advancing the National Strategy for Mapping, Exploring, and Characterizing the United States Exclusive Economic Zone. NOAA will also work to mitigate impacts from planned decreases and terminations, including the Regional Associations of the Integrated Ocean Observing System and the new Center of Excellence for Operational Ocean and Great Lakes Mapping.

- **SO 3.2 - Improve U.S. Coastal Resilience -** NOAA will continue to use BIL and IRA funds to support projects that advance coastal resilience, including marine debris removal, coastal conservation, and coastal zone management. NOAA will also continue its core mission work in coastal resilience, including responding to chemical and oil spills, delivering training and technical assistance to coastal communities, and developing and delivering ecological forecasts for harmful algal blooms and other coastal hazards. As part of this work, NOAA will work to identify barriers to accessibility and equitable service delivery. At the same time, NOAA will work to minimize disruptions from planned funding decreases for resilience work, including the National Coastal Resilience Fund, and the Competitive Research Program.
- **SO 3.2 - Conservation and Restoration -** NOAA will continue to advance the 10 existing processes for proposed expansions and new designations of NMSs and NERRs, supported by increased funding for the NMS System. As part of this work, NOAA will ensure that it engages with key groups including states, tribes and indigenous organizations, coastal communities, and the public, to ensure that designation decisions are informed by diverse perspectives. Work on NMS will be accelerated by planned increases to support both existing and future sanctuaries. Meanwhile, NOAA will work to manage impacts from planned funding decreases for the Coral Reef Conservation Program.
- **SO 3.3 - Support for Offshore Wind -** NOAA will deliver spatial planning data and models to inform identification of areas suitable for offshore wind and aquaculture development and other uses, including models for the U.S. Caribbean, Gulf of Mexico, and central Atlantic.

NOAA NWS (National Weather Service)

- **SO 3.1 - Advanced Weather Interactive Processing System (AWIPS) in the Cloud -** NOAA will begin transforming the AWIPS and the underlying infrastructure into a modern, extensible framework by utilizing cloud-based technologies. This transformation will allow for a more mobile AWIPS, allowing all our meteorologists, including our Incident Meteorologists providing on-site weather support at wildfires and other all-hazard incidents, as well as our Center Weather Service Units serving Air Traffic Control Centers, to be more nimble, mobile, and flexible in providing exemplary impact-based decision support services to all our partners and the public.
- **SO 3.1 - Bipartisan Infrastructure Law (BIL) - Funded Hydrologic Efforts -** NOAA's Office of Water Prediction will utilize BIL funding to: Deliver enhancements to the Next Generation Water Resources Modeling Framework to deliver advanced hydrologic and water resources prediction capabilities to the Nation; Improve the skill of real-time high spatial resolution forecast flood inundation maps (FIM) for operational implementation of FIM services for 60 percent of the U.S. population, providing communities with access to critical, detailed flood maps that facilitate impact-based decision making in emergency situations; and Deliver an Atlas 15 Vol. 1 and Vol. 2 pilot over Montana. Atlas rainfall data are the authoritative source of precipitation frequency information nationwide and are used by community planners and engineers to inform infrastructure decisions.
- **SO 3.1 - Weather.gov 2.0 -** NOAA is planning a nationwide deployment of a nimble, mobile, and flexible Weather.gov 2.0 that is better able to meet the needs of the American public and our partners.

- **SO 3.1 - Integrated Dissemination Program (IDP) -**The NOAA IDP will be optimized with a larger application upgrade support team for the applications currently operating on IDP allowing the NWS to better maintain applications with current operating systems and meeting partner needs, as well as critical resources to maintain hardware support.
- **SO 3.1 - Tsunami Warning Centers Alignment -** NOAA will support the alignment of Tsunami Warning Centers operation procedures at the analytic level, thereby ensuring product consistency and 24/7 backup capabilities.

NOAA OAR (Oceanic and Atmospheric Research)

- **SO 3.1 - Enhancing Regional and Community Resilience -** NOAA will fund grants, using BIL funding, to external communities to conduct fire weather-related research in short range weather, decision support services, air quality, and sub seasonal and seasonal forecast innovation. This will also include the establishment of the Earth Prediction Innovation Center (EPIC) portal. EPIC will provide cloud computing for fire weather model systems and provide community support, testing, and repository management support.
- **SO 3.1 - Phased Array Radar Research and Development Follow-On Plan -** NOAA, using funding from the IRA and annual appropriations, will acquire and demonstrate a proof-of-concept Phased Array Radar (PAR) Test Article. The Test Article will be an S-Band single face rotating PAR weather surveillance radar which has the potential to allow for rapid scans, improved tracking of severe storms, and improved reliability.
- **SO 3.1 - Water in the West -** NOAA will fund research to operations in hydrology for the Water in the West Initiative. The research includes the modeling of snow and hydrologic processes in complex, mountainous terrain (sublimation, melting, refreezing, redistribution); hydroclimate prediction services to strengthen co-management of atmospheric river and drought risk; and research-to-applications work to accelerate co-production and application of hydroclimate products and services. In many western states in the United States, snow melt accounts for a large percentage of the spring runoff that serves as water supply to reservoirs, urban populations, and agricultural activities.
- **SO 3.2 - Climate Ready Workforce for Coastal States, Tribes, and Territories Initiative -** NOAA plans on awarding 10-20 grants ranging from $500K to $10M each using IRA funds to establish programs aimed at training people for/and connecting them with jobs related to climate resilience and assisting employers in developing a 21st century workforce that is climate literate, informed by climate resilience, and skilled at addressing consequent challenges.
- **SO 3.2 - Strengthen Coastal Resilience -** NOAA will use BIL funding to support its Societal Data Insights Initiative, which will advance its Social, Behavioral and Economic Science data infrastructure to evaluate societal response to flooding products and services. This will include establishing an information technology Infrastructure for collecting human subject and impact data and making a public-facing user insights portal.
- **SO 3.2 - National Oceanographic Partnership Program (NOPP) -** Through NOPP, NOAA will continue its efforts to reduce plastic waste in the oceans, conduct comprehensive mapping and characterization of the U.S. Exclusive Economic Zone, develop next-generation autonomous and remote (air and satellite) marine data collection systems, pursue new discoveries of ocean resources and marine

habitat dynamics that are gleaned from existing marine information databases, and streamline the national oceanographic and marine information systems that provide transparent access and advanced data management and analysis tools.

NOAA OMAO (Office of Marine and Aviation Operations)

