

the  
Thirty-Third  
Annual  
Honor Awards  
Program



The United States  
Department of  
Commerce  
1981

**October 28, 1981 3:00 p.m.**

**Department of Commerce Auditorium**

Fourteenth Street  
between E Street and  
Constitution Avenue, N.W.  
Washington, D.C.

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Music	United States Navy Ceremonial Band
Introduction	Frank Di Costanzo <i>Director of Personnel</i>
Presentation of Colors	Joint Armed Forces Color Guard
National Anthem	Band
Address	Malcolm Baldrige <i>Secretary of Commerce</i>
Announcement of Awards	Arlene Triplett <i>Assistant Secretary for Administration</i>
Presentation of Silver Medals	Secretary Baldrige <i>Assisted by Departmental Officials</i>
Presentation of Gold Medals	Secretary Baldrige <i>Assisted by Departmental Officials</i>
Closing Remarks	Joseph R. Wright <i>Deputy Secretary</i>

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Gold Medal Award Winners





**Robert E. Joseph**

*Assistant Division Chief*

**Paul R. Friday**

*Computer Systems Analyst*

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*Technical Services Division  
Bureau of the Census*

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Dr. Joseph and Mr. Friday have demonstrated outstanding technical ability and resourcefulness in designing, developing, qualifying, and implementing the FACT 80 hardware/software system (FOSDIC and Automated Camera Technology). Their imaginative and innovative approach to the overall design has created a computer/peripheral network system that is considerably more sophisticated than that of similar systems throughout the world. The performance of this system contributed significantly to the successful and efficient operation of the 1980 Decennial Census data capture system. In postal fees alone, this system saved an estimated \$40 million, or between 4 and 5 times the cost of the entire FACT 80 system. The successful completion of this aspect of the 1980 Decennial Census operation has greatly enhanced the perception of the U.S. Department of Commerce as a leader in the field of data capture throughout the world.



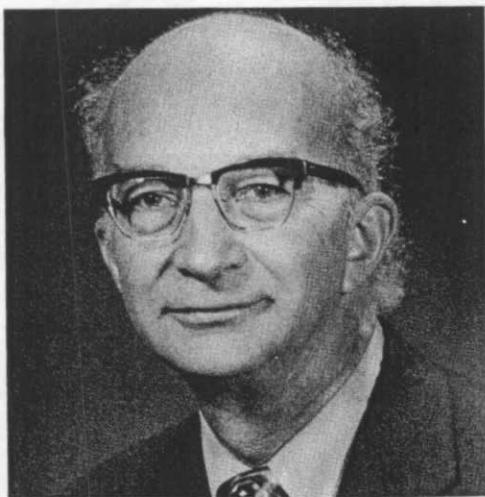
**S. Thomas Romeo**

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*Chief, Division of National Cargo  
Maritime Administration*

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Mr. Romeo is recognized for his continued outstanding accomplishments in advancing and expanding the equitable implementation of the cargo preference-laws of the United States in a manner that has brought great esteem to the U.S. Department of Commerce. The U.S. Merchant Marine has benefited greatly from his efforts in identifying and securing additional sources of cargoes generated by a broad range of Federal Government agency programs. Mr. Romeo has been particularly effective in assisting American businesses in their efforts to understand and comply with U.S. cargo preference statutes and regulations and in assisting foreign government diplomatic personnel with regard to their purchases under the Foreign Military Sales program, the Export-Import Bank program, and the P.L. and AID programs.



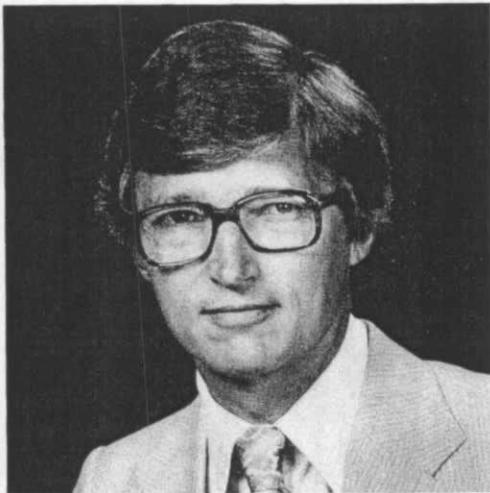
**Burton H. Colvin**

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*Director, Center for Applied Mathematics  
National Bureau of Standards*

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Dr. Colvin is recognized for his consistently outstanding management of the mathematics program at the National Bureau of Standards and he is responsible for directing research in mathematical fields important to physical sciences and engineering, including automatic data processing and operations research, with emphasis on statistical, numerical, and combinatorial analysis and systems dynamics. His vision and foresight in recognizing the potential of applying validated mathematical, statistical, and decision-modeling methods and techniques to the solution of complex interdisciplinary problems in science, engineering, and resource management have brought commendations from his peers in the scientific community as well as from NBS management. Dr. Colvin is well recognized externally as an authority in applied mathematics.



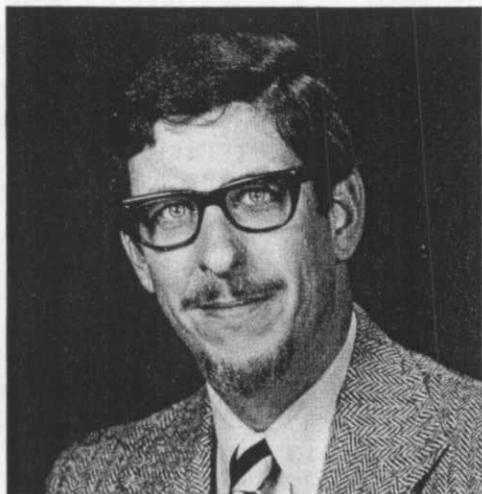
**Robert D. Cutkosky**

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*Physicist  
National Measurement Laboratory  
National Bureau of Standards*

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Mr. Cutkosky is recognized for his distinguished contributions to the Federal Government and to the Nation in providing leadership in research in the fields of electrical and temperature metrology. Mr. Cutkosky has performed measurements of fundamental electrical quantities, the ampere, the farad, and the ohm, employing ingenious techniques and novel instruments to achieve unprecedented accuracy levels. He has developed highly accurate and transportable standards of capacitance, and he has developed precise resistance bridges of especial value to research in the field of precision resistance thermometry. Mr. Cutkosky's work represents the highest level of technical service to the American public. This work has been performed over a long and fruitful period of time, during which many technical publications have been written to explain and amplify the operation of prototype instruments. Through his work, direct assistance has been rendered by Mr. Cutkosky to nearly every major national laboratory and indirect benefits have been felt throughout the electrical and other high-technology instrumentation industries throughout the world.



