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# NEW DIRECTIONS IN COMMERCE

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THE  
ANNUAL REPORT  
OF THE SECRETARY OF  
COMMERCE

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# NEW DIRECTIONS IN COMMERCE

## THE ANNUAL REPORT OF THE SECRETARY OF COMMERCE

*For the Fiscal Year Ended September 30, 1977*

U.S. DEPARTMENT OF COMMERCE  
Juanita M. Kreps, Secretary  
Sidney Harman, Under Secretary



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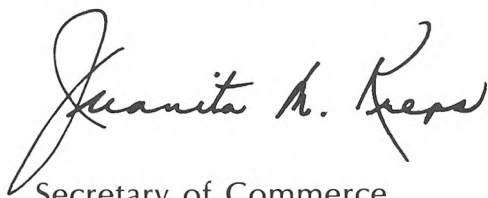
# FOREWORD

The Department of Commerce does many different things and provides many different services. It is responsible for a multitude of programs. At a glance its numerous activities appear unrelated. And yet a common purpose runs through each of them: development . . . development of business and industry, of cities and towns, of the regions of our country, of the oceans bordering our Nation.

The Department combines the diverse resources needed to further development. It collects, analyzes, and delivers information required by private and public decisionmakers. It fosters the application of science and technology. It expands domestic economic opportunity by linking industry at home to the world at large. It stimulates development directly, through financial and technical assistance.

Although its responsibilities extend to the entire economy, the Department directs much of its attention to problems below those of national scale. Even when the country as a whole is healthy, there are often individual communities, regions, or industries in need of help. Correcting their special difficulties calls for more than general measures, seeking nationwide remedies. It requires carefully tailored assistance, local government participation, broad community and industry involvement, and private initiative. It also requires direct attack on the specific impediments which stand in the way of better lives, improved surroundings, and revitalized industries.

Meeting these requirements, in collaboration with local governments and the private sector, is the work of the Department of Commerce. Successful development, industrial growth, and a better quality of life can be the result; in the end that is what the Department is striving to achieve.

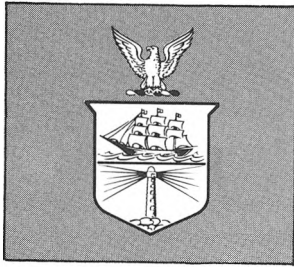
A handwritten signature in dark ink, reading "Juanita M. Kees". The signature is fluid and cursive, with the first name "Juanita" being the most prominent part.

Secretary of Commerce

# CONTENTS

Foreword .....	iii
Chapter I The Department Overall.....	2
Chapter II Economic Affairs .....	10
Chapter III Science and Technology .....	16
Chapter IV Fire Prevention and Control .....	26
Chapter V Oceanic and Atmospheric Activities .....	28
Chapter VI Domestic and International Business .....	40
Chapter VII Tourism .....	50
Chapter VIII Maritime Affairs .....	54
Chapter IX Economic Development .....	58
Chapter X Regional Action Planning .....	66
Chapter XI Minority Business Enterprise .....	70
Chapter XII General Administration .....	74
Tables .....	80





# Chapter I

## THE DEPARTMENT OVERALL

### MISSION AND PROGRAMS

The Department of Commerce was organized in 1903 to “foster, promote and develop the foreign and domestic commerce” of the United States. As a result of legislative and administrative action, this historic mission has evolved over the years to keep pace with our modern society. It now encompasses broad responsibilities for economic development and technological advancement, not just in terms of the efficient provision of goods and services but also in a manner consistent with fundamental human needs and the wise use of natural resources.

The Department discharges these broad responsibilities through a wide variety of programs.

- It takes the Nation's census, determines its gross national product, and otherwise provides the social, economic, business, and technical information basic to a modern, economically developed society.
- It operates America's patent system and helps write technical and industrial standards. It conducts research, disseminates technical information, and in general works to accelerate technological development and application.
- The Department fosters a progressive business environment, one that is not only conducive to productive operations but sensitive to basic human needs and concerns. It also works to strengthen particular sectors of the economy, including the export sector and the maritime, telecommunications, and tourism industries.
- Assisting communities and individuals towards economic progress is another vital function of the Department. Special emphasis is placed upon aid to economically lagging communities and areas and also on the provision of technical and other assistance to minority-owned businesses.
- The Department monitors, manages, and protects major parts of the natural environment, particularly the oceans and associated U.S. coastal lands. It conducts research,

collects data on the environment and also promotes environmentally sound business practices. It observes and predicts the weather, maps the U.S. coastline, and — in cooperation with the States — manages the development of the Nation's coastal zone and a major portion of its fisheries resources.

This report describes the major accomplishments of these programs during fiscal year 1977. It also conveys an appreciation of how these programs—despite their diversity—work together to further the Department's common purposes.

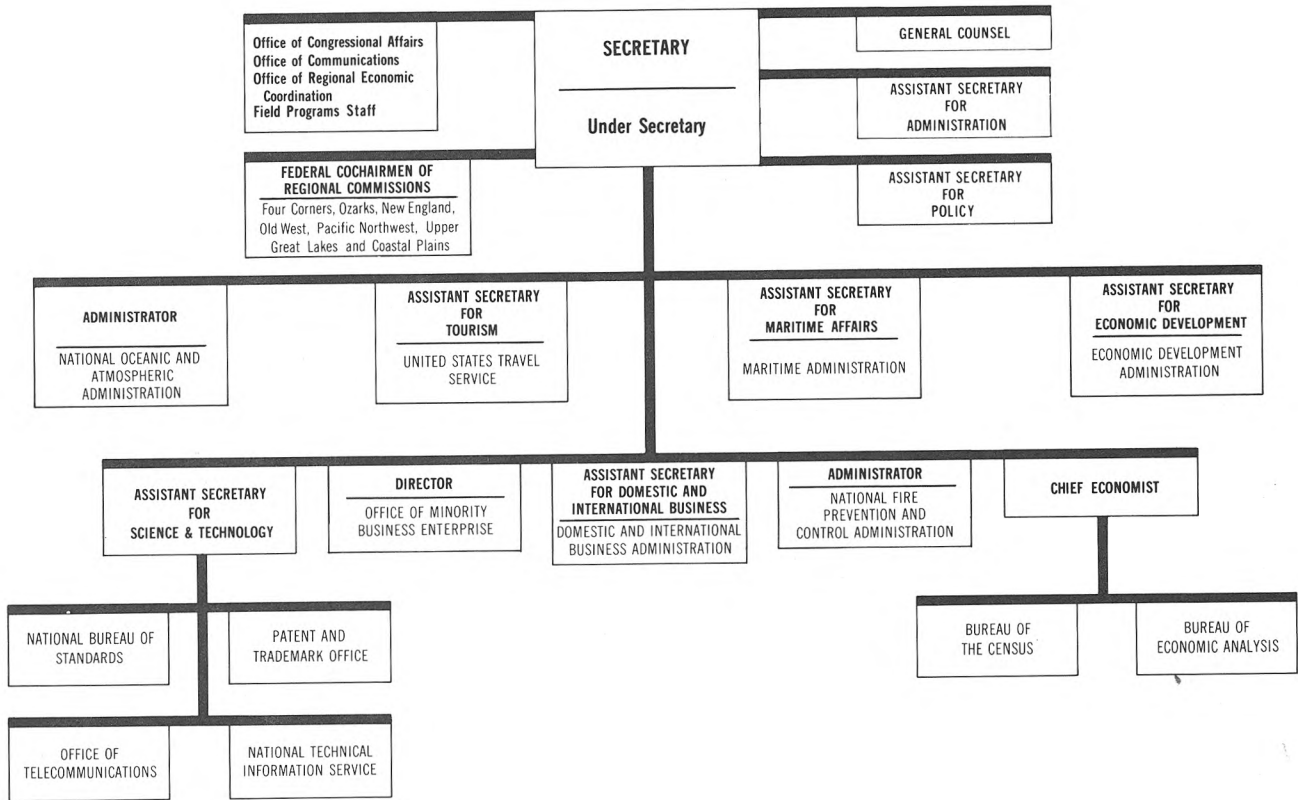
### HISTORY

Although the Department was formally established in 1903, many of its programs date back much earlier. The forerunners of the patent and census programs originated in 1790, while the coastal survey program was started in 1807. The setting of weights, measures, and other physical standards began in 1836. Weather prediction and research on marine fisheries problems became Federal responsibilities in 1849 and 1871, respectively.

Interest in bringing these and other programs together into a single, Cabinet-level department began in the post-Civil War period. The impetus was provided by President William McKinley, who actively promoted exports and other U.S. business interests abroad. This policy culminated in the passage of 1903 legislation, signed by President Theodore Roosevelt, which created a “Department of Commerce and Labor.” In 1913, the Department shed its labor component and became today's Department of Commerce.

The early years of this century saw an expansion of major responsibilities for the Department. New functions were added to complement the provision of indirect support services. From 1903 through 1914, commercial statistics work (actually begun in the 1800's) was restructured into a program more directly designed to strengthen American business, particularly in the area of export trade. At about the same time, in 1916, the exigencies of World War I led

## U.S. DEPARTMENT OF COMMERCE



to a Federal program of assistance to and financial support of the U.S. merchant marine. The next decade also saw a major strengthening of the Department's older scientific and statistical work, including the beginnings of what eventually became today's estimates of gross national product.

In the 1960's, the Department acquired major responsibility for helping individual communities, States, and regions make economic progress. It began experimenting with new programs of economic development below the national level in 1961 and adopted them on a permanent basis in 1965. Shortly thereafter, in 1969, it started a program of assistance to minority-owned businesses. The 1960's and 1970's also saw development of other programs in more traditional areas of responsibility: tourism in 1961 and fire prevention and control in 1974.

A concentrated effort has been underway during the last two decades to upgrade the Department's

oceanic programs. In 1972 these programs were expanded to encompass management of the Nation's coastal zone. Four years later, the Department also acquired major responsibility for the management of fisheries resources in the 200-mile zone off the U.S. coast.

## ORGANIZATION AND ACTIVITIES

Today, the Department of Commerce is composed of 13 component bureaus, known as operating units, which report either to the Secretary of Commerce directly or to one of her Assistant Secretaries or the Chief Economist. These operating units, together with the Federal Cochairmen of the Regional Action Planning Commissions, carry out all of the Department's substantive activities.

The **Bureau of Economic Analysis** continued to prepare the economic accounts of the United States and interpreted economic developments in light of

these accounts and other pertinent information. It also provided the Nation with national income and product accounts, which are summarized by the gross national product and which give a bird's-eye view of the economic process. The balance of payments accounts detail U.S. transactions with foreign countries and show how the Nation's industries interact to produce the gross national product; the regional accounts provide details on economic activity by State, metropolitan area, and county.

The **Bureau of the Census** conducts the Nation's five-year census of population and housing, as well as special economic, agricultural, and other censuses. It also carries out a wide variety of special surveys.

The results of the population census are used for apportionment of seats in the Congress to help ensure equal representation. They also serve as the basis for congressionally mandated formulas related to the distribution of Federal funds. The economic censuses provide data on activity in manufacturing, sales, mining, and construction. This information is used by business in decisionmaking and by the Federal Government in many of its statistical activities.

During fiscal 1977, the Bureau conducted a major test census in Oakland, California, as part of its preparation for the 1980 census. This test stressed procedural innovations, including the improvement of techniques to achieve accurate population counts and minimize the undercounting of poor and other disadvantaged persons.

The **National Bureau of Standards** assures the accuracy and uniformity of measurements made in science, industry, and commerce through development of national measurement standards. In addition, its technical expertise is utilized in the solution of many national problems.

Specifically, the Bureau develops, maintains, and disseminates standards of physical measurements. During fiscal 1977, for example, it developed a fast, accurate means of measuring the wavelength of continuous lasers, a need common to a wide variety of disciplines including laser isotope separation, laser chemistry, high-resolution spectroscopy, and air pollution measurement.

The Bureau also works to determine material properties and physical constants. One such project is the assistance it is providing the Federal Trade Commission in establishing the quality of recycled petroleum oil products. In addition, the Bureau develops test methods for materials, mechanisms,

and structures. In a collaborative program with HEW's Bureau of Radiological Health, it developed a new technique for measuring radiation dosage to improve the accuracy of X-ray measurements.

Another Bureau responsibility is the establishment of standard practices in cooperation with other Federal agencies and the private sector. Currently, it is working with the Department of Energy and the Federal Trade Commission on test methods that will be used in a mandatory labeling program for the efficiency of household appliances.

The Bureau provides technical services to other Government agencies. For example, it recently analyzed flawed girth welds of the Alaskan pipeline for the Department of Transportation.

The **Patent and Trademark Office** issues patents, thereby providing incentives to inventors and encouraging investment in research and development and disclosure of new technology to the public. It also registers trademarks to protect business investments in names or symbols and to prevent trademarks from being used to confuse or deceive the public.

During fiscal 1977, the Patent and Trademark Office received and disposed of approximately 102,500 patent applications. It reduced the average pending time for an application in the Office by an additional half-month over the previous year, bringing the average "pendency" time to 18.9 months, the lowest point in several decades. It also disposed of about 36,500 trademark applications and received an additional 44,500, an increase of 20 percent in receipts over the previous year.

The Office took several steps to improve the quality of the patent examination process. Important changes were adopted in the rules governing patent examining and appeal procedures. Steps also were taken to obtain better written records of examinations conducted by the Office's professional patent examiners. Other efforts included continuing quality review work and the reclassification by subject matter of a large number of patents. Preparations also were undertaken for acquiring a new computer for the Office.

The **National Technical Information Service** makes the results of Government technological research and development more readily available to the Nation. Its mandate is to: (1) collect, classify, and catalog technical information produced by others; (2) disseminate such information to business and industry; and (3) promote wider use of Government



inventions by the private sector. During the past fiscal year, the Service distributed 5.9 million informational products, with total sales of \$15,778,000, and introduced several innovative products and services to improve the dissemination of technological and other practical information to the public and private sectors.

The **Office of Telecommunications** assists the Department in fostering, serving, and promoting the Nation's economic development and technical advancement by improving comprehension of telecommunication science and by assuring effective use and growth of the Nation's telecommunication resources.

During the fiscal year, it developed several publications pertaining to telecommunications and to the expanding area of the information sector that embraces the activities relating to the production, storage, exchange, and use of information.

The **National Fire Prevention and Control Administration**, established in 1974 as the Department's newest operating unit, administers programs of fire prevention research, information gathering, and education.

In fiscal 1977, it conducted a far-reaching smoke detector program, designed to provide instructors and fire services with complete information on public education. As part of the program, the Administration published a five-part smoke detector manual.

The purchase of the former Marjorie Webster College campus for use as a National Fire Academy was another major accomplishment. The facility will eventually house the Academy staff and serve as the campus for the Nation's fire education students. The Academy also announced its education and training program for the near term. Courses, which are to be offered throughout the country, include fire investigation and arson detection, fire instructor development, labor/management relations, and fire safety for practicing architects.

The **Domestic and International Business Administration** conducts activities aimed at promoting progressive American business policies and economic growth and at strengthening the international commercial position of the United States.

During the reporting period, the Domestic and International Business Administration opened a new U.S. Trade Center in Sao Paulo, Brazil, and a new U.S.

exhibition facility in Caracas, Venezuela, to help U.S. companies increase sales in Latin America.

In cooperation with other Government agencies and members of the Congress, the Administration sponsored a series of conferences throughout the United States to advise American companies on Government procurement practices and to assist in identifying new sources of supply for products purchased by the Government.

It assisted in negotiating bilateral agreements with several of the Nation's trading partners covering U.S. imports of color television receivers, nonrubber footwear, textiles, and apparel. In addition, the Administration was instrumental in developing U.S. positions for the accelerated Multilateral Trade Negotiations in Geneva and was represented on a variety of delegations negotiating such issues as tariffs, standards, and subsidies.

Under amendments to the Export Act, the Domestic and International Business Administration promulgated new antiboycott rules and regulations after seeking the broadest possible public participation in the rulemaking process.

The **United States Travel Service** promotes travel to this country by visitors from abroad and encourages Americans to vacation more within their own country. During fiscal 1977, the Travel Service's tour development program for international visitors concluded contracts with foreign tour wholesalers to bring nearly 800,000 international visitors to this country on package tours. Expenditures by these visitors are expected to result in an estimated \$470 million in foreign exchange earnings for the United States.

In addition to its overall VISIT USA promotion efforts, the Service also awarded 83 matching grants, totaling \$855,952, to support efforts by individual states, cities, and non-profit organizations to promote increased international travel to this country.

The **Maritime Administration** conducts a broad range of programs aimed at developing and maintaining a U.S.-flag merchant fleet capable of meeting America's waterborne shipping requirements and of providing essential national defense capabilities. A brief look at some of the key activities during fiscal 1977 reflects the diversity of the Maritime Administration's responsibilities.

Contracts were awarded during the fiscal year for the subsidized construction of nine new oceangoing merchant ships of several different vessel types. These ships have a total contract price of \$458.7 million, of which the Government will pay \$149.8 million including the cost of national defense features.

During fiscal 1977, \$343 million in subsidies were paid to U.S.-flag shipping companies operating vessels in the Nation's essential foreign trade. The Maritime Administration reached agreements with several operators to eliminate some subsidy expenses for their most technologically advanced ships. This effort to reduce the dependence on subsidy is expected to save the Government about \$9 million in 1978.

Successful international activities during the fiscal year included the following: talks with Argentine officials, which led to the restoration of cargo-booking procedures satisfactory to all shippers serving that trade; a meeting with representatives of the Soviet Union to discuss continued implementation of the U.S.-U.S.S.R. Maritime Agreement; the establishment of a basic charter rate of \$16 per ton for heavy grains carried from the U.S. Gulf to Black Sea ports; and preparatory work on a three-year extension of a bilateral cargo agreement with Brazil.

The Maritime Administration's Computer-Aided Operations Research Facility at King's Point, New York, completed its first full year of operation in fiscal 1977. Some of the first tests at the facility, which uses a full-scale bridge mock-up to stimulate a wide range of navigational situations, involved training Masters and Pilots in operations to be used at the port of Valdez, Alaska. This training was put to practical use later in the fiscal year as the trans-Alaska oil pipeline opened and U.S.-flag tankers began carrying this domestic oil to the conterminous United States.

Continued progress was made during the fiscal year in the area of civil rights in the maritime industries. At the beginning of calendar year 1977 the employment of women and minorities in the U.S. shipbuilding industry reached new highs. In addition, the Maritime Administration and the Office of Minority Business Enterprise continued to promote the use of minority suppliers and vendors by shipping and shipbuilding companies. In the first nine months of the fiscal year, these industries placed more than \$13 million in business with minority firms.

The **Economic Development Administration** helps to create jobs and increase incomes in areas of the Nation with problems of high unemployment and low family income.

In fiscal 1977, the Administration's regular programs provided \$360 million under its basic legislation (the Public Works and Economic Development Act) to help State and local governments plan and carry out projects to stimulate long-range economic growth through the creation of permanent jobs in the private sector.

As a foundation for long-range job creation, the Administration provided \$35.5 million in technical assistance and planning grants. Funds were made available to local and state units of government, multicounty economic development organizations, colleges and universities, and non-profit organizations for planning programs and for developing and strengthening institutional support of economic development.

A \$2.5-million research effort was conducted into the causes of economic stagnation and to help develop policy alternatives for the investment of funds to spur long-range growth.

Under Title IX of the Special Economic Development and Adjustment Assistance Program, \$76.5 million was approved to help plan and carry out actions to avert serious economic dislocations in areas experiencing or facing the possibility of structural changes in their economies.

State governments received \$20 million from the Grants to States Program, the so-called "Section 304" program. These funds help finance economic development projects consistent with the objectives of the Economic Development Administration's job-creation efforts.

The Administration's basic public works program consisted of \$166.5 million in grants for the construction of facilities essential to industrial and commercial growth, while \$58 million was provided in loans and loan guarantees to support business development.

Communities and businesses adversely affected by imports are assisted by the Administration under the Trade Act of 1974. During the reporting period, 70 firms, representing 23 industries, were certified as eligible to apply for assistance. Grants to communities and financial assistance to businesses amounted to \$27.9 million.

In addition to its regular programs, the Administration implemented a \$6 million Local Public Works program in fiscal 1977. This program was designed to create needed jobs through the expeditious construction of capital facilities in communities across the Nation. Between December 1976 and October 1977, 10,650 grants were approved under the program. They were aimed at:

- Stimulating the national economy and distressed local economies;
- Generating employment opportunities, especially in construction and related trades; and
- Constructing or rehabilitating useful public facilities.

First funds for this counter-cyclical program were authorized by the Local Public Works Capital Development and Investment Act of 1976. Approximately 2,010 projects were funded with the \$2 billion made available under that Act, and \$4 billion provided through the Public Works Employment Act of 1977.

Although 100 percent funding is authorized, the program's Federal grants were supplemented by state and local investment of an additional \$1.2 billion, resulting in a \$7.2 billion construction program. In addition to the short-term impact on the Nation's economy through the immediate creation of job opportunities, the program is expected to have a significant impact on long-range economic development in communities receiving new or renovated capital facilities.

The prolonged drought of 1976 and 1977 led to another special program, the Community Emergency Drought Relief Act of 1977. This Act became law on May 23, and by September 30, the Administration approved \$109 million in grants and \$66 million in loans for 268 drought-relief projects in 29 States and Puerto Rico.

Fiscal 1977 also saw construction of facilities for the 1980 Winter Olympic Games at Lake Placid, New York, with a \$30.1-million grant from the Administration.

The **Regional Action Planning Commissions** provide assistance to economically distressed, multi-state regions designated by the Secretary. Only the Federal Cochairmen and their supporting staffs are members of the Department; the Commissions themselves are unique, joint Federal-State bodies.

During most of fiscal 1977, there were seven Commissions. Near the end of the year an eighth Commission was organized, the Southwest Border Regional Commission. Commission activities include planning, technical assistance, demonstration programs, training, and investigation. The Commissions supplement Federal grant-in-aid programs if the local applicant lacks the funds to provide the full matching share. During the reporting period, the Commissions obligated \$60.6 million, of which 64.5 percent was applied to technical assistance and demonstration projects and 29 percent was used to supplement Federal grant-in-aid projects.

The **Office of Minority Business Enterprise** works to develop and strengthen minority-owned business.

During fiscal 1977, the Office began a new effort to develop minority businesses in expanding sectors of the economy, with the emphasis on larger businesses and technical industries. Already, it has produced a \$5 million minority business acquisition, the largest in U.S. history. Feasibility studies for minority operations and other business areas are being conducted.

The Office stepped up its technology commercialization effort to provide minority business opportunities through the development of commercial applications for new technologies.

It also continued to provide management and technical assistance to individual minority entrepreneurs through a network of more than 250 local business development organizations. During the last fiscal year, 43,516 clients visited these centers and were helped to win \$735.9-million worth of sales contracts and \$394.4-million worth of financing.

The **National Oceanic and Atmospheric Administration** seeks to promote the conservation and rational use of the oceans and other parts of our environment. The Administration includes the National Weather Service, the National Ocean Survey, and the National Marine Fisheries Service. It also conducts the coastal zone management program and handles other assorted activities, ranging from environmental research to protection of marine mammals.

During the reporting period, operations began under the Fisheries Conservation and Management Act of 1976. The Nation's 200-mile coastal fishing zone went into effect March 1, 1977. Two fishery management plans and thirteen preliminary management plans were approved.





Approval also was granted for three Coastal Zone Management Programs. These were the Culebra segment of Puerto Rico, the San Francisco Bay Segment of California, and the State of Oregon. A program for the remainder of California was approved on November 11, 1977.

Under the National Sea Grant Program, the Administration made awards of more than \$28 million to more than 130 universities and colleges.

In addition, 41 new NOAA Weather Radio Stations were established bringing the total of operational stations to 151. The Administration's National Weather Services also installed 73 modern local warning radars, 4 network radars, 5 upper-air mini computers, and 38 automatic meteorological observing systems in support of its forecast and warning program.

Guiding these program efforts is the job of the Department's **top management team**. This team includes:

- The Secretary of Commerce, who is the Department's chief line officer and who, by

law, is responsible for exercising virtually all of its substantive authority;

- the Under Secretary, who is the Secretary's chief assistant, and acts in her stead when she is absent or otherwise unable to discharge her duties;
- the General Counsel, who provides legal advice and serves as the Department's chief legal officer on all matters except patent and trademark law,
- the Assistant Secretary for Policy, who helps shape new thrusts in the policies that guide the Department's programs;
- the Assistant Secretary for Administration, who serves as the chief adviser on financial, personnel, other matters of administrative management and supervises certain administrative services provided centrally; and
- number of staff officials who provide specialized services in other areas.

This team works together as the Office of the Secretary to provide the managerial direction needed to make the Department's wide-ranging and



disparate programs move together in the direction of economic development and technological advancement.

## FUNDS AND PERSONNEL

In terms of obligations, the Department of Commerce accounts for approximately two percent of the total Federal budget. Its employment accounts for a little under 1.5 percent of the Federal total.

