

1966

18<sup>th</sup> ANNUAL

honor



AWARDS

PROGRAM



COMMERCE DEPARTMENT

18<sup>th</sup> ANNUAL

# honor AWARDS

PROGRAM

February 15, 1966 / 3:00 P.M.

Department of Commerce Auditorium

FOURTEENTH STREET BETWEEN E STREET AND CONSTITUTION AVENUE, N.W./WASHINGTON, D. C.

# Program

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INTRODUCTION

John Will  
*Director of Personnel*

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*Secretary of Commerce*

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David R. Baldwin  
*Assistant Secretary  
for Administration*

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Silver and Gold Medal Awards

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Music by  
United States Air Force Band

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## Gold Medal Award Winners





## ROBERT F. DRURY

Chief, Data Processing  
Systems Division  
Bureau of the Census

As a designer and the principal manager of the Census automatic data processing system, Robert F. Drury has made a major contribution to computer technology and has been responsible for many dramatic developments in the field of electronic computing — developments brought about by the effective use of the computer as one element of an integrated management and processing system interrelating program objectives, planning, standards, costs, organization, evaluation, control, and direction. It is this Census system, which has produced so many

timely, and serviceable measures of our economic and social activity—measures that are now a vital part of the Nation's major decision-making processes. The efficiency with which Mr. Drury has directed Census automatic data processing activities has been matched by the effectiveness: (1) of his studies underpinning Census policy of purchasing rather than leasing computers, thereby saving the United States taxpayers \$15 million in the past 15 years; (2) of his possibly unique accomplishment in organizing within a civilian agency a staff maintenance function for electronic equipment, at savings that exceed \$6.5 million; and (3) of his success in the promotion of planning, research, and innovation in systems development.

## WILLIAM D. HARRIS

Chief, Photogrammetric Group  
Coast and Geodetic Survey  
Environmental Science Services  
Administration

Mr. Harris has unusual aptitudes for the development, improvement, and application of refined and sophisticated instrumentation for extremely accurate photogrammetric measurements. He has been a dedicated participant in photogrammetric and research work for many years. His technical contributions have been essential in the building of the modern photogrammetric system which is known and respected nationally and internationally. His contributions have included: (1) the development of the first successful procedure for accurate transformation of nine-lens photographs and accurate stereoscopic compilation of details from those photographs; (2) de-

sign and formulation of procedures for the single-lens strip adjustment of aerotriangulation on electronic computers; (3) design and conduct of tests of the accuracy of analytic aerotriangulation and the development of means of compensating for film distortion; (4) technical studies and development of specifications for films, filters, and laboratory processing that led to successful use of color aerial photography for mapping; (5) and, of great significance, the testing and redesign of comparators and the development of means of improving the accuracy of measurement of photographic plates on comparators from approximately five microns to one micron—without which development improvement on the accuracy of the national geodetic network through satellite triangulation would not be possible, nor would the world system have been as useful to world geodesy as it now promises to be.





### **JACK W. HERBSTREIT**

Institute for Telecommunication  
Sciences and Aeronomy  
Boulder, Colorado  
Environmental Science Services  
Administration

Mr. Herbstreit is recognized for leadership and important contributions to a research program on the radio properties of the atmosphere affecting the precision of space vehicle tracking and guidance systems. This program was initiated in 1955 using a method which he devised for measurement of the phase of radio waves received over transmission paths with electrical lengths varying as a result of atmospheric irregularities and turbulence. The program was set up to evaluate the radio characteristics of the atmosphere for such applications, under

varying conditions of climate, terrain, and season. The work required development of new instrumentation and measurement techniques, and the training of personnel in field experimental and analytical methods.

The nation's subsequent activities in radio tracking and guidance of space vehicles have relied heavily on the design information obtained from this program concerning the critical wave propagation characteristics of the lower atmosphere. As early as 1957, the USAF cited savings of several million dollars in simplification of ground systems for guidance. The scientific value of the radio phase and atmospheric turbulence data obtained has become internationally recognized through wide reference in journals and books.

*GOLD MEDAL AWARD WINNER*

**DONALD C. HOUSE**

Senior Meteorologist  
Office of Planning and Program  
Management  
Environmental Science  
Services Administration

Mr. House has made major contributions to the forecasting of tornadoes. Under his competent leadership, the skill in tornado forecasting has consistently improved. A reflection of his accomplishment is the decrease in the number of deaths due to tornadoes. Through the cooperation with other government agencies and with the press, radio and television broadcasting stations, the public is alerted to areas where a tornado

threat exists. Thus alerted, they are able to take appropriate safety precautions.

Mr. House has exercised leadership in continually introducing a number of forecasting techniques and has made this available to all who were interested by having his findings published in technical journals. He is responsible for the introduction of the use of Automatic Data Processing into tornado forecasting.

In October 1960, Mr. House was assigned the additional responsibility of supervising the entire forecast center of the Weather Bureau at Kansas City, Mo. In this capacity he has demonstrated exceptional supervisory ability and leadership.







## BENNETT G. JONES

Deputy Executive Assistant  
to the Director  
Coast and Geodetic Survey  
Environmental Science Services  
Administration

Mr. Jones' service has covered most facets of Coast and Geodetic Survey interests including exceptional technical development and application, demonstrated administrative competence, distinguished authorship, and in recent years his work as consultant on photogrammetric problems as related to coastal demarcation.

His work during the past decade has been exceedingly important due to new emphasis placed on the definition and establishment of coastal boundaries and related surveys. His unique background involving both field and office experi-

ence, together with his close collaboration in the related fields of geodesy, tides and currents activities, and photogrammetric techniques has been of the highest order. During this period he collaborated in devising procedures for tide-controlled infrared photography to the mapping of exact shoreline contours. His work as consultant on the application of photogrammetry to surveying and mapping problems has been for the benefit of other Federal agencies, various coastal states, and local governments. He has also collaborated with the geodesist in providing general consultant services on the combined use of higher surveying involving precise geodesy and photogrammetry. He presently serves as principal consultant on the application of photogrammetry, on the interpretation of map records, and other problems arising concerning shore and sea boundaries.

*GOLD MEDAL AWARD WINNER*

**HELLMUT H. SCHMID**

Scientific Advisor  
Office of Research and Development  
Coast and Geodetic Survey  
Environmental Science Services  
Administration

Dr. Schmid is a world authority on geometric geodesy and photogrammetry who has made outstanding contributions to science and technology in the United States, and to programs of the Coast and Geodetic Survey and the Department of Commerce. He is credited with solving the basic physical and theoretical problems of three-dimensional geodesy and photogrammetry, including the effective development of mathematical formula-

tion, electronic computer programs, and observing techniques for satellite triangulation.