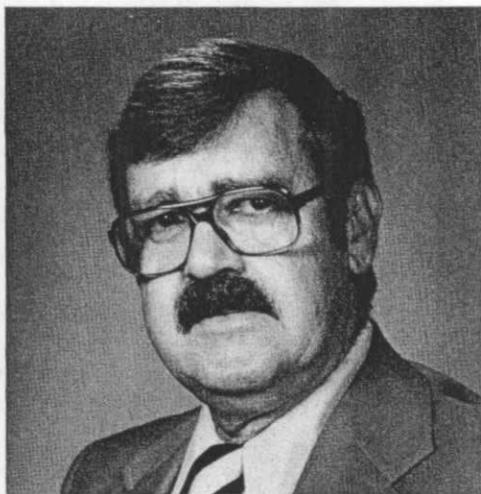
**J. William Gadzuk**

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*Physicist  
National Measurement Laboratory  
National Bureau of Standards*

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Dr. Gadzuk is being recognized for his outstanding research in theoretical surface science. He has made significant contributions to theories of surface properties and of the interaction of radiation with surfaces. Major developments have been made in the understanding of electronic relaxation processes that are important in several widely used surface spectroscopies, of reaction dynamics for molecules interacting with metal surfaces, and of vibrational excitation mechanisms at surfaces. Dr. Gadzuk's scientific work has led to improvements in the quality and utility of surface-characterization measurements through greater understanding of the fundamental atomic and molecular processes involved.



**Ernest E. Hughes**

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*Research Chemist  
National Measurement Laboratory  
National Bureau of Standards*

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Mr. Hughes is recognized for his world leadership in the standardization of gas measurements. These standards have been achieved through innovative approaches to the chemical analysis of gases through the development of a whole generation of gaseous Standard Reference Materials (SRM's). His career contribution of more than 50 scientific publications and more than 80 SRM's directly impact on many of the technical/societal problems of the last half of the 20th century—in environment, climate, industrial health, and safety. Measurement accuracy in these areas is essential to progress and Mr. Hughes, more than any other individual, has built the foundation for accuracy. Mr. Hughes' career achievements are marked by technical excellence, highly effective cooperation with industry and Federal agencies, and dedicated public service in the finest tradition of the National Bureau of Standards.



**Harry H. Ku**

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*Chief, Statistical Engineering Division  
National Bureau of Standards*

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Dr. Ku is recognized for his outstanding contributions in developing and applying statistical methods for maintaining international comparability of precision measurement experiments. He has guided application of the principles of statistical quality control of measurement processes to calibration and measurement assurance programs in support of the nuclear power industry. To enhance NBS services to industry, especially to environmental surveillance and to materials processing, he has introduced improved statistical methods for evaluating and reporting the uncertainty limits for certified values provided with standard reference materials. Dr. Ku's work on methods for expressing the uncertainty of measurement results—ensuring the full communication of the numerical data obtained from experiments and tests—has contributed to international standards and agreements.



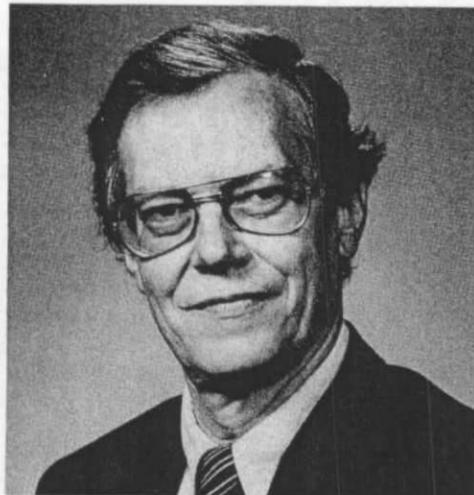
**Theodore E. Madey**

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*Physicist  
National Measurement Laboratory  
National Bureau of Standards*

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Dr. Madey is recognized for his forefront research and scientific leadership in extending the range and quality of surface-characterization methods. His outstanding contributions—displayed in over 95 papers and review articles—have earned him an excellent national and international reputation. Dr. Madey's pioneering work on the electron-stimulated desorption of ions from surfaces has led to more quantitative knowledge of electron-beam-damage processes and rates that are important in several widely used methods for determining the composition and structure of solid surfaces. He has made significant contributions to the development of methods for obtaining bonding geometries of molecules adsorbed on solid surfaces, to the understanding of electron and photon interactions with surfaces, and to investigations of surface processes at a fundamental atomic and molecular level. Furthermore, Dr. Madey has contributed to the development of science and science policy through active participation on many scientific advisory panels and by assuming leadership roles in professional societies.



**William C. Martin**

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*Physicist  
Center for Radiation Research  
National Bureau of Standards*

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Dr. Martin is recognized for his outstanding technical leadership of the NBS spectroscopy group, especially his accomplishment in directing an efficient transformation of this group into fundamentally new research areas to respond to changing needs. By utilizing appropriate outside facilities such as national users facilities, he has imaginatively mastered the difficult task of providing the necessary scientific tools for this research. Important recent results of the work of his group were the observations of spectra from very highly ionized species and the interpretation of strong ultraviolet radiation emitted by several Tokamak fusion machines. Dr. Martin has also exploited new opportunities opened up by laser development and applied these for high precision atomic structure research. This new program has quickly gained international recognition and has had substantial impact upon plasma physics, especially magnetic fusion research.



**John T. Yates, Jr.**

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*Research Chemist  
National Measurement Laboratory  
National Bureau of Standards*

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Dr. Yates is recognized for his outstanding research and leadership in experimental surface science. He has significantly extended knowledge of molecular interactions at surfaces through contributions in novel experiments designed to probe the structure and dynamics of adsorbed molecules on well-defined, single-crystal and other surfaces. These experiments have ranged from studies of Fischer-Tropsch Synthesis using modern methods of surface characterization to infrared absorption studies of molecules chemisorbed on single atoms and clusters of atoms, to high-resolution electron energy-loss measurements of molecules on single-crystal surfaces, and to the use of laser-excited fluorescence for detecting the internal energy distribution of molecules thermally desorbed from surfaces. His creative approach to the use of modern surface techniques is widely recognized by the national and international academic and industrial scientific communities. Dr. Yates has contributed to the development of science and policy through participation in many collaborative research efforts and by serving as an officer for a number of professional societies.