- **SO 3.1- Fleet Recapitalization** - Class A vessels (*Oceanographer and Discoverer*) continue with construction, trials, and an expected delivery in FY 2025 for the lead ship, and delivery of the second ship also in FY 2025. The Program is projected to launch ships and commence commissioning of systems in FY 2024. Class B vessels (mapping and survey missions) will progress through Detail Design and reach the Production Readiness Review currently scheduled for Q1 FY 2025. Class C (fisheries and coastal science) Milestone 1 documents are under development with a target to award a Phase I Preliminary/Contract Design contract(s) in Q4 FY 2025
- **SO 3.1 - Aircraft Recapitalization** - NOAA's G550 aircraft acquisition will proceed with airframe modifications in FY 2024, and a delivery expected in early to mid-year FY 2025. The acquisition of a third King Air aircraft was delivered in Q1 FY 2024. This King Air aircraft will provide NOAA with mission modifications for both photogrammetry and snow survey, along with additional enhancements, such as wing pylon mounts. The full solicitation for the P-3 Replacement aircraft should be issued and a contract awarded in FY 2024. Among the first program activities will be a radar feasibility study and start of the design for airframe modifications, which will continue into FY 2025.
- **SO 3.1 - Uncrewed Systems (UxS)** - NOAA will continue to transition the high-priority UxS transition projects it funded from FY 2021-2023 into operations, along with executing other prioritized UxS missions using NOAA-owned and contracted UxS – as funding and technical progress allow. Some UxS uses may require additional years of funding to overcome technical challenges that have emerged in the transition process. Notable FY 2024 deliverables include establishing an Uncrewed Marine Systems Operations Center in Gulfport, MS; operating corporately-owned UxS in support of NOAA missions (i.e. the DriX); and preparing to integrate UxS into NOAA's developing fleet. These efforts will include staffing and training personnel to support UxS operations, continuing to acquire hardware and hardware maintenance, and facilitating and ensuring compliance with policies for safe UxS use. OMAO will continue to partner with other Line Offices, federal agencies, academia, and industry to develop and evaluate UxS across the full scope of NOAA missions and readiness levels.
- **SO 3.1 - Facilities (NE Marine Operations Hub Consolidation, Newport, RI & Charleston Pier, SC) -** The Newport, RI, facility program awarded its contract in early Dec 2023 as an assisted acquisition with the U.S. Navy will begin construction starting in Q3 FY 2024 and run until FY 2027. The Charleston Pier Recapitalization Design/Build Project was officially awarded in Sept 2023, and the project going forward will focus on the design portion of the project for most of FY 2024, and plans will start with construction in Q1 FY 2025.
- **SO 5.2 - Diversity, Equity and Inclusion** - The OMAO Diversity Equity Inclusion Council will focus OMAO's FY 2024 actions and efforts that promote and enhance Workforce Diversity, Workplace Inclusion and Sustainability as identified in the NOAA D&I Strategic Plan. Targeted efforts and resources will focus on three priorities: 1) Targeted Outreach, recruitment, and mentoring; 2) Reduce Hiring Barriers and biases; 3) Increase employee engagement through continuous DEI communication and participation. The OMAO DEIA Council will establish universal standards to reduce barriers and biases in hiring practices by participating in the FY 2024 Barrier Analysis Working

Group led by OICR. OMAO will incorporate support for Diversity & Inclusion (D&I) goals in performance plans and leadership communications to increase participation in D&I activities and work/life balance programs across OMAO. Additionally, in FY 2024 OMAO will also explore an initiative to launch an Employee Resource/Affinity Group fair as an opportunity to share knowledge and discuss how individuals can make lasting impacts beyond.

NOAA OCIO (Office of Chief Information Officer)

- **SO 3.1 - High Performance Computing (HPC)** - NOAA will continue to increase high-performance compute, including cloud, to NOAA scientists across the scales of performance computing solutions while maintaining a balanced infrastructure to maximize compute utility and accessibility. Software engineering efforts will focus on needed enhancements while developing and growing NOAA's engagement with junior programmers with the goal of being able to harness exascale compute. NOAA will also continue to support AI/ML/Cloud initiatives through R&D HPC Integrator contract and Incubator program.
- **SO 3.1** - **NOAA Open Data Dissemination (NODD)** - In FY 2024-2025, NODD will continue to work with the NOAA Line Offices to: understand their users' experience; expand data holdings judiciously; encourage the data be pushed by the owner rather than pulled by the data broker, such as real-time Joint Polar Satellite System / Low Earth Orbit data via the NOAA Common Cloud Framework; support operational feeds, such as nowCoast and National Integrated Drought Information System, and performant approaches, such as SpatioTemporal Asset Catalogs. Conduct 6 Office Hours sessions per year, including three on JPSS/Low Earth Orbit data - one for each Cloud Service Provider. First and foremost, NODD will continue to expand non-restricted access to NOAA data to the public via the cloud.

NOAA OSC (Office of Space Commerce)

- **SO 1.7 - Support Commercial Space Situational Awareness (SSA) -** During FY 2024-2025, NOAA will implement Phase 1 of the TraCSS, including initial operations and deployment of internal and public user interfaces, increased integration of commercial SSA services, investment in commercial SSA data for additional tracking, build-up of the TraCSS operations center, and planning for technical needs related to launch collision avoidance services during Phase 2.
- **SO 1.7 - Improve Space Regulations -** NOAA will advocate for U.S. industry interests in ongoing rulemaking processes affecting commercial space activities, including exports, and support and participate in efforts to define a new mission authorization and supervision framework for in-space activities. OSC will work with NOAA General Counsel on implementing needed legal authorities to accomplish the SSA mission and a range of possible STC services.
- **SO 1.7 - Participate in National Space Council -** NOAA will support Department of Commerce leadership's participation in the activities and tasks of the National Space Council, coordinating Department-wide bureau activities through the Deputy Secretary's Commercial Space Coordinating Committee.

- **SO 1.7 - Participate in Space Standards Development Processes -** NOAA will support the development of international space standards with standards developing organizations and assist with convening an interagency working group on SSA/STC Standards. NOAA will support user engagement with international partners to assure sharing of data, sources and responsibilities and work with international partners to establish consensus on terms and conditions for future space operations.

Analysis of Performance Indicators

Explanation of Trends

NOAA NESDIS (National Environmental Satellite, Data, and Information Service)

- NESDIS is on track to meet or exceed the performance targets in the APPR. Most notably with continued support for the flagship satellite programs, NOAA successfully launched the JPSS-2 satellite in early FY 2023, and the next-generation satellite programs are continuing to complete major milestones and Key Decision Points.

NOAA NMFS (National Marine Fisheries Service)

- The two primary fisheries-related measures have shown a stagnant or declining trend since FY 2021. This is due primarily to issues completing stock assessments, which have been caused partly by staffing problems. These trends are forecast to reverse slightly during FY 2024, but NMFS does not see a return to the FY 2021 level of performance until FY 2025. By contrast, our measure of regulatory success, the percentage of key stocks within sustainable catch limits, has actually been increasing and hit an all-time high of 94.5 percent in FY 2023, which is a significant achievement.
- NMFS has also seen significant declines in the number of threatened or endangered species with stable or increasing populations from a high of 37 in FY 2014 to just 21 in FY 2023. NMFS believes climate change is the major factor here, having caused some populations to destabilize and others to become unknown due to a lack of information. This is despite a constantly increasing number of completed recovery actions. NMFS has also had significant increases in the percentage of protected species with adequate population assessments, but still fewer than 30 percent of these stocks have adequate assessments.
- NMFS has had significant success in improving our permit processing performance, with an average of just 31 days per permit and just 34 that have exceeded statutory or regulatory deadlines.

NOAA NOS (National Ocean Service)

- NOS is on track to meet or exceed performance targets in the APPR. A few measures where NOS substantially exceeded targets are known to have high annual variability.

NOAA NWS (National Weather Service)

- Tornado Warning accuracy and lead time continue the below-target trend of the past several years; however this is not directly related to funding. Rather, this is a result of years of research into tornado formation and radar development leading to a combination of much smaller tornado warnings, along with an increase in storm survey techniques (such as use of aerial imagery) to determine weaker tornado paths that years ago may have been undetected.
- Flash Flood Warning accuracy and lead time remained below target in FY 2023, but again cannot be directly attributed to funding. The main forecast challenge is the wide variability in precipitation amounts in the Western U.S., and their occurrence in or around more prone flash flood locations (such as burn scars from previously active wildfires). Additional variability is caused by the fluctuations in tropical systems landfalling in the U.S., which tend to bring larger and somewhat more predictable flash flood events.