At present Dr. Schmid is working on the mathematical and physical problems involved in determining the metric figure of the lunar surface through the use of photography made from moon-orbiting satellites. He has recently been appointed principal investigator for the metric camera system selected by the NASA Apollo Extension Systems Photographic Team. His appointment for this most difficult phase of the lunar mapping program is evidence of his professional stature in the field of photogrammetric geodesy.





## LANSING GROW SIMMONS

Chief Geodesist  
Coast and Geodetic Survey  
Environmental Science Services  
Administration

Mr. Simmons' career has included experience with the United States Geological Survey, with one of the first photogrammetric mapping firms in the United States, and some 17 years on geodetic field surveys with the Coast and Geodetic Survey prior to his assignment to office activities. His accomplishments in both field and office phases of geodesy have been outstanding and his extensive field experience, combined with his comprehensive knowledge of theoretical geodesy, has enabled him to render unique and exceptional services to the Federal Government and to the public. He has the rare ability to bridge the gap between

the theoretician and practical surveyor or engineer.

Consequently, for many years he has planned and directed the technical procedures in both the field and the office phases of the geodetic program, and has been the Coast and Geodetic Survey consultant on geodesy and higher surveying to other Federal agencies, states, local governments, colleges and universities, private surveying organizations and individual surveyors and engineers throughout the nation.

Mr. Simmons has unusual ability and has rendered, and continues to render, outstanding service in maintaining the position of the United States in the scientific community of nations, and in promoting the quality and the economy of surveying and mapping in the United States.

*GOLD MEDAL AWARD WINNER*

**JOSEPH SMAGORINSKY**

Acting Director,  
Institute for Atmospheric Sciences  
Geophysical Fluid Dynamics Laboratory  
Environmental Science Services  
Administration

Dr. Smagorinsky was selected in 1955 to undertake a program of major significance to both the Weather Bureau and the field of Meteorology involving the investigation of the dynamics of the general circulation of the atmosphere. Dr. Smagorinsky established and directed the General Circulation Research Laboratory

which later became the Geophysical Fluid Dynamics Laboratory. He recruited and developed the country's leading group in research on the dynamics of the general circulation.

The problems under attack by this laboratory are some of the most crucial ones for the development of the Government's program in weather forecasting and weather modification and under Dr. Smagorinsky's direction the staff of the laboratory has made major contributions to the solution of these difficult problems which have brought international recognition to the Laboratory and its director, Dr. Smagorinsky.





### GARRETT C. TEWINKEL

General Engineer  
Office of Research and Development  
Coast and Geodetic Survey  
Environmental Science Services  
Administration

Mr. Tewinkel's outstanding technical accomplishments in the photogrammetric work of the Coast and Geodetic Survey included the design and mathematical formulation of the first practical system of analytic aerotriangulation in North America which has enhanced the national and international prestige of the Coast and Geodetic Survey. This system became operative in 1961 and is believed to have been the only practical analytic system in operation anywhere in the

world at that time. His entire career has been devoted to photogrammetric work and has been marked by exemplary, rigorous, and continuing intellectual preparation for advanced work in photogrammetric research and development.

Mr. Tewinkel has written a large number of papers and articles for speeches at engineering society meetings and for publication in technical journals.

Mr. Tewinkel's attainments in photogrammetry has resulted in outstanding improvements in the surveying and charting procedures, and have enhanced the prestige of the Department in both the national and international scientific communities.

*GOLD MEDAL AWARD WINNER*

**AERONOMY GROUP**

Institute for Telecommunication  
Sciences and Aeronomy  
Boulder, Colorado  
Environmental Science Services  
Administration

This group of scientists, Dr. Eldon E. Ferguson, Dr. Fred C. Fehsenfeld, and Dr. Arthur L. Schmeltekopf, are given recognition for their major contribution to the science of aeronomy through their laboratory work of the fundamental atomic and molecular processes pertinent to the upper atmosphere. The publica-

tion work of these scientists has been truly outstanding, considering the fact that they started their work only three years ago. Since 1963 twelve pertinent papers have been published, nine are in press, two have been submitted for publication, and three are presently being prepared.

This group has risen to a high position of national eminence in a short time due to excellent teamwork including the leadership and experience of Dr. Ferguson, the expertise in microwave work of Dr. Fehsenfeld, and the competence of Dr. Schmeltekopf as a spectroscopist.





## EUGENE M. BRADERMAN\*

Director,  
Bureau of International Commerce

Working to improve the commercial climate abroad for U.S. businessmen and to help more U.S. firms enter world markets, Mr. Braderman served the Department with distinction for 20 years. Through his outstanding leadership in creating and directing Departmental programs to increase the world market for U.S. products and services, he promoted the growth of American business, advanced the well-being of the national economy, and enlarged the area of mutually beneficial cooperation between the United States Government and the American business community. As Director of the Bureau of International Commerce, beginning in 1962, he strengthened the Department's trade-promotion programs and provided effi-

cient support for the nationwide export expansion program, inaugurated to help reduce the U.S. balance-of-payments deficit.

Earlier, as liaison with the Department of State, Mr. Braderman participated in developing the policy foundations for the Foreign Service Act of 1946 and the present system of foreign commercial activities. Internationally known in Far Eastern affairs, he served for many years as U.S. advisor or principal U.S. delegate to meetings of the United Nations Economic Commission for Asia and the Far East. He contributed leadership for studies and interagency exchanges of views from which evolved the Trade Expansion Act of 1962. Mr. Braderman, author as well as administrator, has contributed articles to professional, general, and trade publications; to the daily press; and to various Departmental publications.

*\*Presented while in office.*

*GOLD MEDAL AWARD WINNER*

**VITO L. RUSSO**

Deputy Chief  
Office of Ship Construction  
Maritime Administration

By virtue of his professional ability, his unflinching diligence and initiative in developing better methods for more efficient, economic and improved ship design, Mr. Russo has earned an enviable reputation as an authority in the field of naval architecture throughout Government and industry. As a member of the U.S. Delegation to the International Convention for Safety of Life at Sea, London, 1960, and also as a mem-

ber of the Subcommittee on Tonnage Measurement of the Intergovernmental Maritime Consultative Organization of United Nations, he made significant contributions to the establishment of the U.S. proposals for the maximum technological advances that could be accepted by the many nations represented. As a member of many important industry, government and regulatory body technical committees on ship structure, hydrodynamics and oceanographic ships, he has initiated many proposals for technical advances that have been nationally accepted. In addition he has prepared and presented many highly technical papers relating to ship design practices.