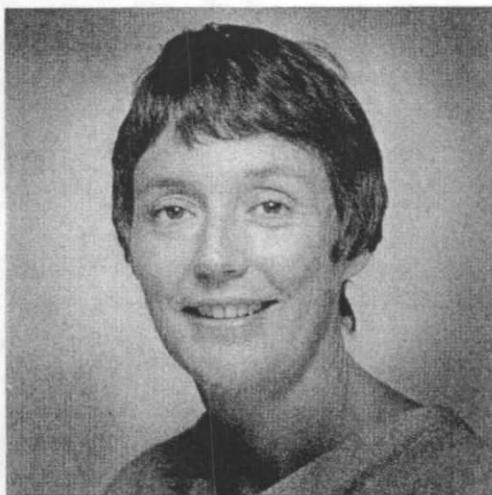
**Donal G. Davis**

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*Meteorologist in Charge  
National Weather Service  
National Oceanic and  
Atmospheric Administration*

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Mr. Davis performed heroic actions involving jeopardy of life and demonstrated unusual competence in an extreme emergency on June 3, 1980, when tornadoes devastated wide areas of Grand Island, Nebraska. As Meteorologist in Charge of the National Weather Service Office (WSO) in Grand Island, he was directly responsible for and personally involved in issuing and disseminating tornado warnings and coordinating with local government safety officials. During the unusually prolonged period of nearly 3 hours that these dangerous storms threatened the citizens of Grand Island, the lives of the WSO staff, including Mr. Davis, were threatened, and, at one time, it was necessary for them to take cover at their work station. Despite continuing danger and the fact that he learned relatively early that his home had sustained tornado damage and his family had sustained some injuries, Mr. Davis continued to discharge his full responsibilities competently and effectively. His actions were acclaimed by his peers and he was given credit for saving many lives.



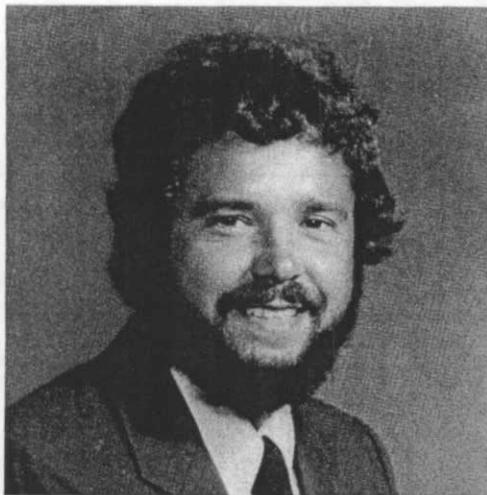
**Diana H. Josephson**

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*Acting Deputy Assistant  
Administrator for Satellites  
National Oceanic and  
Atmospheric Administration*

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Ms. Josephson has made extraordinary contributions to the planning of the U.S. civil operational land remote sensing satellite activities. Ms. Josephson's contributions have included directing the preparation of a national plan for the transition from an experimental land satellite program to an operational service under private sector auspices; developing an effective land remote sensing team within the U.S. Department of Commerce, National Earth Satellite Service; establishing close working relationships with Federal, domestic, and foreign data user groups; developing legislation to implement the administration's operational land remote sensing plans; and establishing an effective dialogue with private sector firms active in satellite remote sensing. These efforts have materially enhanced the prospects for realizing a U.S. civil operational land remote satellite program of benefit to the Nation and the world.



**Geoffrey C. Laurence**

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*Supervisory Fishery Biologist (Research)  
National Marine Fisheries Service  
National Oceanic and  
Atmospheric Administration*

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Dr. Laurence has found some of the missing links of knowledge in the understanding of fish production in the ocean—the survival and growth of larval fishes. His discoveries on the component causes of larval mortality may permit us to control the species and numbers of fishes attaining a catchable size. The implications of such studies for our Nation's multibillion-dollar commercial and recreational fishing industries are obvious. The ability to predict how many of what species of larval fishes will survive and grow to a catchable size will enhance the long-range planning and financial investment by commercial fishermen and fish processors, as well as the accuracy and consistency of decisions by fishery managers.



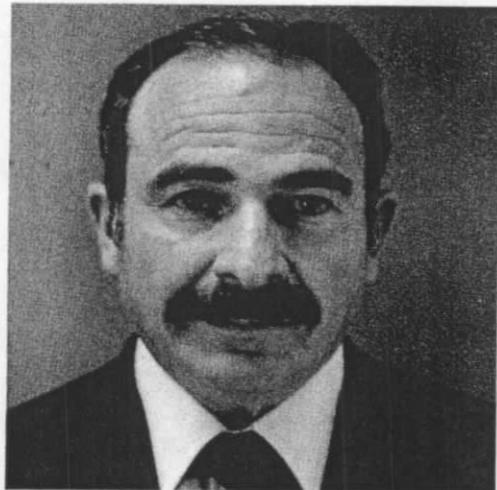
**John B. Pearce**

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*Supervisory Fishery Biologist (Research)  
National Marine Fisheries Service  
National Oceanic and  
Atmospheric Administration*

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Dr. Pearce has planned, implemented, and/or directed two major programs in ocean monitoring—the Ocean Pulse Program for the National Marine Fisheries Service, Northeast Fisheries Center, and the Northeast Monitoring Program for the National Oceanic and Atmospheric Administration. These programs provide the first warning system for detecting major environmental changes on the Northeast's continental shelf. He has directed an effective multidisciplinary research group that has comprehensively documented the ecological conditions of Raritan Bay/Lower New York Harbor, Long Island Sound, New York Bight, and Middle Atlantic Bight. Dr. Pearce has authored or coauthored numerous publications and served as a principal for numerous organizations, meetings, and advisory groups on pollutant impacts on marine ecosystems.



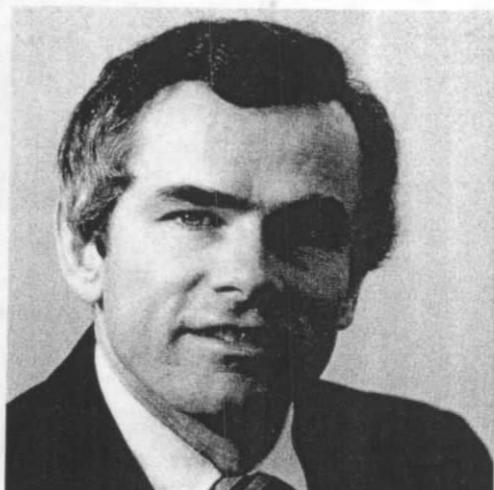
**Joseph Sela**

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*Meteorologist  
National Weather Service  
National Oceanic and  
Atmospheric Administration*

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Dr. Sela has made a major contribution to the operational forecasting capability of the National Meteorological Center by developing the recently implemented global forecast model. His contribution has moved the art of numerical weather prediction forward to a very significant degree and has opened the way for accurate, medium-range weather forecasts in this Nation. Toward that end, his new, global atmospheric model has been chosen as the basic theoretical instrument for a major assault on the problem of 5 to 10-day weather forecasts. Significant economic benefits will result, especially in the areas of water conservation, food and fiber production, and energy distribution and use. Dr. Sela's model also serves as the basis for important aviation wind and temperature forecasts for intercontinental flights. Significant benefits from these forecasts have been realized already through savings of fuel by international air carriers. The impact of the model is felt in a broad spectrum of National Meteorological Center operations through its adoption as well as the predictive component of the operational system for analysis of global data.