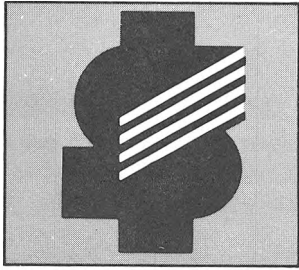
On September 30, 1977, the Department's employment totaled 37,422, up 541 from a year ago. Employment figures for various units of the Department were as follows:

National Oceanic and Atmospheric Administration .....	11,756
Patent and Trademark office .....	2,673
Census Bureau .....	2,577
National Bureau of Standards .....	1,854
Other .....	<u>18,562</u>
Total.....	37,422

About a third of the Department's employment is financed from intragovernmental, trust, and other funds not appropriated for the work of the Department, but transferred to it on a reimburseable basis.

During fiscal 1977, the Department obligated \$8.5 billion, an increase of \$6 billion over Fiscal Year 1976. This increase was almost entirely due to a special program for local public works authorized by the Local Public Works Capital Development and Investment Act of 1976 and the Public Works Employment Act of 1977. This program is operated by the Economic Development Administration, and the Administration, with \$6.6 billion in obligations, accounted for nearly 80 percent of the Department's total. Two other operating units — the National Oceanic and Atmospheric Administration and the Maritime Administration — accounted for most of the remaining 20 percent, with obligations of \$610 million and \$569 million, respectively.

Of the \$8.5 billion departmental total, \$8.2 billion represents obligations against general funds appropriated for the Department's activities; the remainder represents obligations against intragovernmental, trust, and other funds.



# Chapter II

## ECONOMIC AFFAIRS

### THE CHIEF ECONOMIST

In February 1976 the Chief Economist for the Department of Commerce assumed many of the functions formerly assigned to the Assistant Secretary for Economic Affairs, a position which was abolished. The Chief Economist serves as the principal adviser to the Secretary on the domestic economy. He is the Department's liaison with the Council of Economic Advisers and exercises general supervision over the Bureau of the Census and the Bureau of Economic Analysis.

The Chief Economist for the Department of Commerce serves as the principal adviser to the Secretary on economic and statistical affairs; serves as adviser to other Commerce officials on economic and statistical matters; serves as the Department's liaison with the Council of Economic Advisers, the Council on Wage and Price Stability, and other government agencies concerned with economic and statistical affairs; and exercises policy direction and general supervision over the Bureau of the Census and the Bureau of Economic Analysis.

The duties of the Chief Economist are: to brief the Secretary on the state of the domestic economy including preparing summaries and analyses of economic indicators; to conduct regular quarterly briefings for news media on the Gross National Product; to prepare biweekly articles on the Nation's economy for publication in the *Commerce America* magazine; and to serve as chairperson of the Economic Advisory Board, which meets quarterly to advise the Secretary on economic issues.

From October 1, 1976 through September 30, 1977, the Chief Economist made four appearances before Congressional committees on U.S. economic conditions and other matters, and delivered more than 50 speeches before citizens groups and professional organizations in every part of the country. The Chief Economist also:

- Reviewed studies of the capital adequacy question in the United States and policies for the stimulation of saving and investment and

prepared a technical paper comparing the impact of several investment policy stimuli.

- Began work on a macroeconomic analysis for inclusion in the President's Interagency Study of the Puerto Rican Economy.
- Represented the Department in the interagency group which prepares the economic forecasts used in estimating Federal budget outlays and receipts.
- Represented the Department in the interagency group evaluating the economic stimulus program.
- Participated in an evaluation of economic and allied data needs for fisheries management.
- Made preliminary arrangements for the transfer of the Statistical Policy Division of the Office of Management and Budget to the Department of Commerce.

### BUREAU OF THE CENSUS

#### Mission

The Bureau of the Census is the principal general statistical agency of the Federal Government. It collects information in censuses and at 5-10 year intervals on population, housing, agriculture, governments, manufacturing, retail trade, transportation, wholesale trade, construction, and mineral and service industries.

The Bureau conducts regular and periodic surveys of manufacturing, construction, service industries, housing, population, and wholesale and retail trade. Moreover, it publishes thousands of reports each year showing data assembled into statistical tables on the subjects and for the geographic areas covered in these censuses and surveys.

The Bureau also provides assistance on a reimbursable basis to Federal agencies and others in the collection and processing of data, the design of sam-



ples for surveys, and the preparation of special tabulations. In addition, it compiles and publishes the official figures on U.S. foreign trade.



### The 1980 Census

The planning and research phases for the primary field operations of the 1980 census were largely completed with the taking of a third full-scale pretest census in Oakland, California, in April 1977. Preparations began for the dress rehearsal censuses to be conducted in April 1978 in the Richmond, Virginia, area and two small counties in Colorado. Preliminary work was also started on a census of lower Manhattan (New York City) to be taken in September 1978.

As part of the final decisionmaking process, the list of subjects planned for inclusion in the 1980 census was transmitted to the Congress in April 1977. Also in accordance with the requirements of the census law, the exact wording of census questions will be transmitted by April 1978.

A major effort to improve coverage of the population in 1980 continued with the introduction of new and expanded field procedures, a review of alternative publicity approaches, discussions with minority advisory committees for the black, Spanish-origin, and Asian-Pacific American populations, and an increase in the number of community service specialists (persons who contact community groups on behalf of the Census Bureau).

### Current Surveys

During fiscal 1977, the Bureau published demographic and socioeconomic reports on the characteristics of the population relating to money income, poverty status, school enrollment, college plans of fertility, birth expectancy, households and families, marital status and living arrangements, daytime care of children, and voting and registration. Other reports were issued on the farm population, metropolitan and nonmetropolitan population, population of urbanized areas, and persons of Spanish origin, as well as current population estimates for the United States, individual States, counties, and for some 38,000 local areas covered under annual revenue sharing, population projections for the United States, and a guide for local population projections.

The Bureau continued its surveys of criminal justice commissioned by the Law Enforcement Assistance Administration. Results of the third national housing survey conducted annually were published for 1975, and the second in a series of metropolitan housing reports also was released.

At the request of the Bureau of Labor Statistics, planning was begun for the expansion of the Current Population Survey from its present 65,000 households monthly to an estimated 115,000 households, to provide monthly employment and unemployment estimates for each State for a more equitable distribution of funds under the Comprehensive Employment and Training Act and other Federal legislation.

A comprehensive system of survey improvements in the area of retail trade, wholesale trade, and selected services was completed in November 1977. Estimates

currently being released are based on a new sample. This new system *The Improved Business Surveys Program* was undertaken as a result of major differences between estimates derived from the surveys and the results of the 1972 Economic Censuses.

### Special Demographic Surveys and Projects

Data collection was completed for all 93 jurisdictions covered in the 1976 Registration and Voting Survey. The survey was conducted to provide estimates on the proportions of persons by race and specified minority groups who were registered and voted in the 1976 elections. The results were expected to be transmitted to the Congress during December 1977-February 1978.

In compliance with P.L. 93-380, the Bureau completed work on a survey providing estimates of the number of children 5 to 17 years of age in poverty in each State. In February, the estimates were conveyed to the Congress in a joint report from the Secretaries of Commerce and Health, Education, and Welfare. A separate report evaluating these results was transmitted to the Congress before the end of calendar year 1977.

As part of the 1977 Census of Transportation, data collection for the National Travel Survey was initiated. This survey will provide estimates of the number of long-distance trips taken by the population in 1977 by various trip and socioeconomic characteristics. A preliminary report on travel during the first quarter of the year was scheduled for release in December 1977.

Under sponsorship of the Agency for International Development, the Bureau carries on a program of international demographic research, maintains a demographic data base for most countries in the world, and publishes demographic profiles for selected developing countries.

### Economic Census

The 1977 Economic Censuses have moved into the data collection phase. Report forms were mailed to companies at the end of 1977.

Plans for the 1978 Census of Agriculture were well underway during the year. The Bureau has already determined that most farmers will receive a form that will not be more than six or seven pages long, compared to the 20-page form used in the 1974 census.

### User Services

Staffing of the Bureau's 12 Regional Offices with User Services Specialists was completed in 1977. These specialists answer approximately 3,000 inquiries a month about Bureau programs, assist users in accessing and using Census Bureau products, and make presentations to groups of researchers and planners who use census data.

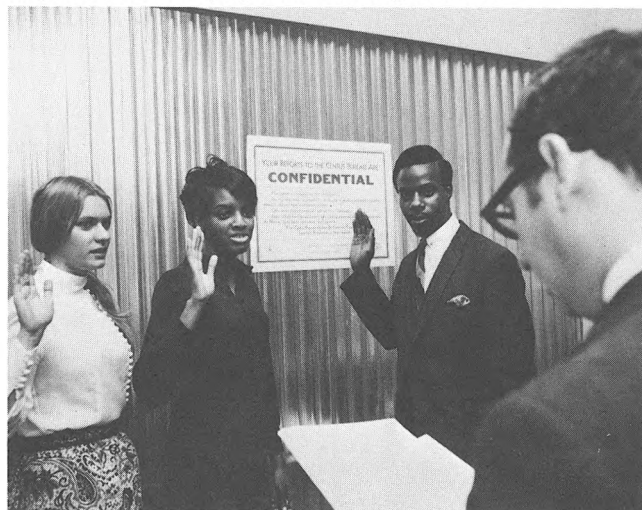
Nearly 1,200 persons attended the various conferences, workshops, and seminars conducted as part of the Bureau's user training program. The Bureau sponsored exhibits at 61 national conventions of trade and professional associations. The estimated attendance of these conventions was over 400,000.

### Community Services

The Community Services Program is one of the Bureau's most important coverage improvement efforts to reduce underenumeration among minority communities in the 1980 census. This effort will be staffed by close to 200 Community Services Specialists who will work primarily through black, Hispanic, Asian-Pacific, and American Indian community organizations to help establish census credibility.

Currently, there are 25 Community Services Specialists assigned to the Bureau's 12 regional offices. This number will increase to about 50 by the end of fiscal 1978 and to the full complement at the end of fiscal 1979.

**"Actually, there is no invasion of privacy." Every employee of the Census Bureau, including temporary workers, must take the oath of confidentiality, and is subject under law to severe penalties for violation of the oath. There is no known case of the Bureau having to prosecute an employee for violating this oath.**



## Other Actions

In the Bureau's Data Preparation Division, a large clerical processing center located in Jeffersonville, Indiana, 600 long-term temporary employees were provided with career conditional appointments in which their tour of duty is directly related to census work cycles. Provision for such appointments was made by the Civil Service Commission as a 1-year experiment during which employees may be sent home and recalled to work according to agency needs while at the same time providing all fringe benefits to the employees.

## BUREAU OF ECONOMIC ANALYSIS

### Mission

The goal of the Bureau of Economic Analysis is to provide a clear picture of the economy through the preparation, development, and interpretation of the economic accounts of the United States. These accounts provide a quantitative view of the economic process in terms of the production, distribution, and use of the Nation's output.

The accounts consist of the national income and product accounts, summarized by the gross national product (GNP); wealth accounts, which show the business and other components of tangible national wealth; interindustry accounts that trace the interrelationships among industrial markets; regional accounts that detail economic activity by region, state, metropolitan area, and county; and balance of payments accounts that detail U.S. transactions with foreign countries.

The work on the economic accounts is supplemented by preparation and analysis of other measures of economic activity, including various tools for forecasting economic developments such as surveys of the investment outlays and plans of U.S. business, econometric models of the U.S. economy, and a system of economic indicators.

The measures and analyses prepared by the Bureau are disseminated mainly through its monthly publications, the *Survey of Current Business* (including periodic supplements to the Survey), *Business Conditions Digest*, and *Defense Indicators*.

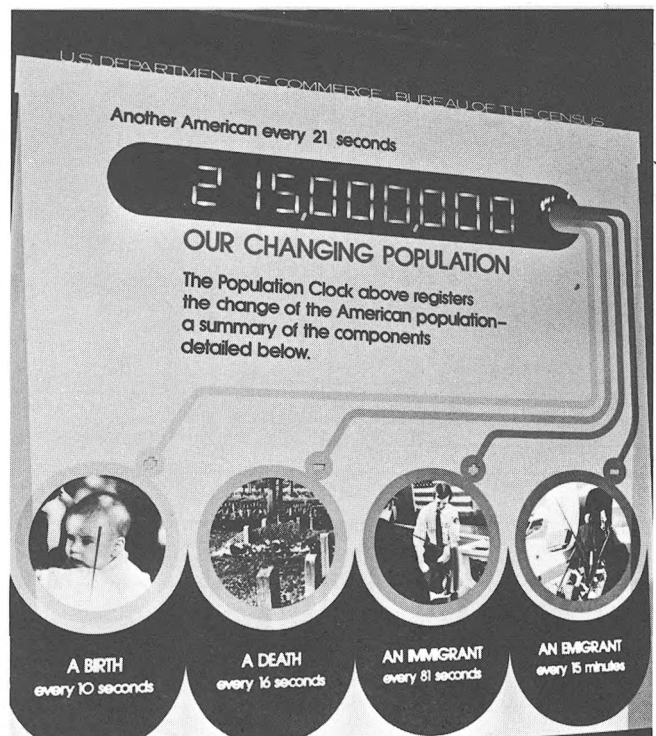
The Bureau of Economic Analysis (formerly the Office of Business Economics), established in 1945, was a main line component of the Social and Economic Statistics Administration from January 1, 1972 to

August 4, 1975 when it was reestablished as a primary operating unit of the Department.

### Measures of National Economy

The complete set of revised national income and product estimates was published in a supplement to the *Survey of Current Business*, entitled *National Income and Product Accounts of the United States, 1929-1974*.

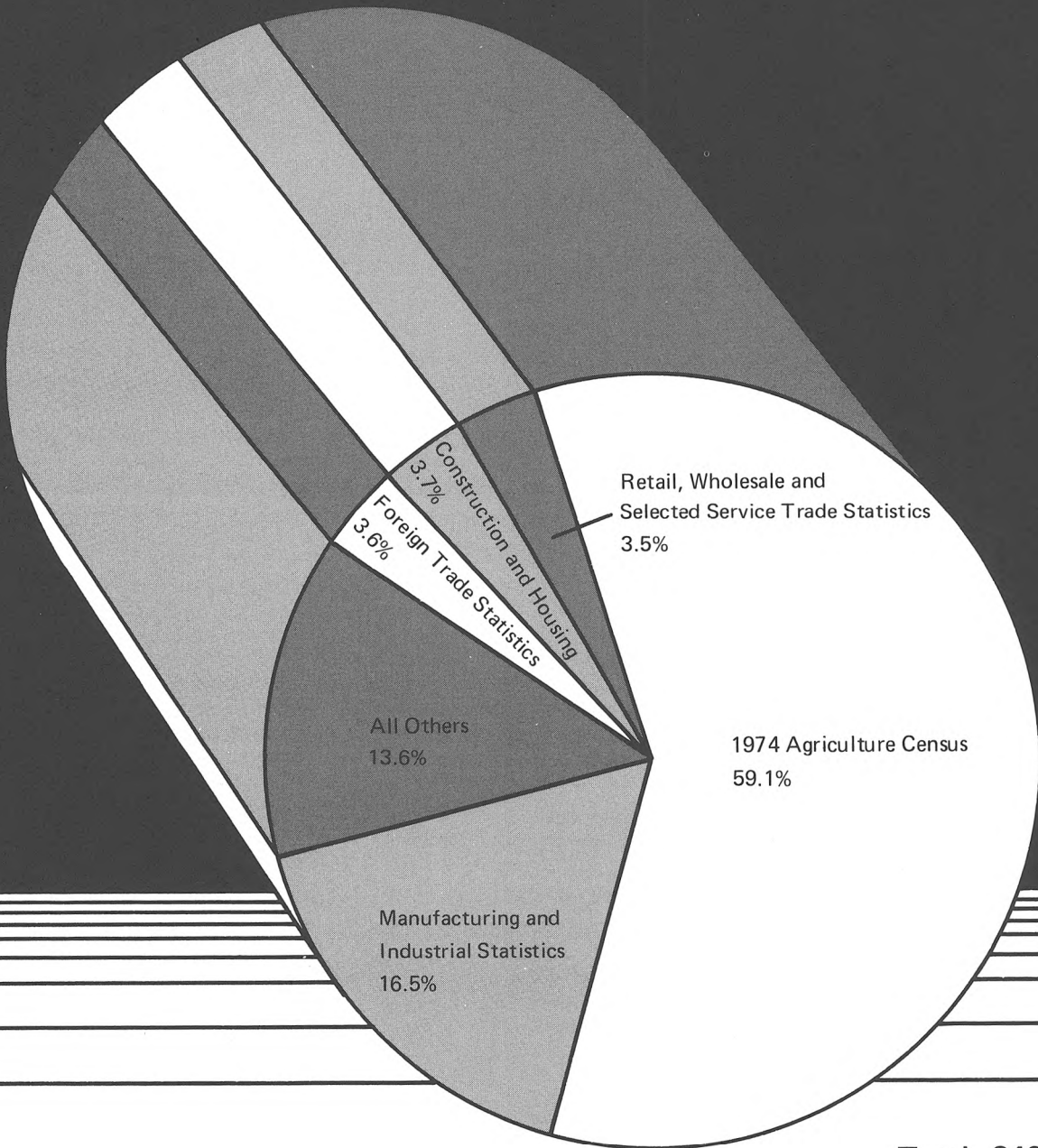
A major revision of the content and organization of *Business Conditions Digest* was carried out as a result of a comprehensive study. The revamped periodical places greater emphasis on cyclical indicators and incorporates the latest findings in cyclical indicators research. A step-by-step methodology of constructing composite indexes was prepared and published in the *Handbook of Cyclical Indicators*, which also contains series descriptions and historical data.



**Bureau of Census Clock**  
Main Commerce Building  
Washington, D.C.

To meet data users' needs for timely information, a new service was developed. Called NIPAGRAM (for National Income and Product Accounts by Mailgram), the service delivers in hard copy all 650





Total 3467

Reports Published by the Bureau  
of the Census in Fiscal 1977

gross national product series within 24 hours of summary press release. The service is available in the United States and Canada.

The Bureau took steps to reduce the prices of its periodicals that are distributed by the Superintendent of Documents of the U.S. Government Printing Office. As a result, the annual subscription price of the *Survey of Current Business* was reduced by 61 percent. The subscription price of the *Business Conditions Digest* was cut by 28 percent.

### **Regional Economics**

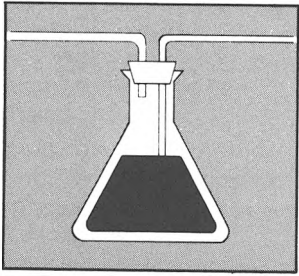
A comprehensive study of the uses and availability of State and local area work force characteristics and migration data was published. The study—"Regional Work Force Characteristics and Migration Data: A Handbook on the Social Security Continuous Work History Sample and its Application"—documents for the first time the Continuous Work History Sample and discusses its applications, comparability with other series, and its limitations.

A computerized system was completed for analyzing the impact of industrial and economic change on any county or group of counties in the United States.

### **International Economics**

The international accounts were revised to incorporate new information from benchmark surveys. A special survey of international leasing transactions was completed. A statistical reference volume was prepared on "U.S. Merchandise Trade, Exports and Imports, 1965-76, Classified by End-Used Categories." The volume contains quarterly data in constant and current dollars, presented on both Census and balance of payments basis, and arranged by area.

Estimates of gross product of foreign affiliates of U.S. companies were prepared for 1966 and 1970. The affiliate gross product was compared with the U.S. business gross product and with the gross domestic product of selected foreign host countries. This analysis was published in the February 1977 issue of the *Survey of Current Business*.



# Chapter III

## SCIENCE AND TECHNOLOGY

The Assistant Secretary for Science and Technology serves as the chief science advisor to the Secretary on all matters affecting departmental programs and policies. He exercises line management responsibility for the National Bureau of Standards, the Patent and Trademark Office, the National Technical Information Service, and the Office of Telecommunications. In addition, he oversees the Office of Environmental Affairs and the Office of Product Standards; chairs the Commerce Technical Advisory Board; and conducts the Department's Science and Technology Fellowship Program which are part of his immediate office.

### OFFICE OF ENVIRONMENTAL AFFAIRS

The Office of Environmental Affairs serves as the Department's focal point in environmental matters and coordinates scientific and technological evaluation responses. It provides assistance in formulating departmental policy recommendations for a wide range of environmental issues bearing on air and water pollution, land use, solid waste, resource recovery, noise, pesticides, toxic substances, and energy conservation. In addition, the Office is responsible for the Department's implementation of the National Environmental Policy Act of 1969, including the preparation and issuance of 'Environmental Impact Statements' and the coordination of the Department's review of Statements prepared by other Federal agencies.

During fiscal 1977, the Office reviewed and coordinated the Department's comments on 449 draft 'Environmental Impact Statements' prepared by other departments and agencies; supervised the preparation of 30 draft and 26 final Statements on departmental programs; disseminated them to the Council on Environmental Quality, other Government agencies, environmental groups, and the general public; and evaluated 234 proposals for environmental legislation, regulation, and policy. In addition, the Office with the cooperation of the Council on Environmental Quality and other Federal agencies, initiated a study designed to facilitate the preparation of environmental assessments by the private sector and local governments.

The Office continued its review and evaluation of proposed air, water, and noise pollution control regulations and wilderness area designations and stepped up its work involving toxic substances and resource conservation and recovery. Also, the Office conducted comprehensive evaluations of proposed regulations developed from the Toxic Substances Control Act and the Resource Conservation and Recovery Act of 1976. In addition, it was actively involved in the National Water Policy Study directed by the President in May 1977.

### OFFICE OF PRODUCT STANDARDS

The primary mission of the Office of Product Standards is to promote and protect the national interest in product standardization activities by contributing to the development of effective national standards policies.

Among the programs headed by the Office in fiscal 1977 are:

- **Consumer Product Information Labeling Program.** This program is designed to benefit both consumers and manufacturers and is concerned with the accurate presentation of information on product performance.
- **Interagency Committee on Standards Policy.** The Committee, chaired by the Office of Product Standards, is helping to coordinate the Federal Government's conversion to the metric measurement system. In addition, the Committee is preparing for the Government's implementation of the proposed International Standards Code for preventing technical barriers to trade. Finally, the Committee is contributing towards the development of a uniform policy to be followed by Federal agencies in working with non-Federal standards-setting bodies.
- **National Voluntary Laboratory Accreditation program.** This Program is designed to accredit testing laboratories that meet criteria established by the Secretary of Commerce. The initial project, now underway, involves ther-



mal insulation materials. In the international area, preliminary discussions were held in 1977 with representatives of 16 other countries concerning mutual recognition of national programs for accrediting testing laboratories.

## THE COMMERCE TECHNICAL ADVISORY BOARD

The Commerce Technical Advisory Board serves as an external source of advice on important technological issues and departmental technical activities. It consists of about 20 members who are recognized leaders in engineering, science, education, industrial research, business, labor, and consumer affairs.

During the reporting period, the Board explored the need for an independent reassessment of a national environmental strategy. Upon completion of public hearings, a review also was made of the future for new technology-based ventures.

## NATIONAL BUREAU OF STANDARDS

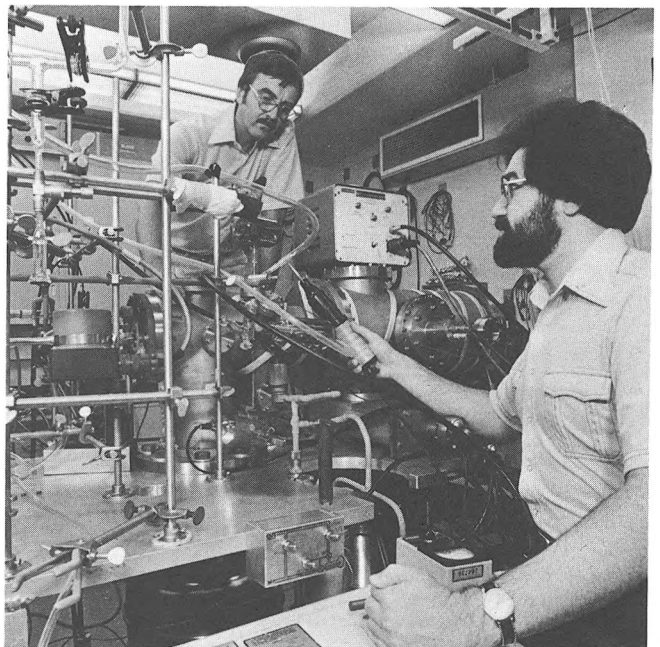
Measurement-related activities account for an estimated six percent of the U.S. Gross National Product. All sectors of the economy, including the Federal Government, make expenditures for measurements of varying complexity, and the results affect all aspects of daily life.

The National Bureau of Standards supports science and technology in the United States, primarily by providing uniform measurements, test methods, codes, and standards. These measurements and standards serve as the basis for such activities as:

- commercial transactions, such as accurate monitoring of the flow of fuel oil upon delivery;
- industrial quality control, such as methods to assure the strength of wire bonds in electronic devices;
- scientific development, including linking the time standards in the microwave range with the length in the visible region through the fundamental constant, the speed of light;

- consumer services, for example the development of guidelines to help homeowners improve the efficiency of their oil-fired furnaces;
- health and safety, such as reference measurement methods for clinical laboratories; and laboratories; and
- equitable regulations, such as methods to determine if exhaust emissions of automobiles are within the limits set by the Environmental Protection Agency.