## HAROLD B. WHITMORE

Patent Advisor to the Commissioner  
Patent Office

For over thirty years Mr. Harold B. Whitmore's contributions to Departmental programs have been worthy of increased recognition. Particularly noteworthy was his initiative in developing "Compact Prosecution" procedures which have shortened the time required to process patent applications. Although the full impact of this practice has not as yet been felt, it is expected that the current thirty-eight month average pendency period for patent applications will be markedly reduced in the near future. Aside from a major contribution to the administration of a scientific legal prob-

lem, Mr. Whitmore has consistently demonstrated highly distinguished authorship.

His numerous articles range from treatises on Patent Office personnel problems—which have been frequently reprinted at the request of the Senate Committee on Post Office and Civil Service—to expositions in the *Encyclopedia of Patent Practice and Invention Management*, published by Reinhold Publishing Company. Mr. Whitmore is presently serving as Patent Advisor to the Commissioner of Patents. In 1957, he was granted the Department of Commerce Meritorious Service Award for major contributions of unusual value to both the substantive and administrative programs of the Patent Office.

*GOLD MEDAL AWARD WINNER*

**BILL ANDREWS**

Assistant Regional Engineer  
Fort Worth, Texas  
Bureau of Public Roads

Mr. Andrews has made major and outstanding contributions to the organization and development of the Federal-aid highway program in the fields of location, design, and construction of highways. His outstanding leadership in the field of highway engineering design has had and will continue to have a lasting and positive impact not only in the geographical area of Southwestern United States, but on the country as a whole.

He has shown a personal interest and leadership in consistently promoting the training and development of members of his own staff as well as engineers in other offices, and has set a splendid example of propriety, prudence, and sound engineering judgment for the young engineers.

Mr. Andrews' competence, loyalty, understanding, and integrity have been a source of inspiration and motivation to all who have worked with him during his more than 35 years of dedicated and devoted service with the Bureau of Public Roads.





## JAMES E. LEISS

Supervisory Physicist  
Radiation Physics Division  
Institute for Basic Standards  
National Bureau of Standards

Dr. Leiss is being recognized for his significant contributions to science and technology in the field of linear accelerator design and instrumentation. His contributions to the new high-intensity linear accelerator recently installed at the Bureau have included original conceptual design, resolution of engineering difficulties encountered in meeting performance requirements, and background research on operating parameters and utilization of the accelerator in a variety of research programs. His published studies on basic characteristics and problems involved in linear accelerator de-

sign and instrumentation have been of direct benefit to many research centers and facilities as well as designers of linear accelerator equipment.

Notable examples include the design and development of on-line computers to process experimental data, solution of problems relating to transient behavior of waveguides, the dynamics of electron acceleration, and studies of transient beam loading effects. The instrumentation developed for the on-line data handling system designed by Dr. Leiss has been described as "the most complete job of integrated systems engineering observed to date." Because of his important contributions, Dr. Leiss has become recognized by the scientific and technical community as a major contributor to the field of linear accelerator design and instrumentation.

## MORRIS NEWMAN

Mathematician  
Applied Mathematics Division  
Institute for Basic Standards  
National Bureau of Standards

Since joining the staff of the National Bureau of Standards in 1951 Dr. Morris Newman has made noteworthy contributions in the development and application of advanced mathematical techniques. An early example was his programming of a unified set of matrix codes for the Standards Eastern Automatic Computer in 1954 and 1955. These programs, incorporating the most powerful mathematical methods known, provided the first systematic approach for the solution on the new electronic digital computer of problems involving large linear systems of equations. Throughout

his career Dr. Newman has continued to apply his mathematical talents successfully to the solution of practical problems. In addition to rendering this valuable service, he has conducted significant research. Through extensive, highly distinguished authorship and also in encouraging and guiding the research of others, both in the Numerical Analysis Section which he heads and in universities, he has exerted a powerful influence in his profession. He is a nationally and internationally recognized authority in group theory and number theory, and their application in numerical analysis. His highly significant contributions in these fields has caused the National Bureau of Standards to attract renowned mathematicians as a place conducive to important applications of modern mathematics and productive research.





## CRYOGENICS GROUP

Cryogenics Division  
Institute for Materials Research  
National Bureau of Standards

The scientists being recognized in this group are: Robert J. Corruccini, Dwain E. Diller, Robert D. Goodwin, Hans M. Roder, Lloyd A. Weber, and Benny A. Younglove. The award recognizes the success of a major research program on thermodynamic and transport properties of parahydrogen begun by the National Bureau of Standards in 1958 to satisfy needs in space propulsion for data on the physical properties of parahydrogen, the spin-isomeric form produced for engineering and laboratory uses.

Specific contributions have been to

determine the density, specific heat, velocity of sound, dielectric constant, and viscosity of fluid parahydrogen from its triple point to 100°K and at pressures up to 340 atmospheres. Also, extensive tables of enthalpy, entropy, and internal energy; the liquid vapor and solid-liquid phase boundaries have been calculated and the latent heats of vaporization and the virial coefficients have been determined.

This unique important work provides thermodynamically self-consistent data over a wide range of temperature and pressure with an accuracy which make unnecessary expensive researches in other laboratories. Engineers now adopt the NBS data for the design of systems in industry and Government space programs.



## Silver Medal Award Winners



## WILLIAM A. MEISSNER, JR.

Director, Copper Division  
Business and Defense Services  
Administration

Through outstanding leadership of the Copper Division, his respect of and from the leading men in the copper industry and his associates and peers in the Government, Mr. Meissner has continued to carry out the programs and objectives of the BDSA to the benefit both of the Federal Government and U.S. industry. His thorough knowledge of the copper industry, its policy makers, and the Federal Government has enabled him to effectively supply industry and Government with economic trends and analyses on which they have based policy decisions. This comprehensive knowledge permitted him to equitably allocate copper, badly needed by the economy, to several hundred domestic factories. This copper was released from the Defense Production Act inventory and the National Stockpile.

## KURT E. ROSINGER

Chairman, Industry Evaluation Board  
Business and Defense Services  
Administration

Dr. Rosinger developed the concept of an Industry Evaluation Board on January 6, 1951, pursuant to deliberations of the National Security Council and President Truman in order to gather information on products, components and facilities indispensable to national defense and national survival. The IEB analyses are a vast compendium of industrial knowledge and are utilized fully and widely by Government departments and agencies having defense mobilization responsibilities. Chairman of the Board since its inception, Dr. Rosinger's outstanding leadership, judgment and guidance has resulted in full acceptance of this program as an integral part of our mobilization readiness posture.

## JAMES TREMANTE

Acting Director  
Power and Electrical  
Equipment Division  
Business and Defense Services  
Administration

Mr. Tremante is being recognized for his superior performance in promoting the sale of U. S. electrical utility equipment abroad. His outstanding professional competence enabled him to assist governments of the South American countries and the new nations of Africa in developing long range utility plans thereby promoting the orderly U. S. development of capital projects. Recognized by those identified with the international power and electrical equipment program as an authority in the field he has made major contributions to the Department's export expansion program and to the national balance of payments program. He has a thorough understanding of the power and electrical industries together with a recognition of their importance to both domestic and international trade.