**Neal B. Seitz**

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*Supervisory Electronics Engineer  
National Telecommunications and  
Information Administration*

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Mr. Seitz is recognized for his research accomplishments in data communications performance requirements for users of communication systems. He has made significant contributions in this field by developing quantifiable data requirements that relate to the accuracy, efficiency, and reliability with which the transfer of user information takes place in the communications transaction. This new conceptual approach has resulted in parameters that are translatable into communication systems performance criteria. The user community is also able to test and evaluate the services offered or supplied to compare or assure compliance with the above criteria. The resultant standards promote less regulation, enhance competition, and reduce procurement and lease costs. The standards are currently being reviewed and adopted both nationally and internationally and are expected to become permanent. Functional specifications based on this work in international tenders will improve U.S. competition in telecommunications trade and services. Cost savings of \$400 million per year in Federal expenditures are projected.

Silver Medal Award Winners



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**Francis J. Boucher**

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*Program Manager, Foreign Trade Division  
Bureau of the Census*

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An effective and interactive computer system that responds to program goals and immediate analytical needs is vital to the Federal Government's import monitoring programs. Mr. Boucher has demonstrated outstanding leadership in coordinating the efforts of the Foreign Trade Division and other agencies of the Department in developing specifications, benchmarking, and selecting a computer system to meet the needs of textile import monitoring and the foreign trade statistical program. Through his ingenuity and capable management, he has introduced meaningful productivity enhancements to utilize automated data systems and he has established a highly efficient and cooperative environment between analytical and programming personnel of the Division. Mr. Boucher maintains the highest standards of professional excellence and contributes significantly to the Federal Government's statistical programs.

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**Stanley M. Domzalski**

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*Personnel Officer  
Data Preparation Division  
Bureau of the Census*

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Mr. Domzalski has performed meritoriously during the 3-year preparation and processing cycle of the 1980 Decennial Census. He was a prime motivator of the new Office of Personnel Management "on-call" appointment authority, currently being incorporated into the Federal Personnel Manual. His innovative and foresighted approach to personnel management has resulted in increased efficiency, economy, and effective accomplishment of the highly unique personnel function of the Bureau of the Census, Data Preparation Division.

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**Stanley D. Matchett**

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*Assistant Division Chief for  
Decennial Census Operations  
Bureau of the Census*

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Mr. Matchett has demonstrated exceptional management skill, ability, and leadership in directing the data collection phase of the 1980 Census of Population and Housing. His contribution in planning and designing the data collection program provided a census plan which, when implemented, was successful in meeting program requirements and in assuring a thorough and complete enumeration of the country. His management of the enumeration enabled the maintenance of critical program schedules. Mr. Matchett has reflected credit on the Bureau of the Census and the U.S. Department of Commerce by his contribution in the conduct of the 1980 Census, and he has provided a valuable service to the country.

**Alan J. Berlinger**

**Martin J. Brennan**

**Robert F. Clark**

**Timothy R. Swann**

**Robert J. Varson**

**Carl A. Walker**

**Erne E. Wilkins**

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*Technical Services Division  
Bureau of the Census*

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Messrs. Berlinger, Brennan, Clark, Swann, Varson, Walker, and Wilkins have, through diligence, outstanding technical ability, and leadership in a demanding and diversified range of technical and scientific disciplines, successfully designed, and constructed the FACT 80 Decennial Census Data Capture System for the processing of the 1980 Decennial Census. This sophisticated and technically advanced system has proven to be one of the world's most accurate, economical, and effective methods of data capture and, due to the efforts of these individuals, the U.S. Department of Commerce has been established as a world leader in the field of data capture.

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**Paul J. Dempsey**

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*Director  
Office of Special Adjustment Assistance  
Economic Development Administration*

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Mr. Dempsey has managed the Economic Development Administration's Special Adjustment Assistance Program since its inception. His imaginative leadership, commitment to excellence, knowledge and skill in the field of economic development, and capacity as a program manager have been responsible for the development of the program into one of EDA's most successful and widely praised tools. Representative of the many communities that have benefited from his stewardship of the program are the 18 Midwestern cities suffering major dislocations as a result of declining automobile production. EDA is assisting them under the Auto Community Adjustment Program. The plan for this major Federal initiative was prepared by Mr. Dempsey and is being carried out successfully under his management.

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**Wanda L. Ale**

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*Deputy Director, U.S. Commercial Service  
International Trade Administration*

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Mrs. Ale is recognized for exceptional service in planning and administering Commerce Department export promotion programs. During her tenure with the Trade Missions Division of the Office of Export Promotion, events promoted by the division directly served about 4,000 businesspersons and generated over \$150 billion in U.S. exports. Mrs. Ale received widespread commendation for her contributions to that success. Since 1979, Mrs. Ale has served as Deputy Director of the U.S. Commercial Service. During reorganization, she oversaw the establishment of 4 new District Offices and the staffing of 35 new field positions. As a result of her leadership, the operations of UCSC have greatly improved, substantially benefiting the national economy.

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**Miles J. Sullivan**

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*Deputy Director  
Office of Portfolio Administration  
Economic Development Administration*

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Mr. Sullivan is recognized for the outstanding leadership he has provided in administering Department programs that come under his direction. By reason of the policies and procedures he has evolved and followed, he has saved the Government substantial sums of money in loan liquidations and reorganizations. Mr. Sullivan's good judgment and hard bargaining in financial workouts have resulted in more stable borrowers acquiring and operating liquidated projects and in greatly increased realization to the Government on liquidated assets. In his disposition of loan collateral, Mr. Sullivan has given due regard to the EDA objectives of creating or maintaining employment opportunities.

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**Rainer Heumann**

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*Foreign Commercial Service (Germany)  
International Trade Administration*

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Mr. Heumann is recognized for his distinguished performance, initiative, and enthusiasm in promoting the U.S. textile and apparel industries in Germany. He has developed hundreds of beneficial contacts in the German carpet and apparel industries and substantially increased the confidence felt by German businesspersons toward U.S. manufacturers. He founded the German-American Friendship Council for the Fashion Industry in February 1981, which led to the opening of a counterpart branch of the Friendship Council in Los Angeles in October 1981.

**Allen J. Lenz**

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*Director,  
Office of East-West Policy and Planning  
International Trade Administration*

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Mr. Lenz is recognized for outstanding achievements in the field of East-West trade. His contributions to the body of research on East-West trade in its many aspects, leadership in the formation of trade policy, dynamic administration of projects and programs within the U.S. Department of Commerce, and success in achieving the more active involvement of the business and academic communities in the analysis of East-West trade have had a significant and lasting impact on the programs of the U.S. Government.