Thus, measurements and standards undergird nearly every activity that affects the commerce of our Nation. The following sections describe some of the accomplishments and diverse activities carried out at the Bureau during the fiscal year ending September 30, 1977.



These men are making adjustments to experimental set-up used to study ozone-olefin reactions, important in the formation of smog.

### Energy

Two Bureau projects evaluating energy conservation alternatives are of particular interest to homeowners. The Bureau recently completed a study for the U.S. Department of Energy that resulted in the publication of 'A Service Manager's Guide to Saving Energy in Residential Oil Burners.' Tests conducted for the study revealed that virtually every residential oil

burner was to some extent over fired, that is, burning more fuel than necessary to reach the desired temperature. The Guide is a working summary of research results that show service managers and technicians how a combination of smaller nozzle sizes and properly adjusted air flow can result in substantial fuel savings. The Bureau also prepared a version of this booklet for the homeowner, entitled 'How to Improve the Efficiency of Your Furnace.'

Heating and cooling efficiency is the subject of a new two-year program recently initiated by the Bureau to study the value of attic ventilation in combination with attic insulation. The study, carried out in cooperation with the Laurence Berkeley Laboratory, Princeton University, Department of Energy, the American Ventilation Association, and the Home Ventilation Institute, is designed to examine a variety of ventilation/insulation combinations in three different climate areas, noting the effects of such variables as air exchange and moisture condensation; indoor, outdoor, and attic temperatures; and heat flow and wind speed and direction.



**The Association of Petroleum Re-refiners is supporting an Industrial Research Associate to work with Bureau scientists on an oil recycling program. This associate is determining the viscosity of some recycled oil.**

The Bureau also has contributed to the development of standards for solar energy systems. Most recently, the Bureau proposed quality levels for solar heating and domestic hot water systems that were adopted by the Department of Housing and Urban Development as minimum standards for housing projects built under HUD programs.

The Bureau's Office of Energy-Related Inventions was set up to encourage the development of new

energy sources and technologies by aiding small businesses and individual inventors who have potentially worthwhile ideas for either producing or saving energy, but who lack the means to develop the invention. As of the end of September 1977, the Office had received 6,260 evaluation requests. Of the 5,299 completed investigations, 46 were recommended to the Department of Energy for further support.

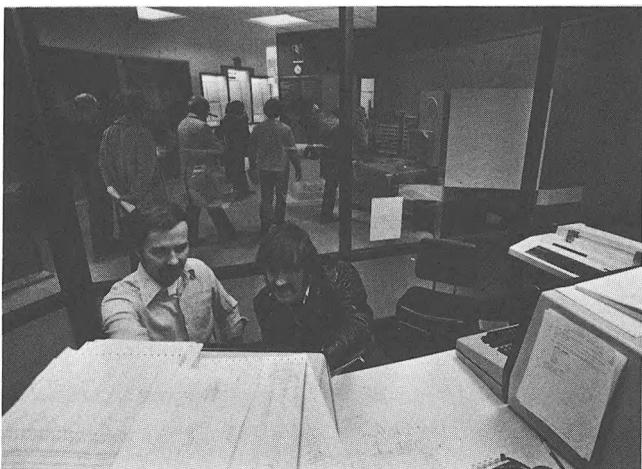
Industrial managers worried about rising energy costs can take advantage of the Bureau's research results contained in several of its recent publications. These include:

- *The Waste Heat Management Guidebook*, which describes actual case studies showing how a company can save 20 percent or more on its fuel bills by installing waste-heat recovery systems;
- *Application of Thermography for Energy Conservation in Industry*, a technical publication detailing how modern techniques of infrared thermography can be used to spot heat losses from plant equipment that signal where repairs or redesign can save energy; and
- *Energy Management Guide for Light Industry and Commerce*, a cost-saving textbook including case studies and techniques for economic analysis.

## Materials

Careful studies of chemical processes in the Earth's atmosphere resulted in the discovery last year of a previously unknown molecular species. While studying the complex chain of reactions that occur when hydrocarbons (from such sources as automobile exhausts) combine with ozone, researchers developed a new analytical tool. By operating a microwave absorption cell at cryogenic temperatures, they were able to observe in "slow motion" reactions that happen too fast to be analyzed at normal temperatures. One result of this research was the discovery of a previously unobserved ring form of methylene peroxide called dioxirane, an important step in identifying the reaction sequence.

The Bureau's Standard Reference Materials are recognized throughout industry and commerce as indispensable measurement tools. The Bureau currently supplies over 1,000 of these reference materials—all substances or artifacts that have been carefully analyzed and documented for their composition and/or physical properties. They are used to calibrate or test other measuring instruments and to



**The Bureau is monitoring the Norris Cotton Building, a General Services Administration office in Manchester, New Hampshire, for its energy consumption. Shown here is the computer control room on the first floor of the building.**

evaluate the effectiveness with which the instruments are used. Eighty-two new reference materials were added to the list during fiscal 1977, ranging from a 99.9+ percent pure ethanol, which is used by police to calibrate blood and breath alcohol testers, to the specially formulated samples of spinach, tomato leaves, and pine needles, used by environmental and agricultural scientists to calibrate and test their analytical tools and measurement procedures.

The Bureau's expertise in developing these reference materials in the field of clinical chemistry was recognized when the Bureau was named a Collaborating Center for Research and Reference Services in Clinical Chemistry by the United Nation's World Health Organization.

In another area of materials research, the Bureau recently completed a study for the National Park Service on preserving government-owned monuments and buildings from the ravages of pollution and weather. The study reports findings from 3 years of research on methods to test and evaluate materials that prevent erosion and decay of stonework. In another Park Service project currently underway at the Bureau, researchers are looking for ways to protect historic adobe structures from their ancient enemy, water.

### **Experimental Technology**

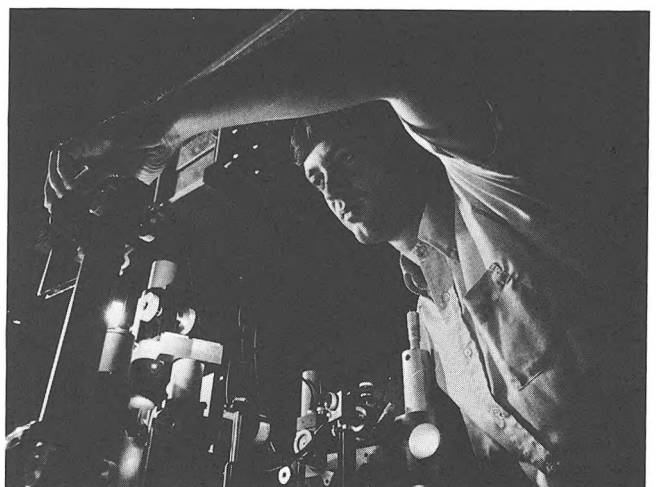
The Bureau's Experimental Technology Incentives Program was set up to determine how comparatively small changes in the policies and procedures of

Government can be used to encourage technical innovation in private industry to benefit both supplier and consumer. These experiments deal with such areas as Government-buying policies, methods of aiding private inventors and small firms engaged in research and development, and the streamlining of Government regulatory proceedings.

Last year in a cooperative effort with the Montana Public Service Commission, the Experimental Technology Incentives Program staff studied ways the Commission could streamline the process of setting utility rates. The program is part of a larger Bureau experiment to test the idea that the complex procedures involved in updating Government regulations deter investors from supporting innovative technologies. Changes made by the Commission as a result of the study meant that a major utility rate case was decided in half the usual time and with a fifth of the usual paperwork.

### **Product Performance and Safety**

Recently, the Department announced a 1-year pilot program to label products so that consumers are able to make informed buying decisions on the basis of the product's strength, durability, and other performance characteristics. The Bureau is providing technical support for this program, including selecting the performance characteristics to be listed on the label and the test procedures to be used in measuring those characteristics.



**This man is making adjustments to the optical alignment of computer-controlled, laser-based facility used to make detailed studies of silicon photodetectors. A degradation in performance of some of these detectors is observed when they are exposed to ultraviolet radiation.**



Working with the Consumer Product Safety Commission, the Law Enforcement Assistance Administration, and the Occupational Safety and Health Administration, the Bureau conducted performance and safety tests on a variety of consumer goods, including lawn mowers, pressure tanks used as gas containers, fire extinguishers, children's toys, and safety equipment designed to prevent falls.

In recent years, the Bureau has worked with industry, other standards-writing groups, and the Department of Commerce in the development of more than 100 voluntary product standards, nationally recognized as industry standards for improving product performance. The latest standard to go into effect is aimed at reducing the risk of personal injury from shattering carbonated beverage bottles. Product standards previously developed apply to such areas as toy safety and playground equipment.

Last year, the Bureau helped Tennessee State fire officials determine the causes of 42 deaths that occurred in the Maury County Jail in Columbia, Tennessee. It also worked with the National Fire Prevention and Control Administration to determine the causes of the fire in the Beverly Hills Supper Club in Kentucky, in which 164 people died. In addition, the Bureau furnished the investigators with a hypothetical model to explain how the fire had spread from its initial location.

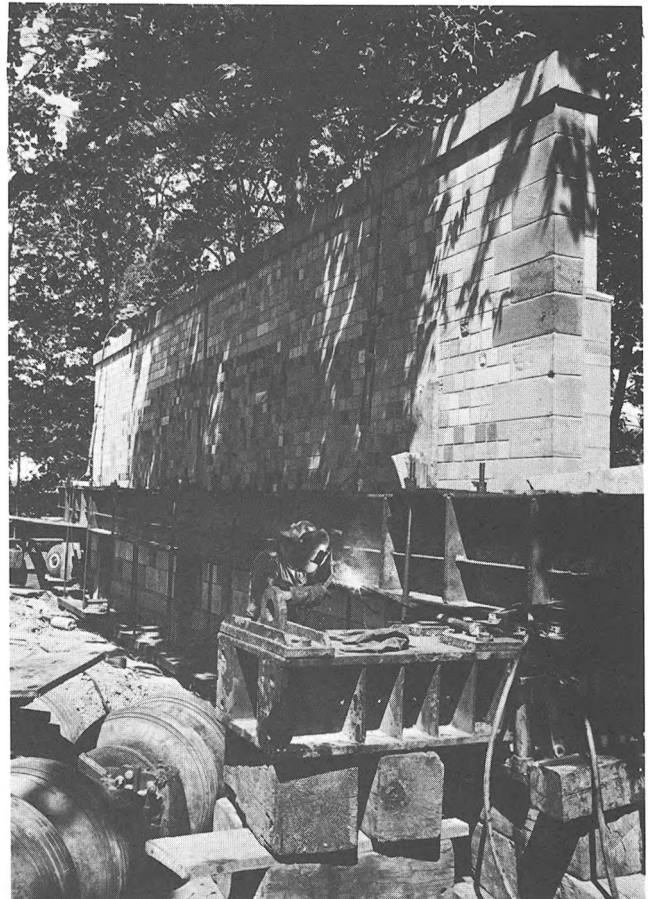
In another area of fire research, the Bureau recently developed improved product performance standards for home smoke detectors.

### **Computer Technology**

The Bureau also has the responsibility of developing uniform information-processing standards for the Government. During the past year, the Bureau issued ten standards as well as guidelines for information-processing standards. One of these, the data encryption standard, Federal Information Processing Standard 46 is the first computer security standard. It specifies a method for protecting computer data in transmission and storage.

The Bureau sponsored the landmark study, 'Computers, Health Records and Citizen Rights,' to bring privacy issues in medical recordkeeping to the attention of policymakers. The study's findings and recommendations are applicable to all health-record systems, with or without computers. The report, which has been circulated to at least 10,000 managers of institutions involved in health care, includes 12

recommendations for protecting personal medical records against misuse and for guaranteeing the right of individuals to know what information is in their records and how that information is being used.



**This experimental wall, constructed of over 2000 stones from around the world, is used by Bureau researchers to study natural weathering. Here, a workman prepares the wall for a 40-kilometer trip from the former NBS site in Washington, D.C. to the present headquarters in Gaithersburg, Maryland.**

### **Measurement**

The new Bureau theta-pinch facility, which centers around a pulsed plasma source designed to achieve the extremely high temperatures needed for nuclear fusion, has yielded its first experimental results. This machine utilizes major components of an earlier theta-pinch facility at the Naval Research Laboratory to achieve temperatures of 1 million degrees Kelvin for periods as long as 4 microseconds. It has been developed as a unique tool for measuring excitation and ionization rates for highly ionized species such as those found in fusion-type plasmas in the Tokamak reactor in Princeton. Minute amounts of



impurities in these magnetically confined plasmas allow energy to be lost by radiation at such high rates that temperatures sufficient for nuclear ignition cannot be attained.

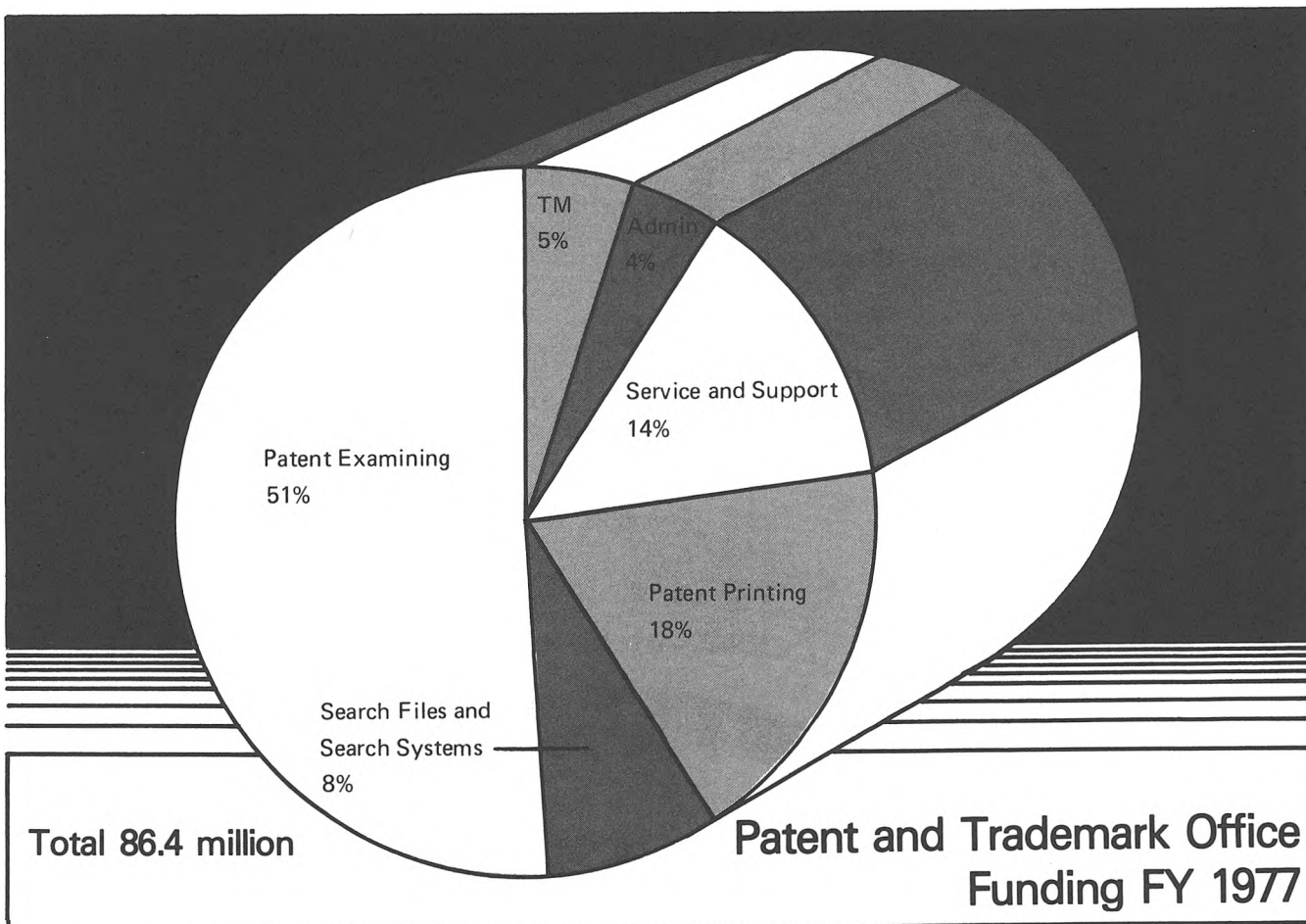
The Bureau also has devised a precise new method to measure the size and distribution of airborne particles and aerosols. The instrument used is called a particle Doppler shift spectrometer. It not only measures the size of particles drifting in a column of air, but also estimates the number of particles of each size. Particles from 3 to 10 micrometers in radius can be measured with an accuracy of .08 micrometers in quantities up to 100,000 per cubic centimeter.

## PATENT AND TRADEMARK OFFICE

The Patent and Trademark Office has three primary functions: (1) To examine patent applications and grant patents; (2) to collect, classify, and disseminate

technology disclosed in patents; and (3) to examine trademark applications and register trademarks. The first patent law, passed in 1790, was enacted under the authority of Article 1, Section 8 of the Constitution "to promote progress of ... useful arts, by securing for limited times to ... inventors the exclusive right to their ... discoveries." The Patent and Trademark Office has been a part of the Department since 1925.

The patent system is designed to encourage technological progress. It provides incentives for inventions, investing in research and development, commercializing inventions, and disclosing new inventions to the public instead of keeping them secret. The Office also administers the Federal trademark registration statute, which is intended to protect business investments and help avoid confusion or deception of consumers by providing for registration of marks used in commerce subject to Federal regulation (usually interstate or foreign commerce).



## Patent Examining

During 1977, major changes were made in the rules governing patent examining and appeal procedures. The rule changes were adopted in order to improve the quality and reliability of issued patents. One of the new regulations enables patent owners to obtain rulings on the validity of their patents in light of additional prior art through the filing of reissue applications. A key rule defines the duty of patent applicants to disclose to the Patent and Trademark Office any information they are aware of that might affect the patentability of their applications. Another new rule encourages the Office's examiners to prepare written statements of their reasons for allowing patents to issue when the public record would not otherwise reveal the reasons.

Under the new rules, inventors who cannot understand English may make the required oath for a patent application in a language that they do understand. New regulations also require that Office decisions with important precedent value be made available to the public. In addition, the rules modify proceedings before the Board of Appeals to help avoid the issuance of invalid patents.

Revised procedures were established for preparing written records of interviews between the Office's examiners and patent applicants. Also, procedures were adopted to provide better written records of the patent searches performed by examiners.

Patent examiners disposed of 102,263 applications during fiscal 1977, excluding designs. New application receipts, without designs, totaled 102,587. The pendency time of an average patent application in the Office was 18.9 months at the end of the fiscal year, down from the previous year's 19.4 months. The 18.9-month figure was the shortest pendency time in several decades. During the fiscal year, 96 energy-related applications and 34 environment-related applications were expedited.

## Documentation and Information Handling

Approximately 150,000 original U.S. patents were reclassified by subject matter in fiscal 1977. During the first full year of operation of a newly developed classification data system, over 1 million reclassified patents were processed into the examiner and public search files. Up-to-date classification of patents in the search files increases the reliability of issuing patents by making it easier for examiners to locate pertinent prior patents.

A minicomputer system that instantly displays the classification of a selected patent was installed in the public search room and at other locations in the Patent and Trademark Office. This system will also display the numbers of all of the patents that are classified in a selected subclass. A program was instituted for replacing patents missing from the search files and for resolving discrepancies between the computerized record of patent classification and the patents actually in the search files. This program also involves adding additional references to the public search files in order to make them more nearly identical to the files used by the examiners. The public search files are located at the Patent and Trademark Office in Crystal City, Virginia.

Experiments with mechanized patent searching were continued. Software and microfilming work was done to prepare for updating and expansion of the experimental computer-controlled microfilm search system during 1978.

In 1977, three additional patent depository libraries were designated—the Birmingham Public Library, Birmingham, Alabama; the Fondren Library of Rice University, Houston, Texas; and the University of Washington Engineering Library, Seattle, Washington. This brought the total number of depository libraries in the country to 25. The Office made available to all of the libraries additional documentation concerning the classification of patents. A conference was held in Washington, D.C., with library representatives to consider ways of improving their effectiveness in serving the public.

The Office released the seventh in a series of publications assessing technological activity through patent data. The seventh report analyzed domestic and international patenting patterns in general, computer memory and antipollution technologies, and 16 areas of technology experiencing either high levels of overall patent activity or unusually heavy patenting by foreigners.

During the past year, the Office installed the first two of three custom-built reproduction machines that should dramatically improve service on the 20,000 orders received daily for patent copies. The new equipment produces paper copies of patents at high speed from microfilm cards and automatically stacks and collates the copies.

Congress appropriated funds for a new computer for the Patent and Trademark Office, and preparations were begun for bringing the equipment on board by mid-1978. The new computer will save money and

improve the processing of patent and trademark applications.

### Trademarks

Trademark examiners disposed of 36,486 applications during the fiscal year. The number of applications filed for trademark registration totaled 44,539, an increase of 20 percent over the previous year. For the second year in succession, the Office attained its goal of taking up the average application for its first examination within 3 months of filing. The Trademark Trial and Appeal Board ruled on a total of 401 cases after hearing; 2,496 cases were pending before the Board at the end of the fiscal year.

A new computer system was installed in 1977 for updating the records in the trademark search room. The system replaced a cumbersome method of hand stamping update information on paper copies of trademark registrations. In addition, an improved system was put into operation to give information on

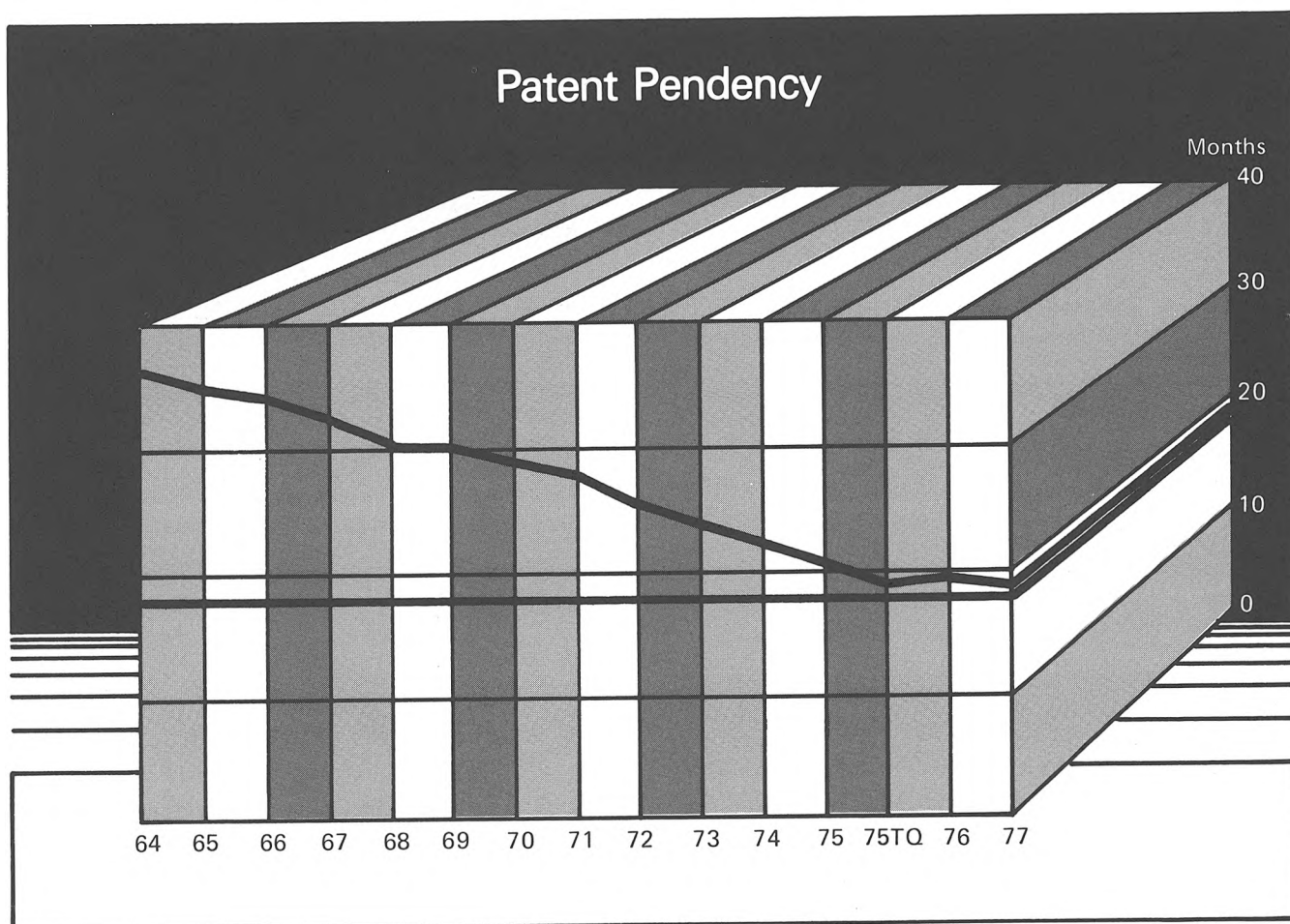
the status and location of pending trademark applications. Terminals are located in the trademark search room and elsewhere.