NOAA OAR (Oceanic and Atmospheric Research)

- Effects of COVID still impact OAR's Ocean Acidification observations, reducing the number of observations and observation transmission to NOAA. The National Ocean Acidification Observing Network (NOA-ON) is a suite of sensor assets. Each sensor tracks the daily cycle of ocean carbonate chemistry, which allows NOAA to characterize Ocean Acidification in accordance with the Federal Ocean Acidification Research and Monitoring (FOARAM) Act. This network provides the capacity to track long-term changes in ocean chemistry and to alert stakeholders and industry partners about corrosive events impacting the Nation's blue economy.
- There was a steep increase in the annual number of dives conducted in the U.S. Exclusive Economic Zone (EEZ) because of the testing of Remote Operated Vehicles dives. Mapping U.S. EEZ waters yield information about the terrain of the ocean floor, providing a foundation for identifying and assessing the natural and cultural resources within these areas. These maps and characterizations are necessary for sound decisions about conservation, management, and balanced use of the nation's waters.
- The cumulative number of high-resolution prototype ocean hindcasts, predictions, and projections [using MOM6] produced for Living Marine Resource applications in each of four regions covered by NOAA's Living Marine Resource mandates (East Coast, West Coast, Arctic, and Pacific Islands) FY 2023 targets was not met due to the unavailability of the HPC allocation. Although the project has begun, the limited access to HPC is slowing the project progression. These enhanced regional models will be part of the information developed and provided to users to help manage U.S. fisheries that are impacted by climate change.

- OAR continues to experience hardship in accessing ships and aircrafts. If OAR cannot access reliable research aircraft and ship time, then the amount of air and ocean observational data available for marine, climate, hurricane, weather, air quality, and ecosystem forecasting will decrease, causing degraded forecasts, inconclusive assessments and deferred scientific advances.

NOAA OMAO (Office of Marine and Aviation Operations)

- NOAA Ship Recapitalization **-** NOAA is making progress towards the NOAA Ship Recapitalization Plan as shown by OMAO APPR KPIs. OMAO continues the multiple vessel class recapitalization program with the new NOAA ships *Oceanographer and Discoverer* (Class A) and the new Class B ship acquisitions. Milestones tailored to these acquisitions provided evidence of successful contractor and government progress. During FY 2021, the Detail Design and Construction contract for both *Oceanographer* and *Discoverer* was awarded on time. Delays on Class A occurred from Hurricane Ida and the government invoked modifications resulting in supply chain shortcomings. Government continues to apply mitigation actions supporting NOAA's progress.
- NOAA Aircraft Recapitalization - The OMAO APPR KPI for aircraft acquisitions tracks milestones and provides evidence that NOAA is making progress on the Aircraft Recapitalization Plan. OMAO continues the acquisition and outfitting of a new Gulfstream G550 to deliver an advanced capability scientific data collection platform with work progressing toward an anticipated contractor delivery in FY 2024. The second King Air 350 aircraft was delivered in FY 2021 and is operationally in service to support NOAA's missions, including snow survey and coastal mapping. A third King Air aircraft was delivered early in FY 2024, and another major acquisition effort was initiated to replace the aging P-3 aircraft with a target completion in FY 2030 that meets the P-3 retirement requirements as noted in the Plan.
- NOAA Facilities Recapitalization (NE Marine Operations Hub Consolidation, Newport, RI & Charleston Pier, SC) **-** OMAO continues to show progress on its ship and support facility hub consolidation work by tracking project milestones with the OMAO's APPR KPI. These results enable NOAA to identify trends to improve NOAA ship operations and maintenance. The new Charleston Pier program, included under NOAA Facilities Recapitalization will also be tracked by this OMAO facilities APPR KPI.
- NOAA Ship Days at Sea (DAS) - OMAO continues to provide ships for data collection capabilities required by the NOAA scientific community while working with the NOAA Fleet Council to prioritize and schedule these missions. DAS missions will depend upon appropriations received, which produces a Fiscal Year schedule establishing the total DAS APPR Indicator/target that NOAA uses to track progress and needs for DAS. The NOAA DAS KPI indicates that NOAA is not meeting its annual targets, which is mainly due to NOAA's aging fleet.
- OMAO Diversity, Equity and Inclusion **-** OMAO has invested heavily into building its diversity and inclusion and awareness and education across the organization. To track our progress, OMAO has developed an APPR KPI to track our DEI progress as noted in the OMAO Planned Actions section above.

NOAA OSC (Office of Space Commerce)

- Qualitatively OSC made good progress for the long-term success of the TraCSS. OSC purposefully slowed down elements of FY 2023 TraCSS infrastructure procurements to ensure that a capable vendor was selected, avoiding detrimental "vendor lock" issues. In the beginning quarters of FY 2023, obligations to the TraCSS program were delayed by the annual appropriations process.
- OSC met its DOC SO 1.7 performance metrics for FY 2023 and increased future targets thanks to a congressional increase in budget and staffing.

Explanation of Targets for FY 2024 and FY 2025

NOAA NESDIS (National Environmental Satellite, Data, and Information Service)

- Additional FY 2025 investment in NOAA's Data-source Agnostic Common Services (DACS) initiative will be required to expand use of the cloud infrastructure and accommodate significant increases in volume and diversity of environmental observations from partner missions, which impact NOAA's ability to: maintain and evolve global modeling with the Unified Forecast System; support healthy, productive, and resilient ocean and coastal ecosystems; and forecast severe weather events. This infrastructure will also enable NOAA science teams to take advantage of new cloud-based tools that leverage artificial intelligence and machine learning techniques.

NOAA NMFS (National Marine Fisheries Service)

- Our targets for FY 2024 and FY 2025 mostly aim to hold steady or achieve modest increases, which is the best scenario possible in a time of major climate change and significant scientific staffing issues. One exception is recovery actions for protected species, where we're aiming for a 10 percent increase by the end of FY 2025. Although it appears as though NMFS is targeting a decrease in the percentage of stocks with sustainable catch levels, NMFS are simply acknowledging that 94.5 percent is a level unlikely to be maintained. Similarly with permit processing times, the targets represent ceilings NMFS aims not to exceed.

NOAA NOS (National Ocean Service)

- For most measures, NOS expects level performance or modest annual increases. Some measures with high interannual variability may have FY 2024 targets that appear to differ from FY 2023 actuals; however these targets reflect longer-term averages and trends.

NOAA NWS (National Weather Service)

- No significant changes in performance metrics are indicated for the next several FYs. Many of the metrics used by NWS are highly variable and dependent on seasonal and annual atmospheric patterns and oceanic temperature cycles (such as El Nino), and this variability is only exacerbated further by climate change. It is challenging to target incremental improvement in our metrics until better trends in the aforementioned factors emerge.