## LOWELL D. ASHBY

Assistant Chief,  
Regional Economics Division  
Office of Business Economics

An Office of Business Economics staff member since 1964, Dr. Ashby has distinguished the Department by significant contribution to regional economic research through exploitation and adaptation of modern computer capability. The Department's Silver Medal is for his designed development of an especially valuable new system, built upon the concept of the data matrix of variable size where the rows contain data for industries, and the columns for areas or regions. He is the author of a new 8-volume county growth patterns study which provides a factual basis for comparing an area's past performance with that of others and will be especially useful in planning future economic development.

## JOYCE C. HOLLAND

Secretary, Office of the Director  
Office of Business Economics

Mrs. Holland joined the Office of Business Economics in 1959 at the inception of the interindustry sales and purchases study. She was selected as secretary to the Associate Director in 1965. Her performance has been consistently rated outstanding. She is a superior secretary. Not only does she display a high degree of competence in the technical stenographic skills, but she surrounds these with intelligence, mature judgment, and initiative. She handles administrative responsibilities as well as numerous public contacts with the seeming effortless ease and tact associated with excellence.

## MARTIN L. MARIMONT

Chief, National Economics Division  
Office of Business Economics

Mr. Marimont joined the Office of Business Economics in November 1959 as an original member of the staff of economic-statistical experts recruited for initiation of work on industry gross product. In February 1964, he was promoted to the position of Chief of the National Economics Division. He has received Outstanding performance ratings, a quality step increase, and cash awards for outstanding performance. The Department's Silver Medal is for his leading role in completion of the input-output study, co-authorship of the subsequent report, and during the past year, for outstanding qualities of leadership, effective public contact, and continued refinement of the input-output tables through additional special analyses and study of key relationships.



## DONALD E. CHURCH

Chief, Transportation Division  
Bureau of the Census

At the time Congress authorized a Census of Transportation, no effective and economically feasible method of collecting traffic flow data had been developed. Through Dr. Church's research and innovations the "Shipper Survey" method of collecting the data became the standard, and the first national Census of Transportation was made possible. The location-data-processing system he perfected has saved both government and industry thousands of dollars in computing distances and automatically identifying geographic and economic characteristics of places. Through his initiative and leadership and in cooperation with the Budget Bureau, a Standard Transportation Commodity Classification was developed and has been adopted by other government agencies and industry associations.

## STUART I. FREEMAN

Publications Design Officer,  
Administrative and Publications  
Services Division  
Bureau of the Census

The scope, diversity, and technical content of Census Bureau statistical reports, and the need to issue them quickly, make the task of publication design unusually difficult. Mr. Freeman has overcome these obstacles and made a notable contribution to statistical communication in achieving for Census Bureau publications a distinctive style and improved readability and usability. His work is exemplified by the design and production plan for the more than 1600 reports of the 1963 Censuses of Business, Manufactures, Mineral Industries, and Transportation. The results of his work on these and other reports represent a breakthrough of creative thinking in graphic, symbolic, and printed form for statistical publications.

## MARGARET GURNEY

Mathematical Statistician  
Statistical Research Division  
Bureau of the Census

Dr. Gurney has made many outstanding contributions over the past two decades to the theory of sample surveys. Her work on the use of past data to improve estimates for current periods, her work on the optimum stratum boundaries for different numbers of strata in stratified sample designs, and her work on a practical sampling model for household surveys for Latin-American countries are among her contributions of fundamental importance to the efficiency of sample surveys.

## GEORGE HELLER

Mathematical Statistician Programmer  
Statistical Research Division  
Bureau of the Census

Over a period of several years, Mr. Heller has made substantial and imaginative contributions to the effective application of electronic computers in statistical research, in new types of analytical tabulations, and in developing programming techniques. His work has made it possible to increase significantly the amount of information that could be extracted from various studies, and has pointed out ways in which future operations should be modified. In a number of instances, Mr. Heller has devised programming techniques that represented real innovations of approach to the problems that were involved.

## MARY H. JOHNSON

Survey Statistician  
Economic Operations Division  
Bureau of the Census

A perplexing problem arising in the electronic computer processing of the 1963 Censuses of Manufactures and Minerals was the development of editing programs. Some concept of the complexity involved in developing these programs is apparent from the fact that there were over 11,000 product codes with from 2 to 8 statistics per product, involving over 350,000 industrial establishments each of which reported some 40 establishment data items. Mrs. Johnson, utilizing her exceptional ability to solve highly complicated technical processing problems and her demonstrated outstanding leadership, was able to weld this massive complex of data into a cohesive set of electronic computer programs and meet established production schedules.

## HARVEY KAILIN

Chief, Business Division  
Bureau of the Census

Mr. Kailin's imaginative leadership has resulted in significantly improving the timeliness, quality and quantity of business statistics for industry and government use, while at the same time establishing and maintaining cordial relations with the business community which furnished the reports. He has initiated or developed numerous programs, including: a retail trade report available ten days after the close of each month; a weekly retail trade series published by Thursday of the succeeding week; major improvements in County Business Patterns, a unique annual source of county data; a series of reports on Major Retail Centers; and a new program of retail merchandise line sales information.

## SHIRLEY KALLEK

Chief, Manufacturers' Shipments,  
Inventories and Orders Branch  
Industry Division  
Bureau of the Census

Miss Kallek has demonstrated exceptional leadership and technical proficiency in developing and implementing the computerization of the Current Industrial Reports series of the Census Bureau. In maximizing the capabilities of the computer for report editing and tabulation, Miss Kallek has been instrumental in achieving a significant reduction in clerical requirements. Her contributions toward standard processing procedures and improved analytical material for review have substantially improved the quality of the published results. She has also shown marked ingenuity in designing a single report form which will be generated in the electronic computer in all aspects, including the title of each survey (there are over 100), mailing address of the plant, and imprinting of prior data from respondents.

## DANIEL B. LEVINE

Assistant Chief  
Demographic Operations Division  
Bureau of the Census

Mr. Levine has made outstanding contributions to the development and adaptation of the Bureau's household survey program to the rapidly changing statistical needs of the nation. He has contributed especially to two important current statistical undertakings of the Government—the Current Population Survey, the source of the official Government statistics on employment and unemployment, and the National Health Survey, a principal source of information used in planning the Government's multi-million dollar health programs. Also developed under his guidance have been numerous complex new surveys, representing statistical landmarks in such fields as problems of the aged, recreational needs of the population, and measurement of poverty.