**Ronald I. Levin**

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*Director, International Agreements  
& Monitoring Division  
International Trade Administration*

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Mr. Levin is recognized for his outstanding management of a complex array of bilateral textile agreements between the United States and 24 foreign nations. His creative leadership in developing and implementing effective management systems to monitor imports, develop negotiating positions, and guide interagency staff consultations on United States textile policy has reflected credit on the International Trade Administration and the U.S. Department of Commerce.

**James A. Moorhouse**

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*Deputy Director  
Office of Country Marketing  
International Trade Administration*

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Mr. Moorhouse has demonstrated leadership in developing and streamlining the country marketing function of the Department. In a period in which the U.S. trade position abroad has assumed a greater economic impact at home than ever before, he has taken steps to strengthen dramatically the depth of country expertise in the Department and the country experts' ability to respond quickly to time-critical issues and problems. Mr. Moorhouse has also contributed heavily in developing an administrative structure for the Foreign Commercial Service, providing it with solid underpinnings for its activities for the years to come.

**Heskel Yehuda**

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*Foreign Commercial Service (Israel)  
International Trade Administration*

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Mr. Yehuda is recognized for his exceptional service in expanding U.S.-Israel commercial relations. He has consistently displayed mature judgment, imagination, initiative, excellent managerial ability, and a willingness to assume responsibility. Mr. Yehuda's hard work and experience resulted in personnel and financial savings on Commerce's participation in Technology '81, since total responsibility was given to Embassy Tel Aviv. His knowledge of the Israeli industrial sector proved invaluable in staging the highly successful U.S. Investment Mission, a first for Israel. Demonstrating his initiative, he recommended Commerce's textile in-store promotion program promoting American products in one of Israel's leading department stores.

**Chong Nim Hong****Keun Duk Lee****Il Lan Kim****Paing Sup Kim****Young Hie Kim**

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*Foreign Commercial Service (Korea)  
International Trade Administration*

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The Foreign Service National professional commercial employees in the Foreign Commercial Service, Seoul, Korea are recognized for outstanding performance and dedication to the advancement of U.S. commercial interests in Korea. This highly competent group of individuals performed superior work in providing guidance and counsel to U.S. companies bidding on major projects valued at billions of dollars, developed high quality reports which far exceeded the usual requirements, and demonstrated unexcelled skill and promotional abilities in managing the U.S. Trade Center and trade promotion events.

**Francis X. Critelli**

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*General Engineer  
Office of Advanced Ship Development  
Maritime Administration*

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Mr. Critelli is recognized for his outstanding performance since 1972 in planning, formulating, developing, and executing an innovative and effective ship's machinery research and development program. This program has supported strategic objectives and commercial interests of the United States by improving the efficiency, productivity, and effectiveness of the U.S. Merchant Marine. His efforts, characterized by high energy and personal initiative, skill and perseverance, have given the Maritime Administration's Ship's Machinery and Outfitting Program high credibility throughout the industry, both in the United States and abroad, and have brought about increased interest and participation by the private sector as well as substantial benefits to the Government and the industry.

**Nan Harllee**

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*Chief, Division of Marine Plans  
Maritime Administration*

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Ms. Harllee is recognized for exceptionally competent performance of studies and analyses supporting formulation of national maritime policy. Her leadership, effectiveness, and professionalism have been instrumental in providing the foundation for policy initiatives that will have a lasting and beneficial effect on the maritime industry.

**Earnest Hawkins**

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*Deputy Assistant Administrator  
for Policy & Administration  
Maritime Administration*

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Mr. Hawkins is recognized for his outstanding administrative work in the Maritime Administration and the Department, and particularly for his contributions to MarAd ADP Management and Equal Employment Opportunity improvement. Through his astute management, MarAd ADP economy and effectiveness have been significantly increased; through his ingenuity and persuasiveness, equal employment opportunity in MarAd has been appreciably enhanced; and through his perceptiveness and hard work, MarAd administration has been progressively strengthened.

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**Paul L. Krinsky**

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*Captain, Assistant Superintendent  
for Academic Affairs  
U.S. Merchant Marine Academy  
Maritime Administration*

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Captain Krinsky is recognized for outstanding initiative, technical expertise, and managerial skill in improving the academic curriculum, faculty qualifications and capabilities, and instructional processes of the U.S. Merchant Marine Academy. This was accomplished in an effort to ensure the Maritime Administration's mission of providing well trained and efficient merchant marine officers to staff U.S.-flag merchant marine vessels and to become leaders in the United States maritime industry.

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**Barry A. Bell**

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*Supervisory Electronics Engineer  
National Engineering Laboratory  
National Bureau of Standards*

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Mr. Bell is recognized for outstanding leadership of the Electronic Instrumentation and Metrology Group and his role in developing the technical basis of a metrology program in support of modern electronic measuring systems. His direction of the National Bureau of Standards' work on high precision digital data converters resulted in important advances in the characterization of such digital-to-analog and analog-to-digital devices and culminated in the establishment in 1981 of an NBS calibration service for these devices, which will represent an estimated annual market of \$380 million in 1984. Mr. Bell also directed the development of a fully automatic fundamental a.c. voltage calibration system, which will benefit every U.S. calibration activity needing improved a.c. accuracy, as well as the development of a fundamental a.c. phase standard.

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**David A. Didion**

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*Supervisory Mechanical Engineer  
National Engineering Laboratory  
National Bureau of Standards*

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Dr. Didion is recognized for his outstanding leadership and significant technical contributions to a major problem of national scope, that of developing testing and evaluation procedures for determining the seasonal performance of residential central heating and cooling equipment. These procedures are now part of the joint U.S. Department of Energy/Federal Trade Commission mandatory efficiency labeling requirements for testing and rating the equipment. These evaluation procedures are being used to establish the annual operating costs to be placed on a label for each specific unit to encourage the manufacturers to develop equipment with improved seasonal efficiency. This should contribute significantly toward eliminating energy waste resulting from speculative, minimum first-cost equipment.

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**David E. Edgerly**

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*Chief, Office of Domestic and  
International Measurement Standards  
National Bureau of Standards*

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Mr. Edgerly is recognized for his exceptional contribution in implementing U.S. participation in the International Organization for Legal Metrology—a treaty organization devoted to harmonizing laws and regulations governing measurement practices throughout the world. Through Mr. Edgerly's leadership, the United States Advisory Committee on Legal Metrology has functioned since 1974 to establish formal positions on technical and policy issues relating to U.S. participation in the Organization. This effective partnership involving Federal agencies, State Government agencies, and the private sector has worked well and supports important aspects of U.S. commitments to the General Agreement on Tariffs and Trade, which were implemented by the Trade Agreements Act of 1979.