NOAA OAR (Oceanic and Atmospheric Research)

- In FY 2024 and FY 2025, NOAA using IRA funding will establish more NIHHIS Centers of Excellence, initiate projects to build equitable resilience to heat communities across the country and enhance Heat.gov with new information, products, and services. NOAA's Urban Heat Island Mapping Campaign is providing technical and financial support to urban areas to help them identify neighborhoods at greatest risk from heat stress. This will result in increased FY 2024 and FY 2025 targets for the number of cities/counties served by NIHHIS.
- In FY 2024 with the support of IRA funding, NOAA will release the third iteration of its short-range weather application that predicts atmospheric behavior on a timescale from less than an hour to several days. In FY 2024, NOAA will add the smoke and dust Rapid Refresh Forecast System (RRFS) to the application. In FY 2025, NOAA will add the RRFS-Multiscale Air Quality model system to the application. These enhancements will increase FY 2024 and FY 2025 targets for the percentage of projects that work toward a new or improved numerical weather model component that contributes to the Unified Forecast System.
- If the proposed FY 2024 funding increase request is approved, NOAA's capability to enhance its precipitation prediction skill will increase. This will be accomplished by improving the understanding of key physical processes operating in the atmosphere and on land (especially over complex terrain), identifying ways to improve model representations of these processes, and reducing systematic biases in NOAA models, which will lead to the demonstration of improved precipitation forecast skill.
- For FY 2024, NOAA will use additional Remotely Operated Vehicles (ROV) in the exploration of the ocean. The use of ROVs will increase the number of dives thus leading to an increase in the FY 2024 and FY 2025 targets for the annual number of Dives conducted in the U.S. Exclusive Economic Zone (Exclusive Economic Zone is an area of the ocean, generally extending 200 nautical miles (230 miles) beyond a nation's territorial sea, within which a coastal nation has jurisdiction over both living and nonliving resources).

NOAA OMAO (Office of Marine and Aviation Operations)

- To set accurate NOAA DAS targets we need to address: NOAA Ship DAS regular maintenance, including proper preventive maintenance, is scheduled to ensure readiness prior to and during the field season. NOAA vessels will be more mission ready, and therefore, able to execute DAS at a higher level. The FY 2024 and FY 2025 DAS targets also assume that the decrease in the number of DAS lost due to unscheduled maintenance along with aggressive strategies to increase mariner hiring and retention (e.g., retention bonuses, hiring bonuses, rotational staffing) will increase the utilization rate of the entire NOAA ship fleet. This allows OMAO to provide ships capable of meeting prioritized, geographical, and temporal, at-sea NOAA requirements.
- To set accurate NOAA milestone acquisition targets we need to address: NOAA aircraft and ship acquisitions are mission critical programs designated by DOC and NOAA for special in-depth management reviews where evidence of progress is provided against planned targets/milestones. Each aircraft and ship acquisition has a customized milestone schedule for assessing readiness to enter the next program/project phase.
- In FY 2024, to sustain enduring improvements in workplace culture and inclusion, the OMAO D&I Program Manager will require additional full-time support to achieve stated FY 2024/2025 targets. Currently, the D&I Program Manager relies heavily on the OMAO DEIA Council members to assist with target execution, however this has slowed progress as many members are from operational centers where operational mission supersedes DEI participation. Additionally, in FY 2024 OMAO will continue to invest in the professional development and training of our DEIA Councils. OMAO will focus DEI related principles, practices, and goals on developing an OMAO DEI Implementation Plan, followed by execution of the Plan's activities for FY 2024. As part of the new initiative, OMAO may develop new indicators to assist OMAO leaders in tracking improvements.
- Setting NOAA OMAO Facilities target milestones: The two NOAA facilities programs for Newport, RI and Charleston, SC will continue their FY 2024-FY 2025 schedules which are unique to their contractual facilities requirements. Progress toward meeting all NOAA approved milestones to construct the new Piers will be monitored and documented throughout FY 2024-FY 2025 to further NOAA's ability to manage its operational fleet in support of NOAA's science.

NOAA OSC (Office of Space Commerce)

- As the OSC continues to execute its increased funding and hiring authority, with an expanded organizational structure, it will have the capacity to meet higher performance targets in FY 2024 and FY 2025. OSC's continued performance and ability to meet major milestones will depend upon appropriations received.

Progression of the Performance Indicators

NOAA performance indicators are reviewed throughout the fiscal year by NOAA leadership and include quarterly NOAA Level Annual Operating Plan (AOP) updates, as well as the Mid-Year and End-of-Year Performance Reviews. In FY 2023, NOAA met 83 percent of 100 total performance measures tracked and publicly reported via the APPR process.

NOAA NESDIS (National Environmental Satellite, Data, and Information Service)

- The annual target for major satellite milestones completed will include applicable Commerce Major Acquisition Milestones and/or NASA Key Decision Points.

NOAA NMFS (National Marine Fisheries Service)

- In FY 2024, NMFS is implementing a new performance measure to gauge progress on our fish stock assessments. The retired measure had a single standard of adequacy for all stocks, but all stocks do not have the same assessment needs. The new measure establishes a target assessment level for each individual stock and gauges the success in meeting that standard. It also for the first time includes assessments of lower-priority stocks, which are still necessary for management. It is a much more accurate representation of the degree to which we are meeting NOAA's assessment needs and a major step forward in gauging progress in our assessment program.
- In FY 2024, NMFS is implementing a new measure to gauge the success of the Seafood Import Monitoring Program. While the retired measure looked at compliance generally, the new measure focuses on the aspects of non-compliance that matter the most to efforts to reduce illegal unregulated and unreported fishing and seafood fraud: permit holders who are unresponsive to audit notifications or who had incomplete chain of custody records. This measure will be a more accurate gauge of the program's success.

NOAA NOS (National Ocean Service)

- NOS has replaced its measure for hydrographic survey work to focus on linear nautical miles surveyed. This measure more directly tracks hydrographic survey work accomplished, and significantly reduces reporting burden.
- As part of our implementation of the new NOS Strategic Plan, NOS will be reviewing our suite of performance measures to ensure alignment with and coverage of strategic goals and objectives.

NOAA NWS (National Weather Service)

- There have been efforts underway since 2021 to enhance agency training into data inputs that are used to calculate performance metrics (such as Storm Data), and to also increase employees' understanding of how these metrics are calculated. Additionally, there continues to be discussion amongst our national service programs and regions about how to better measure performance in the long term - either through improved or new metrics.
- NWS uses our Quarterly Performance Review process to analyze any challenges faced during the current FY, and how to mitigate additional challenges in the coming FY in terms of overlapping impacts of budget, staffing, and performance metrics.

NOAA OAR (Oceanic and Atmospheric Research)

- To address the lag in publication indexing, OAR changed its methodology of setting its outyear targets from using the average of the preceding three fiscal years' actuals to using the average of the preceding three fiscal years' quarterly actuals. The NOAA Science Council set the publications annual and quarterly targets as an average of the previous three years of actual data.
- OAR annually reviews its performance measures definition; for instance, Ocean Acidification Program redefined its "Cumulative number of industry partners provided scientific capacity through ocean acidification adaptation technologies and methods" to "Number of partnerships formed connecting scientific research to communities," increasing the validity of the performance measure.

NOAA OMAO (Office of Marine and Aviation Operations)

- Acquisitions (Ships and Aircraft) - In accordance with the NOAA OMAO Fleet Acquisition Handbook and DOC Scalable Acquisition framework, major milestones are performance measures for these high-profile ship and aircraft acquisition programs that must be reviewed and approved by the DOC Deputy Secretary as the Department's Milestone Decision Authority, as well as the DOC Office of Acquisition Management and Senior Procurement Executive, before moving to next project milestone phase activities. Each acquisition is customized to meet the uniqueness of the platform and requires the level of evidence necessary for well-informed program/project decision-making. If future improvements in program management techniques/methodology become accepted in the program management community, DOC/NOAA could consider inclusion into its management framework.
- Ship Days-At-Sea - Starting in FY 2020, NOAA ships used Total Funded DAS for both planned and actual DAS. Total DAS include OMAO base-funded DAS, program-funded DAS, and reimbursable funded DAS. This approach enables NOAA to expand its performance planning and tracking to encompass the full scope of asset management. In addition, an internal NOAA ship DAS planning and reporting database (Ship Daily Activity Log System) assists leadership in asset management and performance analysis. The system's historical records are maintained and analyzed for performance evidence showing improvement opportunities.