## PAUL F. MYERS

Chief  
Foreign Demographic Analysis Division  
Bureau of the Census

The Foreign Demographic Analysis Division, as a major source of data on demographic developments in the world, must maintain a basic research program as well as a capability to meet the widely varying demands for information which are generated by the growing concern of the U. S. Government with developments abroad. It must also maintain the flexibility to be responsive to the changing needs of other agencies, which are its primary source of support. To build a staff with the requisite linguistic and subject matter skills, and to maintain a high degree of morale and productiveness requires an unusual degree of leadership. Mr. Myers has provided such leadership in an outstanding manner.

## BEULAH E. WASHABAUGH

Technical Coordinator,  
Household Survey Programs,  
International Statistical Programs  
Office  
Bureau of the Census

Because of Miss Beulah Washabaugh's efforts, Latin American nations are able more effectively to carry forward household sample survey programs. Miss Washabaugh provided technical coordination for the development of "Atlantida: A Case Study on Household Sample Surveys" prepared by Bureau of Census staff. To carry out such coordination successfully required not only very high technical skills and dedication, but also an extraordinary capacity for original work. As a consequence, the general use of low-cost sample surveys in Latin America to provide current data on development progress is considered to be capable of achievement in the near future.

## VERNE ALEXANDER

Regional Hydrologist  
Weather Bureau, Kansas City, Mo.  
Environmental Science Services  
Administration

As the result of the outstanding manner in which Mr. Alexander has brought his expertise to bear on hydrologic problems as Regional Hydrologist, and in his prior assignment as Area Hydrologic Engineer, he has become a regionally-recognized adviser and consultant in initiating, formulating and planning hydrologic programs and in the coordination of these with all levels of government. He has also given excellent direction and impetus to the development of an effective snow-melt flood forecasting and warning system for the Upper Midwest portion of the nation.

## ROGER A. ALLEN

Head, Technique Development Branch  
Weather Bureau  
Environmental Science Services  
Administration

Mr. Allen is a recognized authority and national leader in the fields of statistical weather prediction, forecast verification, and probability forecasting. His pioneering work on these subjects dates back to World War II, when he helped to develop and apply the scatter-diagram technique of objective weather forecasting. He spearheaded the development of local forecast aids, and has made valuable contributions to the theory and practice of forecast evaluation, the use of probability statements and the application of verification statistics. Mr. Allen has been instrumental in formulating and leading the Weather Bureau's program in the field of aviation research and development. He enjoys an international reputation as a research scientist, as well as the respect and affection of his fellow employees.

## LESTER F. HUBERT

Head, Synoptic Meteorology Branch  
Weather Bureau  
Environmental Science Services  
Administration

Mr. Hubert has shown outstanding ability in organizing research involving the use of satellite pictures in solving meteorological problems. Under his direction pictures of hurricanes, typhoons and tropical storms have been used not only for tracking purposes but also to estimate the maximum wind speed near the center of the storm. Under his leadership, progress is also being made by research scientists in the use of satellite pictures for improved forecasting in middle latitudes and for the detection of the jet stream. Mr. Hubert has published several research papers, and has a reputation as an outstanding scientist, in both domestic and foreign scientific circles.

## GEORGE W. KALSTROM

Meteorologist in Charge  
Weather Bureau Airport Station,  
Los Angeles, Calif.  
Environmental Science Services  
Administration

Mr. Kalstrom has demonstrated outstanding leadership and most effective managerial ability in conducting the numerous and significant programs under his direction in the Los Angeles area. Regarded as one of the most knowledgeable meteorologists on weather problems in the Pacific Southwest, Mr. Kalstrom's efficacy is felt well beyond the Los Angeles area. He is held in high esteem by his co-workers and by professional meteorologists throughout the southwest. Through leadership, scientific competence and devotion to duty, he has made an outstanding contribution to the technical services of the Weather Bureau in southern California.

## C. WALTER LANE, JR.

Chief, Reproduction Division  
Coast and Geodetic Survey  
Environmental Science Services  
Administration

Mr. Lane has acquired unusually comprehensive knowledge of all phases of photolithography and a broad technical background in cartography. His practical application of this extensive background along with managerial competence has resulted in outstanding contributions to the technical excellence and production proficiency achieved and sustained in the reproduction of Coast and Geodetic Survey maps and charts. His excellent leadership and direction of research programs has resulted in many new techniques in the field of graphic arts with substantial savings in manpower and improvement in operations.

## FRANK E. McCLUNG

Technical Assistant  
to Assistant Director for Cartography  
Coast and Geodetic Survey  
Environmental Science Services  
Administration

Through exceptional technical competence and meritorious authorship in the field of cartography Mr. McClung has contributed greatly to the furtherance of a major program of the Department. He has written and presented outstanding papers, served on numerous inter-agency committees, and participated at meetings of professional organizations. His leadership in meeting the challenges of finding new ways to produce charts better, faster and at less cost has been outstanding. Mr. McClung's technical knowledge, his logical and forceful presentation of facts and his aggressive pursuit of objectives have been strong factors in enabling the Department to meet its charting responsibilities.

## VINCENT J. OLIVER

Head, Applications Branch  
National Environmental Satellite  
Laboratory  
Environmental Science Services  
Administration

Mr. Oliver has for many years distinguished himself as a current weather analyst and forecaster. He has developed new concepts for detection by means of satellite data of meteorological phenomena such as the jet stream, upper and lower level storm centers, winds over tropical areas, characteristic frontal and cyclonic formations, coastal fog, and techniques of display of this information with respect to data collected from other sources. Mr. Oliver's outstanding contributions in this work, plus the production of scientific papers for publication in the trade journals, have resulted in his national and international recognition as an authority in his field.

## WAYNE C. PALMER

Research Meteorologist  
Weather Bureau  
Environmental Science Services  
Administration

Mr. Palmer developed, almost single handedly, an index for identifying drought and evaluated its scope and severity. This index is valuable as an analytical research tool, but as a computerized method of monitoring drought week to week, it is invaluable. It gives government and industry an objective criterion which has been needed for decades. The economic value of this development can reach significant figures nationally. Coming as it does in conjunction with an increased understanding of soil-plant-weather relationships, it is a truly outstanding accomplishment.

## JOSEPH H. STRUB, JR.

Principal Assistant  
Weather Bureau Air Station  
Minneapolis, Minnesota  
Environmental Science Services  
Administration

Mr. Strub has made very valuable contributions to the field of Hydrology and to the extremely accurate forecasting of the unprecedented snowmelt floods of the Upper Mississippi Basin in 1965, which saved lives and much property damage. He has been active in research and in the preparation of a number of reports and bulletins. Mr. Strub is presently serving as a Consultant at the new Water Research Center created by the Water Resources Research Act.