A rulemaking proposal was published concerning trademark applications filed in the United States from foreign countries. The proposal would permit foreigners to register trademarks without having actually used the marks, as long as there is an intention to use them.

### Legislative and International Affairs

Regulations were proposed during 1977 to set up new procedures for processing the international applications that will be filed under the Patent Cooperation Treaty, implemented on November 14, 1975, by Public Law 94-131. The United States became the first nation of major patent activity to ratify the treaty, which is expected to be in force by the middle of this year.

The Office participated in an effort to revise the Paris Convention for the Protection of Industrial Property,





which is the principal existing treaty on patents and trademarks. The impetus for revision came from developing countries, which believe that a relaxation of provisions of the treaty is needed to stimulate increased transfer of technology to developing countries. Socialist countries also requested revision of parts of the treaty in order to enhance the status of the inventors' certificate form of protection.

The United States and 12 other countries signed the Budapest Convention, which concerns the deposit of micro-organisms. This treaty, when it takes effect, will simplify and reduce the legal uncertainties of micro-organism deposits needed for the full disclosure of microbiological inventions in patent applications. Only a single deposit will be needed to secure a patent in all of the countries adhering to the convention.

The Patent and Trademark Office and the Department of Agriculture participated in meetings of the International Union for the Protection of New Plant Varieties. Substantial progress was made in removing obstacles to United States membership in the Union. The Nice Agreement on international trademark classification was revised at a diplomatic conference in Geneva, Switzerland, in May 1977. The revision was signed by the United States and 13 other countries.

The Office also participated with the Departments of State and Justice in United Nations Conference on Trade and Development negotiations on an international code of conduct on transfer of technology. The Office also continued its training assistance to developing countries. Trainees and Government officials from a number of countries visited the Office.

For the first time in a decade no bill was introduced in Congress for a general revision of the patent laws. The Office began collecting data on the effects of the new patent-examining rules, to assess whether the new rules might eliminate the need for some of the revisions in the patent statute that have been proposed in recent years.

### Other Activities

The backlog of pending patents appeals at the Board of Appeals was reduced by 255, and the number of appeals pending at the end of the fiscal year was 3,900. The Board of Patent Interferences had 66 cases awaiting final hearing or decision at the end of the year.

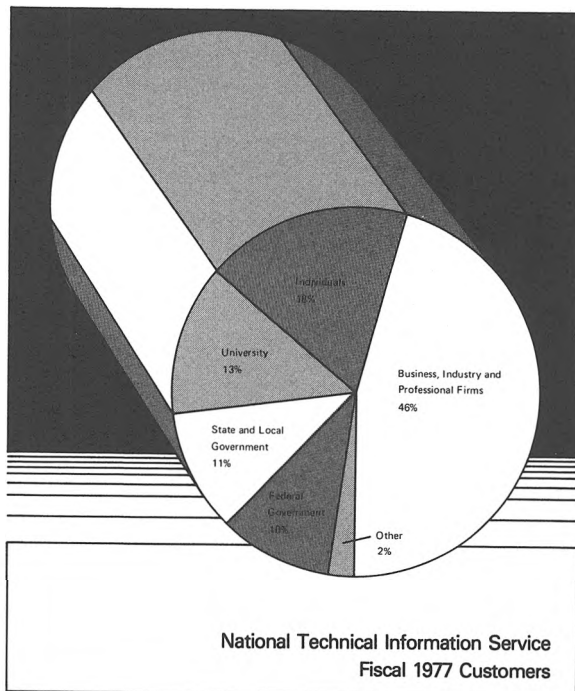
At the fifth annual National Inventors Day observation, five distinguished inventors were inducted into

the National Inventors Hall of Fame. They are George Eastman, Lee DeForest, Edwin H. Land, Charles P. Steinmetz, and Vladimir K. Zworykin. This brought the number of inductees to 28. The Hall of Fame is cosponsored by the Patent and Trademark Office and the National Council of Patent Law Associations.

## NATIONAL TECHNICAL INFORMATION SERVICE

The National Technical Information Service is the central source for the public sale of Government-sponsored research, development, and engineering reports, and other analyses prepared under Federal auspices or generated by the Government.

Growth continued in all phases of operations: input of new reports progressed from 60,000 reports in 1976 to over 80,000 in 1977; subscriptions in 1977 totaled 39,000, compared with 28,000 a year earlier; and the distribution of printed on-line searches increased from 27,000 in 1976 to over 32,000 in 1977. Operating flexibility and productivity have grown by virtue of continued pioneering in the use of automated equipment and modern information technologies.





Several new products and services of the National Technical Information Service were introduced in 1977. They were the publication of the 'U.S. Government Patent Portfolio' and the 'NTIS Tech Notes' series and the information referral service.

## **OFFICE OF TELECOMMUNICATIONS**

The Office of Telecommunications was created by Executive Order 11556 dated September 4, 1970. The primary functions of the Office are: (1) The investigation of conditions that affect transmission of radio waves and the compilation and distribution of information about such transmissions; and (2) the performance of research and analysis and other functions in support of the Director of the Office of Telecommunications Policy. In addition, the Office provides technological support to other Federal agencies on a reimbursable basis.

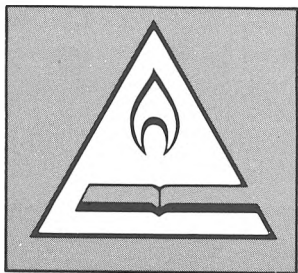
Activities of the Office included the development of a Federal standard specifying performance criteria for data communications systems. Office researchers also began composition of a data bank of engineering models and data bases pertaining to problems of radio wave propagation; evaluated a pilot high-speed digital data microwave radio system; studied problems of aircraft collision avoidance systems; and initiated a project designed to identify and lower the technical, economic, and institutional barriers that may inhibit public service use of advanced communications satellite systems.

Staff engineers analyzed 60 proposed Government telecommunications systems to determine conformity to regulations and compatibility with other systems. In eight specific bandwidths, the Office investigated spectrum congestion, compatibility, and increased band use.

The Office provides technical assistance to the Interdepartment Radio Advisory Committee's Secretariat, which last year prepared for 185 meetings, processed 61,500 Federal frequency applications, and administered the Government Master Frequency File. In addition, it provided technical assistance to the State Department in developing this country's positions for the 1979 General World Administrative Radio Conference and represented the United States on two International Telecommunication Union technical support groups.

The Office held its annual "Telecommunications for Government" symposium and continued its active publications program. Over 40 special publications, contractor and technical reports, and technical memoranda were published.

Eighteen outstanding men and women trained in the sciences participated in the 12th Commerce Science and Technology Fellowship Program, which combines advanced training with specific assignments in the executive or legislative branches of the Government over a 10-month period.



## Chapter IV

# FIRE PREVENTION AND CONTROL

### MISSION

The National Fire Prevention and Control Administration was created by the Federal Fire Prevention and Control Act of 1974. It is charged with reducing the Nation's losses from fire through better fire prevention and control, supplementing existing programs of research, training and education, and encouraging new and improved programs and activities by state and local governments. In order to accomplish these objectives, it is divided into four major divisions: the National Fire Data Center, National Fire Safety and Research Office, Public Education Office, and the National Academy for Fire Prevention and Control.

### NATIONAL FIRE DATA CENTER

In order to improve the fire situation, reliable data on the existing problem are essential. The Data Center operates a computerized system for the collection, analysis, and dissemination of information related to the prevention, occurrence, control, and results of all types of fires.

The Center heads the National Fire Incident Reporting System, where standardized reports from contributing states are collected and analyzed. Information from this program, along with existing data, was used in the fire loss estimates issued in 1977 as "Fire in the United States," the Administration's first national fire estimates. In addition to the statistics quoted earlier, the report also stated that there are 2.6 million fires handled by fire service yearly.

The Data Center maintains the National Fire Reference Service, a clearinghouse for technical information on fire which serves Federal, state, and local agencies as well as the private sector and the general public.

### NATIONAL FIRE SAFETY AND RESEARCH OFFICE

The reduction of human loss from fire and the improvement of local fire protection are the broad goals of the National Fire Safety and Research Office.

The Office's applied research has led to great emphasis placed on "Master Planning," a new way for local governments to look at and solve their community's fire problems. The Office presented master plans adoptable for both urban and nonurban areas during the year.

Several studies were conducted on residential fire suppression systems, and work was done on firefighters' physical fitness requirements, helmet standards, and envelope—the clothes a firefighter wears when he fights fires.

The Center for Fire Research of the Department's National Bureau of Standards provides fundamental fire research in support of the National Fire Prevention and Control Administration's program. In another area of fire research, the Bureau recently developed improved product performance standards for home smoke detectors in cooperation with Underwriters Laboratories.

### PUBLIC EDUCATION OFFICE

Perhaps the most frustrating aspect of the fire problem is public indifference. The Public Education Office works toward achieving fire loss reductions through development and dissemination of effective public fire education programs to states and communities.

A far-reaching smoke detector program was conducted during the year. The program was aimed at providing instructors and the fire service with complete information on smoke detector public education.

As part of that program, the Office published a five-part smoke detector manual. Included were a Smoke Detector Resource Catalog, Smoke Detector Technology, Moving the Public, Legislation, and Smoke Detector Training.

The Office coordinates a resource exchange program through a monthly bulletin, sponsors public education conferences, and has awarded grants to six states to establish public education resource systems.

## THE NATIONAL ACADEMY FOR FIRE PREVENTION AND CONTROL

Traditionally, there has been little opportunity for further education for members of the fire service. The Academy has as its goal the advancement and the professionalization of fire service personnel and

others engaged in fire prevention and control activities.

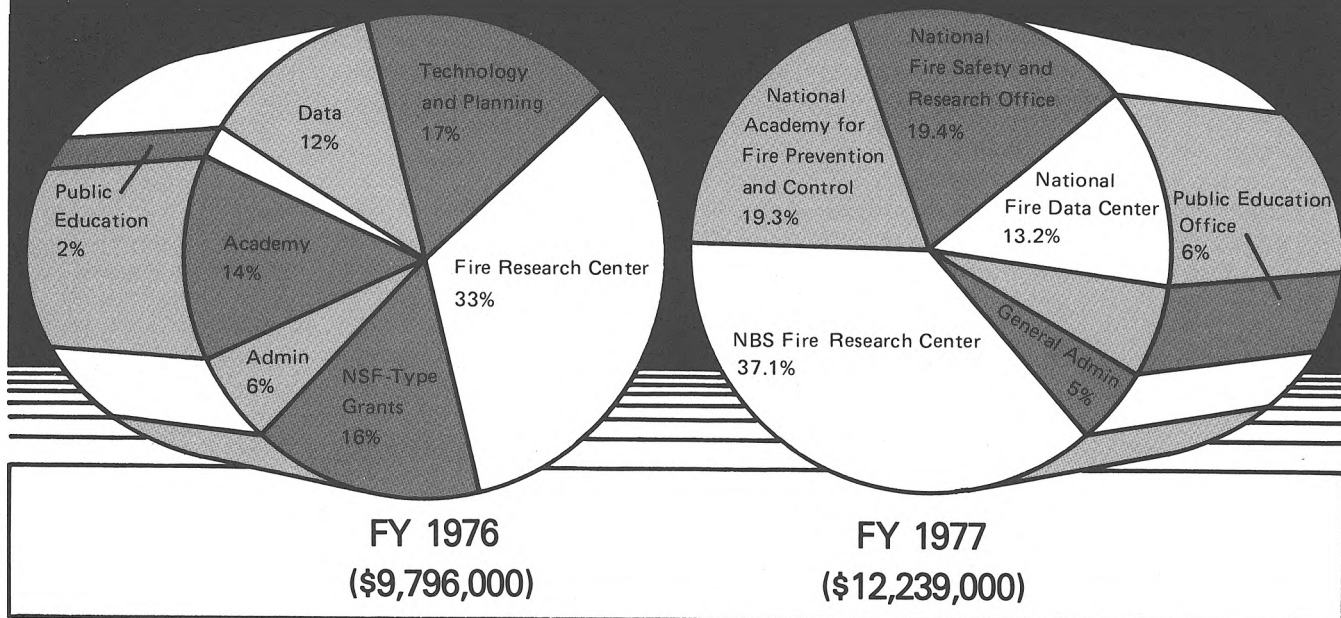
The purchase of the former Marjorie Webster College campus for use as the Academy home was a major accomplishment for this period. The building will eventually house the academy staff and serve as the campus for the Nation's fire education students.

The Academy also announced its education and training program for the new term. Courses, to be offered throughout the country, include fire investigation and arson detection, fire instructor development, labor/management relations, and fire safety for practicing architects.

## ANNUAL CONFERENCE

A thousand leaders from state and local governments and the fire service met in St. Louis in October for the National Fire Administration's Third Annual Conference, "Policy Leadership in Fire Protection." The conference opened communication doors between the state and local management officials and key members of the fire service.

## Financial Obligation





# Chapter V

## OCEANIC AND ATMOSPHERIC ACTIVITIES

### MISSION

The National Oceanic and Atmospheric Administration carries out programs designed to further the Nation's safety, welfare, security, and commerce through increasing our knowledge and rational use of the natural environment. These involve:

- Ensuring continuing abundance of varied fishery products through promotion of the economic and safe use of all fishery resources, conserving and managing resources of interest to the United States, and increasing U.S. resources.
- Providing the Nation with maps, surveys, and related information for safe navigation and accurate location.
- Providing a sound basis for planning and conducting weather-sensitive activities and protecting life and property from natural disasters through (1) weather, river, flood, and oceanic forecasts and warnings; (2) specialized forecasts of interest to aviation, space, agriculture, and fire control; (3) establishment of practical means to modify hurricanes and severe storms; (4) development of theoretical and experimental descriptions of the ocean and atmosphere as a total system; and (5) data collection and dissemination.
- Fostering balanced development, conservation, and management of coastal zone and marine resources through (1) information on human impact on environmental ecosystems; (2) protection of marine mammals and endangered species; (3) creation, with the States, of a national conservation-development strategy; (4) improvement of global ocean-process forecasts; (5) identification of new resources and techniques for efficient marine operations; and (6) provision of advisory services and specialized marine, educational, and environmental data.

The National Oceanic and Atmospheric Administration is headed by an Administrator who is the Permanent Representative of the United States to the

World Meteorological Organization and the U.S. Commissioner to the International Whaling Commission. He chairs the Marine Fisheries Advisory Committee, the Interagency Committee on Marine Science and Engineering, and the Federal Committee for Meteorological Services and Supporting Research and serves on seven other advisory and interagency committees. The Administrator is also the U.S. principal in U.S./French Cooperation in Oceanography and U.S. Chairman of the Joint Committee for the U.S./U.S.S.R. Cooperation in Studies of the World Ocean.

Although the Administration was created in 1970, most of its major programs date well back into the 19th century. For example, the coastal surveys and mapping began under Thomas Jefferson, weather forecasting activities started in 1849, and marine fisheries were established in 1871. The Administration's newest program, coastal zone management, was initiated in 1972.

During fiscal 1977, the Administration was organized around six separate program components, together with a number of staff-level offices. Shortly after the close of the fiscal year, the office was reorganized to bring certain of the components under common management and to revamp the staff structure. The activities described in this chapter, however, are referred to in terms of the organization that existed in fiscal 1977.

### MARINE RESOURCES

The Associate Administrator for Marine Resources has authority over and establishes policy for the National Oceanic and Atmospheric Administration's data management, mapping, charting, geodetic control, and marine resources activities.

The Associate Administrator was delegated the Secretary's authority under the Fisheries Conservation and Management Act of 1976 to take final action to: (1) establish guidelines to assist in the development of fishery management plans; (2) prescribe uniform standards for each Regional Fishery Management Council; (3) establish the schedules of fees; (4)



take emergency action under Section 305(3) of the Act; (5) issue preliminary fishery management plans; and (6) approve, disapprove, partially disapprove, or issue fishery management plans or amendments. Thirteen preliminary management plans, two fishery management plans, and a schedule of fees were approved in fiscal 1977.

The Office of the Associate Administrator coordinates ocean pollution work under the provisions of the Marine Protection, Research and Sanctuaries Act of 1976.

A major activity of the Office is a program to assess the potential environmental and socio-economic impacts of the transportation, processing, and waste disposal operations associated with deep-seabed mining. A report titled *Description of Manganese Nodule Processing Activities for Environmental Studies* was published in August 1977.

National leadership was provided for several international marine agreements involving cooperation with France, Japan, and the Soviet Union. The Office also assisted the Department of State in negotiating 11 fishery agreements.

## **NATIONAL MARINE FISHERIES SERVICE**

The National Marine Fisheries Service continued to research and service the protection and rational use of living marine resources for their aesthetic, economic, and recreational value. The objectives of this program are: (1) To determine how the varying natural environment and man's activities affect living marine resources; (2) to foster the efficient and judicious use of these resources; and (3) to achieve their domestic and international management, use, and protection.

During fiscal 1977, operations began under the Fisheries Conservation and Management Act of 1976 (Public Law 94-265). The Act provides a strong national program for the conservation and management of our fishery resources up to a distance of 200 nautical miles from our coasts to prevent the depletion of our fish stocks, to rebuild stocks that have been overfished, and to conserve and manage our fisheries within the 200-mile conservation zone. The organization and functions of the Marine Fisheries Services were realigned on October 10, 1976, in order to administer new and expanded responsibilities under the Fisheries Conservation and Management Act.

The eight Regional Fishery Management Councils created by this Act were provided financial management assistance and technical support by the National Marine Fisheries regional offices and research centers. This helped the Councils to organize, establish headquarters, and undertake their mandated duties of holding public hearings and developing fishery management plans. Three plans covering Pacific troll salmon, New England groundfish fisheries, and surf clams and ocean quahogs were submitted by the Councils. The first two plans were approved by Secretary and are now in effect.

On March 1, 1977, for the first time, foreign fishing within the U.S. fishery conservation zone (from 3 to 200 miles from the U.S. coasts) was placed under U.S. regulations. Thirteen preliminary management plans and accompanying fishery regulations implemented management of fishery resources within that zone. As a result, foreign catches in U.S. waters were reduced from 3 million metric tons in previous years to a permitted level of 2.1 million metric tons in calendar year 1977.

The Service assisted the Department of State in negotiations with countries desiring to fish off the U.S. coast to obtain their acknowledgment of the exclusive fishery management authority of the United States under the Act. Governing international fishery agreements, as provided in the Act, were signed with ten foreign nations and the European Economic Community, permitting them to fish in U.S. waters. A schedule of fees was established, foreign allocations of fishery resources were made in accordance with preliminary management plans, fees were collected, and permits issued.

Fisheries enforcement patrols during fiscal 1977 resulted in 1,292 boardings of foreign and domestic fishing vessels. Primarily because of enforcement of the Act, the number of documented violations of U.S. fisheries laws or agreements rose to over 748. In addition, three vessels were seized during the year.

### **Fisheries Development**

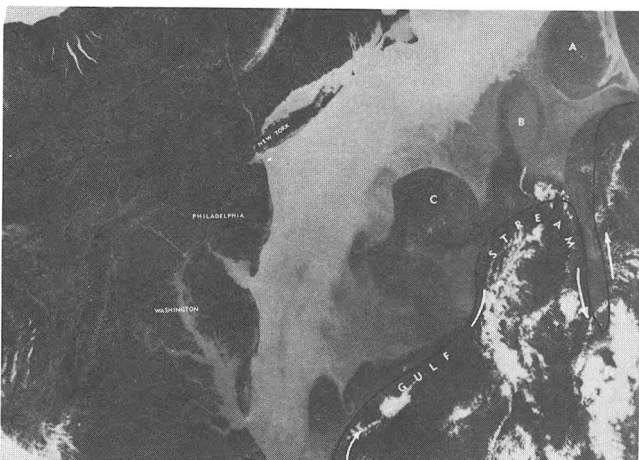
The National Marine Fisheries Services was directed by the Office of the Secretary in cooperation with other elements of the Department to take the lead in a study to determine domestic and export markets for under-utilized fish and shellfish. This means a year-long study of export markets and domestic requirements to identify financial, technological, and institutional barriers to fisheries development.

About 649 million pounds of edible fishery products were inspected for meeting Department of Commerce requirements. This represents 30 percent of the fishery products processed in the United States by the 81 plants under contract inspection as of September 30, 1977.

The Service continued research to develop a new system for market names of fish and fishery products.

The Service also assisted fishermen in the financing of vessel construction costs with private capital through two Federal programs.

- The Fishing Vessel Obligation Guarantee program provides a Federal guarantee to allow fishermen to use the private market for long-term debt capital to finance vessel construction costs. Almost \$24 million of guaranteed financing was approved during the year for 120 new fishing vessels, as compared to \$11 million and 67 vessels during the previous year.
- The Fishing Vessel Capital Construction Fund program provides tax deferral to allow fishermen to accelerate their accumulation of equity capital for the construction of new vessels. Tax-deferred deposits into the program totaled \$97.9 million from inception through September 30, 1977. Withdrawals principally for construction or reconstruction of fishing vessels totaled \$66.1 million.



A NOAA 5 infrared picture showing different water masses along the Middle Atlantic and southern New England shores. The light areas are cool water and the dark areas are warm water. This information is used by the shipping industry to route ships by taking advantage of oceanic currents associated with the Gulf Stream. The location of the rotating bodies of water (A, B, and C) act as navigation aids to fishing, recreational boating, and search and rescue operations.

## Resource Research and Environmental Protection

The Marine Resources Monitoring, Assessment, and Prediction Program expanded resource surveys in the Northwest Atlantic and improved nationwide our capability to analyze historical fishery data. The Program provided estimates of Maximum Sustainable Yield essential to the preparation of Preliminary Management Plans and Fishery Management Plans developed by the Councils for the major fish stocks within the U.S. 200-mile zone fished by foreign nations.

The Service assisted in developing the NOAA Aquaculture Plan published in 1977. This Plan identifies the scientific, technical, legal, and institutional base needed for increased production of selected species by public hatcheries and/or private husbandry.

Fisheries habitat protection was continued in the Nation's estuaries and wetlands. A major report, "Water Quality and Molluscan Shellfish: An Overview of the Problems and Nature of Appropriate Federal Laws," was completed in March 1977. This document supported the Secretary's Report to Congress on September 2, 1977, on "The Molluscan Shellfish Industries and Water Quality: Problems and Opportunities," which analyzes the effectiveness of Federal pollution control laws on the molluscan shellfish industry.

The Service cooperated with other agencies in investigating the ARGO MERCHANT oil spill of 7.5 million gallons in Nantucket Shoals in December 1976 to determine the effect on fisheries habitat.

A methodology study was conducted to determine a cost-effective, reliable method of obtaining annual statistics on marine recreational fisheries. Based on the information obtained, the Service plans to conduct surveys beginning in fiscal 1978 to determine the scope of marine recreational fishing.

## Marine Mammals and Endangered Species

The 1977 regulations for the incidental take of porpoises in the eastern tropical Pacific yellowfin fishery established a quota of 62,429 animals. This is a maximum, however, and the 1977 kill is estimated at approximately 25,000. Special conditions prevailed during 1977, including a Federal injunction against operations involving porpoise mortality in effect during the height of the fishing season. In addition, the American fleet has made significant improvements in its ability to reduce the incidental take of these whales.

Commencing in 1978, regulations call for declining annual quotas over a 3-year period: 51,945 porpoises in 1978, 41,610 in 1979, and 31,150 in 1980. These quotas, together with the 1977 quota, were established pursuant to a Federal court order, the so-called Richey decision of May 1976.

The International Whaling Commission meeting in June deleted the native exemption for the take of bowhead whales because of apparent low levels of bowhead stock in the Bering Sea. The United States did not object to this action, but rather presented a conservation system, incorporating management and research programs, to a special Commission meeting after the close of the fiscal year. The Commission agreed to the plan, but limited the 1978 take to 12 whales landed and 18 struck by Alaskan Eskimos.

The U.S. Court of Appeals, District of Columbia, ruled that the waiver of the moratorium under the Marine Mammal Protection Act, which allowed the importation of Cape fur sealskins from South Africa, was invalid, overturning a lower court decision. The company that wants to import the skins has asked the Supreme Court to review the decision.

The annual harvest of furseals on the U.S.-owned Pribilof Islands was conducted in June and July 1977. The total harvest from St. Paul Island, the only island where a harvest is conducted, was 28,441 bachelor males. The total seal population of the Pribilofs is 1.3 million.

### **International Activities**

In the area of international fisheries, the Marine Fisheries Service made progress in the following areas:

- It continued work to implement international measures to protect both coastal and distant water fishery resources of interest to U.S. fishermen; it acquired and analyzed information on foreign fishing industries, fishing policies of foreign governments, and foreign fishing efforts; it participated in the work of seven international fishery commissions with responsibilities under treaty arrangements to conserve such varied resources as halibut, salmon, and fur seals in the North Pacific, tunas in the tropical Pacific and Atlantic, and whales; and it participated in negotiating a short-term Reciprocal Fisheries Agreement with Canada and started negotiations for long-term arrangements for resources and maritime boundaries.