- Diversity, Equity and Inclusion - It is imperative that OMAO builds diversity and inclusion acumen across the workforce before embarking on organizational wide DEI initiatives. For FY 2023, OMAO focused on DEI training for all our DEI Councils and Supervisors across the organization. OMAO built upon this momentum with a culminating event on Sept 23 where our DEI Change Agents from our operational centers will meet at OMAO HQ to assist with development of the FY 2024 OMAO Diversity and Inclusion Implementation Plan. This is a new effort in FY 2024. Progression of indicators can occur for future reporting.
- NOAA OMAO Facilities (NE Marine Operations Hub Consolidation, Newport, RI & Charleston Pier, SC) - The two facilities programs are multi-year in length and show acquisition milestones at critical points that reflect progress toward meeting NOAA approved performance requirements, enabling the government to assess successful completion of all acquisition phases. The end result of the programs is the enhanced ability to perform the science missions that the piers will support.

NOAA OSC (Office of Space Commerce)

- The performance indicators are reviewed throughout the fiscal year by NOAA leadership and include quarterly NOAA Level AOP updates, as well as the Mid-Year and End-of-Year Performance Reviews. Discussions at the reviews are focused on OSC's integrated schedule documenting major milestones to achieve performance targets related to TraCSS.

Performance Data Validation and Verification

All the NOAA Line Offices (LO) and Staff Offices (SO) develop AOPs with performance measures and milestones in support of their LO/SO, the NOAA, and the DOC Strategic Plan Goals and Objectives. Each of the NOAA LO/SOs then elevate KPIs from the LO/SO AOPs to develop the NOAA Enterprise AOP that sets ambitious goals (i.e., measures and milestones with associated targets) to demonstrate clear progress in achieving programmatic and organizational priorities, including implementation of the DOC Strategic Plan.

NOAA NESDIS (National Environmental Satellite, Data, and Information Service)

- NESDIS reviews the progress and achievement of its performance indicators and major milestones on a quarterly basis through a Quarterly Program Review process, which includes updates to the NOAA Annual Operating Plan.
- NESDIS utilizes the functionality of Smartsheet to develop and then track, share, visualize, and analyze performance measures and major milestones.

NOAA NMFS (National Marine Fisheries Service)

- The NMFS scientific enterprise ensures a sound scientific basis for NMFS's resource conservation and management decisions. NMFS collects data and coordinates information and research to ensure science-based management and stewardship. NMFS carries out at-sea resource surveys, stock assessments, fisheries observer programs, cooperative research, and socioeconomic research and data collection. All NMFS science products and programs are subject to independent peer review. There are many challenges involved in collecting and analyzing data on fish stocks and other marine species and their habitats that can result in both uncertainty and knowledge gaps, but management decisions and performance reporting are based on the best scientific information available.

NOAA NOS (National Ocean Service)

- NOS reviews progress toward performance targets in our AOP on a quarterly basis. This includes data analysis to identify reporting discrepancies. NOS also holds periodic leadership reviews to discuss progress, identify challenges, and develop solutions.

NOAA NWS (National Weather Service)

- The NWS shares the performance data with NWS personnel and specific users via a Performance Management Web Portal, and the public.
- NWS Performance indicators are used to accelerate service improvement and set ambitious, yet achievable, goals to challenge the workforce and find new and creative ways to raise their level of performance to meet the more difficult targets. Tracking performance reveals areas of service deficiency and potential areas of new technology or training investment. They are tracked and briefed to senior management of the NWS each quarter.

NOAA OAR (Oceanic and Atmospheric Research)

- OAR reviews the progress and achievement of its performance indicators and major milestones on a quarterly basis through a quarterly review process, which includes updates to the NOAA Annual Operating Plan.
- OAR projects are verified using standard protocol procedures and the results are reported in annual project reports and peer-reviewed publications.
- OAR publications are validated and verified by NOAA Central Library.

- The data for economic and societal impacts derived from Sea Grant activities (jobs created or retained/businesses created or retained/economic benefit) are collected and validated by the NOAA National Sea Grant College Program Office staff.

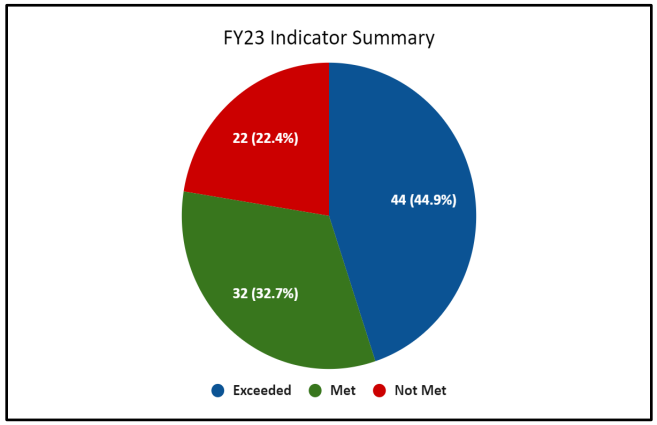
NOAA OMAO (Office of Marine and Aviation Operations)

- The ship DAS performance indicator is reviewed throughout the fiscal year by the NOAA Maine Operations Center and NOAA leadership, the latter including the quarterly NOAA Level AOP updates, as well as End-of-Year Performance Reviews. The underlying performance drivers are discussed for increased understanding, research, or opportunities for improved reporting/utilization.
- NOAA is aggressively taking steps to improve maintenance packages and professional marine retention rates, including plans to increase rotational assignments across the fleet.
- Once mission critical ship and aircraft acquisitions are identified by DOC/NOAA, each is structured to implement the Office of Acquisition Management scalable framework, containing key milestones. These acquisitions are required to report progress during special in-depth management reviews where evidence is provided against planned targets. Incomplete evidence may hold the program from moving to the next phase, and gaps in data require correction to the satisfaction of the oversight bodies.
- OMAO facility related effort started in FY 2021 (North East Marine Operations Hub, Naval Station (NAVSTA) Newport, Rhode Island). Reliability of data for tracking progress requires supporting documentation with recorded processes and procedures to set targets and measure actuals for all reported metrics. Indicators are briefed to senior managers throughout the year and reviewed by NOAA analysts. The newer Charleston SC Pier program follows a similar management approach to track and assess its work progress.
- The OMAO DEI Council will monitor, discuss and develop improvements in their on-going activities as part of the new Implementation Plan.

NOAA OSC (Office of Space Commerce)

- One of OSC's primary objectives is the Phase 1.0 initial operational capabilities in Q4 FY 2024. Assessment of program milestones are continually performed. The OSC reports monthly to NOAA leadership and quarterly to DOC, OMB, and Congressional staff, in addition to quarterly reporting to the NOAA Program Management Council.