## CHARLES THEURER

Chief, Photogrammetric Branch  
Coast and Geodetic Survey  
Environmental Science Services  
Administration

Mr. Theurer has made markedly superior contributions to the new Coast and Geodetic Survey systems of analytic aerotriangulation and satellite triangulation. Through an unusual combination of mathematical background, comprehensive technical understanding, initiative and administrative talent, Mr. Theurer has been able to foresee the needs of the new era in numerical, or digital, photogrammetry for highly precise measurements, and the adaptation of computer techniques to photogrammetric problems. His success in directing both the work in his own branch and the essential liaison with other areas has permitted the early transition of satellite geodesy and analytic aerotriangulation from mere theories to operating realities.

## RALPH E. WALKER

Meteorological Technician  
Miami, Florida  
Environmental Science Services  
Administration

With disregard for his own safety, Mr. Walker displayed unusual courage the night of July 14, 1965 when he entered a burning fuel storage area enclosed by a high fence to help a trapped oil company employee to safety. Although the flames were quite intense, Mr. Walker removed his own shirt and wrapped it around the employee who was engulfed in flames. Mr. Walker finally managed to extinguish the flames even though the man was still saturated with fumes. This heroic deed demonstrates Mr. Walker's desire to help his fellowman and his ability to plan and act promptly and correctly under the most hazardous conditions.

## RUSSELL J. YOUNKIN

Meteorologist  
National Meteorological Center  
Environmental Science Services  
Administration

Mr. Younkin's major contributions have been in two areas. First, he has directed a program which has resulted in a much improved service to all users of quantitative precipitation forecasts throughout the United States. This improvement is both qualitative and quantitative. Second, Mr. Younkin collaborated in developing the first successful dynamical cloud and precipitation forecast model to be run operationally at the National Meteorological Center. In addition, Mr. Younkin is recognized by his colleagues as a leader in the development of precipitation forecasting.

## BERNARD D. ZETLER

Chief, Research Group  
Office of Oceanography  
Coast and Geodetic Survey  
Environmental Science Services  
Administration

Mr. Zetler is noted for his productive research on ocean tides and has become the recognized leader in the United States, if not the world, in this highly complex and specialized field. He has personally initiated, developed, and supervised a complete updating of tides prediction techniques in the Coast and Geodetic Survey while contributing significantly to basic research knowledge in the field. In the past he contributed significantly in the fields of tsunami research and earth tide research, and was one of the originators of the Seismic Sea Wave Warning System, credited with saving many lives since it was instituted in 1946.

## PHOTOGRAPHIC MISSION 375

Coast & Geodetic Survey, Alaska  
Environmental Science Services  
Administration

The members of Photographic Mission 375 are: Robert L. Sandquist, Pilot; Robert W. Franklin, Copilot and Navigator; and Jim L. Hardwick, Photographer. They are cited for heroic action beyond the call of duty. On August 7, 1965, their unusually fine teamwork, initiative, and competence quickly effected the rescue of three civilian fliers and a young boy whose aircraft crashed on the Kenai Peninsula in Alaska.



## IRWIN FINE

Director, International  
Organizations Staff  
Bureau of International Commerce

Mr. Fine has made an outstanding contribution to the international programs of the Department by obtaining increased participation in preparation for and attendance at international meetings and conferences. This has assured that the views and interests of the Department of Commerce and of the American business community are amply reflected in U. S. Governmental positions at international conferences. He has also made a notable contribution in coordinating Department of Commerce support of the President's program for the United Nations International Cooperation Year.

## JOHN B. BEACH

Attorney-Adviser  
Division of Mortgage and  
Marine Insurance  
Maritime Administration

With outstanding legal ability, Mr. Beach has developed standard contract documents for the acquisition and use of ships in the Trade-in and Build Program, for the exchange of ships in the Ship Exchange Program, and for the operation of ships by general agents for Government account. He has also developed regulations, standards and uniform contract documents for issuing insurance commitments under the War Risk Insurance Program, and has materially assisted in establishing procedures for collecting and maintaining current data and making determinations of ship values.

## ROLAND J. CHAMPAGNE

Chief,  
Reserve Fleet Preservation Branch  
Maritime Administration

Mr. Champagne has developed numerous improvements in the preservation methods used in the National Defense Reserve Fleet. His continuing concern for the improvement of preservation materials, methods and working conditions have benefited all concerned with this vital aspect of our National Defense Reserve Fleet.

His knowledge and familiarity with all phases of the ship preservation program, gained over an extended period of time, have made him a valuable employee whose opinions are sought by leading persons in this field.

## JOSEPH C. CZUDAK

Supervisory General Engineer  
Office of Ship Construction  
Maritime Administration

Mr. Czudak, by virtue of his broad and thorough technical knowledge of ship design and construction and his dedicated attention to the construction of the NS SAVANNAH, the world's first nuclear powered commercial vessel, has contributed to a marked and outstanding degree to the satisfactory completion of this complex vessel. In addition to his contribution to the construction of this vessel, his knowledge of the construction phase enabled him to furnish much information invaluable in consideration of the items under consideration as the analysis of the claim has proceeded.

## JOHN J. MCGOWAN

Assistant Chief, Division of Estimates  
Office of Ship Construction  
Maritime Administration

Mr. McGowan has demonstrated leadership, judgment and resourcefulness in planning the heavy workload and supervising the determination of adjustments to shipbuilding contract prices. His leadership consistently inspires his staff to accomplish efficiently an exceptional volume of work. His supervision of the determination of price adjustments resulting from changes in plans and specifications during construction of ships has demonstrated that he is always alert to protect the Government's interest and his skill in conducting negotiations with responsible shipyard officials has resulted in substantial savings.

## WILLIAM G. NEWNAM

Chief, Tabulating Branch  
Office of Property and Supply  
Maritime Administration

As Chief of the Tabulating Branch, Mr. Newnam surpassed all standards for his position to such a degree that special recognition and commendation are deserved. His managerial ability and accomplishments in the ADP field have resulted in savings of many thousands of dollars per year. Through his planning and efforts, a 3-year backlog was eliminated within a 15-month period in the area of statistical reporting concerned with Domestic Trade, Foreign Trade and Commodity Tables. The Agency changed from EAM to ADP equipment with no lost time or increase in staff. The Maritime Administration has achieved new heights in the ADP area through his accomplishments.