## **NATIONAL OCEAN SURVEY**

The National Ocean Survey provides nautical and aeronautical charts for safe navigation of marine and air commerce, fulfills national requirements for the basic network of geodetic control, and supplies data to meet the Nation's informational needs for Earth and ocean sciences. To accomplish its mission, the Survey engages in research and development in the fields of cartography, geodesy, oceanography, photogrammetry and engineering technology. It operates and maintains ocean-going survey ships, ship bases, observatories, and field laboratories and offices. Data from these programs are disseminated in the form of maps, charts, reports, and scientific and technical research papers.

### **Geodesy**

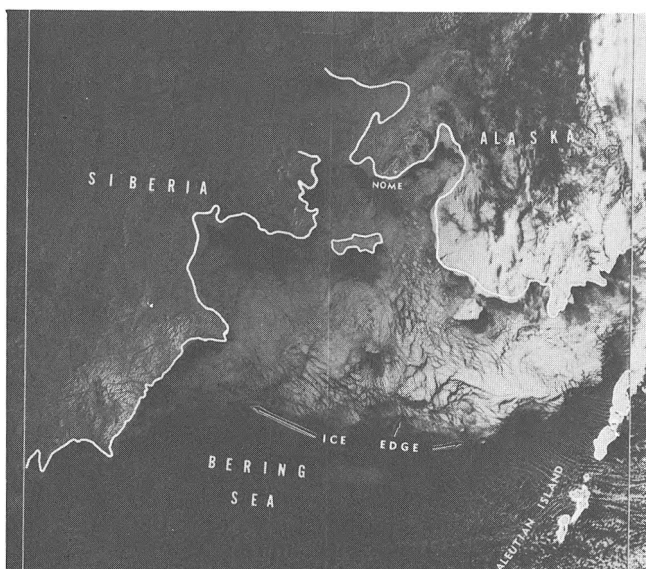
The National Geodetic Survey progressed significantly in the new adjustment of the North American Datum scheduled for completion in 1983. A comprehensive test of the programs for the entire adjustment was formulated and was scheduled for completion by the end of 1977. All observations for the U.S. National Gravity Base Network were completed and a number of repeat gravity surveys to monitor secular gravity changes associated with earthquake-prone areas were concluded in California.

### **Marine Surveys and Maps**

Production of new-edition nautical charts continued, with reconstructions and new chart production held to a minimum to devote maximum effort for the development of fully automated production procedures. Several applications of computer-assisted charting were made. Planning and chart improvement projects included issuance of 13 cartographic orders to define and/or improve the charts, development and adoption of new chart colors for improved visibility in dim light, issuance of several chapters of the new "Nautical Chart Manual," determination of baseline points for depicting the Fishery Conservation Zone (the 200-mile limit), development of plans for joint U.S.-Canadian charting of particular areas of the Great Lakes and outflow rivers for the newly established U.S.-Canadian Hydrographic Commission, and the initiation of work on a new 10-year National Ocean Survey charting plan.

The 200-mile Fishery Conservation Zone limit was printed on 26 new-edition charts and the Contiguous Zone and Territorial Sea Limits were





**A NOAA 5 visible picture showing ice conditions in the Bering Sea between Alaska and Siberia. The knowledge of the extent of ice in this area is important to marine transportation, marine mammal, and fishing interests.**

produced on 47 public-issue charts. The depiction of ocean dump sites in areas designated by the Environmental Protection Agency, in progress on all affected nautical charts, will ultimately be shown on about 500 charts. Work was begun on the automated construction of an intermediate-scale (1:100,000) chart, to be published in both standard and metric units. The chart represents several "firsts": First navigational large-scale metric, first navigational bathymetric, first use of automated type, and first computer-generated depth curves.

Under a reimbursable program, five 1:250,000-scale bathymetric maps were produced for the Bureau of Land Management's Outer Continental Shelf Leasing Program. In support of the National Ocean Survey-U.S. Geological Survey joint Topo/Bathy Mapping Program of the Coastal Zone, bathymetry for 44 maps was furnished to the Geological Survey, an increase of 40 maps over last year's efforts.

The Oceanographic Division began a Coastal Wave Monitoring Program to provide urgently needed coastal and offshore wave data and wave statistics to Federal, State, and private industry for scientific, environmental, and engineering projects.

Research and development activities of the National Ocean Survey included automation of the photogrammetric process, photogrammetric geodesy; the development of specifications and contract for the Survey's Analytical Plotter; the use of underwater stereo cameras for monitoring deep-

ocean mining; the analysis of multispectral scanner digital data for coastal and hydrographic mapping; and the application of photogrammetry to the determination of obstacles for the Federal Aviation Administration's Minimum Safe Altitude Warning System.

### **Aeronautical Charting and Cartography**

The Office of Aeronautical Charting and Cartography provides aeronautical navigation charts to meet the needs of the military and civilian aviation communities. It also provides for the reproduction and distribution of aeronautical and nautical charts and related publications. Distribution is made to other Government agencies and to the flying and boating public through subscriptions and via commercial chart agents strategically located throughout the United States. Chart productivity during fiscal 1977 was: 2,803,612 copies of 181 Visual Aeronautical Charts; 25,123,606 copies of 3,657 Instrument Aeronautical Charts; 2,677,293 copies of 589 Nautical Charts; 138,668 copies of 19 Nautical Publications; 326,053 copies of 45 miscellaneous publications of nautical material. The total number of copies issued was 26,086,886; the revenue from the sale of this material amounted to \$5,875,433.

### **Marine Technology**

A major goal of the Office of Marine Technology is to provide instrument systems engineered for specific applications to enable oceanographic data acquisition. Examples of accomplishments included:

- Delivery of a bathymetric swath survey system for initial field testing;
- Development and application of selected oceanographic sensors in support of the Marine Ecosystems Analysis Program; and
- Development of several in-situ standards for field observations in support of the Environmental Protection Agency's marine-pollution monitoring programs.

### **Fleet Operations**

The Office of Fleet Operations furnished a total of 4,791 days at sea in support of the Administration's marine efforts. Activities included hydrographic surveys, resources research and services, environmental assessments of the outer continental shelf, coastal zone mapping and services, marine ecosystems analysis, and ocean investigations. These efforts were made by the centrally managed fleet and do not



reflect the work of hydrographic field parties, charter vessels, or program-managed vessels.

## OFFICE OF OCEAN ENGINEERING

The mission of the Office of Ocean Engineering is to accelerate the development of civilian-oriented ocean technology in the United States and to identify new methods for the transfer of this technology by the ocean community. The Office also formulates the National Oceanic and Atmospheric Administration's ocean engineering policy and provides policy advice to its Administrator. It serves as a focal point for manned undersea science and technology, the operation of data buoys, ocean instrumentation system development, and advanced marine technology. Finally, under a National Oceanic and Atmospheric Administration-Department of Energy Memorandum of Understanding the Office serves as the technical manager for the commercialization stage of the Department of Energy's Offshore Thermal Energy Conversion program.

## COASTAL ZONE MANAGEMENT

Three Coastal Zone Management Programs were approved in fiscal 1977, including the Culebra segment of Puerto Rico, the San Francisco Bay segment of California, and the State of Oregon. Approval of the remainder of California's coastal program was delayed until November 1977 by a court suit brought by the American Petroleum Institute. With approval, the entire west coast of the contiguous 48 States is now under coastal management supported by the Coastal Zone Management Act.

In addition to these west coast States, which have established legislative authorities for coastal zone management, Alabama, Alaska, Hawaii, South Carolina, and Texas passed coastal management legislation in fiscal 1977. Several other States passed legislation for specific areas or uses to be included in their coastal programs, while others attempted to pass legislation in 1977 and will reintroduce legislation in 1978.

The Coastal Energy Impact Program, created by the 1976 Amendments to the Coastal Zone Management Act, received its first appropriations in May. In June, \$125 million in grants and credit assistance was allotted to the 34 participating coastal States and territories. During the first three months of program operations, applications totaling \$10.3 million and pre-applications totaling \$54 million were received

by the Office of Federal Programs for this assistance. Major project awards include a water storage facility and the provision of hospital equipment, both of which were required because of Outer Continental Shelf energy development in the Gulf of Mexico.

In implementing the Federal consistency requirements of the Coastal Zone Management Act [Sec. 307(c) and (d)], proposed regulations were published for review and comment in October and November of 1976. After subsequent revision, proposed regulations were reissued on August 30, 1977.

## SEA GRANT

The National Sea Grant Program provides grants to colleges and universities and to other groups and individuals carrying on research and educational projects on marine resources. Up to two-thirds of the funds for a project may come from Federal appropriations; the remainder, at least one-third, must come from non-Federal sources.

During the period October 1, 1976 through September 30, 1977, the Office of Sea Grant made awards of more than \$28 million. That amount supported work at more than 130 universities, colleges, and other institutions in 29 States, the District of Columbia, Guam, and Puerto Rico. Approximately 3,800 researchers, advisory service agents, and graduate and undergraduate students participated in more than 700 separate projects.

Because of the Sea Grant Program Improvement Act of 1976, Sea Grant activities during the period focused on the development of new fellowship programs to assist students in their pursuit of marine and oceanic-related studies; national projects aimed at meeting needs and helping solve problems that affect the Nation as a whole; and international programs created to enhance the ability of developing nations to use and manage wisely their marine resources. Moreover, considerable emphasis was placed, both in funding and in philosophy, on marine education projects for elementary and high school students.

The Marine Advisory Services increased its ranks to an all-time high of 254 full-time equivalent positions, established a Great Lakes Sea Grant network, organized a marine advisory service internship program, and established a program in Puerto Rico for the first time.

During the year, the Massachusetts Institute of Technology received recognition as a Sea Grant

College. The designation increased the number of Sea Grant Colleges in the system to 12 institutions.

## NOAA CORPS

Since 1917, the commissioned officers of this Corps, the smallest of the seven Uniformed Services, have served with ships, airplanes, and mobile field parties and have undertaken emergency special duties in remote areas. New and advanced curriculums for improving and strengthening the quality of these services, have been developed for NOAA officers at the Naval Post Graduate School, Monterey, California (Oceanography/Hydrography), and the NOAA Officer Training Center located at the U.S. Maritime Academy at Kings Point, New York. With expanding requirements in energy and related fields, the strength of the Corps has been increased to 399, as authorized by Congress.

## ENVIRONMENTAL MONITORING AND PREDICTION

The Associate Administrator for Environmental Monitoring and Prediction has authority over and establishes policy for meteorological, oceanic, climatic, and other programs that entail monitoring and prediction of the environment and environmen-

tal modification. He is the focal point for emergency readiness planning against natural and man-made disasters and for conducting surveys of major natural disasters.

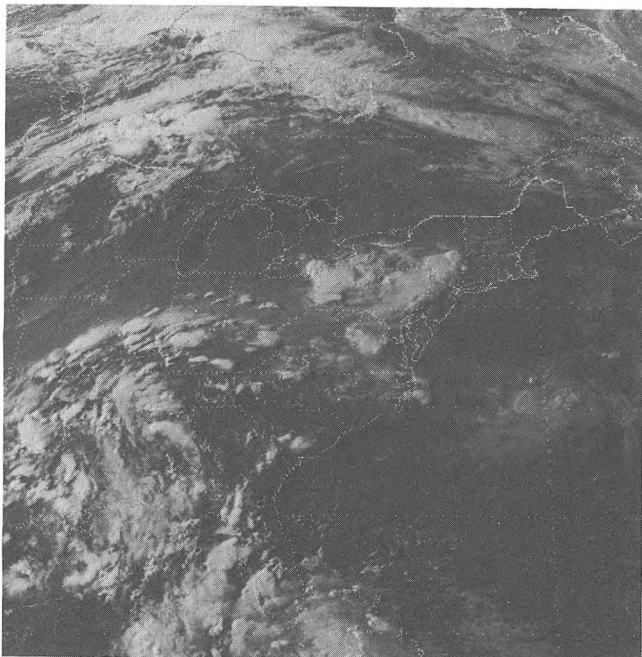
The Associate Administrator provides management and coordination for the Global Atmospheric Research Program and serves as U.S. Co-chairman of Working Group VIII, on the Influence of Environmental Changes on Climate, under the U.S./U.S.S.R. Bilateral Agreement on Cooperation in the Protection of the Environment. He also discharges Federal meteorological coordinating functions for the World Weather Program.

A disaster survey team investigated and reported to the Administrator on the operations of the warning system during the flash flood that struck the Johnstown, Pennsylvania area on July 19-20, 1977. Recommendations were made to strengthen both the National Weather Service and community preparedness aspects of the flash-flood warning system. This report was released in December 1977 as "Disaster Survey Report 77-1."

A comprehensive study of weather modification was begun in response to Public Law 94-490, the National Weather Modification Policy Act of 1976. A non-federal advisory board was appointed by the Secretary to assist in producing the report and developing recommendations toward a National Policy and Program requested by Congress.

## Severe Storms Research

The National Weather Service conducts research programs to improve monitoring and prediction of tornadoes, hail, high winds, turbulence, and excessive rainfall. The basic concept developed earlier in this program for the identification of large-scale cyclone circulations and tornado vortex "signatures" by means of Doppler radar was expanded further through a cooperative experiment at the Service's Severe Storms Laboratory and the Air Weather Service, as well as the Air Force Geophysics Laboratory. During 1977, the experiment evaluated Doppler radar storm data in a real-time operational mode, with emphasis on translating the information as it would be used in public warnings. Twenty-four mesocyclone circulations were detected, twelve of which had at least one associated tornado. The average lead time for issuing a storm advisory was 23 minutes; when using the system for public warnings, the average lead time for the warnings was increased by 10 minutes (with improved data-handling techniques, lead times should exceed 20 minutes).



GOES 1 visible image—July 19, 1977— 2 km resolution

In the center of the picture is the severe storm that caused the Johnstown flood.

The first dual-Doppler radar observations of wind from cloudless air without the use of radar chaff were made, demonstrating the feasibility of using dual-Doppler radars for mapping the turbulent structure of the clear atmospheric boundary layer in the prethunderstorm environment.

Studies of the evolution of tornadic circulation along gust fronts and of tornadoes not centered on the mesocyclone axis have shown that while the mesocyclone is an indicator of potential tornadoes, some do not evolve through further concentration of larger circulations. Studies of gust-front structures, origins, and propagation have led to increased awareness of the impact of these highly sheared flows on flight safety. Using an airborne carbon dioxide Doppler lidar, measurements of velocity spectra of waterspouts have revealed quantitative values of peak rotational velocities with a double-walled funnel structure in some cases.

In cooperation with the Federal Aviation Administration, two systems for the detection of thunderstorm gust fronts were developed and installed at O'Hare and Dulles International Airports.

## NATIONAL WEATHER SERVICE

With some 400 field facilities, the National Weather Service observes and reports on atmospheric, river, and ocean conditions of the United States and its possessions and issues forecasts and warnings of weather, flood, and sea conditions that affect the Nation's safety, welfare, and economy. Highlights of National Weather Service achievements in fiscal 1977 include the following:

- A contract was let under the Automation of Field Operations and Services (AFOS) program, to provide equipment at 213 offices to improve the National Weather Service warning, public weather, and river services. The needed hardware and programs are being readied to begin implementation in 1978.
- Forty-one NOAA Weather Radio stations were established by the Service during fiscal 1977, bringing the total of operational stations to 151. The Service plans to expand this program to approximately 340 stations by the end of calendar 1979 to complete the National Basic Network. Equipment is being delivered at the rate of 12 systems a month and is being installed by contractors and by some State governments through cooperative agreements.

- A new River Forecast System was initiated during 1977 and now services about 10 percent of the United States. The new system proved especially effective during the severe drought in the West.
- During fiscal 1977, the Service installed 5 upper-air minicomputers, 23 modern local-warning and 4 network radars, and 38 automatic meteorological observing systems in support of the forecasts and warnings program. Automation of Hydrologic Observing Systems to improve river and rainfall data collection for flood forecasting has increased from 400 to 500 sites.



## NATIONAL ENVIRONMENTAL SATELLITE SERVICE

The National Environmental Satellite Service manages the Nation's operational environmental satellite system.

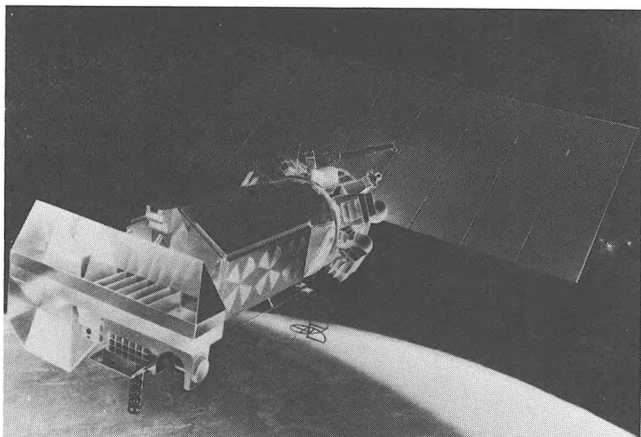
During fiscal 1977, the Service operated two improved, second-generation television infrared observation satellites, the so-called "ITOS" series. These satellites, NOAA 4 and NOAA 5, orbit the Earth Prone pole to pole. NOAA 5 is the primary operational satellite, and NOAA 4, the in-orbit backup. These satellites provided global day and night cloud images, twice daily, at resolutions of 4 and 8 kilometers in the visible and infrared channels respectively. They also provided high resolution (1 kilometer) visible and infrared observations of the Earth's cloud cover, cloud top temperatures, and sea surface temperatures. In addition, the satellites obtained measurements of solar radiation and atmospheric temperature and water vapor in cloud-free areas. Direct readout of these data was available,



on a global basis, to properly equipped ground stations within radio range of the satellites.

Development of the "TIROS N" series, the third generation of operational polar-orbiting satellites, continued. These satellites will replace the present ITOS series in 1978. TIROS N, the NASA prototype, will be launched in mid-1978; NOAA A, the Service's first operations satellite of this series, is scheduled for launch 4 to 6 months later. Installation of the TIROS N ground equipment began at the Service's Satellite Operations Control Center in September 1977. The ground equipment will acquire environmental and engineering data from the satellite and then process the data into products for distribution to the users.

The Service also operates the so-called "GOES" or geostationary satellite series. These satellites orbit the equator at the speed of the Earth's rotation. Thus they appear to remain stationary and can provide near-continuous observations of large areas of the planet and its environment. They also relay data from



**TIROS N SERIES SATELLITE** The third generation polar-orbiting satellite. This system will focus on increasing the accuracy of weather forecasting by providing quantitative data required by improved numerical models. Data from these satellites also will provide more accurate sea surface temperatures and better differentiation of clouds, snow, ice, and liquid water.

remote observation platforms and broadcast useful satellite products for remotely located operational users. These satellites furnish visible channel data at 1- to 4-kilometer resolution and infrared channel data at 8-kilometer resolution every 30 minutes over most of the Western Hemisphere.

The latest satellite in this series, GOES 2, was launched June 16, 1977. On August 15, GOES 2 was positioned over the equator at 75 degrees west longitude to replace GOES 1 as the eastern operational satellite. GOES 1 was placed on standby

in an orbit centered at 105° W. longitude. The Synchronous Meteorological Satellite, part of an earlier geostationary satellite series, remained at 135° W. longitude as the western operational satellite.

In February 1977, the Service increased to 72 the number of weather facsimile broadcasts from the two geostationary satellites. The duration of each broadcast is 7 minutes. The products transmitted are processed images from both polar-orbiting and geostationary satellites. Plain language operational messages are broadcast twice each day from the eastern satellite and once each day from the western satellite. Also, the Service provided the television networks with videotapes of cloud motions using GOES data. These tapes show cloud motions over a 20-hour period and are disseminated by the networks to their subscribers.

In fiscal 1977, the Service continued to work on plans to participate in the research and demonstration program using SEASAT A data. SEASAT A is a NASA oceanographic satellite to be launched in 1978.

### Uses of Satellite Data

During fiscal 1977, the GOES Data Collection System continued to grow. There are now 22 national and international users participating in this program, which incorporates more than 390 Data Collection Platforms. Some of the new applications included deployment of 25 magnetometer platforms to measure the Earth's magnetic field relaying hurricane data from a C-130 reconnaissance aircraft and implementation of the first aircraft-to-satellite data acquisition and relay platform on a commercial jet.

The Service developed a quantitative method for analyzing tropical storm intensity using GOES enhanced infrared images. This technique enables forecasters to estimate hurricane intensities at night.

The Coast Guard used satellite data in its search and rescue missions to determine sea surface temperatures and ocean current boundaries. Temperature variations in these waters can mean a difference in life.

Snow cover on California's Sierra Nevada Mountain Range is estimated to be only one-third what it had been at a comparable date in 1975. Satellite-derived maps of snow and ice cover were transmitted daily to Service hydrologists in the middle-Atlantic and northeastern states for use in preparing river and flood forecasts.



During 1977, the Service joined in an effort to develop a technique for estimating solar radiation received over the Great Plains using GOES digital data. Surface brightness, cloud brightness, and cloud cover were measured. Insolation data may be incorporated into yield models for sorghum and wheat crops.

During 1977, the Service produced charts showing ocean thermal fronts, observed from high-resolution satellite data, along the California coast. Similar information was issued for the offshore waters of Oregon and Washington. As a result of seasonal upwelling, the food chain for fish is concentrated along these fronts. These charts were used by tuna and salmon fishermen to locate productive fishing areas. In spite of increasing fuel costs and more stringent fishing regulations, the commercial fishermen increased their efficiency and reduced over-fishing of small areas. In 1977, this service was expanded to the northwest Atlantic and Gulf of Mexico.

The capability of the satellite to relay environmental data to ground stations within the satellite's transmission range has significantly improved the observation and prediction efforts of many nations. These data recently were used by the United Nations Food and Agricultural Organization to check the emergence and migration of locusts in northern Africa. They also were used to support exploratory oil drilling activities in the North Sea and Canadian Archipelago; to estimate snowfall in Norway for hydroelectric power generation; and to improve flight forecasting, flood control efforts, marine transportation, and research in weather modification in many countries. Much international good will has resulted from cooperation and coordination among nations using this form of space technology.

## **ENVIRONMENTAL DATA SERVICE**

The Environmental Data Service provides global environmental data and information products and services concerning the atmosphere, oceans, the solid earth, and the sun.

### **Energy-related Products and Services**

On August 31, 1977, the Service's Center for Climatic and Environmental Assessment began issuing projections of natural gas demand for multi-State regions of the coterminous United States on a monthly and seasonal basis. The projections are based on seasonal and monthly outlooks prepared by the National Weather Service. They are provided to the U.S.

Department of Energy and other Federal agencies responsible for energy use and planning.

The Service's Center for Experiment Design and Data Analysis began work for the Federal Energy Administration's program to establish a national Strategic Petroleum Reserve. The Center is providing assessments of the environmental consequences of using oil storage caverns leached out of salt dome cavities near existing petroleum distribution facilities along the Gulf of Mexico coast. Large quantities of brine will be produced in the creation and operation of these salt dome cavities, and the environmental impact of brine disposal into the sea must be evaluated. The Center has produced assessments of offshore brine disposal for four areas along the Gulf Coast, including the West Hackberry and Bryan Mound sites, where filling of salt domes has already begun.

The Center also developed a set of dynamic economic forecasting models to simulate the onshore social and economic impact of new or expanded offshore energy development activities. Initially, the models will be used to make forecasts for the National Oceanic Coastal Energy Impact Program. This program was created to ease the impact of energy development activities in the coastal zone through grants, loans, and bond guarantees to qualified State and local governments based upon changes in employment and population.

During 1977, the concept of ocean thermal energy conversion moved into the engineering phase under the Energy Research and Development Administration, now part of the new Department of Energy. In response to requests from this agency, the National Oceanographic Data Center established a test data base for energy conversion, identified areas requiring additional observations, provided data and data products to Energy Research and Development Administration contractors, and prepared a proposal for an operational ocean thermal energy conversion data service.

In cooperation with the Energy Research and Development Administration, the National Geophysical and Solar-Terrestrial Data Center published the first detailed map of geothermal energy sources in the western United States (excluding Alaska and Hawaii). The map shows geothermal areas now producing, or with the known potential to produce, electrical power from steam-driven turbines. Also shown are areas where hot water from the Earth is being used for heating buildings and in various agricultural and manufacturing activities, or where there is known potential for such uses.

The Service's National Climatic Center provided population-weighted climatic data to the Federal Energy Administration to use in developing a formula for the allocation of Federal funds to the States for use in insulating over 1 million homes of low-income persons. The Energy and Conservation Production Act of 1976 authorized the allocation of \$55 million in fiscal 1977, \$65 million in fiscal 1978, and \$80 million in fiscal 1979.