NOAA Performance Indicators



Class	Line Office	Strategic Objective	Performance Indicator	FY 2019 Actual	FY 2020 Actual	FY 2021 Actual	FY 2022 Actual	FY 2023 Actual	FY 2023 Target	FY 2023 Status	FY 2024 Target	FY 2025 Target
Current/ Recurring	NWS	3.1	Accuracy of Day 1 precipitation forecasts (%)	37%	36%	36%	33%	36%	34%	Exceeded	35%	35%
Current/ Recurring	OMAO	3.1	Total FY Aircraft Acquisition milestones met	2	1	1	2	2	3	Not Met	5	7
Current/ Recurring	OAR	2.1	Economic and societal benefits from Sea Grant activities as measured by economic benefits of businesses ($M dollars)	$523	$316	$369	$572	$558	$300	Exceeded	$300	$300
Current/ Recurring	OAR	2.1	Economic and societal benefits from Sea Grant activities as measured by number of jobs created/retained	7,600	10,000	11,044	8,369	7,500	7,500	Met	7,500	7,500

Closing Out	NMFS	2.1	Annual number of aquaculture research projects completed that address key production challenges	57	53	62	91	105	105	Met	DISC	DISC
Closing Out	OAR	3.1	Number of Argo floats deployed to increase global coverage (Biogeochemical (BGC) Argo pilot arrays) (cumulative)	—	—	—	19	20	25	Not Met	DISC	DISC
Current/ Recurring	OAR	3.1	Number of NOAA partnerships with the private sector: number of Cooperative Research & Development Agreements (CRADAs) executed	14	8	17	17	16	16	Met	16	16
Current/ Recurring	OAR	3.1	Number of OAR R&D products transitioned to a new stage(s) (development, demonstration, or application)	65	104	85	125	110	74	Exceeded	97	97
Current/ Recurring	OMAO	5.2	Total FY OMAO milestones met to improve Diversity Equity and Inclusion (DEI)	—	—	—	—	0	1	Not Met	1	1
Closing Out	OAR	2.1	Number of ocean acidification observations collected by the National Ocean Acidification Observing Network	7,211	11,037	7,525	7,538	7,420	11,037	Not Met	DISC	DISC

Current/ Recurring	OAR	3.1	Number of peer-reviewed publications related to environmental understanding and prediction	3,171	3,366	3,356	3,057	2,929	3,259	Not Met	3,114	3,114
Current/ Recurring	OAR	2.1	Number of Uncrewed System (UxS) dives to explore and characterize the U.S. Exclusive Economic Zone (EEZ) sites	135	30	89	103	212	100	Exceeded	150	150
Closing Out	OAR	2.1	Percentage of ocean acidification observations transmitted to NOAA	71.0%	65.5%	66.0%	63.0%	75.0%	70.0%	Exceeded	DISC	DISC
Current/ Recurring	NMFS	2.1	Average number of days to complete informal ESA Section 7 consultations	40	43	41	37	31	45	Met	45	45
Current/ Recurring	NWS	3.1	Aviation ceiling/visibility forecast accuracy Instrument Flight Rules (%)	64%	65%	64%	62%	65%	65%	Met	65%	65%
Current/ Recurring	NWS	3.1	Aviation ceiling/visibility forecast false alarm ratio Instrument Flight Rules (%)	33%	33%	36%	37%	36%	38%	Exceeded	38%	38%
Closing Out	OAR	3.1	Number of ground, tall tower and aircraft Greenhouse Gases (GHG) measurements made at observatories and other network sites distributed across the continental US and globe (cumulative)	—	—	—	75	75	85	Not Met	DISC	DISC

Current/ Recurring	OAR	3.1	Improved precipitation prediction lead time (measured in days) due to new or improved Planetary Boundary Layer (PBL) parameterizations on an R&D model	—	—	—	6	7	7	Met	8	9
Current/ Recurring	OAR	3.1	Number of instances in which NWS local forecasters confirm that Warn-on-Forecast System (WoFS) provided actionable guidance that influenced them to communicate a specific county-level tornado threat in public products or by personal communication to integrated warning team partners at least one hour in advance (annual)	—	—	—	4	9	6	Exceeded	7	8
Current/ Recurring	NWS	3.1	Number of national-level NWS partner meetings held with businesses and emergency managers to bolster weather enterprise relationships, advance weather and climate readiness	—	—	—	2	5	3	Exceeded	4	4

Closing Out	OAR	3.1	Number of Uncrewed System (UxS) projects which advance Readiness Levels for observing system applications by at least one Readiness Level (cumulative)	—	—	—	26	29	34	Not Met	DISC	DISC
Closing Out	NOS	2.1	Percent of U.S. and territories surveyed to improve vertical reference system for modernized height/elevation data (cumulative)	79.0%	81.9%	90.0%	96.0%	100.0%	97.0%	Exceeded	DISC	DISC
Current/ Recurring	OAR	3.2	Number of Sea Grant tools, technologies and information services that are used by our partners/customers to improve ecosystem-based management	200	192	172	200	200	200	Met	200	200
Closing Out	OAR	3.1	Number of machine learning methodologies and techniques to improve the resolution of processes to resolve the interactions in the Earth System. (cumulative)	—	—	—	18	32	28	Exceeded	DISC	DISC
Current/ Recurring	NWS	3.1	Number of TsunamiReady Communities (cumulative)	216	216	221	228	225	221	Exceeded	225	221
Current/ Recurring	NWS	3.1	Customer satisfaction with National Weather Service (NWS) services,	86	86	81	82	82	81	Exceeded	82	82

			as measured by the American Customer Satisfaction Index (%)									
Closing Out	OAR	3.1	Number of Argo floats deployed to increase global coverage (Core Argo floats) (cumulative)	—	—	—	268	285	270	Exceeded	DISC	DISC
Current/ Recurring	NMFS	2.1	Fish Stock Sustainability Index (FSSI) 3.0	—	788.5	791.0	788.5	780.5	778.5	Met	782.5	794.0
Current/ Recurring	NWS	3.1	Geomagnetic storm forecast accuracy (%)	62%	55%	50%	48%	58%	60%	Met	52%	52%
Current/ Recurring	NWS	3.1	Global Ensemble Forecast System length of forecast considered accurate (days)	9.80	9.95	10.46	9.92	10.00	10.10	Met	10.10	10.10
Current/ Recurring	NWS	3.1	Percentage of the continental U.S. population served by flood inundation mapping services	—	—	—	—	10%	10%	Met	30%	60%
Current/ Recurring	NWS	3.1	Global Forecast System (GFS) 500 hPA Anomaly Correlation: Length of Forecast Considered Accurate (days)	8.40	8.37	8.31	8.44	8.45	8.60	Met	8.60	8.60
Closing Out	OAR	3.1	Number of deployments of floats (Air Launched Autonomous Micro-Observer (ALAMO) floats) (cumulative)	—	—	—	2	0	4	Not Met	DISC	DISC
Current/ Recurring	NESDIS	3.1	Key milestones completed on time for satellites deployments	2	2	2	2	2	3	Not Met	3	3
Current/ Recurring	OMAO	3.1	Total FY Ship Acquisition milestones met	1	1	1	2	1	4	Not Met	7	9

Closing Out	OAR	3.1	Number of projects, partnerships, or analyses working to advance integration of 'omics approaches into applications and operations (cumulative)	—	—	—	52	78	78	Met	DISC	DISC
Current/ Recurring	NWS	3.1	Marine wave heights: Percentage of accurate forecasts	85%	84%	85%	87%	87%	83%	Exceeded	83%	83%
Current/ Recurring	NWS	3.1	Marine wind: percentage of accurate forecasts	82%	81%	81%	81%	81%	80%	Exceeded	80%	80%
Current/ Recurring	OSC	1.7	Percent of milestones achieved towards establishment of space situational awareness (SSA) services for civil and commercial stakeholders	10%	25%	30%	40%	35%	50%	Not Met	75%	100%
Current/ Recurring	NMFS	2.1	Number of actions ongoing or completed to recover endangered and threatened species	2,358	2,416	2,511	2,476	2,746	2,472	Met	2,997	3,023
Current/ Recurring	OSC	1.7	Number of actions taken in response to stakeholder requests for advocacy support	—	40	60	70	80	80	Met	80	80
Closing Out	NMFS	2.1	Number of aquaculture projects advanced that improve the efficiency and predictability of the federal aquaculture permitting process	16	26	29	28	28	28	Met	DISC	DISC
Current/ Recurring	NOS	3.2	Number of communities that utilize Digital Coast	6,678	6,608	6,766	7,634	7,012	6,500	Exceeded	6,500	6,500

