

1968

20th ANNUAL

honor
AWARDS
PROGRAM



U.S. DEPARTMENT OF COMMERCE

20th ANNUAL

honor AWARDS

PROGRAM

October 29, 1968 / 3:00 P.M.

Department of Commerce Auditorium

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



Program

INTRODUCTION

John Will
Director of Personnel

ADDRESS

C. R. Smith
Secretary of Commerce

PROGRAM ANNOUNCEMENTS

David R. Baldwin
*Assistant Secretary
for Administration*

Silver and Gold Medal Awards

Music by
U.S. Merchant Marine Academy Regimental Band



Gold Medal Award Winners





JOSEPH WAKSBERG

Supervisory Mathematical Statistician
Bureau of the Census

Mr. Waksberg's skillful use of expert knowledge has made major contributions to sample surveys for many Government agencies, covering a wide variety of subjects. As a result, the quality of household sample surveys has been significantly increased and the Government has received far more information from its surveys per dollar spent. His imaginative and effective contributions to

the improvement of sample design, to the assessment of the quality of the results, and to the solution of the complex problem of computing the sampling errors of the data have been widely commended and used by sample survey experts both in the United States and abroad. His work on the measurement of the length of recall period on the accuracy of a respondent's answer is generally accepted as the definitive piece of research in this difficult area. He is widely known as a man who combines the highest technical competence with an unusual ability to help others solve difficult statistical problems.

GEORGE T. KARRAS

Director, Office of Public Works
Economic Development Administration

The Gold Medal is awarded to George Karras for his administrative genius and leadership in directing the Public Works program of the Economic Development Administration. As Deputy Assistant Administrator for Public Works and later as Director of the Office of Public Works, Mr. Karras administered with outstanding effectiveness the unfinished work of the Area Redevelopment Administration and the backlog of public works projects generated during the pe-

riod when the EDA legislation was being considered by Congress. By dint of his energy, resourcefulness, and understanding, a tremendous project workload was successfully handled in EDA's infancy which entailed not only the review and technical approval of meritorious projects but the denial of many project proposals because of a lack of funds or insufficient merit. Following up on his earlier successes, Mr. Karras implemented a new administrative technique, the Pre-Filing Application Conference which has been enormously successful in assuring the economic development value of proposed public works projects while maintaining harmony between EDA and local governments.





LAMBERT S. O'MALLEY *

Deputy Assistant Secretary for Economic Development Operations
Economic Development Administration

Mr. O'Malley is recognized for his exceptional accomplishment in organizing and bringing to fruition between December 1965 and June 1966 a new program of public works designed to promote long-term economic development in areas suffering from unemployment and low income levels. As a result of the success of his efforts, over 300 communities in depressed areas benefitted from 398 projects carrying \$232 million in aid and creating an estimated 75,000 new job opportunities. Mr. O'Malley's responsibilities were broadened to in-

clude other EDA financial programs—technical assistance and business development. His unique contributions in the investment of funds under these programs far exceeded the most optimistic calculations. He looked beyond the context of his direct responsibility so as to mesh EDA's efforts with overall efforts of the Executive Branch by his ability to mediate project changes in such a way as to always strengthen the program. Under his guidance EDA's programs have enhanced the prestige and effectiveness of the Department, brought measurable benefits to depressed areas and promoted the general efforts of our Government to bring economic stability to the Nation.

* Now serving with the Office of Field Services, Los Angeles, California.

ERNEST G. BICE

Meteorologist in Charge
Brownsville, Texas
Environmental Science Services
Administration

This award is in recognition of rare and outstanding leadership of a Weather Bureau station during the extreme emer-

gency conditions of Hurricane "Beulah," September 1967. Despite personal danger and loss of contact with home and family, the Brownsville staff responded to Mr. Bice's leadership with an exemplary team effort which resulted in the continued flow of vital storm warnings, accurate weather observations and operation of emergency equipment. Commendations from area user groups attest his distinguished leadership.





THOMAS J. HICKLEY

Director, Engineering Development
Laboratory
Environmental Science Services
Administration

The technical systems of the Coast and Geodetic Survey (C&GS) have been enhanced by Mr. Thomas J. Hickley for three decades. Through personal creativity and guidance of others, he has caused C&GS to maintain a position of national and international technical leadership. He has made outstanding contributions to most systems employed by Coast Survey including hydrographic, oceanographic, magnetic, seismic, geodetic, and

cartographic. He holds patents on two of the most important systems used by Coast Survey: the Electronic Positioning Indicator and the Sono-radio Buoy. In addition, he has been instrumental in the development of radio acoustic ranging; shipboard echo sounding; Shoran for hydrographic work; and the introduction of automation on shore in hydrographic data processing and magnetic measurements, and on shipboard for logging all types of data. Most recently, he has guided the development of a successful underwater platform for making geophysical measurements in the deep ocean. Finally, he has personally applied his ingenuity and effective guidance to ensure usable operational applications of all the new C&GS systems.

RICHARD C. KIRBY

Supervisory Physicist (Electronics)
Boulder, Colorado
Environmental Science Services
Administration

Mr. Kirby is being recognized for exceptional service in the area of telecommunications. He served as Execu-

tive Secretary of the Telecommunications Science Panel of the Commerce Technical Advisory Board and played a major role in releasing the report, "Electromagnetic Spectrum Utilization—The Silent Crises." During this period he also set up the Office of Telecommunications and performed a number of liaison jobs in this area of scientific endeavor with other departments of government.





NEWTON A. LIEURANCE

Director, Aviation Affairs
Environmental Science Services
Administration

This award is in recognition of major contributions to the technology and administration of aviation weather services. Mr. Lieurance's vigorous guidance, leadership and coordination were largely responsible for carrying out the final stages of development, testing, and acceptance of Runway Visual Range (RVR) equipment and the implementa-

tion of the program nationwide so as to assure RVR capability at all Instrument Landing Systems airports throughout the country. He also developed a shared responsibility program between the Weather Bureau and FAA for the provision of aviation weather briefing services. Completion of the training of some 4,000 FAA personnel in aviation weather briefing techniques, enabled the FAA to become full partners with the Weather Bureau in providing comprehensive weather briefings to pilots—thus more than doubling the number of outlets over the country from which pilots could obtain this service.

ALLEN L. POWELL

Chief, Ship Construction Group
Environmental Science Services
Administration

Capt. Powell pioneered a new concept in the design and construction of oceanographic vessels used in the C&GS Continental Shelf program. His outstanding contributions to science and

technology and to a major program of the Department of Commerce and the nation, are far-reaching in terms of efficiency and economy. The U.S. Navy has adopted the basic design of the ship FERREL for two new naval research vessels now authorized for early construction. He displayed ingenuity, imagination, technical competence and sound management practices resulting in superior ship design providing efficiency and economy.