The American Institute of Architects Research Corporation and the Service's National Climatic Center are collaborating in a pilot project to determine the influence of climate on design criteria for residential housing. The initial objectives of the project are to define design regions in the United States based upon climatic variables influencing human comfort and determine specific climate responsive/energy conservation techniques.

### **Global Climate/Crop Assessments**

The Center for Climatic and Environmental Assessment provided monthly yield estimates for the United States, Canada, and the U.S.S.R. to the Large Area Crop Inventory Experiment, a joint investigation by the Department of Agriculture, the Department of Commerce, and the National Aeronautics and Space Administration. The program is designed to determine the feasibility of predicting global crop production. In addition, the Center issued "Weekly Weather/Crop Assessment" reports describing significant weather events and their impact on global crop potential. Special weekly assessments of the effects of weather on crops also were provided to the Department of State AID programs for the SAHEL Region of Africa and the Caribbean Basin. The assessments are used by the Agency for International Development in the allocation of assistance funds.

### **Improving Federal Services to State and Local Users**

During 1977, the National Oceanic and Atmospheric Administration's Offices of Sea Grant and of Coastal Zone Management established a Regional Coastal Information Center to provide more efficient information and data access to constituencies and marine resource managers of coastal States. To date, two Center programs have been established. The first, serving New England users, is located at the University of Rhode Island. The second, serving the New England users, is located at the University of Rhode Island. The second, serving the Pacific Northwest, has two service centers, one at Oregon State University in Corvallis, the other at the University of Washington in Seattle. Seven more of these

programs are planned to cover all U.S. coastal regions, including those of Alaska and Hawaii.

The Service's Environmental Science Information Center joined five other Federal agencies in sponsoring the Model Interstate Scientific and Technical Information Clearinghouse, operated by the National Conference of State Legislatures. The Clearinghouse expedites information exchange between State legislatures and the Federal Government.

## **ENVIRONMENTAL RESEARCH LABORATORIES**

The Environmental Research Laboratories conduct research, technology development, and other services to carry out their primary mission of providing a basis for improved operations and services. Research involves oceanography, meteorology, and upper atmosphere and space physics. Principal laboratories are in Boulder, Colorado, Miami, Florida, Seattle, Washington, Norman, Oklahoma, Princeton, New Jersey, Silver Spring, Maryland, Ann Arbor, Michigan, and Stony Brook, New York.

## **OCEANOGRAPHIC RESEARCH**

The Atlantic Oceanographic and Meteorology Laboratories investigated the ocean current structure and the dynamics of the nutrient system in the Gulf of Mexico. In particular, the investigation emphasized how western Gulf waters are affected by the transport of surface nutrient poor waters from the east. Studies using data collected on cruises over submarine canyons along the U.S. East Coast led to understanding of the role of these canyons in transporting sediment from the continental shelf to the deep ocean floor beyond.

The Pacific Marine Environmental Laboratory conducted a moored buoy experiment in the eastern equatorial Pacific as a precursor to international and other research on the role of the oceans in climate change. Environmental studies of commercial shrimp and crab larvae by the laboratory showed that they are sensitive to near-natural doses of ultraviolet radiation and, as a result, may be living close to their tolerance in surface waters.

The Great Lakes Environmental Research Laboratory developed a computerized model for Lake Ontario to examine complex, inter-related ecological properties which are difficult to investigate experimentally on such a large body of water. The

laboratory, through its Project Office for the International Field Year on the Great Lakes, brought to a successful conclusion the 78 U.S. analysis tasks of the Lakes. At the final Great Lakes workshop held at Ontario, Canada, it was concluded that the project successfully met its objectives and provided a data archive which will serve research needs for many years.

The Marine Ecosystems Analysis Program in Puget Sound concentrated on a study of the effects anticipated with increased petroleum activities in the Sound and on the assessment of wastewater inputs and transport. The Program's New York Bight project provided near real-time information on dissolved oxygen in the coastal water during the summer months for monitoring possible fish kills and other phenomena caused by lack of oxygen.

The Deep Ocean Mining Environmental Study completed the advanced oceanographic field work including deep-water studies at sites southeast of Hawaii where industry plans to gather manganese nodules from the seafloor.

The Outer Continental Shelf Environmental Assessment Program continued its studies of the nine Bureau of Land Management oil lease areas from the Northeast Gulf of Alaska to the Beaufort Sea. These studies are designed to provide information for identification and regulation of the offshore oil drilling effects and for assessments in advance of sales of oil lease areas.

## **METEOROLOGICAL RESEARCH**

The Geophysical Fluid Dynamics Laboratory carried out a computer simulation of the general circulation of the oceans and the atmosphere with seasonally varying sunshine. This simulation involved five years of weather developments. It predicted seasonal variations of surface air temperature and ocean heat storage which corresponded closely with variations actually observed.

The Air Resources Laboratory in its study of total atmospheric ozone found that the global burden of total ozone has changed by less than one percent since 1972. There was a slight decrease in total ozone in the Northern Hemisphere by early 1976, compen-

sated by a slight increase in the Southern Hemisphere at the same time.

The Atmospheric Physics and Chemistry Laboratory investigated meteorological factors important in a major Colorado flashflood. In cooperation with the Environmental Protection Agency, it also identified a gas-to-particle conversion process in the smoke plume of a large coal-fired power plant. This process plays an important role in the generation of rain and other precipitation.

The modernization of the National Oceanic and Atmospheric Administration's research aircraft facilities was completed with the full instrumentation of the two new aircraft. Existing aircraft was reconfigured and the three aircraft now comprise the most modern and complete research aircraft platforms in the world.

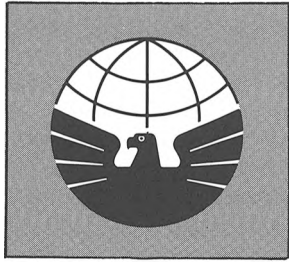
The National Hurricane and Experimental Meteorology Laboratory obtained important information hurricane processes and structure with the research aircraft from Hurricane Anita in the Gulf of Mexico. It also completed its analysis of the Florida Area Cloud Modification Experiment data for the period 1970-1976. The analysis provides strong indications that dynamic cloud seeding increases rain from a given cloud in South Florida by nearly fifty percent.

The Wave Propagation Laboratory demonstrated the ability to map surface ocean currents out to approximately 70 kilometers from the coast using two transportable high frequency radars developed and constructed by the Laboratory.

The Aeronomy Laboratory, by means of stratospheric balloon flights, made twelve sets of measurements of fluorocarbons and nitrous oxides, providing the only data base on global distribution that exists for these species. Data on such distribution is basic to understanding effects of pollutants on the stratospheric ozone layer.

The Space Environment Laboratory continued to provide forecasts and warnings of the adverse effects of solar and geomagnetic activity for civilian and military operations and for research needs. It also completed a number of fundamental studies adding to our understanding of the solar-terrestrial environment (the Sun-Earth system).





# Chapter VI

## DOMESTIC AND INTERNATIONAL BUSINESS

### MISSION

The Assistant Secretary for Domestic and International Business is the Secretary's principal adviser on policies that contribute to U.S. economic growth at home and abroad. As head of the Domestic and International Business Administration, the Assistant Secretary is responsible for the Administration's major programs, which involve: (1) policy initiatives in international trade, finance, and investment; (2) export market research and export promotion; (3) administration of export controls and antiboycott regulations; (4) the performance and growth of domestic industry; and (5) industrial preparedness in times of national emergency.

Shortly after the end of fiscal 1977, the Administration's name was changed to the Industry and Trade Administration, and the Administration itself was reorganized. During 1977, however, it functioned as the Domestic and International Business Administration and included the following organizational components: the Bureau of Domestic Commerce, Bureau of International Commerce, Bureau of East-West Trade, Bureau of International Economic Policy and Research, Bureau of Resources and Trade Assistance, and Office of Field Operations.

### BUREAU OF DOMESTIC COMMERCE

The Domestic and International Business Administration was formed (as the Bureau of Foreign and Domestic Commerce) in 1912. Most of its major programs were developed at about this time. It presently administers programs involving export expansion; East-West trade relations; domestic industrial growth; business-consumer relations; domestic and international market research; energy resources; export and import controls; and industrial mobilization readiness, among others.

The Administration's Bureau of Domestic Commerce is responsible for monitoring economic issues, assessing their impact on the business community, providing a mechanism for forecasting economic trends at the business and industry sublevels, and making policy recommendations to implement these

responsibilities in achieving U.S. economic growth and stability.

One of the principal functions of the Bureau is to publish the *U.S. Industrial Outlook*. The 1977 edition reviewed significant developments in 1976 for more than 200 manufacturing industries and projected their activity for 1978-1985.

### Analysis, Information, and Policy Support

The Bureau provides analysis, forecasts, and descriptive information to define problems facing domestic industry. Among staff reports completed in fiscal 1977 were:

- The Eleventh Annual Report of the President to the Congress on the operation of the Automotive Products Trade Act of 1965. (The Bureau also issued certifications of United States bonafide motor vehicle manufacturers as required by the Act.)
- The report on the impact of environmental, energy, and safety regulations on the U.S. sector of the automotive industry.
- A study on product liability insurance under the auspices of an Interagency Task Force.

The Bureau assisted in preparations for assessing the Nation's energy problems by conducting a survey of residential insulation manufacturers to determine present and anticipated productive capacity through 1980, and helped the Council on Wage and Price Stability and the Department's Chief Economist in preparing data bases to facilitate governmental responses to resource and commodity shortages and price fluctuations.

Other representative activities of the Bureau included:

- Publishing *Crime in Service Industries*, a special study for the U.S. business community, which estimated 1976 crime losses in the service sector and identified specific vulnerabilities and crime prevention strategies.



- Serving on environmental interagency work groups in developing regulations to control the manufacture and use of fluorocarbons, an assignment which will continue until the final regulations are published.
- Preparing analyses and recommending policy actions on the potential for shortages of molybdenum (a silver-white metallic substance used widely in industry) and on the impact of a potential coal strike.
- Writing analyses on the steel industry for the interagency steel group chaired by the Special Trade Representative and for the Department's Economic Development Administration.
- Developing data and projections of material requirements, fuel performance, environmental residuals, and safety standards for the joint (U.S.-Canada) North American Automotive Industry Study.
- Producing a document in conjunction with the Organization for Economic Cooperation and Development that covers the environmental and pollution control costs of the major aluminum producing countries.
- Continuing to assist in the preparation for negotiations under the General Agreement on Tariffs and Trade by coordinating the involvement of over 500 business executives in 27 Industry Sector Advisory Committees.
- Publishing the third edition of the *Engineers' Overseas Handbook*, the only comprehensive source of basic legal requirements for the

practice of engineering in more than 120 free world countries.

### **Ombudsman Activities**

The Bureau's Office of the Ombudsman was created in 1971 to provide a central place in the Federal Government to which the business community could address questions, suggestions, and complaints. It has broadened its original approach and reached out to help individuals when problems affecting wide areas of business are identified. To provide consumers the same services as those offered to business, the Office includes a Consumer Affairs Division.

During the year, the Office responded to 12,121 inquiries, about 10 percent more than the previous period. They included 2,652 from consumers, and the subject matter ranged from coffee prices to resource conservation and recovery. However, the majority of the inquiries were in the traditional areas of business assistance programs, materials and product sources, loans, Government procurement, and procedures for forming new businesses.

Under its broadened approach, the Office's Business Relations Division issued 12 special reports and initiated three new series of reports on resource recovery, tips for small business and women business owners. In addition, the Office edited and coordinated the production of the 500-page *U.S. Industrial Outlook*. It also assisted other Bureau divisions in producing a variety of reports and working papers, arranged and coordinated seminars and conferences on productivity improvement, product liability, aid to small business and business-consumer relations, and arranged industry/government briefings.

In providing assistance to the consumers, the Office's Consumer Affairs Division advised business firms on possible methods of dealing with consumer problems and, as appropriate, referred them to Federal agencies with jurisdiction. It maintained liaison with local governments, consumer offices, and private consumer groups throughout the country. The Division provided advice and assistance to agencies throughout the Department in the development and implementation of consumer-related programs and helped ensure consumer representation on Department of Commerce advisory committees.

### **Industrial Mobilization**

Under the Defense Production Act, the Bureau of Domestic Commerce administers programs for in-



A replica of Charles Lindbergh's "Spirit of St. Louis" dominates the entrance to the U.S. Pavilion at the 1977 Paris Air Show.

dustrial readiness in case of national emergencies. During the reporting period, the Bureau's Office of Industrial Mobilization processed 1,051 requests for special priorities assistance rating authorizations and allotments, and conducted surveys pursuant to 19 disaster declarations.

The Defense Priorities Systems and the Defense Materials System were amended to increase the exemption for the use of the ratings on individual delivery orders from \$500 to \$2,500.

In addition, the Office conducted 14 regional seminars for the National Defense Executive Reserve, which provided training on techniques to be used in assessing the effects of a hypothetical nuclear attack on U.S. industrial production capabilities. Also, it prepared 203 studies on material consumption data, 44 studies of domestic supply or production capacity data for stockpile materials, 47 market impact assessments of prospective acquisitions or disposals of stockpile materials, and revised 25 stockpile purchase specifications, and 24 stockpile special instructions.

## **BUREAU OF INTERNATIONAL COMMERCE**

The Domestic and International Business Administration's Bureau of International Commerce carries out export development programs designed to encourage more U.S. firms to enter international markets and to expand these markets insofar as U.S. products are concerned. It thus contributes to an improved U.S. trade and payments position, a stronger domestic economy, and increased job opportunities.

### **Overseas Sales Assistance**

The Bureau's Major Export Projects Program is designed to help U.S. firms win contracts for planning, engineering, and construction of large foreign infrastructure and industrial systems projects, including equipment and turnkey installations. Assistance is provided when requested by an American embassy, a prospective foreign client, or a U.S. firm, either to encourage U.S. companies to bid on a particular project or to help such companies pursue overseas contracts.

Speed and flexibility in developing a strategy for each case are essential elements of the assistance given U.S. firms. As circumstances warrant, the Major Export Projects Division mobilizes and coordinates appropriate support from other Federal agencies, including Foreign Service posts abroad.

During the reporting period, the Division provided assistance to U.S. firms in winning contracts which contributed \$1.1 billion in direct export sales, almost entirely in developing countries. Included in this contract amount is \$592 million in product sales, in which one-half of the firms involved are small or medium-size firms.



**Scandinavian buyers show keen interest in U.S. made electronics production and test equipment at the U.S. Trade Center in Stockholm.**

The Bureau's Trade Opportunities Program furnishes U.S. business with detailed opportunities for direct sales to overseas buyers—private and government—as well as notices of foreign companies offering to represent U.S. firms overseas. American businesses indicate the specific product categories and countries for which they wish to receive leads. This information is put into the computer. As leads are reported from overseas, they are computer matched with the U.S. supplier's information requirements. Individual trade opportunity notices are automatically printed and mailed to appropriate subscribers. These trade leads are generated by more than 200 American embassies and consulates overseas that cable the information to the Trade Opportunities Program in Washington.

During fiscal 1977, the program supplied 16,558 foreign trade opportunities to more than 8,000 potential U.S. suppliers. It is estimated that 5,840 of the suppliers were small to medium-size businesses, and more than 2,000 firms were new to exporting. An estimated 2,381 trade opportunities yielded sales for U.S. suppliers, and an additional 3,974 were still being negotiated 12 months after submission.

Fiscal 1977 trade promotional activities of the Bureau included:

- Sponsoring 704 overseas promotional activities in which 4,000 U.S. companies took part.
- Producing 1,020 publications for the International Marketing Information Series.
- Sponsoring 15 commercial exhibits at trade fairs in France, Venezuela, the United Kingdom, Israel, and Iran, and 69 major exhibitions at U.S. Trade Centers in Tokyo, London, Milan, Paris, Stockholm, Sydney, Mexico City, Tehran and Taipei, and at the International Marketing Centers in Cologne and Singapore.
- Sponsoring trade missions with a total of 253 members to 54 countries, 10 consumer-goods promotions in foreign department stores, and 27 catalog shows for 3,371 U.S. firms.

Major accomplishments during the fiscal year included the implementation of the Venezuelan Saturation Marketing Campaign and the opening of an exhibition building in Caracas; the U.S.-Korean ministerial-level meetings on economic policy and trade matters; the opening of the Sao Paulo Trade Center; and participation at the 32nd Biennial Paris Air Show.

Activities in the Near East region included six major Tehran Trade Center shows; industrial exhibitions in Tel Aviv, Tehran, Damascus, and Cairo; and a variety of trade missions to various markets in the region.

### **Information Programs**

At the request of U.S. businesses, the Bureau supplied World Traders Data Background reports on 23,500 foreign firms and 4,900 Agent/Distributor Service reports. Some 2,130 firms ordered 2,500 Export Mailing Lists containing the names of more than 1.5 million potential buyers and import representatives in 146 countries. Another 468 such lists were used by U.S. Government organizations.

The Business Counseling Service and Overseas Products and Investment Opportunities Staffs provided counseling and information to 12,815 firms, discussing marketing and investment information, services, and programs available from the Department and from international financial institutions. The Bureau disseminated 1,538 investment and licensing opportunities and indexed 649 Foreign Market Reports for distribution to subscribers through the National Technical Information Service.

The Bureau's Trade Complaints Adjustment Service, which assists U.S. businesses in the field of trade complaints, handled 930 cases, of which 94 percent have been resolved.

### **Attracting Foreign Businessmen**

During fiscal year 1977, the Foreign Buyer Program, which is designed to encourage the maximum number of international buyers to visit the United States and to assist them in the purchase of U.S. goods and services, was instrumental in attracting more than 16,000 foreign buyers to 15 selected U.S. trade shows. In addition, 924 requests to assist individual foreign buyers and study missions were received by the Program. Approximately 5,000 U.S. firms, of which 75-80 percent were in the small to medium-size category, were assisted in introducing their products and services to foreign buyers.

### **District Export Councils**

The Bureau continued its support of the 42 District Export Councils, which are established in every city (except Anchorage, Alaska) that has a Domestic and International Business Administration district office. The District Export Councils consist of more than 900 industry and trade experts who work in cooperation with the district offices to stimulate business participation in the national export expansion effort.

## **BUREAU OF INTERNATIONAL ECONOMIC POLICY AND RESEARCH**

The Domestic and International Business Administration's Bureau of International Economic Policy and Research develops policies on international trade, finance, and investment issues. It conducts research and analyses in these areas and participates in interagency and international meetings and negotiations.

During fiscal 1977, the Bureau was returned to the Domestic and International Business Administration after being situated for about a year in the Office of the Assistant Secretary for Policy.

### **Trade Negotiations and Consultations**

The Bureau's Office of International Trade Policy was instrumental in developing U.S. positions and initiatives for the rapidly accelerated Multilateral Trade Negotiations (MTN) in Geneva. Office staff served frequently on U.S. delegations to MTN negotiating sessions in such areas as tariffs, quantitative restrictions, government procurement, standards, customs



valuation, subsidies, and safeguards. The Office has continued to manage an extensive industry consultations program through which private sector representatives furnish their advice on key MTN issues.

The Bureau's head was policy advisor to the Secretary in Seoul at the Eighth United States-Korea Commerce Ministers Meeting in September 1977, and in Tokyo for consultations on trade investment issues with Japanese officials. He or his Deputy participated in meetings of the Organization for Economic Cooperation and Development in Paris, the semiannual U.S.-European Community consultations in Washington and Brussels, and the Joint U.S.-Spanish Economic Committee in Madrid. The Bureau's head and his deputy were also involved in trade consultations with Mexico in Washington and Mexico City, the Association of Southeast Asian Nations in Manila, and Brazil in Washington.

### **Strategic Materials and Commodities**

The Bureau's Office of International Trade Policy participated in meetings in major international forums and intergovernmental organizations involving discussions and negotiations for international commodity agreements, such as the U.N. Conference on Trade and Development, and the Conference on International Economic Cooperation.

The Office analyzed developments affecting U.S. imports of, and international trade in, primary commodities. It considered strategic and economic stockpile issues and offered analyses of these areas to interagency discussions.

### **Foreign Investment and Finance**

The Bureau's Office of International Finance and Investment participated in major reviews of U.S. policy toward foreign investment, the role of the Overseas Private Investment Corporation in promoting economic development in the developing countries, and the competitiveness of U.S. export credit facilities provided by the Export-Import Bank. Staff also provided analytical work and served on U.S. delegations negotiating a United Nations Code of Conduct for Multinational Enterprises and the international consensus among Organization for Economic Cooperation and Development members on officially supported export credits. A study was begun of the impact on the competitiveness of U.S. business abroad of recent changes in the tax treatment of U.S. citizens working overseas.

The Office began research projects on international investment incentives for the Interagency Task Force on Investment, as part of a work program to search out new areas of cooperation with other countries in the investment field. It also performed staff work for the Interagency Committee on International Investment Statistics which is charged, in accordance with the International Investment Survey Act of 1976, with developing a long-term coordinated reporting program on foreign direct and portfolio investment in the United States and abroad. The Office assumed responsibility for the Department's contribution to the Technology Export Study called for in section 119 of the Export Administration Amendments of 1977.

### **Trade Developments**

The Bureau's International Trade Analysis Staff published analyses and data on the growth of the 1977 U.S. trade deficit and the deteriorating performance of U.S. manufacturers in world markets. These reports interpreted trends in commodity and area trade and the pressure of trade developments on the U.S. dollar and other currencies.

The staff began publication of a monthly report on current international price developments in response to continued concern over the effect of inflation on the U.S. and world economies. Data were developed and analyses prepared on the importance of U.S. trade with Latin America to the individual U.S. States and the extent those shipments depend on transiting the Panama Canal. A detailed report was published in September delineating changes effective January 1, 1978 in U.S. foreign trade data.

### **Foreign Investment in the United States**

The Bureau's Office of Foreign Investment in the United States concentrated on refining and improving a system identifying and collecting information on current investment transactions and on developing a research program regarding the characteristics and economic significance of such investments. The Office completed research on foreign acquisitions, mergers, and equity increases in U.S. companies during 1974 and 1975 and developed information on new transactions in 1976.

### **Research and Analysis**

The Nation's large trade deficit was the focus of most of the Bureau's research activities. Research efforts were directed at the reasons for the trade deficit, particularly such nonoil influences as the slow economic growth abroad and the relatively more



rapid rate of economic expansion in the United States. Other studies explored a variety of technical and policy areas, including the U.S. trade position vis-a-vis Japan.

The Bureau undertook a wide-ranging study of the economy of Puerto Rico at President Carter's request, following a meeting in March 1977 between the President and the Governor of Puerto Rico. The study will examine Puerto Rican economic problems and the economic impact on Puerto Rico of Federal programs and policies.

## BUREAU OF EAST-WEST TRADE

Consistent with national security considerations, the Domestic and International Business Administration's Bureau of East-West Trade promotes and encourages the orderly expansion of commercial and economic relations between the United States and the communist countries.

### Joint Commissions and Other Groups

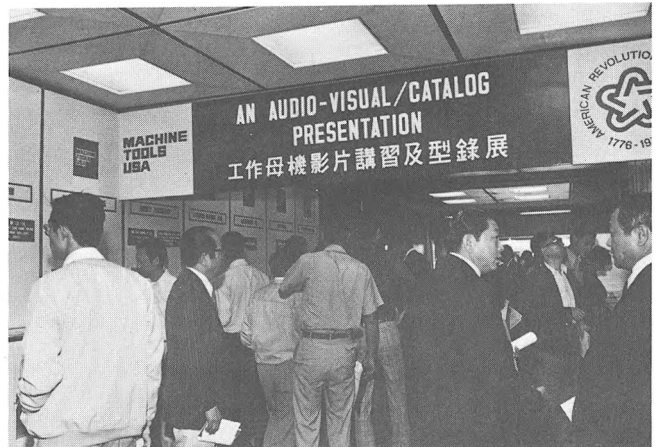
The Bureau provides support for joint commissions established with the Soviet Union, Poland, and Romania as mechanisms for negotiating government-to-government trade agreements and normalizing trade with the communist countries.

On June 9-10, 1977, the Joint U.S.-U.S.S.R. Commercial Commission held its Sixth Session in Washington, D.C., and continued its tradition of friendly, frank, and constructive discussions of problems relating to expanding U.S.-Soviet trade and intensifying the economic relationship between the two countries.

The Third Session of the Joint American-Romanian Economic Commission was held in Bucharest, Romania, on November 22-23, 1976. Among the issues discussed were economic, industrial, and technical cooperation, including joint ventures; assessment and exchange of information on business practices and facilities; exchange of economic information; improvement of U.S.-Romania trade relations; financial matters; and U.S. import restraints.

### Trade Promotion Activities

The Bureau continued to provide opportunities for U.S. firms to participate in expanded trade relations with communist countries through participation in international trade fairs, technical sales seminars, business development offices, and seminars/exhibits.



Visitors crowd the "Machine Tools USA" Video/Catalog Exhibition during its run at the U.S. Trade Center in Taipei, Republic of China.

Events organized by the Bureau in fiscal year 1977 were attended by more than 392 firms, including 188 which were new-to-the-market. They reported more than \$399 million in onsite and anticipated sales. Most significant was the CHEMISTRY 77 Exhibition in Moscow, where participating U.S. firms reported \$7.5 million in immediate sales and projected sales of \$97 million over the subsequent 12-month period.