## **Elmer H. Eisenhower, Jr.**

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*Physicist (General)  
National Measurement Laboratory  
National Bureau of Standards*

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Mr. Eisenhower is being recognized for his very effective leadership of a program to promote the dissemination to the Federal, State, and private sectors of the measurement standards and technology required for reliable measurements of all types of ionizing radiation that may be biologically hazardous. Some significant accomplishments include the publication of an extensive study of the accuracy requirements for ionizing radiation measurements, a review of commercial calibration services, the development of a pilot State regional calibration laboratory, and the organization of a successful national-level seminar on the basic concepts of measurement traceability and its achievement for ionizing radiation measurements.

## **Jon C. Geist**

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*Physicist  
National Measurement Laboratory  
National Bureau of Standards*

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Mr. Geist is responsible for having established and developed a broad, new program of basic radiometric research at the National Bureau of Standards that is responsive to the Nation's measurement needs in the area of absolute detectors. He has recently devised an ingenious method called self-calibration, to calibrate silicon photodiode detectors without any reference to NBS standards. Using this method, workers in the field can now calibrate their own instruments without appealing to NBS. This development has freed some NBS resources to be reprogrammed into other promising areas, such as quantum radiometry and pulsed radiometry, and has contributed significantly to the basic calibrations policy of trying to move some calibrations activity out of NBS by creating new techniques that can help make the measurement community self-sufficient.

## **Jesse Hord**

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*Director  
Center for Chemical Engineering  
National Bureau of Standards*

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Mr. Hord is cited for his outstanding technical ability in the field of cryogenic engineering and for his exceptional leadership which led to the establishment of the Center for Chemical Engineering at NBS. For his work in resolving NASA's cavitation problems in pumps for large spacecraft, he received NASA's Certificate of Recognition in 1973 and again in 1976. He is a world authority on hydrogen safety, having promulgated safety procedures and practices now in use throughout the world. The fact that no major life-threatening situation related to hydrogen use has occurred in the world is due largely to his safety guidelines. In addition to his unique scientific capability he is an exceptional leader. Under his direction, a National Academy of Sciences' Panel assessed NBS's energy work, resulting in the establishment of a Center for Chemical Engineering at NBS, of which Mr. Hord was named the first Director.

## **Dale E. Newbury**

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*Research Metallurgist  
National Measurement Laboratory  
National Bureau of Standards*

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Dr. Newbury is recognized for his outstanding research in quantitative microanalytical chemistry and its application to studies in materials science. Through his innovative personal research and his scientific management, he has been instrumental in developing quantitative electron-probe microanalysis and using that technique to demonstrate chemical composition mapping of microscopic areas. Dr. Newbury has extended the measurement capabilities of electron-probe microanalysis to rough surfaces and irregularly shaped particles and has utilized this technique to identify particle types and determine complete chemical composition.

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**Neil A. Olien**

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*Supervisory Physicist  
Center for Chemical Engineering  
National Bureau of Standards*

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Dr. Olien is cited for his outstanding leadership in developing and guiding an internationally recognized program to provide reliable thermophysical properties measurements and data for pure fluids and fluid mixtures of industrial importance. In an era of changing technology and faltering productivity, these data are of vital importance to U.S. industry, Government, and the associated academic community, particularly in enabling the chemical process industry to increase its productivity and world competitiveness.

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**Anton Peterlin**

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*Assistant Chief  
National Measurement Laboratory  
National Bureau of Standards*

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Dr. Peterlin is recognized for his research in the Polymer Science and Standards Division concerned with the mechanical, diffusional, and other physical properties of polymers. He has brought together innovative experiments, techniques, sophisticated theory, and elaborate computations to address important scientific questions limiting our understanding of these properties and the underlying molecular processes. He has developed new methods and concepts that have achieved widespread recognition and use. Dr. Peterlin has frequently been invited to lecture and preside at domestic and international scientific meetings and is recognized as a distinguished man of science.

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**Edward O. Pfrang**

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*Chief, Structures and Materials Division  
National Bureau of Standards*

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Dr. Pfrang is recognized for his outstanding managerial and technical leadership, which has contributed so significantly to strengthening the effectiveness of building technology throughout the United States. He provided the management that in 1971 issued the Nation's first comprehensive performance criteria for factory-built housing and subsequently led to improvements in structural, energy, fire, and plumbing standards that facilitated the implementation of improved technology. Dr. Pfrang formulated a program of research in construction safety that is providing the Occupational Safety and Health Administration with sound technical bases for improved standards leading to greater safety during construction. The effectiveness of his research was recognized in 1979 when the American Concrete Institute awarded its Whitney Medal to NBS.

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**E. Clayton Teague**

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*Group Leader,  
Surface Characterization Group  
National Bureau of Standards*

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Dr. Teague is cited for his outstanding technical accomplishments and leadership in measurement of surface texture. His work has greatly enhanced the precision and reliability of surface texture characterization in manufacturing industries. His contributions include improved surface finish calibration procedures, conceptual developments in surface metrology, a new type of artifact standard, leadership in development of the new documentary standard, meritorious authorship, and leadership in the surface-texture community. In addition to the recognition he has received within NBS, in 1978, Dr. Teague was also a winner of the prestigious I-R 100 award given by Industrial Research Development Magazine for one of the most significant new technological products of the year.

## **Peter V. Tryon**

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*Mathematical Statistician  
National Engineering Laboratory  
National Bureau of Standards*

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Dr. Tryon is recognized for his outstanding contributions to the scientific excellence of National Bureau of Standards' programs through his own technical expertise and his effective leadership of the statistics group in Boulder. His work, skillful leadership, and outstanding planning in developing and implementing statistical computing support have brought prompt and successful applications of statistical methods to analysis and solution of problems of national and international significance. One recent example is provided by Dr. Tryon's work with the Time and Frequency Division, which uncovered weak annual variation of Loran-C propagation (used to compare clocks of the International Atomic Time Scale)—a major contribution to the scientific basis for ensuring uniform time measurements.

## **Howard R. Baum**

### **Ronald G. Rehm**

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*National Engineering Laboratory  
National Bureau of Standards*

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Dr. Baum and Dr. Rehm have conducted an outstandingly successful collaborative effort for developing a mathematical model for analyzing the behavior of hot gases in a room fire. As a consequence of their innovative application and combination of powerful techniques from mathematical physics, numerical analysis, and computer graphics, their model has made major contributions to increasing our knowledge of the fundamental physical processes that occur in a room fire. The room fire model serves as a vital component, essential to the mission of the National Bureau of Standards in reducing the annual injury and property losses associated with commercial and residential fires throughout the Nation.

## **Christian Andreasen**

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*Commander, NOAA Corps  
National Oceanic and Atmospheric  
Administration*

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Over the past 3 years, Commander Andreasen has directed staff efforts in Labor Relations and Program Development for the Associate Director, Office of Marine Operations. He has demonstrated exceptional leadership and has made valuable contributions in both areas. As management's chief representative and lead negotiator for the U.S. Department of Commerce in the National Oceanic and Atmospheric Administration's maritime labor contract negotiations, Commander Andreasen persistently defended and won numerous cost-related issues relative to wage marine pay adjustments, resulting in significant cost savings to the taxpayer.