E. SCOTT DILLON

Supervisory Naval Architect
Office of Ship Construction
Maritime Administration

Mr. Dillon by virtue of his broad and thorough technical knowledge of ship design and construction has contributed to an outstanding degree to the development of a large number of highly efficient ships which are joining the U.S. Merchant Marine under the Ship Replace-

ment Program of the Maritime Administration. In addition, Mr. Dillon has rendered invaluable services to the Maritime Administration and to the Maritime industry by active and fruitful participation in important research and technical committee activities and the preparation of major technical papers. In particular, his paper on "Ship Design for Improved Cargo Handling" has been widely recognized in the industry as a standard work to establish optimum "productivity" conditions possible with present or attainable technology.

LLOYD C. FLEMING

Pacific Coast Director
Maritime Administration

Throughout his Federal career Mr. Fleming has performed at the highest level of efficiency and effectiveness. His leadership has resulted in his organization having acquired a degree of competence and skill which has enabled it to respond promptly and commendably to all manner of emergencies. The Korean emergency and the Viet Nam operation are typical examples of the scope and significance of the situations that he and his staff have been called

upon to face. The timeliness, effectiveness and economy of this Agency's Southeast Asia operation could not have been achieved without Mr. Fleming's experience, anticipation of problems, forcefulness in dealing with agents, and overall expertise. Much of his success results from his excellent relationships with all segments of the steamship industry including steamship companies, construction and repair yards, ports and terminals, stevedoring firms, maritime labor, regulatory bodies, tow boat companies, agents and others. It is doubtful that any other individual has contributed more to the Maritime industry on the Pacific Coast over a comparable period of time.





LAUREN S. McCREADY

Head, Department of Engineering
Kings Point, New York
U.S. Merchant Marine Academy
Maritime Administration

Captain McCreedy has made exceptional contributions toward the development

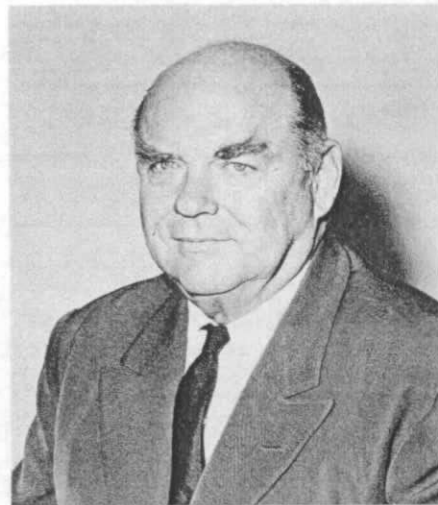
and administration of the Department of Engineering at the United States Merchant Marine Academy; toward the establishment, building and development of the Academy and toward the advancement of the field of marine engineering training. He has set an outstanding example for his subordinates and students.

MAITLAND S. PENNINGTON

Chief, Office of Maritime Promotion
Maritime Administration

Mr. Pennington is being recognized for his significant role in and major contributions to the promotion and development of a fully integrated transportation concept, both within the government and in private industry. Primarily, due to his imagination, foresight, judgment, and initiative, the government as a whole and the Maritime Administration in particular, has become the focal point for most matters pertaining to a fully integrated transportation system. He has met

with industry and government representatives at all levels in connection with any facet of the movement of cargo, and not only has he become known as one of the few true experts in this highly complicated areas, but he best exemplifies what can be done to develop and promote a concept through imagination, foresight and personal drive. Throughout government and industry he is known and respected as one of the foremost authorities and advocates of a fully integrated transportation system. We might best summarize this brief capsule version of what he has done by stating a title that is frequently associated with his name—"Mr. Integrated Transportation."





NOGI A. ASP

Examiner-in-Chief
Patent Office

This award is granted in recognition of the outstanding service rendered by Mr. Asp, as Chairman, in bringing the work of the Patent Office, Board of Appeals, up to a substantially current position by reducing the number of cases pending before that tribunal for disposal by two-

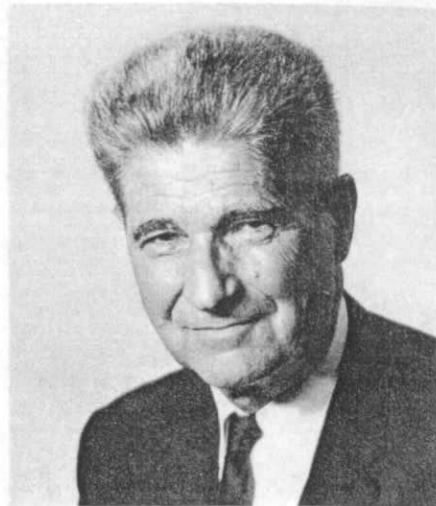
thirds in the period of two and one-quarter years after he assumed the chairmanship. His performance in this respect greatly exceeded normal expectation in terms of industry, leadership, imagination, cooperativeness and technical ability. Also, during his incumbency, the Board has been transformed from an organization which required substantial help from other units of the Patent Office to one which not only does not require such help but provides valuable assistance to other units.

FRANK H. BRONAUGH

Director, Mechanical Examining
Operation
Patent Office

Mr. Bronaugh demonstrated outstanding leadership in the administration of a major program in the U.S. Patent Office. He originated and encouraged experimentation with and development of new examining techniques to speed prosecu-

tion of patent applications. He demonstrated high ability in effective planning and follow-through by communicating with subordinates and constructively evaluating work processing. The cost avoidance due to increased productivity exceeded one million dollars annually for the past two years. The effects have national and international impact by early disclosure of patent technology to the scientific community and early assurance of patent posture to aid and guide industry.





GEORGE HYMAN, Jr.

Director, Office of Examining &
Documentation Control
Patent Office

Mr. Hyman designed and reduced to operational status a program to audit and control the quality and reliability of patents issued by the U.S. Patent Office.

The audit measures quality of three major aspects of the examining operation—first, patentability over references found by the examiner in his search of the prior art; second, reliability in and adherence to examining practice and procedure; third, search and classification with respect to the prior art. This program furnishes a much-sought solution to the matter of assuring the quality and reliability of issuing patents.

IRVING MARCUS

Director, Chemical Examining Operation
Patent Office

The patent office of the Federal Republic of Germany was to start operating under a new law, effective January 1, 1968, permitting the examination and issuance of patents for chemical products. As an outstanding authority in this field, especially in the drug and pharmaceutical lines, Mr. Marcus was called upon by the German patent office to prepare guidelines for examination and

patentability. He was invited by the German government to personally present and discuss the guidelines. The discussion groups included administrative and operating persons of the patent office and the judges of the federal Patent Court.

The German patent office has now issued rules governing examining chemical product applications; these exhibit a high degree of harmonization with U.S. practice. This is a major step forward in the international harmonization of patent examining practices and procedures.





ALFRED C. MARMOR

Director, Office of Planning &
Programming
Patent Office

This award is granted in recognition of the outstanding service to the scientific and technical programs of the Department of Commerce rendered by Mr. Marmor in connection with his assignment as Executive Secretary to the President's Commission on the U.S. Patent System. Mr. Marmor's performance as

Executive Secretary exceeded normal expectations in terms of the qualities of leadership, imagination, force, breadth of perspective, conciseness of expression, and judgment as to essentiality which he brought to the position. By his own dynamic approach and his personal drive, he was able to elicit a vital response from his associates who caught from him the sense of urgency and the spark of interest and belief in the value of the task which resulted in a product of outstanding value to and impact on the field of patent law.