The Bureau sponsored a business development show for medical equipment in Tashkent, the first time the United States has participated in a trade promotion event in the Soviet Union outside Moscow. In addition, technical sales seminars in Eastern Europe on machine tools, medical equipment, textile machinery, plastics production equipment, herbicides and pesticides, and pollution control equipment were sponsored by the Bureau.

The Bureau's responsibility is to assist in the administration of the Warsaw Trade Development Center, the U.S. Commercial Office in Moscow, and a trade development support office in Vienna. To illustrate these activities, the Moscow office organized seminars/exhibits on plywood production, rolling mills, poultry production, water pollution monitoring equipment, containerization, and concrete building systems, and the promoting of single-sponsor shows for some 40 firms.

### Trade Assistance and Information

The Trade Development Assistance Division provides business counseling to U.S. companies interested in trading with Eastern Europe, the People's Republic of China, and the U.S.S.R. The Division also monitors the problems that U.S. companies experience in their East-West business activities, ad-

vices of business opportunities which have come to its attention, facilitates visits to the U.S. by commercial and technical delegations from the communist countries, and assists in staging East-West trade seminars for business executives in the United States.

In 1977, the Division counseled more than 2,000 firms and provided assistance on approximately 90 major transactions valued at some \$3 billion. During fiscal 1977, the Bureau prepared market research papers for 29 different products or groups of products with sales potential in the U.S.S.R. and Eastern Europe.

### **Export Administration**

The Bureau continued to administer export controls under national security, foreign policy, and short supply guidelines established under the Export Administration Act of 1969, as amended.

Quantitative restrictions on the export of petroleum and petroleum products were continued throughout fiscal 1977, with quotas assigned by exporter, commodity, and country of destination. Crude petroleum was licensed for export only when temporarily transiting Canada and reentering the United States, or when exchanged on a barrel-for-barrel basis with Canadian refineries. Export controls were extended to cover naphtha, petroleum coke, and petroleum asphalt and paving mixtures. The extensions were deemed necessary to limit export of commodities intended for blending into fuels or other energy use. The practice of extending controls on a quarterly basis was discontinued for reasons of administrative efficiency.

Formal monitoring of exports and contracts for export of nitrogenous fertilizers and nitrogen-containing compounds was continued throughout the fiscal year. The Bureau participated in a number of interagency consultations on short supply export control and monitoring policies and programs. Interagency consultations also were held to develop procedures for authorizing commercial exchanges of crude petroleum with Canada, and to prepare for the implementation of the Energy Policy and Conservation Act and the Naval Petroleum Reserves Production Act of 1976.

### **Antiboycott Program**

The Bureau's Export Administration Regulations require exporters and all related service organizations to report the receipt of any request which asks them to take any action or furnish any information which

would have the effect of furthering or supporting a boycott or restrictive trade practice.

In accordance with a Presidential directive, the regulations were amended on October 18, 1976, to provide for public disclosure of all reports of requests which were received on or after October 7, 1976. On January 27, 1977, the Department again amended the boycott reporting regulations to permit reporting firms to clarify in the public record their responses to requests for participation in boycotts and restrictive trade practices, and to clarify that requests for positive certificates of origin are not deemed to be restrictive trade practices. The 1977 Amendments to the Export Administration Act required the Department to draft and to make known new antiboycott rules and regulations. In an effort to obtain broad public participation in the rulemaking process, the Department published a schedule for rulemaking, solicited public comments, reprinted the entire text of the boycott portion of the new law, and announced that all comments received would be considered and made available for public inspection and copying.

After receiving and reviewing these comments, the Department published its proposed regulations and distributed copies to all firms that had filed boycott reports since 1972, and to all firms, organizations, and individuals who had expressed an interest in receiving the notice. Additional copies were distributed through the Commerce Field Offices. Comments on the proposed regulations were solicited from all recipients.

### **BUREAU OF RESOURCES AND TRADE ASSISTANCE**

The Bureau of Resources and Trade Assistance develops programs which apply to import activities and international trade in primary commodities. This mission is carried out by the following activities.

- It deals with problems that industries face with import competition and with problems of international trade in primary commodities.
- It analyzes the status of the fiber, textile, and apparel sector of the U.S. economy, providing data and policy recommendations which affect economic stability, and negotiates international and bilateral textile agreements.

### **Imports**

The Bureau's Office of Import Programs was involved in the negotiation and implementation of

new orderly marketing agreements negotiated for a 3-year period with Japan on color television receivers and for a 4-year period with the Republics of China (Taiwan) and Korea on nonrubber footwear. Related activities included the monitoring of trade flows to identify possible circumvention or shifts in trade patterns.

The Office continued to monitor imports under the specialty steel import restraint program, in effect for a 3-year period since June 14, 1976. It undertook fieldwork and prepared the Commerce staff report in conjunction with the advice of the Secretary of Commerce to the President on the probable effect of termination or modification of the program. It undertook extensive technical work in connection with quota reallocations made in the first restraint year.

As part of its increased monitoring responsibilities, the Office prepared periodic public reports on trade in consumer electronics and on the impact of the specialty steel, color television, and nonrubber footwear orderly marketing agreements on domestic industry's progress in adjusting to foreign competition during the restraint periods.

The Bureau received 400 applications for duty-free entry of scientific instruments by nonprofit research or educational institutions under the Educational, Scientific, and Cultural Materials Importation Act. Domestic industry was surveyed to determine the trade implications of a decision of the countries within the European Economic Community to condition duty-free importation of scientific instruments upon a finding of nonavailability of an equivalent article in the entire European Economic Community and not the country of importation as specified in the Florence Agreement.

The Bureau also processed 252 foreign excess property cases, approving \$2 million worth of property for importation. A legislative proposal was also drafted to change the economic criterion to a no-adverse-impact determination, in the expectation this would reduce burdens on importers as well as administrative costs to the Government.

The Bureau issued 36 licenses for 7.3 billion units of the watch quota under Public Law 89-805, which limits the number of watches and watch movements that may be imported duty free from the Virgin Islands, Guam, and American Samoa. The territorial watch assembly operations will generate direct local economic benefits of an estimated \$4.5 million in wages and \$2 million in corporate taxes.

## **Foreign-Trade Zones**

The Bureau assists in the administration of the Foreign-Trade Zones Act. Presently there are foreign-trade zone facilities in 28 U.S. Customs ports of entry. The zones, which are customs free areas for imported goods and materials, are operated in conjunction with the economic development programs of these communities.

During fiscal 1977 grants of authority were issued for new zones in Wilkes-Barre/Scranton, Port Everglades, Atlanta, Boston, New Bedford, Louisville, Salt Lake City, Granite City, (St. Louis port of entry), and Miami.

## **Textiles**

To ensure that world textile trade would continue to expand in an orderly manner, the United States began an effort to renew without change the Arrangement Regarding International Trade in Textiles, which is scheduled to expire at the end of 1977. The Bureau's Office of Textiles is deeply involved in the international discussions to renew the Arrangement.

Under the Arrangement, the United States has negotiated 18 bilateral textile and apparel restraint agreements that cover approximately 75 percent of U.S. cotton, wool, and man-made fiber textile and apparel imports. Eleven of these agreements expire at the end of 1977, and the Office is participating in negotiations to renew them.

In fiscal 1977 new textile and apparel restraint agreements were negotiated with Hong Kong and Korea, two of the four leading countries exporting textiles and apparel to the U.S. market. In addition, a new wool and man-made fiber textile product restraint agreement was signed with Romania, and textile product consultation arrangements were signed with Spain and Czechoslovakia. The United States held consultations under existing agreements with 10 bilateral agreement partners.

One of the Bureau's chief responsibilities is the administration of the Interagency Committee for the Implementation of Textile Agreements, which is chaired by the Deputy Assistant Secretary for Resources and Trade Assistance. The Bureau monitors U.S. imports to ensure that our bilateral partners comply with their textile and apparel agreements.

The Bureau also monitors textile and apparel imports not subject to bilateral agreements and studies the state of the domestic market to determine if un-



ilateral import restraints, allowed by Article 3 of the Agreement, are necessary.

## OFFICE OF FIELD OPERATIONS

The Office of Field Operations of the Domestic and International Business Administration serves as the Department's principal contact with the local business community. It has 43 district offices located in major industrial and commercial centers in the United States and Puerto Rico.

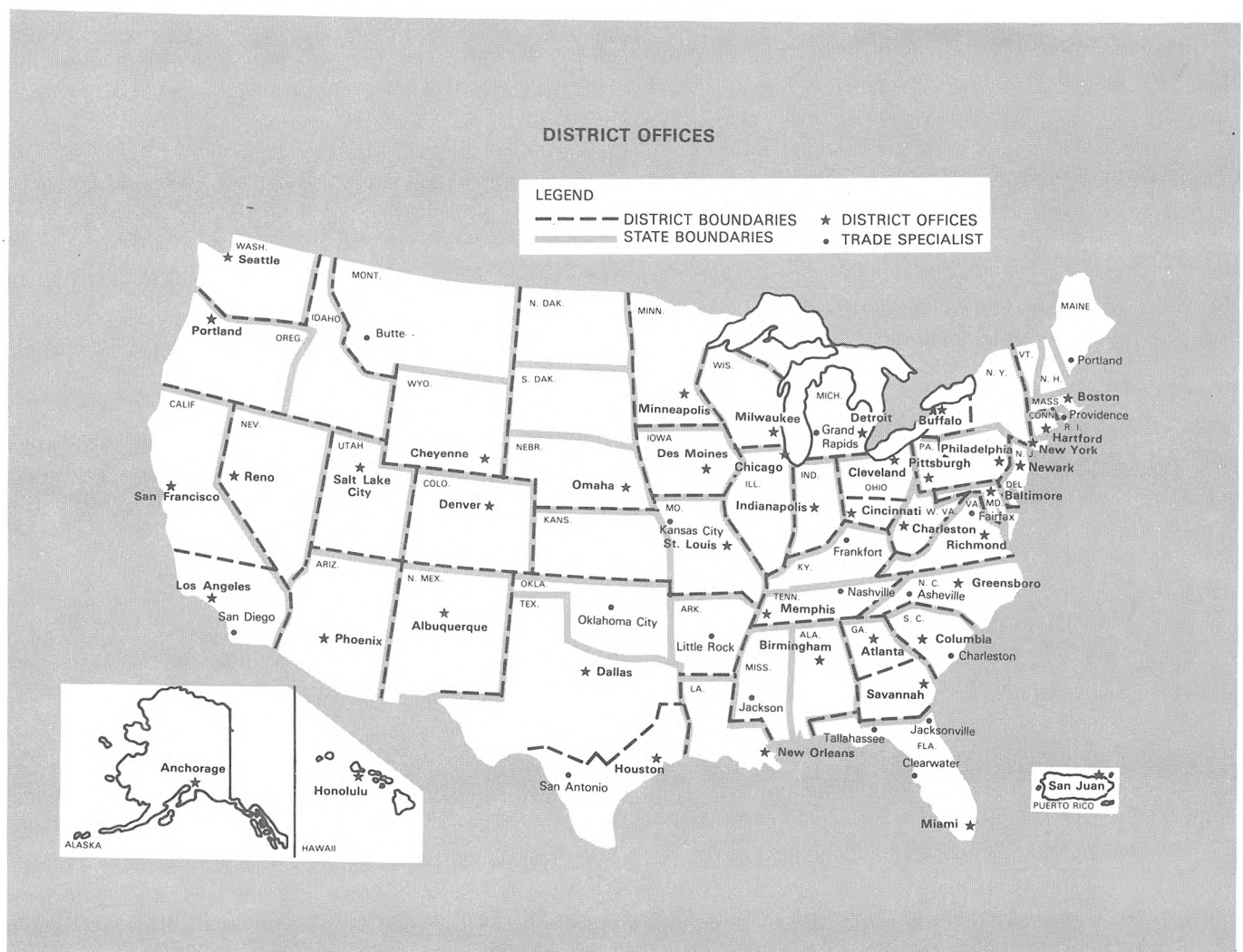
The staff of the district offices counsels business firms on the Department's international and domestic programs, providing the business communities with statistical and economic information, related marketing aids, and other data helpful in making business decisions. District offices also serve as the

principal regional coordinator for federal preparedness, crisis management, and emergency readiness operations.

District offices support the export promotion program locally by providing firms with marketing data and counseling, identifying foreign trade opportunities, and working with local business groups.

During the fiscal year, 4,876 new-to-export or new-to-market firms counseled by district office trade specialists reported 8,505 export actions. In addition, 2,156 export seminars were held and a total of 84,509 export contacts were accomplished.

During the same period, 2,363 domestic seminars were held on such subjects as energy conservation, productivity measurement, crimes against business, consumerism, and metrication. In addition, district





offices accomplished 74,900 counseling actions covering a wide range of domestic subjects of interest to the business community.

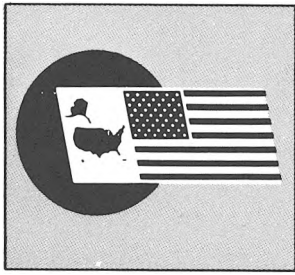
The program, initiated in 1976 in cooperation with the General Services Administration to locate new sources of supply for specific items purchased by the Federal Government, has identified 234 products with a total award value of over \$100 million. During the year district offices made 10,700 contacts with business firms who produce these products. Of these, 1,526 firms expressed an interest in "Selling to the Government" and were referred to the General Services Administration.

The Office of Field Operations is also responsible for organizing and coordinating Government Procurement Conferences with the Department of Defense. These conferences are sponsored by Members of Congress for the local business community. An average of 14 civilian agencies and the Army, Navy,

and Air Force send counselors to each conference. Twenty-three conferences, with a total attendance of 7,193, were held during the fiscal year.

The *Commerce Business Daily*, which is published by the Office of Field Operations, provides the business community with information on Government procurement actions, contract awards, surplus property sales, and foreign trade opportunities. Procurements published in the reporting period exceed 125,000. There were 27,750 paid subscriptions at the end of the reporting period.

Chambers of Commerce and other business-oriented organizations, designated "Associate Offices," worked closely with the district offices in carrying out the business programs of the Department on a voluntary basis. The number of associate offices increased by 49 during the fiscal year to a total of 912.



# Chapter VII

## TOURISM

### MISSION

The Assistant Secretary for Tourism administers the International Travel Act of 1961, as amended in 1970, and a domestic tourism program authorized by Congress in 1975. He has overall responsibility for the policies and direction of the United States Travel Service and also serves as the principal adviser to the Secretary on matters of foreign and domestic tourism in the United States.

As the official national tourism office of the United States, the Travel Service is responsible for the promotion of business and pleasure travel to American destinations from abroad. In addition, the agency is responsible for encouraging Americans to travel more within the United States.

### INTERNATIONAL

International tourism arrivals and expenditures continue to grow. During 1976 the U.S. hosted more than 17.5 million visitors from abroad, an increase of 11.6 percent over 1975. These visitors brought in \$6.7 billion in foreign exchange earnings, supporting 270,000 jobs and contributing approximately \$830 million in Federal, state, and local tax receipts.

The Travel Service estimates more than 18 million visitors will come to the United States by the end of 1977, with international travel receipts totaling \$6.4 billion.

While the U.S. has always had a deficit with respect to international tourism, since 1972 the travel account deficit has declined each year. If the travel balance had not improved over this period, the U.S. total current account deficit would be \$700 million greater than it is.

The Travel Service's primary mission—promoting tourism to the United States from abroad—is largely carried out through regional offices in Canada, Mexico, Japan, the United Kingdom, West Germany, and France. These countries generate 85 percent of our international visitors. In addition, the regional offices provide liaison with nine nations having outstanding

potential for VISIT USA travel: Australia, Belgium, Brazil, Italy, the Netherlands, Spain, Switzerland, Sweden, and Venezuela.

The Travel Service works with the travel trade—tour wholesalers, transportation companies, and retail travel agents—in a variety of programs to aid them in selling USA travel. For example, the Service works with tour wholesalers abroad to develop more package tours to U.S. destinations. The tour development program invested \$1.2 million in contracts with wholesalers during fiscal year 1977. The resulting tours are expected to bring 791,244 international visitors to the USA, with an estimated return of \$470 million in foreign exchange earnings.

Although the Travel Service works primarily through the travel trade abroad, the agency inaugurated programs in Canada and Mexico, during the fiscal year, to provide information directly to the traveling public in these countries. In December 1976, *InfoRoad USA*—a phone-in, walk-in, write-in source of VISIT USA travel information—began operations in Montreal and Vancouver, Canada. In February 1977, a similar service, *Info Viajes USA*, began operating in Mexico City.

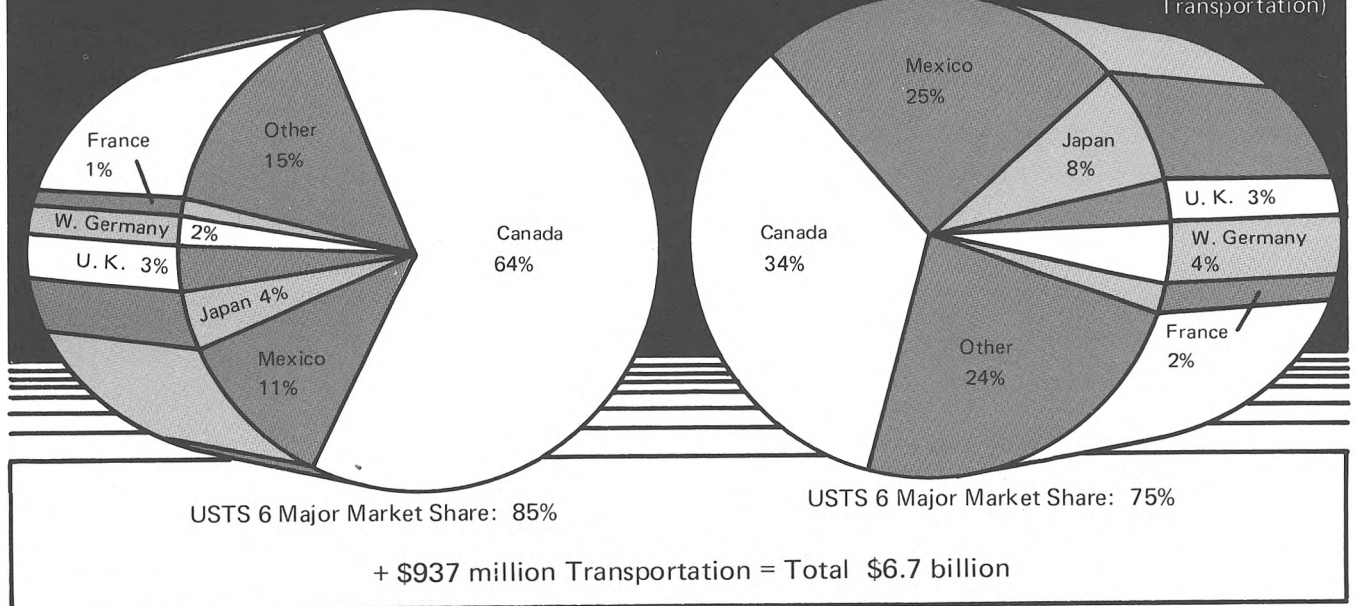
In addition to the activities carried out by its regional offices, the Travel Service promotes U.S. travel destinations abroad through consumer and trade advertising campaign feature articles placed with news media, and brochures and other fulfillment literature distributed abroad. A familiarization tour program acquaints foreign travel agents, tour operators, and journalists with U.S. destinations. The Service also assists states, cities, and nonprofit organizations in their efforts to promote international travel to this country through a matching grants program which, during the fiscal year, awarded 85 matching grants totaling \$855,952.

The Travel Service also carries out a variety of programs designed to increase the important business travel market, including the promotion of international trade shows and congresses, and the promotion of incentive travel. Its liaison with international associations resulted in decisions during the fiscal year by 22 such organizations to hold world

## International Travel to the U.S. 1976

Arrivals  
17.5 million

Receipts  
\$5.8 billion  
(Excluding  
Transportation)



congresses in the United States in future years. These congresses are expected to result in foreign exchange earnings of nearly \$17 million.

The Service intensified its efforts to promote USA-bound incentive travel, under which companies offer their employees vacation packages as an incentive for increased production or sales. Such programs promoted by USTS brought 12,292 business-sponsored visitors to this country during the year, with reported expenditures totaling \$8.7 million.

The Travel Service promotes foreign attendance and exhibits at trade shows held in the USA by working with trade show organizers to provide services to meet the special needs of international participants. It promoted 78 such trade shows during the period.

The Service is also responsible for evaluating, based on criteria outlined in PL 91-269, proposals from U.S. cities wishing to host international expositions—world's fairs—and for making recommendations to the Secretary with regard to Presidential recognition of such projects. During the fiscal year, it counseled several cities with plans to host international expositions in the 1980s. As a result of the Service's evaluation of a Knoxville, Tennessee proposal to hold a

special category international exposition on energy in 1982, the Secretary recommended Federal recognition of the event; it was granted by President Carter.

### DOMESTIC

The Travel Service continued and expanded its domestic tourism programs, begun in fiscal year 1976, to form the basis for a long-term plan for encouraging and developing increased travel by Americans within the United States. Based on the recognition that tourism can contribute substantially to full employment and balanced economic growth throughout the Nation, the programs are designed to achieve three major objectives: (1) to encourage tourism to U.S. areas which account for the largest share of the Nation's unemployment and which possess viable, competitive tourist facilities and attractions; (2) to develop tourism outside the traditional "high season" to areas characterized by extreme labor force fluctuations due to seasonal travel patterns; and (3) to cooperate with regions, states, cities, private industry, and other Federal agencies in implementing tourism development programs in keeping with national goals such as energy conservation and environmental protection, as well as the aforementioned objectives.

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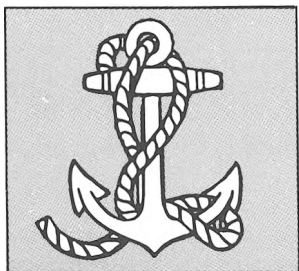
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Under these programs, research was conducted to fill the critical need for more precise and consistent data with respect to the volume and economic impact of domestic travel and to develop a system for standardizing both the definition of tourism and the methods used in measuring tourism impact at the national, state, and local levels. A grant was also awarded through the Department's Economic Development Administration to the University of Missouri to design a tourism development training package for use by local communities to educate key decision makers on the value and economic importance of tourism development. In addition, a consumer/industry information and education program was developed to inform the public on how to travel in this country in terms of limited financial resource, fuel efficiency and conservation of natural resources, and the variety of travel opportunities available in the United States.

The Council of State Governments, through a contract awarded by the Travel Service, began a study to identify states with successful tourism programs, to collect and analyze information about them, and to develop the material in presentation-form for use in addressing key decisionmakers at the state level. To maintain this project, the Council established a committee of governors, lieutenant governors, and legislative representatives, chaired by the Lieutenant Governor of Massachusetts.

In addition, the Service continued to work closely with the Senate Committee on Commerce, Science, and Transportation which has conducted the National Tourism Policy Study. The Committee's recommendations, based on that study, are expected early in fiscal year 1978.



# Chapter VIII

## MARITIME AFFAIRS

### MISSION

The Maritime Administration, established as an agency of the Department of Commerce on May 24, 1950, is charged with the responsibility of developing and maintaining a strong American shipbuilding industry and a modern and efficient U.S.-flag merchant marine. These industries must be capable not only of meeting the Nation's domestic and foreign waterborne shipping requirements, but also of providing vital logistical support to the Armed Forces during national emergencies.

To meet these dual objectives during fiscal 1977, the Maritime Administration conducted a wide range of programs. These involved:

- Providing financial assistance to U.S. shipyards and operators of U.S.-flag vessels to help offset the cost advantage held by foreign competitors.
- Conducting a broad range of research and development programs aimed at improving the productivity and competitiveness of U.S. ships and shipyards.
- Maintaining the National Defense Reserve Fleet, a reservoir of ships that can be activated to fill emergency shipping needs.
- Using comprehensive marketing programs to increase carriage of the Nation's foreign waterborne trade by U.S.-flag operators.
- Participating in domestic and international forums affecting American-flag shipping.
- Taking part in national and regional efforts to improve U.S. ports, intermodal transportation systems, and domestic shipping operations.
- Operating the U.S. Merchant Marine Academy, Kings Point, N.Y., and other facilities for training men and women for the U.S. Merchant Marine, as well as providing support to the state maritime academies.

In addition to administering these programs, the Agency actively promotes equal employment oppor-

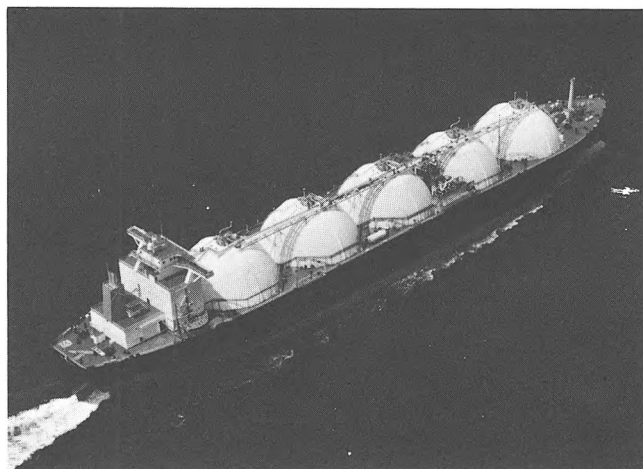
tunities and the development of minority business enterprises in the maritime field. It also is active in encouraging energy conservation and pollution abatement in the American shipbuilding and shipping industries.