## WALTER B. TEDESCO

Mobile Equipment Mechanic and  
Operator  
New Orleans Warehouse,  
New Orleans, La.  
Maritime Administration

On September 10, 1965, rapidly rising flood waters caused by hurricane Betsy threatened the safety of residents of the parish in which Mr. Tedesco lives. Disregarding his personal safety and loss or damage to his property, with winds over 100 mph and flood waters up to ten feet deep, Mr. Tedesco and his son made repeated rescue trips into the flooded area. Working against time, from early morning until late afternoon, they evacuated up to 30 persons per trip in a 22-foot boat, not ceasing until the area was completely evacuated, saving more than 200 persons.

## HELEN M. McCARTHY

Patent Examiner  
Patent Office

Miss Helen M. McCarthy is recognized professionally as a Patent Examiner expert in the highly complex and rapidly developing technology of glass and ceramic compositions. Particularly noteworthy was her outstanding achievement as Chairman of the Operations Committee. As principal coordinator for the 175th Anniversary of the U. S. Patent System, she directed a series of activities throughout the year which were designed to focus the public's attention on the role of the United States Patent System as a stimulus to national growth. As a representative of the Patent Office, she is frequently involved in extensive public-speaking engagements before a diversity of business, industrial, and ladies' groups, including radio and television.

## SHERWOOD K. BOOTH

Deputy General Counsel  
Bureau of Public Roads

Mr. Booth's superior understanding of and ability to interpret Federal laws and regulations with respect to highways has been of inestimable value to the Bureau of Public Roads. He contributed significantly to the work of a presidentially appointed committee created to study and report on highway problems in the United States. This resulted in passage of the Federal-Aid Highway Act of 1956, which established the basis for financing and completion of the National System of Interstate and Defense Highways. Mr. Booth's professional competence and devotion to public service truly typify the outstanding qualities desired of career lawyers in the Federal service.

## HOLLIS GLASS

Supervisory Highway Engineer  
Laos Division  
Bureau of Public Roads

Mr. Glass is being cited for heroic action involving outstanding initiative, sound judgment, and level-headed decisiveness. While assigned as Project Engineer for the Bureau of Public Roads on the contract construction of the Nam Ca Dinh roadbuilding project in Laos in March of 1965, he demonstrated unusual courage under extremely dangerous circumstances resulting from a military revolt. Mr. Glass' unselfish devotion to his employees as well as those of the contractor on this project and his faithful devotion to duty were certainly above and beyond the normal requirements of his job.

## DAVID M. GOODALL

Chief, Western Bridge Design Office  
San Francisco, California  
Bureau of Public Roads

Mr. Goodall is being recognized for his superior direction of the Western Bridge Design Office of the Bureau of Public Roads. His outstanding engineering ability and fine background of experience have been of inestimable value to the Federal highway program. Of major significance is his ability to produce bridge designs of superior quality, exceptional economy, and unusually pleasing design which harmonize with and enhance the beauty of the bridge site area. Coupled with these splendid attributes is Mr. Goodall's unique ability to infuse young bridge engineers with the same high principles and standards of quality.

## WILLIAM P. PRIVETTE

Division Engineer  
Indiana Division  
Bureau of Public Roads

Mr. Privette has demonstrated outstanding leadership and competence in the furtherance of the Federal-aid highway program in the States of Texas and Indiana through fostering the application of good highway management concepts. The exceptionally sound and reliable advice, counsel, and guidance which he has given to top level highway officials in this area have brought about substantial improvements as well as resulted in cost savings. Mr. Privette has truly distinguished himself in the area of planning, location, design, and cost estimates as well as in overall highway administration.

## WINIFRED L. RUSSELL

Secretary  
Denver, Colorado  
Bureau of Public Roads

Mrs. Russell has made significant and valuable contributions in the administrative and secretarial areas of Public Roads Region 9 office located in Denver, Colorado. She has an exceptionally good understanding of the Bureau's functions and operating procedures which, together with her intense desire to achieve excellence and perform her duties with skill, tact, and diplomacy, has resulted in her work being outstanding in all respects. It is also significant to note that Mrs. Russell has qualified by examination as a Certified Professional Secretary under the National Secretaries Association, which, in itself, is an achievement worthy of special commendation.

## RUSSELL A. JOHNSON

Employee Relations Specialist  
Office of Personnel

Mr. Johnson has continuously performed his many varied and important administrative duties in a markedly superior manner. He is responsible for the timely and accurate submission of a variety of Departmental personnel statistical reports to the Civil Service Commission, the Bureau of the Budget, and the Congress.

Perhaps the most sensitive and important part of his duties involves the processing of official documents for Presidential Appointments which necessitates extreme attention to accuracy and deadlines, and through which he has developed fine working relationships with the White House staff. Mr. Johnson is highly respected by all who associate with him and is noted for his devoted service.

## WILLIAM R. BOZMAN

Physicist, Atomic Physics Division  
Institute for Basic Standards  
National Bureau of Standards

Mr. Bozman is honored for his outstanding contributions to the efficient, accurate and economical processing of large quantities of scientific data. One of the major problems facing science today involves the effective dissemination of data, and Mr. Bozman's pioneering work in this field has demonstrated a practical method for the solution of this problem. He has contributed greatly to the automation of science by devising techniques for automatic recording of data, for reducing this data in a digital computer and finally of converting these results to the printed page without further human intercession. The entire procedure is not only economical but produces a first product free of human errors.

## MICHAEL DANOS

Physicist, Radiation Physics Division  
Institute for Basic Standards  
National Bureau of Standards

Dr. Danos is being recognized for his very valuable contributions to theoretical physics in general and nuclear theory in particular. His recent contributions to the theory of nuclear structure, particularly the static and dynamic theory of the collective nuclear model and the explanation of the photonuclear giant resonance, have been very substantial. He possesses an unusually broad understanding not only of nuclear physics, but of physics in general and even of many branches of engineering, acting in an advisory capacity for many groups both within and outside the Bureau on a wide range of problems in theoretical physics and engineering.

## DEFOE C. GINNINGS

Supervisory Physicist, Heat Division  
Institute for Basic Standards  
National Bureau of Standards

Under Dr. Ginnings' direction, the Heat Measurements Section leads the world in accurate calorimetry at temperatures ranging from 20°K to 2500°K (-420°F to 5000°F). The capability developed has been used to obtain thermal-properties reference data of wide application and immense value in industry, notable examples being water and steam (power industry), hydrocarbons (petroleum industry), uranium compounds and others (nuclear energy applications), and light element compounds (for several agencies in the U.S. defense establishment). In all this work Dr. Ginnings has played a substantial, frequently leading, part and in 36 years of service to NBS made an outstanding contribution to the Department and to the nation.