RICHARD A. WAHL

Assistant Commissioner
Patent Office

Mr. Wahl has served with effectiveness and distinction in a variety of professional assignments during his 29 years with the Patent Office. During the last 3 years as Assistant Commissioner he has, through reorganization, implementation of newly conceived examining practices and procedures, and superior

leadership, been instrumental in reducing the backlog of patent applications from 220,000 to 194,000. This was accomplished with no appreciable increase in the examining staff and against a steady rise in the rate of workload input. Since inception of the improvements in the examining programs, the average annual rate of application disposals has been 97,000 as contrasted with 77,500 for each of the preceding 10 years. This represents a marked improvement in operating efficiency and public service.





DONALD B. MOORE

Director, Office of Administrative
Services
Office of the Secretary

Mr. Moore is being honored for his sustained leadership in the field of administrative services, distinguished support for Department and Administration policies, and the establishment of a new and unprecedented harmonious relationship with and between Office of Administrative Services staff and employees.

Mr. Moore's first move as the newly appointed Director was to reorganize office personnel so as to separate staff and service functions. Service areas were realigned to separate skilled and unskilled

tasks. He initiated studies which led to the development of the Productivity Accounting Program for Administrative Services, which is now being extended to all segments of the Department having administrative type services.

Employee relations in the Office have far exceeded all known goals. Mr. Moore's inherent sense of fair play and ability to instill this principle in others is exemplified by the fact that the Office has a Minority Group Committee—employee elected—which meets regularly with him to discuss common problems. In addition, the Office has developed an internal Training Program under which 10 employees are receiving management training and so far have enrolled in a total of 16 night courses.

JOHN S. MYERS

Chief, Policy Division
Office of Personnel, Office of the
Secretary

Mr. Myers displays a rare combination of extraordinary intellect, erudition, professional skill, and humanity in the performance of his duties. His obvious abilities and his devotion and loyalty to his profession and the executives and Department he serves are manifested in the consistently high quality and responsiveness of his advice and counsel to Secretarial Officers, key staff executives, heads of bureaus and offices, and other officials and employees at all levels. He has been

in the forefront of every major innovation in personnel management philosophy and technique in the Department in the past 15 years. He has most recently directed, inspired and brought to fruition the Department-wide application of automatic data processing to personnel management records, processing and reporting systems; has made significant contributions to major developments in personnel legislation affecting the Department; and has played a key role in the implementation of new directives on employee responsibilities and conduct. He has also directed the establishment of a comprehensive Department-wide personnel management program evaluation system.





JOHN WILL

Director of Personnel
Office of the Secretary

Mr. Will is being recognized for major contributions in the field of administration, particularly as they relate to personnel management. Under his forceful direction and leadership the prestige of the Department's personnel program has steadily grown to the point that it is recognized as one of the best in the Federal Government. He has earned the

respect and confidence of key officials, thereby securing top management support for a progressive personnel program. By excellent planning preceding organizational changes and gearing the personnel program to the changing needs and requirements of the Department, Mr. Will has contributed materially to the effective accomplishment of Department missions. In addition to his stature within the Department Mr. Will is recognized by the Civil Service Commission and other outside sources as an outstanding personnel administrator.

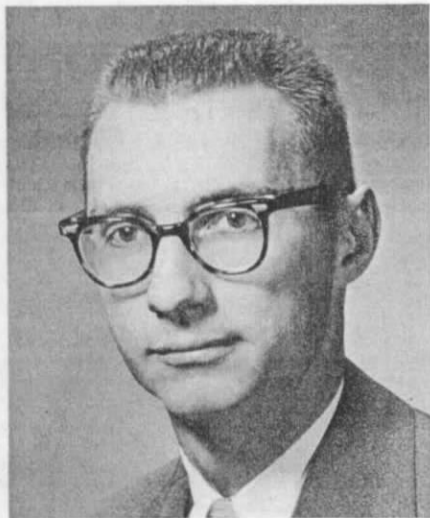
LOUIS COSTRELL

Chief, Radiation Physics
Instrumentation Section
National Bureau of Standards

In December 1963, Mr. Costrell recognized a need for standardization of modular electronic instruments used throughout the country in nuclear physics research. Although the newer types of instruments using solid-state circuitry were considerably more reliable and smaller than previous vacuum-tube models, they were produced with various shapes, sizes, connectors, and operating voltages. Realizing that incompatibility was causing inefficiency and unnecessary expense, Mr. Costrell proposed a new

standard nuclear instrument module (NIM) system to the U.S. Atomic Energy Commission, an agency that supports much of the work in that area of research. The proposal was accepted enthusiastically and Mr. Costrell was asked to direct a program implementing it. Progress was rapid and essentially all of the modular nuclear instruments produced in this country now conform to the NIM specifications. Savings to laboratories in this country are several million dollars annually, and the many advantages of the system have resulted in its adoption by foreign countries. It has already spread to other areas of scientific research and may well spread to the general field of electronic instrumentation for research of any type.





HENRY J. KOSTKOWSKI

Chief, Radiation Thermometry Section
National Bureau of Standards

Dr. Kostkowski is recognized for outstanding leadership in the pyrometry and

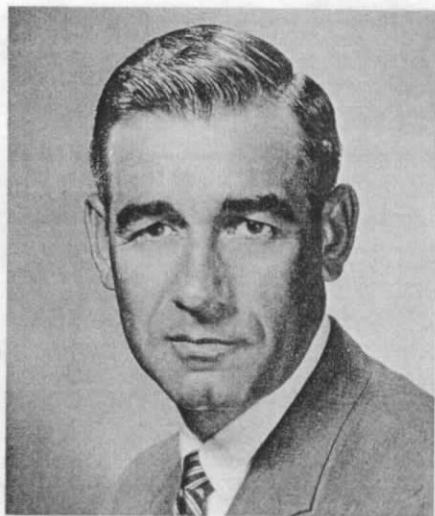
radiometry section of the National Measurement System, the development of accurate standards of measurement of high temperatures and of optical radiation, improvements in apparatus and techniques, and expert consultation and measurement services to the nation's science and industry in this field.

LAWRENCE M. KUSHNER

Director, Institute for Applied
Technology
National Bureau of Standards

Dr. Kushner has made outstanding contributions to the Bureau's research programs in the fields of colloid chemistry, resulting in greater understanding of the structure of detergents; the science of crystal growth, plastic deformation, and

related phenomenon. As chief of the Metallurgy Division, he molded it into one of the most outstanding research groups in the country. Dr. Kushner has displayed vigorous leadership of research staff and because of his outstanding performance at high levels as a science executive, he has been appointed Director of the Institute for Applied Technology, with responsibility for overseeing one of the three major program organizations within the National Bureau of Standards.





DAVID R. LIDE, Jr.