## **Gilbert B. Clark**

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*Meteorologist  
National Hurricane Center  
National Oceanic and Atmospheric  
Administration*

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Mr. Clark is credited with saving hundreds of lives during the Cuban boat lift. On April 27, 1980, he recognized that a dangerous squall line would be moving into an area containing hundreds of small boats overloaded with Cuban refugees. Anticipating the limited distribution any warning would receive, he sought help from local, Spanish-speaking radio stations and succeeded in establishing short wave radio contact with Mariel Bay, Cuba. Even though he lacked the authority, he ordered the harbor master at Mariel Bay to close the port and recall boats that had already departed. The Cuban authorities complied. A few small boats that didn't receive the warning were swamped, and several people drowned. However, because of Mr. Clark's actions a major marine disaster was averted.

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**Donald E. Colton**

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*Procedure Development Hydrologist  
National Weather Service  
National Oceanic and Atmospheric  
Administration*

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Dr. Colton has made pioneering contributions to the science of hydrometeorological forecasting by developing a hydrologic software system for implementation on a small, inexpensive microcomputer. This software system consists of a complex hydrologic model, automatic rainfall data acquisition and analysis functions, a quantitative precipitation forecasting module, and various summary outputs on stream-flow status and flash-flood potential. By ingeniously using a mixture of higher and lower level computer languages and applying his indepth knowledge of hydrologic procedures, Dr. Colton was able to implement this forecasting system on a class of microcomputers which currently can be purchased for less than \$4,000 dollars each. This original work has great national and international significance, since many local communities can now make use of this affordable flash-flood warning system.

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**Andrew E. Dizon**

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*Fishery Biologist (Research)  
National Marine Fisheries Service  
National Oceanic and Atmospheric  
Administration*

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A pioneer researcher in the advancing field of tuna physiology, Dr. Dizon has contributed significantly to the basic knowledge of tuna behavior, and he has provided a better understanding of the distribution and ecology of this commercially valuable resource. His innovative and creative research in such areas as bio-energetics, thermal biology, hydrodynamics, navigating ability, sensory physiology, and tuna physiology as it relates to open-sea distribution and navigational orientation has produced the basic and essential knowledge for the formulation of realistic strategies to manage tuna stocks worldwide.

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**David Halpern**

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*Oceanographer  
Pacific Marine Environmental Laboratory  
National Oceanic and Atmospheric  
Administration*

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Dr. Halpern has made major advances in developing accurate, long-term measurements of oceanic parameters in the deep sea. He has applied the scientific instrumentation to the study of coastal, mixed layer, and equatorial current dynamics in a number of national and international oceanographic programs, making significant contributions in the process. He has also made major contributions to the planning, field, and managerial components of National Oceanic and Atmospheric Administration's Equatorial Pacific Ocean Climate Study, the success of which is attributable in considerable degree to Dr. Halpern's expertise and dedication. His scientific results are generally viewed as highly authoritative, and he is regarded as one of the Nation's foremost experts in deepwater measurements from moored instruments.

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**Billy M. Lewis \***

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*\* Awarded posthumously  
Meteorologist  
Environmental Research Laboratories  
National Oceanic and Atmospheric  
Administration*

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Dr. Lewis developed and implemented, during the last 5 years, a unique hurricane data collection program that is having a strong positive effect on hurricane research. He initiated a program of intercepting landfalling hurricanes and recording on magnetic tape the radar returns from the nearest Weather Search Radar site. His efforts have resulted in the first recorded quantitative rainfall measurements of a landfalling hurricane. The study of how precipitation rates vary by quadrants, in time, and from storm to storm has opened a new area of investigation into these destructive storms. Dr. Lewis' successful interception of six storms represents a significant contribution in itself and has given birth to an ongoing program of data acquisition. His research has been pivotal in advancing the understanding of hurricane rainfall characteristics.

## **Alexander Malahoff**

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*Chief Scientist  
National Ocean Survey  
National Oceanic and Atmospheric  
Administration*

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Dr. Malahoff is recognized for his distinguished national service in providing the initial concept of using multibeam sonar systems aboard the National Oceanic and Atmospheric Administration ships and for his leadership in planning, developing, testing, and operating the SEABEAM swath mapping sonar system, which represents a major technological advance in the ability to acquire detailed accurate seafloor bathymetry at approximately one-tenth the cost of using previous systems. The SEABEAM system is the first operational civilian real-time shipboard multibeam system in the United States. Through his foresight, innovative leadership, perseverance, and personal dedication, Dr. Malahoff has accomplished a difficult project of national and international significance.

## **Richard F. Myers**

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*Director, National Weather Service  
Training Center  
National Oceanic and Atmospheric  
Administration*

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This award recognizes Dr. Myers for developing and advancing technical training in the National Weather Service. Through personal leadership and application of sound managerial and educational principles at the National Weather Service Training Center, he has contributed to the success of field operations. His exemplary leadership has provided a most vital and far-reaching contribution to operational technology and structural alignment of the agency work force. Under Dr. Myers' enlightened leadership, the NWS Training Center has become a learning facility of the highest quality, with courses credited at the college level by the American Council on Education.

## **Howard M. Sparks**

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*Computer Specialist  
National Earth Satellite Service  
National Oceanic and Atmospheric  
Administration*

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Through his outstanding technical competence, leadership, and innovation in the application of real-time minicomputer techniques, Mr. Sparks has made major operational contributions in automating the Satellite Operations Control Center of the National Oceanic and Atmospheric Administration, National Earth Satellite Service. The hardware and software improvements that he instituted have significantly improved the Center's ability to command, control, and monitor the Nation's civil operational environmental satellites for which the National Oceanic and Atmospheric Administration is responsible.

## **Donnie M. Spillman**

**Gary L. Johnson**

**Douglas A. Friske**

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*Tidal Requirements and Acquisition Branch  
National Oceanic and Atmospheric  
Administration*

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Significant improvements in the operation and maintenance of the National Tide and Water Level Observation Network have been achieved as a result of the determination, engineering skill, management ability, and leadership of Lt. Cmdr. Donnie M. Spillman, Lt. Gary L. Johnson, and Mr. Douglas A. Friske. As key members of a team selected by the National Ocean Survey to upgrade the network, these individuals provided the planning innovation, initiative, and program implementation that achieved dramatic improvements in the tidal data quality and reliability of the field instrumentation. The timely success of this upgrade program has enabled the National Ocean Survey to effectively meet its mandated obligations without significant cost increases and loss of productivity.