## ALAN J. GOLDMAN

Mathematician  
Applied Mathematics Division  
Institute for Basic Standards

Dr. Goldman has made significant contributions in the field of operations research. Illustrative of his value to the Department is his contribution, as team leader and direct participant, in the Department's extensive, tightly-scheduled, and extremely important studies of a supersonic transport program. This effort involved analysis, mathematical model design, computer programming and simulation. Dr. Goldman's service to others is buttressed by first-rate problem generated research. His publications which are indicative of unusually meritorious authorship, provide scholarly reports on noteworthy research and contribute directly to the professional development of his subordinates.

## PAUL A. HUDSON

Physicist  
Radio Standards Engineering Division  
Institute for Basic Standards  
Boulder, Colorado  
National Bureau of Standards

Mr. Hudson has made outstanding contributions to the National Measurement System. The growth of our country's position to one of eminence in radio frequency CW power measurements is due in a significant way to the work of Mr. Hudson. He also conceived and guided the construction of special accurate transfer standards, which has allowed important international comparisons with Great Britain, Japan, and Canada. A well-used CW power calibration service, a new pulse power calibration service, and a forth-coming service for pulse voltages are all based on the work of Mr. Hudson.

## LAFAYETTE K. IRWIN

Supervisory Mechanical Engineer  
Mechanics Division  
Institute for Basic Standards  
National Bureau of Standards

Mr. Irwin is being recognized for his superior direction of a major move and expansion of the facilities of the Engineering Mechanics Section. This relocation involved not only the moving of heavy, yet delicate, testing equipment from the Washington location to Gaithersburg, Maryland, but also the design, fabrication and installation of unique new equipment including such items as a newly installed deadweight machine force standard of one-million pound capacity. Without Mr. Irwin's creative engineering design and capable administrative direction it would not have been possible to accomplish such a comprehensive task in so short a time.

## RICHARD D. LEE

Physicist, Heat Division,  
Institute for Basic Standards  
National Bureau of Standards

Mr. Lee has made outstanding contributions to thermometric standards at high temperatures, especially through his developing the photo-electric pyrometer, whereby the accuracy of realization of the International Practical Temperature Scale between 1000°C and 3500°C has been improved tenfold. Chiefly through the demands of missile and space programs, research and development at very high temperatures has been growing at a great pace. Physical properties and the performance of systems and devices become extremely temperature dependent, hence accurate thermometry can play a key role in determining the success of a program. Widely ramified benefits will accrue for many years to come from the skill, resourcefulness and energy of Mr. Lee.

## JOHN R. MANNING

Physicist  
Metallurgy Division  
Institute for Materials Research  
National Bureau of Standards

Dr. Manning's theoretical research on atomic diffusion in crystalline solids is the basis for his receipt of the Department of Commerce Silver Medal Award. Since 1958 he has authored a series of research papers on the correlation factor, a quantity which arises in diffusion theory and relates to the fact that atoms do not generally diffuse through crystals by a series of randomly directed jumps as is assumed in simple theory. Dr. Manning's papers have explained the significance of the correlation factor and brought about an appreciation of its importance in a variety of diffusion phenomena. It is generally accepted that Dr. Manning's work is one of the principal contributions to the field of diffusion in solids in the past several years.

## CARL E. PELANDER

Mechanical Engineering Technician  
Laboratory Astrophysics Division  
Institute for Basic Standards  
National Bureau of Standards

Mr. Pelander, as head of the NBS Laboratory Astrophysics Division instrument shop, created facilities for the Division's work in the Joint Institute for Laboratory Astrophysics on the University of Colorado campus which are a model of technical excellence and efficiency. The level of sophistication of the work of this shop, the speed of its response to changing demands, and the economy of its operations and small size of its staff are tributes to his originality, leadership and devotion.

## PHILIP PFAFF, JR.

Supervisory  
Mechanical Engineering Technician  
Instrument Shops Division  
Associate Director for Technical Support  
National Bureau of Standards

Mr. Pfaff is being recognized for his substantial contributions to major scientific programs of the National Bureau of Standards. He has made major mechanical design and fabrication contributions to major programs connected with the scientific investigation of flow patterns and coagulation behavior of blood. These investigations included the development of the plastic heart valve. Plastic arteries for battlefield use, and blood sampling mechanisms designed to improve the reliability of tracer substances in the bloodstream. He was also prominent in the design and fabrication of scientific instruments for the "Free Radical" Research team.



## HARMON H. PLUMB

Physicist, Heat Division,  
Institute for Basic Standards  
National Bureau of Standards

Over the past 10 years, Dr. Plumb has built up and directed a group which has achieved great distinction in the field of thermometric standards at very low temperatures. These include the development of: the "acoustic thermometer", sensitive and reproducible secondary thermometers, and new calibration facilities for the range 2°K-20°K. Since 1950 cryogenics has grown from a small specialized research activity into an area of great technological development, spurred by the missile and space programs. Through the efforts of Dr. Plumb, NBS has been able to anticipate and respond to the nation's needs in standards for temperature measurement in this heretofore exotic region.

## WALTER J. PUMMER

Chemist, Polymers Division  
Institute for Materials Research  
National Bureau of Standards

Mr. Pummer is being recognized for his outstanding researches into the chemistry of aromatic fluorocarbons and in particular for his basic investigations of the mechanisms of nucleophilic attack on aromatic fluorine. As a result he has synthesized many new fluoroaromatic polymers and monomers having great potential for use as materials, stable under many extremely deteriorative conditions. The breadth and depth of Mr. Pummer's accomplishments attest to his many excellent attributes, acumen, indefatigable persistence and industry, as well as to his ability as a chemist.

## HENRY M. ROSENSTOCK

Supervisory Chemist,  
Physical Chemistry Division  
Institute for Basic Standards  
National Bureau of Standards

In the three and a half years he has managed the Mass Spectrometry Section, Dr. Rosenstock has effected a complete change in its emphasis and productivity. Carefully assessing the capabilities of the small staff at his disposal, and weighing them against the important basic problems in mass spectrometry, he selected a few central problems and skillfully turned the work in those directions, leading, in many cases, by his own research achievement. The result is that the Section is now recognized as the leading research group in the U. S. working on applications of mass spectrometry to molecular ionization processes.

## LASERS FOR METROLOGY GROUP

Metrology Division  
Institute for Basic Standards  
National Bureau of Standards

This group, Kitt E. Gilliland, Klaus D. Mielenz, Karl F. Nefflen, and Robert B. Stephens, has accomplished outstanding research and development in the application of the continuous wave gas laser to problems of the measurement of length. They have demonstrated the stability of the gas laser as a measuring device and have accurately determined wavelengths of the light emitted by a laser in reference to the internationally adopted standard for length and devised a number of experiments and instruments for these investigations. They have applied this new development to the direct measurement of engraved line standards up to one meter long. As a result of their efforts a new service has been made available to American industry for economical and precise length measurements which was never before possible at reasonable cost.



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