Chief, Infrared & Microwave
Spectroscopy Section
National Bureau of Standards

Dr. David R. Lide, Jr. has made outstanding contributions to our knowledge of the structure of molecules. He has applied both microwave and infrared techniques to these studies whose results are described in 76 major scientific publications. His work has international ac-

claim and the fruits of research have had a direct impact on a wide range of scientific research, the chemical industry and on the development of molecular lasers. He has pioneered in the study of transient molecular species such as occur in hot gases and is the world's outstanding authority in this field. His knowledge of molecular properties and his insight into their interactions have enabled him to explain the mechanism responsible for the action of several molecular lasers.

KURT E. SHULER

Senior Research Fellow
National Bureau of Standards

Dr. Shuler has made contributions in theoretical chemistry which have added to the fundamental store of knowledge in the field of chemical physics, and in turn furthered the development of technology in such areas as lasers, high speed aerodynamics and the behavior of matter at high temperatures. In addition to his outstanding achievements in physical theory, Dr. Shuler participated in

the development of two experimental techniques with widespread use in science and engineering. He was among the first to measure separately the electronic, translational, vibrational and rotational temperature of flames. The techniques devised have found widespread use in the determination of the temperatures of flame gases in the combustion systems of rockets and missiles. In collaboration with others, Dr. Shuler introduced a method for measuring the concentration of free electrons in plasmas, pioneering the development of microwave investigation of high temperatures.





REACTOR FACILITY GROUP

Center for Radiation Research
National Bureau of Standards

Drs. Carl O. Muehlhause, Harry H. Landon, Jr., and Robert S. Carter are being recognized for sustained efforts which have resulted in the creation of a research reactor whose unusual characteristics make it capable of meeting the research needs of NBS programs

and, in addition, the research needs of the Washington scientific community. The reactor is a major research tool which extends the scientific capabilities of the Bureau and thus enlarges the Bureau's contributions to the science and technology of the Nation. This group receives the entire credit for all phases of this extended development—conception, planning, innovation, design, engineering supervision, staffing and organization.



Silver Medal Award Winners



ARTHUR U. SUFRIN

Director, Mobilization Plans and
Controls Staff
Business and Defense Services
Administration

Mr. Sufrin has made meritorious contributions to government and industry in the administration of industrial priorities and allocations in support of the national defense effort.

EDWIN J. COLEMAN

Supervisory Economist
Office of Business Economics

A major contribution to those working in the field of regional economics, welfare economics, marketing analysis, and urban planning has been effected by Mr. Edwin Coleman through making available the first comprehensive economic measure with which the economic experience of local areas could be studied. He has succeeded in establishing a highly efficient regional economic information system. From a mass of heterogeneous, unrelated economic data, he has measured the flow of personal income by type and industrial source and by local areas covering the entire Nation. He has devised a storage and retrieval system in which the income measure is fitted into a matrix approximately 100 by 3200, and, with this, a system in which the data in any one or combination of the more than 300 thousand cells can be extracted, analyzed, and presented quickly and in a highly organized manner.

SYLVIA D. SERAFIN

Statistical Assistant
Office of Business Economics

Miss Serafin has been associated with the *Survey of Current Business*, for over a decade. In that period, she has had major responsibility for publication of statistical and descriptive data on many of the most widely used economic indicators. She has consistently demonstrated judgment, initiative, effective planning, accuracy, resourcefulness, cooperativeness, and knowledge of subject matter greatly exceeding normal requirements. She has displayed exceptional alertness in recognizing new and meaningful statistical time series as they are introduced, as well as outstanding ability in selecting those most appropriate for publication in the *Survey of Current Business* and in explaining how they are compiled, how they are used, and how they compare with related series.

CHARLES A. WAITE

Supervisory Economist
Office of Business Economics

Mr. Waite, Chief of the government sector of the National Income Division of the Office of Business Economics, has been responsible for the preparation of estimates of government receipts, expenditures, and the resulting surplus or deficit, for three years. During this time, despite exceptionally difficult obstacles such as complicated conceptual problems, severe deficiencies in source data, etc., the basic quality of the estimates has been significantly improved because of his outstanding performance and imaginative leadership. More extensive service is now provided to Department officials and to such agencies as the Council of Economic Advisors and the Bureau of the Budget.

JOHN S. AIRD

Supervisory Statistician (Demography)
Bureau of the Census

Dr. Aird has made outstanding contributions to the study of the population of Mainland China. As the chief of a research staff charged with the responsibility for analyzing the sparse, ambiguous, and often-conflicting information on this subject, Dr. Aird has demonstrated superior analytical ability and technical competence. He has constantly maintained the highest levels of scholarship and objectivity in his research and has shown great insight and ingenuity in directing and conducting his studies. The superior quality of his authorship in presenting detailed, complicated subjects in a clear, concise, and forceful style has earned him wide recognition as an analyst, scholar, and writer. His research and writing represent genuine contributions to the field and to the work of the Bureau.

WILLIAM M. GAINES

Assistant Division Chief for Engineering
Processing Division
Bureau of the Census

Mr. Gaines has consistently demonstrated his outstanding effectiveness in development and direction of the engineering and technical services required to maintain the Bureau's complex of computers and related peripheral equipment and to advance the Bureau's utilization of equipment technology. Mr. Gaines directs with great skill and dedication the maintenance activities for one of the most sophisticated and heavily utilized electronic data processing equipment systems. His technical competence, held in the highest esteem by his staff and other Bureau data processing managers, has been a major contributing factor to the excellent progress made in the Bureau's equipment development efforts, and to the high level of performance attained on the Bureau's electronic computer systems.

BENJAMIN D. KAPLAN

Assistant Chief for Programs
Construction Statistics Division
Bureau of the Census

Mr. Kaplan has made a contribution of exceptional importance in the planning of the 1967 census of the construction industry—the first such census since 1939. He brought to the construction census a background of recognized expertise, a remarkable sense of urgency, and outstanding ability. He was responsible for the design of the census, breaking new ground at every stage of the task. Because of his skillful planning, data collection for the 1967 census of construction is on schedule, and it is evident that the census can be successfully completed. Mr. Kaplan's outstanding contribution to the 1967 census is an impressive addition to his continuing accomplishments as Assistant Chief of the Construction Statistics Division over a considerable period of years.

HARRY M. ROSENBLATT

Mathematical Statistician
Bureau of the Census

As was the case in 1960, the 1970 Census will make extensive use of sampling to reduce the burden on the public and to achieve a better balance between the need for data and the cost of obtaining it. The method used for weighting the sample will therefore have an important effect on the utility of much of the Census data. Through his discovery of a fundamental connection between certain results of statistical information theory and the problem of sample weighting, Dr. Rosenblatt has been able to develop an iterative procedure for using the relationships between 100 percent and sample counts to yield sample weights that are optimal in the sense of information discrimination. His work has also thrown valuable light on the properties of other suggested methods of sample weighting.

JAMES P. TAFF

Chief, Personnel Division
Bureau of the Census

Mr. Taff has demonstrated exceptional leadership, vision and outstanding ability as a personnel administrator during his nine years of service with the Bureau of the Census. He has been resourceful and imaginative in his direction of the Bureau of the Census Personnel Program and is responsible for many original and noteworthy improvements in the program. He directed the conversion from manual personnel record keeping to an electronic computer record system thereby placing the Bureau among the pioneers making such system changes. He has also established other successful programs showing resourcefulness and originality in such areas of personnel administration as recruitment, job redesign, and improved skill utilization.