**Paul E. Long, Jr.**  
**Wilson A. Shaffer**  
**James E. Kemper**

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*Meteorologists*  
*National Weather Service*  
*National Oceanic and Atmospheric*  
*Administration*

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Working in close collaboration, Dr. Long, Dr. Shaffer, and Mr. Kemper, designed, developed and implemented a mathematical forecast model of the lower atmosphere. Because of its sophisticated formulation, the model is unique among operational models in its ability to forecast the all important, small-scale atmospheric structure near the earth's surface, and it has been well received by both the research and operational sectors of the meteorological community. Although developed for the specific purpose of improving forecasts of severe storms, the model has also proven useful in forecasting other meteorological and artificial phenomena in the lower atmosphere, such as hazardous air pollution episodes and the release of radioactive material during the Three-Mile Island emergency.

**David B. Enabnit**  
**Gary C. Guenther**

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*Office of Ocean Technology and*  
*Engineering Services*  
*National Oceanic and Atmospheric*  
*Administration*

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The accomplishment of Messrs. Enabnit and Guenther have been significant to the development of Airborne Laser Hydrography. Mr. Enabnit has guided a substantial effort in developing an Airborne Laser Hydrographic System to meet the stringent accuracy and precision requirements of the National Ocean Survey. Mr. Enabnit's management of the program has brought the National Oceanic and Atmospheric Administration to the forefront of laser hydrography technology. Mr. Guenther has successfully conducted scientific research into the fundamental physical aspects of pulsed laser propagation in water. This research, directly applicable to determining accuracy and precision of laser depth sounding systems, has significantly reduced the technical uncertainties associated with developing airborne laser hydrography systems.

**John K. Callahan, Jr., Cdr.**  
**Richard P. Floyd, Lt. Cdr.**  
**David L. Brannon**  
**Gordon R. Pringle**

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*Atlantic Marine Center*  
*National Oceanic and Atmospheric*  
*Administration*

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In recognition of unusual competence in an emergency, Cmdr. Callahan, Lt. Comdr. Floyd, Chief Boatswain Brannon, and Seaman Surveyor Pringle responded in an exemplary manner to effect the rapid rescue of a passenger who fell overboard from a sightseeing vessel in New York Harbor. The excellent judgment and superb seamanship demonstrated by the rescuers are in the very highest tradition of the National Ocean Survey.

**Joseph F. Caponio**

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*Deputy Director*  
*National Technical Information Service*

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Dr. Caponio is cited for his creative efforts, which enabled the National Technical Information Service to reduce its overall operating costs and work force levels and to achieve increased levels of productivity. Through a special assignment, he provided the leadership necessary for the agency to accomplish the above task in addition to bringing its computer facility from a batch-processing mode to one that is online, directing the operation of a central index of ongoing federally funded research projects, and planning for a superior order fulfillment system using a highly advanced telecommunications system. During the past year, Dr. Caponio has also made a significant contribution in guiding the development of a global network for providing access to scientific and technical information on marine and freshwater resources.

## **Trygve M. Blix**

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*Supervisory Patent Examiner  
Patent and Trademark Office*

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Mr. Blix, through his excellence as an Examiner and his outstanding leadership ability, has singularly had a significant effect on the high quality of work performed with regard to the aeronautics, ship, and marine equipment art. He has distinguished himself as a Supervisory Patent Examiner, and during his tenure in the PTO, he has performed a variety of other assignments with the same degree of excellence. Through Mr. Blix's efforts, greater contribution to the programs of the Patent and Trademark Office have been made by other employees.

## **Ruth W. Lyles**

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*Supervisory Application Clerk  
Patent and Trademark Office*

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Mrs. Lyles has made a very valuable contribution to the U.S. Department of Commerce and to the administration of the Patent and Trademark Office programs through her outstanding skills and ability, demonstrated while she was the Supervisory Application Clerk in the electrical and chemical groups. Under Mrs. Lyles' direction, influence, and inspiration, significant program advancements were made in the clerical processing of patent applications, resulting in increased service to the public.

## **Aaron W. Deitch**

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*Personnel Officer  
Office of Personnel  
Patent and Trademark Office*

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This award is granted to Mr. Deitch in recognition of consistently superior performance, which has generated very valuable advances in the efficiency and responsiveness of bureau personnel management programs. He has made substantial contributions to promote responsive and efficient personnel management services to the Patent and Trademark Office through his outstanding technical expertise, extraordinary creativity, and superior managerial ability. Mr. Deitch has successfully introduced major new programs, consistently resolved complex problems by innovative solutions, and enhanced the quality of personnel management in the U.S. Department of Commerce.

## **Mabel S. Merchant**

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*Trademark Attorney  
Trademark Examining Division II  
Patent and Trademark Office*

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Mrs. Merchant has exhibited an exceptionally high level of ability and accomplishment as a trademark attorney/examiner. She is recognized as the top authority in the U.S. Patent and Trademark Office on trademarks relating to cosmetics and toilet preparations, detergent, soaps, abrasives, and polishing materials. She is known for her exceptional ability to teach new attorney/examiners how to perform their jobs. The quality and quantity of her own examining work is outstanding. She has displayed an unusual willingness to take over the examination of applications examined initially by other examiners. She has advanced the PTO's program for registering trademarks to protect business investments and prevent deception of consumers.

## **Paul R. Michl**

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*Primary Examiner  
Patent and Trademark Office*

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Mr. Michl has performed his official duties in an extraordinary manner since 1973, rating an "outstanding" each year. His productivity during this period ranged from 147 percent of expectancy in fiscal 1973 to 172 percent in 1980, during which time he has consistently produced work of the highest quality. This outstanding record was achieved notwithstanding the fact that he has been given many of the most difficult cases in the Unit. Mr. Michl's skills and abilities in the performance of his duties have significantly contributed to the Patent and Trademark Office program, reducing pendency and having a significant effect on the science and technology of the Nation.

## **Doreane I. Poteat**

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*Supervisory Trademark Specialist  
U.S. Patent and Trademark Office*

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Ms. Poteat is recognized for outstanding performance in a wide range of assigned duties in the Trademark Operation of the Patent and Trademark Office and, in particular, for her leadership and accomplishment as Director of the Trademark Services Division. Her untiring efforts and demonstrated skill in managing the Trademark Services Division has resulted in the significant advancement of a major Patent and Trademark Office program—the clerical processing of trademark applications.

## **Peter D. Rosenberg**

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*Primary Examiner  
Patent and Trademark Office*

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This Silver Medal is awarded to Mr. Rosenberg for meritorious authorship of his book, *Patent Law Fundamentals*. After having been in print for 5 years, this work is now commonly referred to in the patent field as "Rosenberg on Patents." This one-volume book comprises a comprehensive, well-documented text on U.S. patent law and practice. Its easy readability and understandability have made the book unusually valuable as a text and guide for the qualified practitioner, the would-be inventor, the businessperson, and the academic community. *Patent Law Fundamentals* has also been cited as an authority in various court decisions.