Current/ Recurring	NMFS	2.1	Number of environmental reviews that exceed regulatory or statutory deadlines	74	36	28	33	34	40	Met	40	40
Current/ Recurring	OAR	2.1	Number of fishermen, seafood processors and aquaculture industry personnel who modify their practices using knowledge gained in fisheries sustainability and seafood safety	23,000	12,950	11,359	12,471	24,288	12,500	Exceeded	12,500	12,500
Current/ Recurring	OAR	3.1	Number of forecast and mission improvements, based on The Weather Research and Forecasting Innovation Act of 2017, to weather applications at operational U.S. weather services and in the U.S. weather commercial sector	12	8	15	18	12	15	Not Met	8	10
Current/ Recurring	NMFS	2.1	Fish Stock Assessment Target Index (FSATI)	—	—	—	48.30%	49.20%	49.40%	Met	49.90%	49.10%
Proposed new	NMFS	2.1	Percentage of International Fisheries Trade Permit (IFTP) holders who were responsive to audit notification and had complete chain of custody records	—	—	—	—	—	—	N/A	65%	66%

Closing Out	OAR	3.1	Number of high-resolution prototype ocean hindcasts, predictions, and projections produced for Living Marine Resource applications in each of 4 regions covered by NOAA's Living Marine Resource mandates (East Coast, West Coast, Arctic, and Pacific Islands) (cumulative)	—	—	—	0	1	3	Not Met	DISC	DISC
Current/ Recurring	NMFS	2.1	Number of protected species designated as threatened, endangered or depleted with stable or increasing population levels	30	28	26	24	21	24	Not Met	21	21
Current/ Recurring	NMFS	2.1	Number of protected species stocks with adequate population assessments and forecasts	96	99	101	105	127	131	Not Met	159	163
Current/ Recurring	OSC	1.7	Number of space policy related decision processes, rulemakings, statements, or other governmental activities influenced/led by the Department of Commerce	16	16	18	20	20	20	Met	24	30
Current/ Recurring	NESDIS	3.1	Number of economic sectors regionally engaged by the Regional Climate	—	—	—	—	13	9	Exceeded	9	9

			Services (RCS) program with sectoral needs documented and prioritized									
Closing Out	OAR	3.1	Number of inter-disciplinary activities funded that integrate social scientists in the research process (cumulative)	—	—	—	18	30	30	Met	DISC	DISC
Closing Out	NOS	3.2	Number of square miles of new area advanced through one or more steps of the National Marine Sanctuaries or National Estuarine Research Reserves (NERRs) designation or expansion processes (APG)	—	—	—	591,982	593,582	593,682	Met	DISC	DISC
Current/ Recurring	NWS	3.1	Number of StormReady Communities (cumulative)	3,191	3,297	3,346	3,439	3,584	3,466	Exceeded	3,644	3,704
Current/ Recurring	NWS	3.1	Number of StormReady communities serving socially vulnerable populations and U.S. businesses	—	—	—	390	402	395	Exceeded	407	412
Current/ Recurring	NOS	3.2	Number of volunteer hours supporting science, education, and public engagement programs to raise awareness and meet science needs of national marine sanctuaries	117,746	61,518	41,685	57,224	74,366	40,000	Exceeded	50,000	50,000

Current/ Recurring	NWS	3.1	Number of Weather-Ready Nation Ambassadors serving socially vulnerable populations and U.S. businesses	—	—	—	7,157	7,330	7,207	Exceeded	7,380	7,430
Current/ Recurring	OSC	1.7	Number of workshops, reports, and other tools produced to facilitate growth and advancement of the U.S. commercial space industry	4	3	5	6	9	7	Exceeded	9	12
Closing Out	OAR	3.1	Number of deployments of moorings (Bering & Chukchi moorings) (cumulative)	—	—	—	13	24	24	Met	DISC	DISC
Current/ Recurring	NOS	3.2	Number of youth learning about national marine sanctuaries in hands-on or distance learning.	68,895	71,891	82,000	58,339	56,613	50,000	Exceeded	50,000	50,000
Current/ Recurring	OMAO	3.1	Total FY OMAO Ship Facility milestones completed (NAVSTA Newport, RI and Charleston Pier, SC)	—	—	—	1	0	2	Not Met	8	6
Current/ Recurring	NWS	3.1	Percent Extended and Long Range Climate Prediction Center Outlooks Exceeding Threshold: All Temperature Outlooks	80%	76%	74%	78%	84%	80%	Exceeded	80%	81%

Current/ Recurring	NWS	3.1	Percent Extended and Long Range Climate Prediction Center Outlooks Exceeding Threshold: All Temperature/Precipitation Outlooks	76%	77%	72%	76%	81%	75%	Exceeded	75%	76%
Current/ Recurring	NWS	3.1	Percent Extended and Long Range Climate Prediction Center Outlooks Exceeding Threshold: All Precipitation Outlooks	73%	78%	70%	74%	76%	70%	Exceeded	70%	71%
Current/ Recurring	NWS	3.1	Percent Extended Range Climate Prediction Center Outlooks Exceeding Threshold: All Temperature Outlooks	81%	76%	75%	81%	87%	80%	Exceeded	80%	81%
Current/ Recurring	NWS	3.1	Percent Extended Range Climate Prediction Center Outlooks Exceeding Threshold: All Temperature/Precipitation Outlooks	78%	78%	74%	79%	84%	78%	Exceeded	78%	79%
Current/ Recurring	NWS	3.1	Percent Extended Range Climate Prediction Center Outlooks Exceeding Threshold: All Precipitation Outlooks	75%	75%	72%	76%	80%	75%	Exceeded	75%	76%
Current/ Recurring	NWS	3.1	Percent Long Range Climate Prediction Center Outlooks Exceeding Threshold: All Temperature Outlooks	64%	67%	64%	64%	65%	60%	Exceeded	60%	61%

Current/ Recurring	NWS	3.1	Percent Long Range Climate Prediction Center Outlooks Exceeding Threshold: All Temperature/Precipitation Outlooks	50%	52%	54%	53%	54%	48%	Exceeded	48%	49%
Current/ Recurring	NWS	3.1	Percent Long Range Climate Prediction Center Outlooks Exceeding Threshold: All Precipitation Outlooks	36%	36%	44%	42%	42%	36%	Exceeded	36%	37%
Closing Out	OAR	2.1	Percent of deepwater ocean U.S. Exclusive Economic Zone mapped	51.0%	52.0%	52.5%	55.0%	57.0%	57.0%	Met	57.0%	60.0%
Closing Out	NMFS	2.1	Percent of Seafood Import Monitoring Program import records that are compliant	64.0%	54.0%	55.0%	43.5%	43.4%	55.5%	Not Met	DISC	DISC
Current/ Recurring	NWS	3.1	Improved Precipitation Services: Threat Score for Heavy Precipitation Events (2 inches) made 3 days in advance	—	—	—	0.13	0.13	0.13	Met	0.13	0.14
Current/ Recurring	NMFS	2.1	Percent of stocks for which catch is below the specified Annual Catch Limit	88.3%	89.3%	90.0%	90.4%	94.5%	90.4%	Met	92.3%	93.4%
Current/ Recurring	NOS	2.1	Percent of top 175 U.S. seaports with access to Physical Oceanographic Real-Time Systems (PORTS®) data (cumulative)	43%	45%	46%	47%	50%	48%	Exceeded	51%	52%