VIRGINIA S. WILSON

Employee Relations Specialist
Bureau of the Census

Mrs. Wilson has made significant contributions to the advancement of Employee-Management Relations at the Bureau of the Census through the application of diligence, understanding, versatility, and an uncommon ability to communicate with others. Included in these are contributions to Labor-Management negotiations, the installation of expanded health services, and a better understanding and acceptance of the Employee Relations Program by rank-and-file employees as well as supervision and management personnel.

MEYER ZITTER

Assistant Chief, Population Division
Bureau of the Census

Mr. Zitter has displayed outstanding skill as a statistician in developing population estimates and projections, and has shown decisive leadership as the director of a large research group. He is nationally known in demographic circles, and his contributions to professional societies such as the American Statistical Association and the Population Association have enhanced his reputation, and have added to the prestige of the Census Bureau. One of Mr. Zitter's most recent achievements was the initiation of a Federal-State cooperative program for preparing county population estimates annually. The success of this effort is in large measure attributable to Mr. Zitter's skill in stimulating the interest of many State and local government officials and in providing professional leadership.

MAP COMPILATION GROUP

Geography Division and Jeffersonville
Census Operations Division
Washington, D.C., and Jeffersonville,
Indiana
Bureau of the Census

Mr. William T. Fay, Mr. Robert L. Hagan, Mrs. Helen G. Johnson, and Mr. George W. Morris, are commended for initiating and successfully carrying out a program which has resulted in a major improvement in the maps which will be associated with the 1970 Census. In the course of this program they not only enlisted the assistance of more than two hundred local planning groups in assembling the basic data, but also developed several new technical procedures which improved the efficiency of the map compilation process. This work has resulted in the creation of a readily reproducible standard set of maps, at a uniform scale, adequate for displaying all areas for which Census data is published and covering about two-thirds of the population of the United States.

JAMES A. MULCAHY

Personnel Officer
Domestic and International Business

A personnel officer who has repeatedly demonstrated the special utility of personnel management oriented to agency mission, James A. Mulcahy has repeatedly demonstrated that an alert, competent and flexible personnel officer is an essential partner in the discharge of the Department's responsibilities. Whether concerned with blue-collar workers, college professors or economists, he has consistently demonstrated a quickness of mind, flexibility of operation and breadth of comprehension which has made him unusually effective in meeting the manpower management needs of his successive organizations with an unusually high order of competence.

A thorough professional, an effective leader, an outstanding trainer, forceful, articulate and imaginative he has imbued his staffs with his own energy and pride of accomplishment with the result of a series of smoothly functioning personnel operations in which outstanding performance becomes standard procedure.

JOHN E. ORCHARD

Director, U.S. Expositions Staff
Domestic and International Business

John E. Orchard has displayed exceptional administrative ability in directing all operations in the planning, erection and operation of the United States Pavilion at HemisFair '68. Under extreme deadline pressure, he effectively coordinated the work of the many Government and private disciplines needed to produce an undertaking of this magnitude. Without any appropriate guidelines, he—in effect—"wrote the textbook" for the step-by-step mounting of this event. In organizing the U.S. Expositions Staff, he has provided—for the first time in history—a permanent, professional organization to economically carry out future Government participation in international expositions held in the United States.

JAMES K. ANGELL

Chief, Air Resources Trajectory
Laboratory
Environmental Science Services
Administration

The high calibre of James Angell's scientific research included the development of unique observational and analysis methods of studying atmospheric structure. His highly competent scientific authorship prevailed especially on the applications of air trajectories in atmospheric dynamics.

DOUGLAS H. CHRISTENSEN

Electronics Technician
Brownsville, Texas
Environmental Science Services
Administration

Mr. Douglas Christensen displayed unusual courage and competence on September 20, 1967. He worked long hours at great personal risk to himself in order to keep the emergency generator in operation so that the Brownsville radar could operate during and after the passing of Hurricane Beulah.

DAVID L. COVENEY

Principal Assistant
Weather Bureau Airport Station
Jamaica, New York
Environmental Science Services
Administration

Mr. Coveney was instrumental in maintaining a harmonious and effective International Forecast Service Program with the integration of numerical products on a continual basis and concurrent with program development and associated station staff reductions. Additionally, Mr. Coveney's initiative and efforts were a major contribution to the development pictorial representations of Automatic Picture Transmission products for operational use by International Carriers.

CHARLES M. CROUCH

Meteorologist in Charge
Amarillo, Texas
Environmental Science Services
Administration

Mr. Crouch has earned special recognition for his outstanding leadership in the Severe Weather Warning Program in the Texas Panhandle. Mr. Crouch displayed a high degree of competence by timely warnings of the destructive tornado at Miami, Texas, on May 6, 1968.

J. GLENN DYER

Deputy Chief, Overseas Operations
Division
Environmental Science Services
Administration

Mr. J. Glenn Dyer has had more than 20 years of highly competent and dedicated leadership of Weather Bureau meteorological operations in polar regions, involving frequent visits to the Arctic, initially under primitive conditions, with considerable personal discomfort, hardships and risk. The purpose of these visits was to select and establish sites for the most northerly weather stations on the continent, and later to supervise, direct and coordinate with Canada the operation of the Joint Arctic Weather

HARRY R. GLAHN

Chief, Objective Forecast Branch
Environmental Science Services
Administration

Dr. Glahn designed and supervised a highly successful research project on the complex and important problem of subsynoptic weather prediction by computerized methods. He led a team effort to develop forecast techniques which effectively combine dynamical, statistical, and synoptic principles in the form of a numerical model suitable for operational application on electronic computers. This model utilizes both surface and upper air information on a scale $\frac{1}{4}$ that is normally used at NMC to produce detailed, short period forecasts of precipitation and wind in time to serve as valuable guidance to the local forecasters. He has also made important contributions to the fields of statistical meteorology, probability forecasting, and forecast verification over the past five years.

DALE R. HARRIS

Meteorologist in Charge
Pomona, California
Environmental Science Services
Administration

Mr. Harris has shown unusually progressive and bold leadership in maximizing weather services for agriculture, especially through the fruit-frost service; in establishing extended weather outlooks as routine daily service for agriculture, and in developing remarkable rapport with users. He stimulates the cooperation, interest and support of the southwestern United States citrus industry in soliciting additional observations and communications with which to continually improve the quality of weather services. He has the rare ability to work equally harmoniously with all of his associates, from top management to the newest recruit and—especially—with the users of the fruit-frost forecasts, who widely acclaim the outstanding performance of the agriculture meteorologist and the value of their services.

CHARLES G. KNUDSEN

Supervisory Meteorologist
Garden City, New York
Environmental Science Services
Administration

This testimonial of appreciation to Mr. Charles G. Knudsen is in recognition of his outstanding executive leadership and dedicated service. His varied and most distinguished career is matched by numerous outstanding accomplishments. Included among these accomplishments was the first successful observer-briefing office and use of the Weather Bureau-owned radio station for continuous public weather transmissions. Under his leadership, both of these have served as models for what are now national programs.

BURTON F. LOVELESS

Chief, Procurement and Supply
Management Branch
Environmental Science Services
Administration

Mr. Loveless' many contributions to the Procurement and Supply Management program include the installation and adoption of non-expandable equipment records thus relieving field personnel of many workhours in conducting annual inventories. The establishment of a stores stock inventory control and replenishment system, expansion of agency contracting capability, and the formation of a national supply center have all resulted in more effective and efficient agency programs. This last item resulted in a recurring savings of \$100,000 a year. The development and issuance of improved agency operating and guidance instructions in procurement and supply, which were badly needed but difficult to formulate, occurred; as well as other improvements in establishing more effective agency programs in transportation, property utilization and purchasing.

BANNER I. MILLER

Chief, Prediction Development Branch
Miami, Florida
Environmental Science Services
Administration

This citation is awarded to Dr. Miller for his very valuable contribution in developing improved techniques for forecasting movement of hurricanes. His research has developed statistical forecast models which are superior to any other objective method of forecasting hurricane motion which has been thoroughly tested on Atlantic hurricanes. The techniques have also helped the official forecasters in preparing improved forecasts for the public. Especially to be commended are his perseverance and skill shown in developing improved forecast equations in a field which has already been exhaustively investigated by other outstanding scientists.

JAMES R. NEILON

Chief, Information Processing Branch
Environmental Science Services
Administration

Mr. Neilon has directed the implementation of a national and international weather data exchange computer controlled communication system. In spite of the strain of an operational environment, where service cannot be interrupted his unfailing optimism and personal dedication has been an inspiration to his staff. In addition, he has actively participated in international conferences in which his recommendations and suggestions will result in future simplification and great savings in cost as well as increased effectiveness.

TERRELL L. NOFFSINGER

Chief, Agriculture and Forestry Section
Environmental Science Services
Administration

Mr. Noffsinger is recognized for his outstanding achievement in management, planning, and liaison activities in association with the Agriculture and Forestry Weather Service Program of the Weather Bureau. His excellent work as Head of the U.S. delegation at the Fourth Session (Manila) of the WMO Commission for Agricultural Meteorology, included the primary development of the U.S. position. He rendered unusual service on WMO working groups and Agricultural Research Institute subcommittees.

JACK C. PALES

Supervisory Physicist
Las Vegas, Nevada
Environmental Science Services
Administration

Exceptionally valuable contributions to understanding the constituents and characteristics of the atmosphere through extensive and unique measurements of a large number of atmospheric parameters were made by Mr. Pales at Mauna Loa Observatory from 1957 to 1963. His contributions toward the national safety and security through development and maintenance of a uniquely economical, reliable, extensive and accurate network of meteorological measurements in support of the safety program of tests of nuclear devices at the Nevada Test Site were also noteworthy. His performance of duty under hostile environmental conditions has been exemplary.

ALLEN D. PEARSON

Director, National Severe Storms
Forecast Center
Kansas City, Missouri
Environmental Science Services
Administration

Mr. Pearson has exercised leadership in the development of improved techniques and in streamlining and speeding up the preparation and dissemination of severe local storm forecasts, especially of those for tornadoes. Under his dynamic influence and effective leadership and direction, the national severe local storms forecast unit had a better tornado forecast record this past year than ever before. He has been instrumental in effectively extending and materially improving cooperative community action systems to warn the public of and have people take safety measures in connection with outbreaks of tornadoes and severe thunderstorms.

ERNEST E. THOMAS

Cartographer (Nautical)
Environmental Science Services
Administration

Mr. Thomas has pioneered in the application of automation technology to the requirements of marine cartography. Because of great personal perseverance and the application of a professional expertise acquired through his own efforts, and, in spite of very limited resources, he has brought a research project to the point where automated cartography in the Coast and Geodetic Survey has become a practical reality rather than theoretical possibility. Mr. Thomas has now made it possible for the Bureau to maintain the integrity of its nautical charting program with increased effectiveness and economy under the handicap of a steadily increasing workload which has overtaxed the existing manual capability.

ALBERT WHIMPEY

Chief, Archives Branch
Environmental Science Services
Administration

Mr. Whimpey has made an extremely valuable contribution to science and technology by reorganizing, cataloging, and maintaining the records of the scientific studies and investigations, and the surveys, of the Coast and Geodetic Survey dating from 1816 to the present.

JEROME SACHS

Director, Transportation and Insurance Division
Bureau of International Commerce

Mr. Jerome Sachs is awarded the Silver Medal of the U.S. Department of Commerce as a commendation for and recognition of his unique service and effectiveness over many years in advancing the best interests of the American insurance industry and the U.S. Government in respect to international operations, and of his role in helping develop programs designed to reduce costs and impediments to the transportation of American goods to foreign markets.

MORTON J. SCHWARTZ

Special Assistant to the Director
Office of International Trade Promotion
Bureau of International Commerce

Mr. Morton J. Schwartz has long played a key role in the development of new approaches to the Department's overseas trade promotion activities. Primarily responsible for market research and market development aspects, his incisive analytical evaluations bearing on product theme selection and market promotion techniques have had a measurable impact on the quality of Department-sponsored commercial exhibitions staged at International Trade Fairs and on shows featured at the 6 permanent U.S. Trade Centers overseas. Combined, these two programs yielded export revenue to U.S. manufacturers in excess of \$195 million during the period FY 1966 and 1967. Mr. Schwartz has consistently demonstrated complete program versatility, unique creativity and competence in the field of international marketing and a total commitment to national export expansion objectives.

DONALD SHAM

Director, International Resources
Policy Division
Bureau of International Commerce

Mr. Donald Sham is awarded the Silver Medal of the U.S. Department of Commerce as a commendation for and recognition for his service and effectiveness over many years in advancing the best interests of the United States in international negotiations bearing on the production, distribution, and consumption of primary products, and his accomplishments in the direction of meeting the needs of producer countries to stabilize export earnings consistent with U.S. needs to avoid disruption of domestic production and to insure adequate supplies of such products at a reasonable cost.

HELEN E. JONES

Administrative Secretary
Maritime Administration

Miss Jones has made a substantial contribution to the furtherance of the mission of the Maritime Administration and its predecessor agencies throughout 27 years of consistently superior service. Her extensive knowledge of Maritime Administration/Maritime Subsidy Board organization, procedures and personnel, and a wide-ranging acquaintance with ranking officials and representatives of Maritime and related industries have been an invaluable continuity factor and have contributed substantially to the smooth functioning of the Office of the Maritime Administrator and to the entire Bureau.

SHERMAN W. REED

Academy Training Representative
Kings Point, New York
U.S. Merchant Marine Academy
Maritime Administration

Captain Reed has made outstanding contributions in the field of Maritime Training. As U.S. Merchant Marine Academy Representative in the Port of New York and as Superintendent of the Maritime Training Stations at Sheepshead Bay, New York, and Gallops Island, Massachusetts, Captain Reed has devoted many years of highly competent, dedicated and successful service in the administration of programs for training Merchant Marine Officers and Seamen.