Closing Out	NOS	2.1	Percent of U.S. EEZ surveyed to an appropriate level of certainty to support safe navigation per the Adequate Hydrographic Health Index (AHHI)	—	36.6%	36.6%	40.4%	46.0%	35.6%	Exceeded	50.0%	DISC
Current/ Recurring	NESDIS	3.1	Percentage of NOAA-managed satellite data processed and distributed within targeted time	99.35%	99.43%	99.30%	99.59%	99.07%	98.50%	Exceeded	98.50%	98.50%
Closing Out	NMFS	2.1	Percentage of FSSI 3.0 stocks with adequate population assessments and forecasts	—	69.1%	69.0%	67.4%	66.3%	69.1%	Not Met	DISC	DISC
Current/ Recurring	NESDIS	3.1	Ensure 98% of archival data safely archived per National Archives and Records Administration (NARA) standards	98.00%	98.00%	99.96%	99.96%	99.96%	98.00%	Exceeded	98.00%	98.00%
Closing Out	OAR	3.1	Number of field studies, lab studies, and model studies that contribute to process understanding and diagnosis of the role of radiation, clouds, and aerosol and their variability in the atmospheric climate system (cumulative)	—	—	—	1	17	3	Exceeded	DISC	DISC
Closing Out	OAR	3.1	Number of deployments of Arctic buoys (Sea ice buoys) (cumulative)	—	—	—	12	30	30	Met	DISC	DISC

Current/ Recurring	NOS	3.2	Percentage of U.S. coastal states and territories demonstrating annual improvement in resilience capacity to weather and climate hazards	77%	83%	94%	97%	100%	94%	Exceeded	94%	94%
Closing Out	OAR	3.1	Reduce the bias in U.S. seasonal precipitation simulations in OAR Earth System models by margins that are statistically significant (%)	—	—	—	3%	5%	5%	Met	DISC	DISC
Current/ Recurring	NOS	3.2	Percent of Sanctuary and Monument reporting areas that can adequately assess resource condition	82%	80%	83%	83%	83%	80%	Exceeded	80%	80%
Current/ Recurring	NWS	3.1	Severe weather warnings for flash floods - accuracy (%)	77%	80%	77%	74%	76%	76%	Met	76%	76%
Closing Out	OAR	3.1	Number of Argo floats deployed to increase global coverage (Deep Argo Floats) (cumulative)	—	—	—	26	55	20	Exceeded	DISC	DISC
Current/ Recurring	NWS	3.1	Severe weather warnings for flash floods - Lead time (minutes)	65	66	62	51	56	65	Not Met	65	65
Current/ Recurring	NWS	3.1	Severe weather warnings tornadoes - Storm based false alarm ratio (%)	70%	69%	71%	66%	71%	71%	Met	71%	71%

Current/ Recurring	NWS	3.1	Severe weather warnings tornadoes - Storm based accuracy (%)	64%	63%	61%	63%	62%	72%	Not Met	72%	72%
Current/ Recurring	NWS	3.1	Severe weather warnings tornadoes - Storm based lead time (minutes)	10	9	9	10	9	13	Not Met	13	13
Current/ Recurring	NWS	3.1	Subseasonal temperature skill score	40.0	30.0	36.0	32.0	33.0	36.0	Met	36.0	36.5
Current/ Recurring	OCIO (NOAA)	3.1	Total capacity (in petaflops) resulting from reduction in gap between high-performance computing deployed and what is needed to meet modeling requirements	17.8	18.9	23.7	33.7	39.5	34.0	Exceeded	42.0	45.0
Current/ Recurring	OMAO	3.1	Total number of Ship Days at Sea (DAS)	1,719	917	2,010	1,946	2,033	2,599	Not Met	2,809	2,840
Closing Out	OAR	3.1	Number of Research to Application, Demonstration, Development, Operations or Research (R2X) projects that include social science research and methods to address forecaster and end user needs to prepare for and respond to/ minimize societal impact for extreme weather events (cumulative)	—	—	—	36	46	47	Met	DISC	DISC

Current/ Recurring	NWS	3.1	U.S. Temperature Forecasts Skill 2.0 (Updated Observational Dataset)	—	—	—	27.0	32.0	27.0	Exceeded	27.0	27.5
Current/ Recurring	NWS	3.1	Winter storm warnings - Accuracy (%)	82%	82%	84%	83%	81%	90%	Met	90%	90%
Current/ Recurring	NWS	3.1	Winter storm warnings - Lead time (hours)	21	23	22	24	24	20	Exceeded	20	20
Proposed New	OAR	3.1	Number of Climate-smart communities enabled for resilience planning, including but not limited to extreme heat in urban communities, enhanced fire weather prediction for emergency management partners, expanded drought monitoring in Tribal areas, and climate impacts to coastal communities	—	—	—	—	—	—	N/A	—	20
Proposed new	OAR	3.1	Number of NOAA Climate Adaptation Partnerships (CAP) / Regional Integrated Sciences and Assessments (RISA) projects that build the adaptive capacity of frontline communities	—	—	—	—	100	—	N/A	93	93
Proposed new	OAR	3.1	Number of decision-maker plans, policies and actions informed by our research,	—	—	—	—	109	—	N/A	90	114

			engagement, programs, tools, and assessments									
Proposed new	NOS	2.1	Hydrographic data acquired to support safe and efficient maritime commerce and for community resilience to storms and other coastal hazards (linear nautical miles)	—	—	—	—	—	—	N/A	105,000	115,000
Proposed new	NOS	3.2	Marine debris removed (pounds)	—	—	—	—	—	—	N/A	0.50 M	4.78 M
Proposed new	NOS	3.2	Coastal, ocean, and Great Lakes area restored or protected (acres)	—	—	—	—	—	—	N/A	5,800	22,300
Proposed new	OAR	3.1	Number of cities/counties served by the National Integrated Heat Health Information System (NIHHIS) Centers of Excellence	—	—	—	—	—	—	N/A	20	20
Proposed new	OAR	3.1	Number of Uncrewed Systems (UxS) projects which advance Readiness Levels for observing system applications by at least one Readiness Level in a given quarter	—	—	—	—	—	—	N/A	8	12

Proposed new	NMFS	3.2	APG: By September 30, 2025, NOAA will improve climate resilience in coastal communities by completing 100% of programmatic milestones: to improve fish passage for threatened and endangered species; support coastal habitat restoration priorities of tribes and underserved communities, remove marine debris; and protect and conserve coastal and Great Lakes habitats.	—	—	—	—	—	—	N/A	58%	100%
Current/ Recurring	NWS	3.1	48 hour Hurricane Forecast intensity error (knots)	10.0	11.6	9.0	7.9	*TBD	10.0	TBD	10.0	10.0
Current/ Recurring	NWS	3.1	48 hour Hurricane Forecast track error (nautical miles)	75.0	64.5	53.3	51.0	*TBD	52.0	TBD	52.0	52.0

* Data for a given Calendar Year (CY) are not available until April of the following CY.

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