DAVID B. ALLEN

International Patent & Trademark
Specialist
Patent Office

Mr. Allen's leadership and initiative in the field of international patent and trademark matters have played an important part in the formulation and implementation of the international patent and trademark policies of the Department of Commerce and the Department of State.

MARY T. CHRISTENSEN

Systems Accountant
Patent Office

Mrs. Christensen is being recognized for outstanding authorship of instructions and directives in accordance with objectives of the Joint Financial Management Improvement Program concerning improved systems and procedures relating to the activities of the Finance Branch. She has shown remarkable initiative, effort and effectiveness in initiating and following-up on procedures toward computerizing the payroll system in the Patent Office. Mrs. Christensen exercised a high degree of tact and convincing diplomacy in obtaining the fullest cooperation of employees in improving the effectiveness of their performed tasks and in adapting themselves to changed systems and procedures.

LEONARD FORMAN

Supervisory Primary Examiner
Patent Office

Mr. Leonard Forman has assumed and performed with superior ability many assignments of duties other than those of his regular duties of supervising the examining work of approximately ten examiners in the arts of geometrical instruments and sound recording and reproducing. As present Chairman of the Curriculum Committee of the Patent Office Academy, a very sensitive position at this point in time because of many changes in patent procedure and developing concepts of patent law interpretations, he has exhibited outstanding leadership in resolving problems in the subject matter taught patent examiner trainees and junior examiners.

LOUIS F. KREEK

Examiner-in-Chief
Board of Appeals
Patent Office

Mr. Kreek has demonstrated outstanding competence and leadership in resolving problems in complex appealed electrical cases, enhancing their disposition while simultaneously furnishing guidelines to the profession. His counsel and assistance to other Board Members, based upon his extensive experience in interference matters, has materially advanced the work of the Board of Appeals.

WILLIAM W. MEDLEY

Position Classification Specialist
Patent Office

The ability and performance which may be of the greatest value to the Patent Office and Department of Commerce is Mr. Medley's ability to identify young people who have potential for development to more responsible positions. As a position classifier he is in daily contact with a large number of those lower grade employees of the Office who have entered on duty under the special disadvantaged programs. He possesses an amazing ability to identify with and counsel such employees and they have a very high degree of confidence with him. He serves as a close personal adviser to the Personnel Officer and to the Director of Administration. Mr. Medley's unusual knowledge and competence are especially valuable in such vital present day programs as job redesign and counselling of disadvantaged lower grade employees.

GERALD D. O'BRIEN

Assistant Commissioner
Patent Office

Mr. O'Brien is cited for exceptional contributions of major significance to the Patent Office and the Patent System, particularly for his outstanding achievements in the international patent field, in connection with domestic patent legislation, and in the establishment of a high rapport between the Patent Office and interested private circles.

IRVING J. ROTKIN

Patent Classifier
Patent Office

Mr. Rotkin is recognized professionally as a Patent Classifier in the Mechanical Documentation Group. Particularly noteworthy was his outstanding achievement in establishing a pilot Speakers Bureau Program under the auspices of the Office of Information Services. By virtue of his broad and thorough knowledge of Patent Office procedure he planned, organized and administered programs of educational content resulting in a better understanding among the academic and business community of the vital significance of the Patent System to the nation's economy. Mr. Rotkin's professional competence and devotion to public service typify the outstanding qualities of initiative, imagination, and sound judgment desired of career federal employees.

RICHARD A. SPENCER

Director, Office of Research,
Development & Analysis Patent Office

Mr. Spencer bore the responsibility on behalf of the United States, in establishing the international procedures, both technical and administrative, for building patent information retrieval systems. He also supervised the U.S. portion of the workload in the U.S. Patent Office as to research and also in building operational search systems. As a result ICIREPAT (International Cooperation in Information Retrieval among Examining Patent Offices), now has six operational search systems and over fifty in stages of development.

JAMES W. WESTHAVER

Patent Examiner
Patent Office

Mr. Westhaver has demonstrated outstanding ability in the performance of his duties as an Expert in the fields of heat production, heat utilization and heat control. His skill in performance has materially contributed to the advancement of the Patent Office program. Mr. Westhaver also has familiarity with electronics, gaseous electrical discharges, high vacuum techniques, and their application to physics and physical chemistry. In addition his unusual aptitudes in abstruse areas of mathematics have been utilized by others throughout the years. Mr. Westhaver has authored articles of unusual value which have advanced the Department's program in the fields of science and technology.

DAVID W. ALLAN

Physicist
Boulder, Colorado
National Bureau of Standards

The contributions made by Dr. Allan in the field of atomic frequency and time standards have been tremendous. These include: the development and evaluation of a highly reliable time scale system based on the NBS Frequency Standard; system design for the use of and on-line digital computer for simultaneous continuous control of the time scale and for general data acquisition and analysis; theoretical and experimental studies of the statistics of atomic standards and time scales leading toward more meaningful specification of performance characteristics and better understanding of noise sources; and the development of novel statistical techniques for significantly improving the precision of VLF phase measurements.

CLARENCE N. COATES, Jr.

Assistant to the Director
National Bureau of Standards

Mr. Coates' steady energy, great loyalty, unparalleled thoroughness and sound judgment have been key factors in an impressive list of legislative successes of high significance to the National Bureau of Standards, the Department of Commerce and the Nation. Some of the legislative items in which Mr. Coates has had the primary responsibility to provide information from the National Bureau of Standards to the Congressional Committee are as follows: Fire Research and Safety Act, 1968; Flammable Fabrics Act Amendments, 1967; Hazardous Products Commission, 1967; Fair Packaging and Labeling Act, 1966; and Highway Safety Act, 1966.

WILLIAM C. CULLEN

Physical Science Administrator
Materials Durability and Analysis
Section, National Bureau of Standards

Mr. Cullen is a dominant national force in the advancement of roofing science and technology. His activities include laboratory research, field studies, publications, and leadership roles in technical societies. He portrays the ideal image of a Federal worker—industrious, knowledgeable, and dedicated. Results of his research provided, for example, methods of evaluating the performance of wind-resistant roofing shingles, now used extensively by the Department of Defense, the Federal Housing Administration, and the building industry. He has provided personal, on-the-scene advice to Federal agencies and to local governmental units, resulting in large financial savings in their construction and maintenance activities. His work reflects credit on the National Bureau of Standards, Department of Commerce, and the entire Federal Service.

JOHN R. CUTHILL

Physicist
National Bureau of Standards

Dr. Cuthill has made distinguished contributions to increased understanding of the electronic structure of metals and alloys, particularly through the design and construction of a vacuum spectrometer for the ultra-soft X-ray region. This instrument, original and sophisticated in concept, has proven to be of considerable scientific and technological value. Dr. Cuthill is frequently consulted on design matters by other workers in the field, some of whom have already adopted important techniques from the NBS spectrometer to their work, and by manufacturers planning the development of commercial instruments.

JAMES R. DeVOE

Supervisory Chemist
National Bureau of Standards

Dr. DeVoe has made outstanding contributions both in radio-chemical science and in science administration. He has combined a productive research career with the organization of two strong research groups of high competence in radiochemistry and activation analysis. Starting as the only radiochemist in the Chemistry Division, he has built, in the space of seven years, two sections totaling 28 employees. His imaginative leadership and original scientific contributions have brought international recognition to these sections and to the Department.

SAMUEL B. GARFINKEL

Physicist
National Bureau of Standards

As leader of β - and γ -ray standards project of the Radio Activity Section since 1958, Mr. Garfinkel has made outstanding contributions in the international field of radioactivity standards, and in the development of such standards for both national and international use, with particular emphasis on those radio-nuclides which decay by the process of orbital-electron capture.

KURT F. J. HEINRICH

Research Chemist
National Bureau of Standards

Mr. Kurt Heinrich is being recognized for his organization of a highly effective program on X-ray spectrometry and for his exceptional research contributions, especially in electron probe micro-analysis. His advice and services have greatly assisted other groups both in NBS and elsewhere in the Government. He has shown inspiring leadership in organizing meetings to evaluate critically the field of microprobe analysis and to instruct others in the new and intricate techniques. These accomplishments have brought the NBS X-ray laboratory to a position of high national and international recognition, and have had a marked impact on NBS missions and on programs outside of the Department.

FRANK L. McCrackin

Physicist
National Bureau of Standards

Dr. McCrackin has outstanding accomplishments in several diverse fields. A major achievement has been his contributions to the establishment of NBS leadership in the measurement technique ellipsometry, which is used to measure optical and physical properties of surfaces and very thin films. He is recognized internationally as an authority in this field; one of his publications is a standard "text", and the computational methods that he has developed and distributed have contributed to the growth of ellipsometry as a measurement tool. In other areas his theoretical work in wave propagation has resulted in new methods for measuring filamentous polymer materials. His theoretical studies of the shape of macromolecules have provided considerable insight into the behavior of such molecules in solution and at interfaces.

HARVEY MARSHAK

Physicist
National Bureau of Standards

Dr. Harvey Marshak has made very substantial contributions to science in the fields of nuclear physics and cryogenics. He has performed a number of important experiments on the fundamental properties of atomic nuclei. The conception, planning and execution of an important joint experiment in which the oscillatory effect of the nuclear deformation in the total neutron cross-section of Holmium-165 was demonstrated, reflect great credit upon the department, NBS and himself.

WILLIAM C. MARTIN, Jr.

Chief, Spectroscopy Section
National Bureau of Standards

The contributions of Dr. Martin to our knowledge of atomic structure through the application of atomic spectroscopy to the study of atoms and ions have been indeed outstanding. His observations and analysis of the very complex spectrum of the rare earth atom, cerium, have given us the first information regarding the electronic structure of the atom. His very precise measurements on helium have yielded a greatly improved value for the Rydberg constant, one of the basic constants of physics. He has also demonstrated outstanding leadership in the Spectroscopy Section, one of the finest of its kind in the world.

HANS J. OSER

Chief, Systems Dynamics Section
National Bureau of Standards

Over a period several years, Dr. Oser has made contributions of unusual value to the Department of Commerce in the fields of science and technology. This has been done by giving highly competent consulting and advisory assistance, direct collaboration with professional colleagues on programs of high scientific merit, and also in meritorious authorship. He has exhibited unusually far-sighted and effective administration in planning programs of his Section and in arranging for full utilization of his staff resources.

JAMES F. SCHOOLEY

Physicist
National Bureau of Standards

Dr. Schooley has performed distinguished research in the field of cryogenics, including: improvement of the "gamma-ray anisotropy" thermometer and its application to thermal conductivity measurement near absolute zero; studies of the characteristics of paramagnetic and semi-conductor thermometers below 1°K; and, especially, the discovery of superconductivity in reduced (semi-conducting) strontium titanate and its exploitation to advance our knowledge of the fundamental physics behind the phenomenon of superconductivity.

WILLIAM R. TILLEY

Information Officer
National Bureau of Standards

Mr. Tilley's dynamic leadership has led to the development of the NBS Office of Technical Information and Publications into a highly effective center known throughout scientific, industrial, and press circles as a primary source of accurate technical information. The success of this information program is shown by the large numbers of articles on NBS accomplishment and services appearing in numerous publications; the large number of requests for NBS publications; the large number of requests for NBS technical exhibits; the constantly increasing number of public inquiries for information concerning NBS and its work; the number of science writers who use the Bureau as a source of material; the rapid growth in the NBS conference program; and the closer ties that now exist between NBS and American science, industry, and commerce.

WILLIAM W. WALTON

Supervisory Chemist
National Bureau of Standards

Dr. Walton exhibited exceptionally high-caliber leadership in the direction of research activities on all types of building materials. Specifically he systematically developed the research programs in his Section by successful recruitment of trained scientists from industry and by reassignment and training of existing staff, resulting in a smooth-working, multi-discipline team. His strong leadership and technical skill resulted in a broad research program producing, for example, new and improved methods of analysis and testing of organic coatings for a two-billion dollar per year industry. Measurement techniques produced under his direction, and the specifications promulgated therefrom, have contributed significantly to the economic growth in the field of construction materials, both to the public and private sectors.

ANDREW W. WEISS

Physicist
National Bureau of Standards

Dr. Andrew W. Weiss has greatly contributed to our knowledge of basic atomic parameters by developing and applying a new theoretical method for the calculation of these. He could prove that many puzzling discrepancies between experiments and earlier theoretical results were due to the then existing theories. By developing and applying his new method of "superposition of configurations," he has succeeded in obtaining complete agreement with all experimental work and he has also been able to calculate many additional important atomic parameters which are urgently needed for space physics, plasma physics and astrophysics.

HAROLD F. WOLLIN

Assistant Chief, Office of Weights
and Measures
National Bureau of Standards

Mr. Wollin has made highly significant contributions to nationwide accuracy and uniformity in commercial weighing and measuring in the United States through technical investigations, innovative design accomplishments, and precise management of the program under which each of the States will provide appropriate laboratory facilities and receive from the National Bureau of Standards new and modern weights and measures reference standards and laboratory instruments.

WILLIAM R. SHIELDS

Supervisory Physicist
National Bureau of Standards

THOMAS J. MURPHY

Research Chemist
National Bureau of Standards

William Shields and Thomas Murphy are being recognized for their single-minded dedication and perseverance over the past decade in building a program in atomic weight measurement which stands today preeminent throughout the entire world in this most fundamental area of chemical measurements. During this time a continual blending of Shields' ingenuity and enthusiasm for instrumental design and performance with Murphy's depth of chemical understanding and careful manipulation has served

to improve these atomic weight measurements by a factor of 10. In 1967 the International Commission on Atomic Weights took the unprecedented step of accepting the NBS values of Shields, Murphy and coworkers as the unique and sole source values for important elements such as copper, chlorine, bromine, chromium, and magnesium. This program has furnished imaginative international leadership in high accuracy measurements in the very finest traditions of the National Bureau of Standards and the Department of Commerce.



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