The Maritime Administration is headed by the Assistant Secretary of Commerce for Maritime Affairs, who also serves as chairman of the three-member Maritime Subsidy Board. The board administers the maritime aids programs mandated by the Merchant Marine Acts of 1936 and 1970.

### SHIP CONSTRUCTION

On September 30, 1977, 60 deep-draft merchant vessels, totaling 5.6 million deadweight tons and with a contract value of \$3.9 billion, were under construction or on order at American shipyards. Although this was fewer ships than were on order a year earlier, the fiscal 1977 orderbook included a more varied mix of vessel types and reflected an adjustment to the depressed level of freight rates for tankers.

The Maritime Administration is authorized to pay construction-differential subsidy to equalize the cost



The first liquefied natural gas (LNG) carrier to be completed in the United States, LNG AQUARIUS, on sea trials in May 1977.

disparity between U.S. and foreign shipbuilding prices. To be eligible, a vessel must be built in an American shipyard, owned by an American citizen, manned by an American crew, and operated under the U.S. flag in the Nation's essential foreign commerce. Twenty-six of the 60 ships on order at the end of the fiscal year were being built with subsidies.

During the fiscal year, 19 new vessels, aggregating 1.3 million deadweight tons, were delivered by U.S. shipyards. Among these were the liquefied natural gas carrier AQUARIUS, first of these high-technology vessels to be completed in the United States.

In the same period, under Title XI of the 1936 Merchant Marine Act, the Maritime Administration approved guarantees for privately held ship construction and mortgage loans totaling \$1.2 billion. This Federal Ship Financing Program enables shipowners to obtain long-term financing in commercial markets at reasonable rates. Title XI guarantees approved in fiscal 1977 covered 20 deep-draft vessels, 65 ocean tugs or barges, 229 river vessels, and 8 offshore drilling service vessels. Total applications approved and contracts in force, as of September 30, 1977, had an outstanding principal balance of nearly \$5.8 billion.

During fiscal 1977, the Agency awarded subsidy contracts for the construction of nine new ships, which had a total contract value of \$458.7 million. Of this amount, the Federal Government will assume \$149.8 million of the cost, including national defense features built into the ships.

The nine new vessels include the first two heavy-lift Roll-On/Roll-Off cargo ships to be built with subsidy assistance; two tankships to carry liquefied natural gas to the United States; three general cargo (breakbulk) ships, and two containerhips. Contracts were also awarded for the subsidized reconstruction of eight existing ships into highly efficient containerhips.

In addition, private contracts were awarded during the fiscal year for the construction of two nonsubsidized U.S. merchant ships—one Great Lakes bulk carrier and one pipelaying vessel.

## SHIP OPERATIONS

The Maritime Administration is authorized to pay operating-differential subsidy to U.S.-flag shipping companies to offset the higher cost of operating vessels in foreign trade, compared to operating costs

under a foreign flag. During fiscal 1977, the Agency paid operating-differential subsidies totaling \$344 million.

The Maritime Administration continued its efforts to reduce the dependence on subsidy by reaching agreements with several operators to eliminate some types of subsidy expenses on newer and more efficient ships. It is estimated that during calendar year 1978, these reductions will save the Government approximately \$9 million.

On September 30, 1977, there were 21 operators holding 22 long-term subsidy agreements covering 186 vessels, of which 182 were in service and 4 were under construction or on order. In addition, short-term subsidy agreements were in effect for 79 vessels eligible to carry agricultural commodities from U.S. ports to ports in the Soviet Union.

Representatives of the United States and Soviet Union met several times during 1977 to ensure effective implementation of the U.S.-U.S.S.R. Maritime Agreement. They approved a basic charter rate of \$16 per long ton for heavy grains to be carried by U.S.-flag vessels from U.S. Gulf to Black Sea ports in 1978.

In February 1977, a delegation was sent to Argentina to hold discussions which helped restore cargo booking procedures satisfactory to all shipping lines serving the Argentine trade. In addition, the foundation was laid during the fiscal year for a three-year extension of a maritime agreement with Brazil. The agreement assures that access to the government-controlled cargoes of both countries will continue to be granted equally to U.S.-flag and Brazilian-flag vessels.

As part of its program to develop new markets for U.S.-flag carriers, the Maritime Administration opened a new marketing office in Atlanta, Georgia, during the fiscal year, bringing the number of these strategic centers to ten. In fiscal 1977 marketing representatives made direct contact with officials of more than 2,000 firms engaged in foreign commerce to promote the Agency's "Ship American" program.

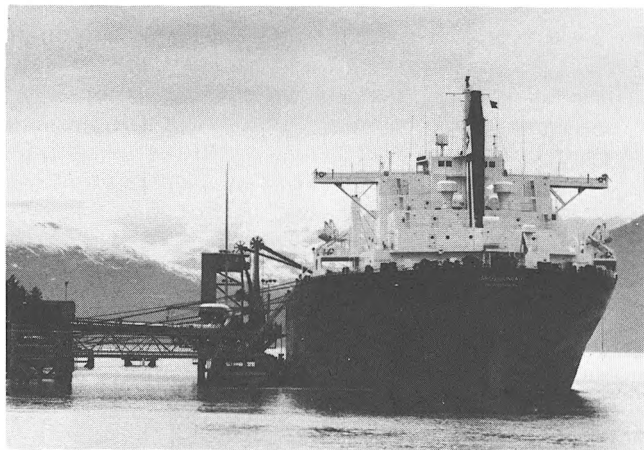
The Maritime Administration continued active support of the National Maritime Council, an organization comprised of representatives from the management and labor segments of the maritime industry. The Agency also continued its participation in trade shows, forums, and other programs that promote U.S.-flag shipping.

The U.S.-flag share of the Nation's liner imports and exports has increased from 21.9 percent by tonnage in 1972 to 30.9 percent in 1976. Actual U.S.-flag liner tonnage carried increased 57 percent—from 9.8 million tons in 1972 to 15.4 million in 1976.

## DOMESTIC SHIPPING

The domestic trades comprise the Great Lakes, inland waterways, and the coastwise, intercoastal, and noncontiguous ocean trades. This segment of the U.S. merchant marine transports more than one billion tons of cargo annually.

For domestic ocean shipping, the major development during fiscal 1977 was the opening of the trans-Alaska pipeline and the movement of Alaskan oil from the port of Valdez to the lower 48 States. In anticipation of the impact this event would have on the U.S.-flag tanker fleet, the Maritime Administration assessed the adequacy of the fleet to meet the Alaskan carriage demands, including transshipment through the Panama Canal of Alaskan oil not required on the West Coast. The total U.S. fleet was found to be more than adequate to meet the requirements. During the first four months of pipeline operation, U.S. flag tankers carried more than 74.6 million barrels of crude oil from Valdez to the lower 48 states.



The U.S.-flag tanker ARCO JUNEAU takes on the first load of crude oil from Alaska's Valdez Terminal. The shipment was delivered to Cherry Point, Washington on August 5, 1977.

During the fiscal year, the U.S. Great Lakes fleet declined slightly in number of vessels, from 171 to 169, but its total deadweight capacity increased from 2.6 million to 2.7 million tons. The Maritime Administration continued its work with other agencies to determine the feasibility of extending the shipping season on the Great Lakes and St. Lawrence

Seaway through the Winter Navigation Demonstration Program.

The Maritime Administration accelerated its promotion of inland waterway transportation in fiscal 1977 by strengthening its relationship with the towing industry and participating in other Federal programs which affect this important segment of the Nation's transportation system. More than 605 million tons of traffic—consisting primarily of energy products, raw materials, and agricultural commodities—moved on the inland waterways in calendar year 1976.

## RESEARCH AND DEVELOPMENT

Research and development programs at the Maritime Administration are aimed at improving the productivity of the U.S. maritime industries, thereby making them more competitive in the world market. The agency works closely with industry, through contracted research projects, to develop new equipment and techniques to improve all aspects of shipbuilding and vessel operations.

Cost-sharing with industry is an important part of the cooperative program development over the last several years. During fiscal 1977 the Maritime Administration committed \$18.2 million to research projects. Industry contributed an additional amount equal to almost 50 percent of Agency's total obligations.

The Maritime Administration's Computer-Aided Operations Research Facility had its first full year of operation in fiscal 1977. The facility—located at the Agency's National Maritime Research Center at Kings Point, N.Y.—uses a full-scale bridge mock-up fitted with contemporary bridge controls to simulate a wide range of navigational situations under any number of environmental or traffic conditions. Computer-generated images are projected on a 240-degree screen.

Some of the first tests conducted at the facility involved analyzing the effectiveness of collision-avoidance equipment in actual navigating situations, and training Masters and Pilots in the operational practices to be used in serving the port of Valdez, Alaska.

Under the National Shipbuilding Research Program, the Agency has conducted 90 projects in cooperation with leading U.S. shipyards over the last 6 years. Most of these projects have been, or soon will be, put into actual practice, and have already begun to



yield significant savings in construction costs. The areas of research under this program include facility improvement, shipbuilding automation, and the design of ships for ease of production.

The Maritime Administration's primary research and development effort to improve the competitiveness of U.S.-flag shipping is directed toward the completion of the Shipping Operations Information System, a computer-based management control system designed to improve the operations of American-flag ocean shippers. During the fiscal year, several modules were added to the system, which eventually will have 53 modules dealing with operations ranging from accounts receivable to ship handling.

MARISAT, a commercial communications satellite system which was an outgrowth of the Agency's research program, began full world service during the fiscal year with the launching of its third satellite. Other areas of research and development progress in fiscal 1977 included cargo handling, advanced ship designs, marine sciences, market analysis, and ship's machinery and controls.

## CIVIL RIGHTS

There was continued progress also in the employment of minorities and women in the maritime industries and the use of minority suppliers and vendors.

In the shipbuilding industry, the employment of women and minorities reached new highs at the start of calendar year 1977. In the 30 shipyards representing 80 percent of this industry's workforce, employment rose by 2,121 during calendar year 1976. Women accounted for 1,087, or 51 percent, of the net increase, and minority workers accounted for 878, or 41 percent.

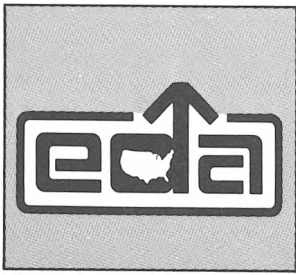
Similar gains have been posted in ship operations. Since 1969, when the Maritime Administration was assigned Federal responsibility for equal employment in the maritime industries, minority employment has increased in this industry from 10.4 percent to 18.3 percent at the beginning of calendar year 1977. The employment of women increased from 32.1 percent to 38 percent during the same period.



**Employment of women and minorities in U.S. shipyards reached new highs during 1977, and significant equal employment gains were posted in other maritime industries.**

The Maritime Administration Minority Business Program, which was begun in 1974, is designed to encourage shipbuilding and shipping companies to use minority suppliers and vendors, and to advise the minority community of sales opportunities in the maritime industry.

Prior to 1974, total business transacted between the maritime companies and minority entrepreneurs was estimated at less than \$1 million. In the first nine months alone of fiscal 1977, the industry had placed more than \$13 million with minority firms.



# Chapter IX

## ECONOMIC DEVELOPMENT

### MISSION

The Assistant Secretary for Economic Development is the chief advisor to the Secretary on problems of high unemployment, low median family income, and lagging economic growth in rural and urban areas of the Nation. He also heads the Department's Economic Development Administration, an agency established under provisions of the Public Works and Economic Development Act of 1965, as amended.

Under its original legislation, the Economic Development Administration's programs are geared to the stimulation of long-range economic growth and the creation of permanent jobs in the private sector. In carrying out its basic mission, the Administration provided \$360 million in loans and grants for public works, business development, planning, technical assistance, research, and economic adjustment activities.

In fiscal 1977 Congress mandated the Department through its Economic Development Administration to implement a special \$6 billion Local Public Works program aimed at creating immediate jobs through the construction of useful public facilities in areas of high unemployment.

It implemented a \$175 million emergency drought relief program during the latter portion of fiscal 1977; loaned (or guaranteed loans of) \$16 million under the Trade Act of 1974 which authorizes assistance to firms and communities hard-hit by foreign imports, and provided \$30 million in support of the 1980 Winter Olympics under the Winter Olympic Games Authorization Act of 1976, which assigned it the role of lead agency in the construction of permanent facilities for the Olympics at Lake Placid, New York.

### DEVELOPING RESOURCES FOR CREATING JOBS AND ECONOMIC ASSISTANCE

#### Local Public Works

Preliminary estimates indicated that the \$6 billion Local Public Works program, through which the



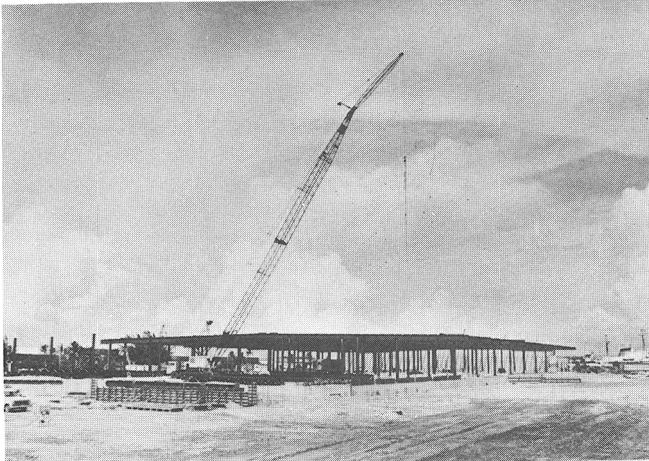
**REVITALIZATION—Detroit builds riverfront area with part of its Local Public Works allocation.**

Economic Development Administration funded 10,650 projects during fiscal 1977, would create up to 425,000 person-years of employment through 1980.

These estimated 425,000 jobs are of three types. One-fourth of them are direct, on-site construction jobs. One-eighth are indirect jobs created by supplying goods and services for construction projects. The rest are induced jobs—those resulting from increased consumption by this program's construction workers, contractors, and suppliers.

Full-scale evaluations of the effect of the Local Public Works program on job creation and the stimulation of the economy are under way. These evaluations are expected to provide landmark data on the effect of federally funded public works as a counter-cyclical stimulus for the Nation's economy.

Construction began in February 1977 on the first projects approved under the \$2 billion initially appropriated for the Local Public Works program (the so-called Round I stage of the program). Allocation of funds for projects under a second \$4 billion appropriation (Round II) was completed by the final day of fiscal 1977. More than 25,000 applications were filed under Round I of this program between



**PORT FACILITY**—Miami's new Seaport Warehouse was constructed with Local Public Works dollars.

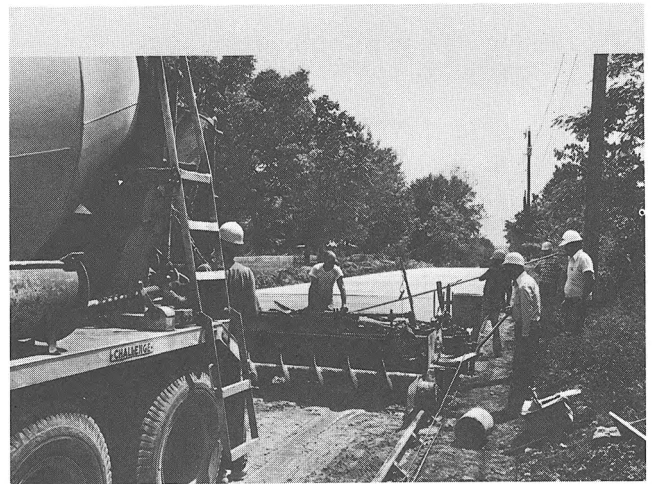


**LPW GEORGETOWN**, the City of Georgetown, Delaware builds a Garage/Maintenance Shed.

October 26 and December 3, 1976. To meet time schedules, a list of projects selected for further processing was published on December 23, 1976, and the first grants for the first projects were announced on December 27, 1976.

Round II was implemented in the spring of 1977 following revisions in the enabling legislation and changes in the guidelines for the program. On May 16, 1977, planning allocations of funds on a state-by-state basis were announced. Local planning allocations were announced in June 1977. These announcements enabled local jurisdictions to set priorities for funding projects and to pattern their requests to the amount of funds available.

Also in June, procedures and policies were established to assure that 10 percent of the contracts funded in Round II would be awarded to minority contractors, as set forth in the Local Public Works Act of 1977. Additionally, the Economic Development Administration established a "pocket-of-poverty" category to target funds into inner-city areas of high unemployment in cities that otherwise would not have qualified for funds under the program.



**ROAD TO RECOVERY**—Hartshorne, Oklahoma, built a road to an industrial park with its immediate-jobs grant money.

Grants approved under the LPW program include:

- 634 for state governments.
- 1,697 for counties.
- 6,102 for cities and towns.
- 1,413 for school districts.
- 206 for special purpose units of government.
- 328 for Indian tribes and communities.



The projects being constructed under the program represent virtually every type of capital improvement facility, including public safety buildings, schools, recreation centers, industrial parks, water and sewer lines, streets, roads, bridges, museums, cultural centers, and senior citizen centers.

In addition to providing immediate jobs in construction and related trades, many projects under the Local Public Works Program are integrated into local and regional programs to stimulate long-range community and economic growth, thereby providing future economic benefits.

### **Public Works**

The Economic Development Administration provided a total of \$166.5 million to help construct public facilities needed by rural and urban communities to encourage private investment and to prepare for changing industrial trends. These public works grants supported goals established by the communities for orderly long-range economic growth. These grants awarded assistance for projects including water and sewer systems, road and industrial park development, inner-city industrial renovation, inland and coastal port development, and downtown rehabilitation. Energy development was supported by these grants to establish a plant for the conversion of anthracite coal to gas and to develop sites for the processing of off-shore oil.

Of the total funds, the Economic Development Administration approved \$27 million under an amendment authorizing assistance for specially designated public works impact areas through projects designed to create immediate jobs in areas of high unemployment.

An analysis of the public works program indicates that approximately \$84 million was approved for urban and rural projects in multicounty economic development districts; \$38 million for urban areas; \$28 million in rural communities, and \$16.4 million for Indian tribes and reservations.

An additional \$20 million was apportioned to the States under Section 304 of the Public Works and Economic Development Act to enable them to participate in the funding of local projects aimed at creating permanent jobs.

### **Business Development**

During the year, the Economic Development Administration conducted a \$58-million business

development program, including loans and guarantees of loans extended to businesses by private financial institutions.

Business development assistance is provided under provisions of the Trade Act of 1974 and the Public Works and Economic Development Act of 1965 to help maintain existing jobs and create new job opportunities.

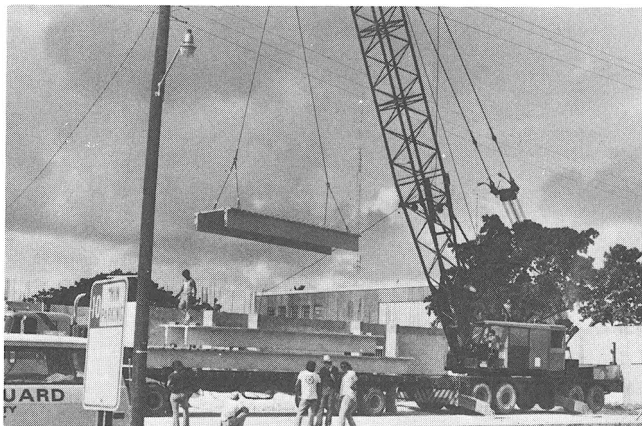
Business development action for the year consisted of:

- 30 fixed asset loans for a total of \$16.7 million.
- 43 working capital loans for a total of \$37.3 million.
- 4 guarantees of fixed asset loans totaling \$7.6 million.
- 6 guarantees of working capital loans totaling \$12.5 million.

Under its loan guarantee program, the Agency guarantees 90 percent of the unpaid balance of private loans and places 20 percent of the sum representing the Federal exposure in a reserve fund to cover any losses. Thus, for each dollar in Federal funds in the loan guarantee program, the agency leverages \$5 in private investment for economic development.

### **Technical Assistance**

Information, data, and know how in evaluation and/or shaping specific projects and programs to create jobs through development of local resources were the targets of the agency's \$12.5 million technical assistance program in fiscal 1977.

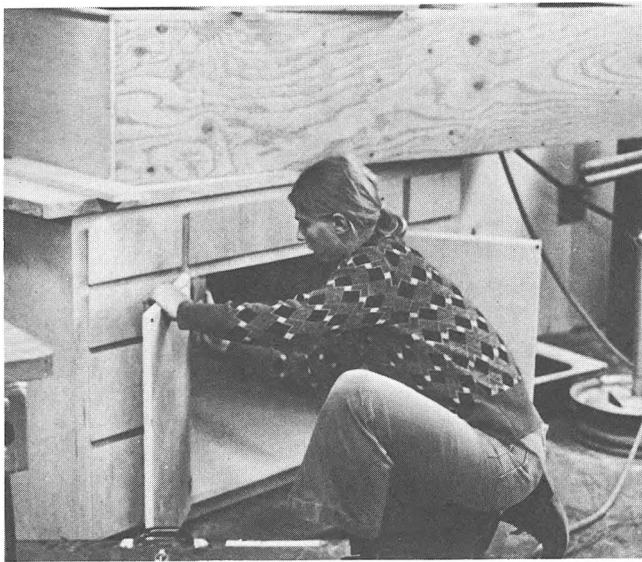


**CITY HALL ADDITION—Dania, Florida builds with a \$575,000 LPW grant.**



Technical assistance funds were provided for feasibility studies of how to combine natural, human, and other resources for productive enterprises. Funds also were provided to help establish, strengthen, and support organizations working to produce jobs and improve economic opportunities.

During the year, the program extended specialized assistance in solving problems of economic growth in rural and urban areas and for Indian tribes. Grants were made to help establish and continue job and business development programs conducted by universities and national organizations engaged in economic development activities.



**SKILLS TRAINING**—In the northwest, natural resources and EDA-funded grants to build vocational training facilities combine to attract jobs for new members of the work force.

Funds were made available to help local groups plan re-use of military installations to create jobs in the private sector through diversified economic growth, and assistance was extended to businesses under the Trade Act of 1974.

Technical assistance funds approvals included \$6.85 million for projects in counties outside economic development districts and for trade adjustment assistance; \$3 million for projects in urban areas; \$1.75 million for Indian tribes and reservations and \$1.9 million for projects in economic development districts and in communities designated by the Economic Development Administration as growth centers.

### Indian Program

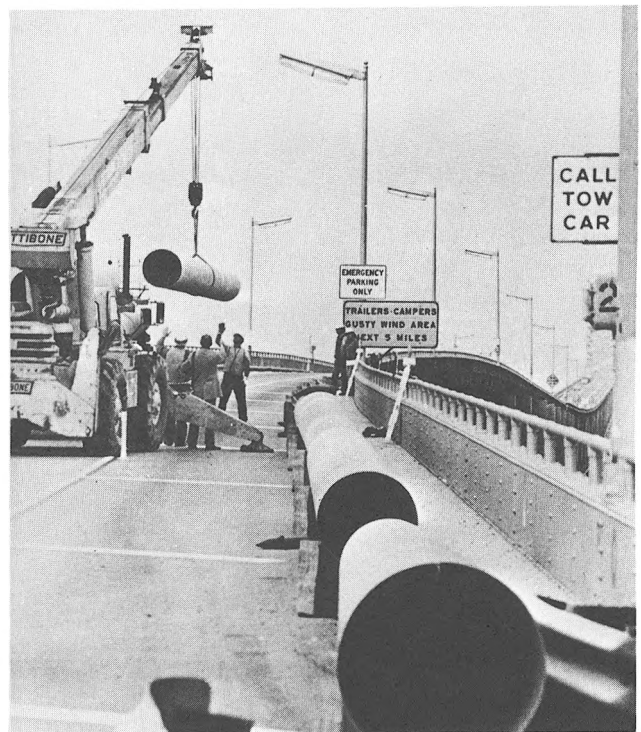
In recognition of special and serious economic development problems in Indian communities,

special emphasis is placed on programs to assist the Nation's Indian tribes. In fiscal 1977 this assistance consisted of \$223 million for more than 600 projects requested by the tribes.

Of the total, \$179.8 million was approved for 339 projects under the Local Public Works Program. The remaining \$43.2 million included \$17.3 million for emergency drought relief programs in Indian areas and \$25.9 million in public works, technical assistance, and planning to assist tribes in carrying out long-range economic development programs based on the use of tribal resources.

### Drought Relief

The Community Emergency Drought Relief Act of 1977 provided \$175 million for the Economic Development Administration's use as loans and grants to alleviate hardships caused by severe drought conditions.

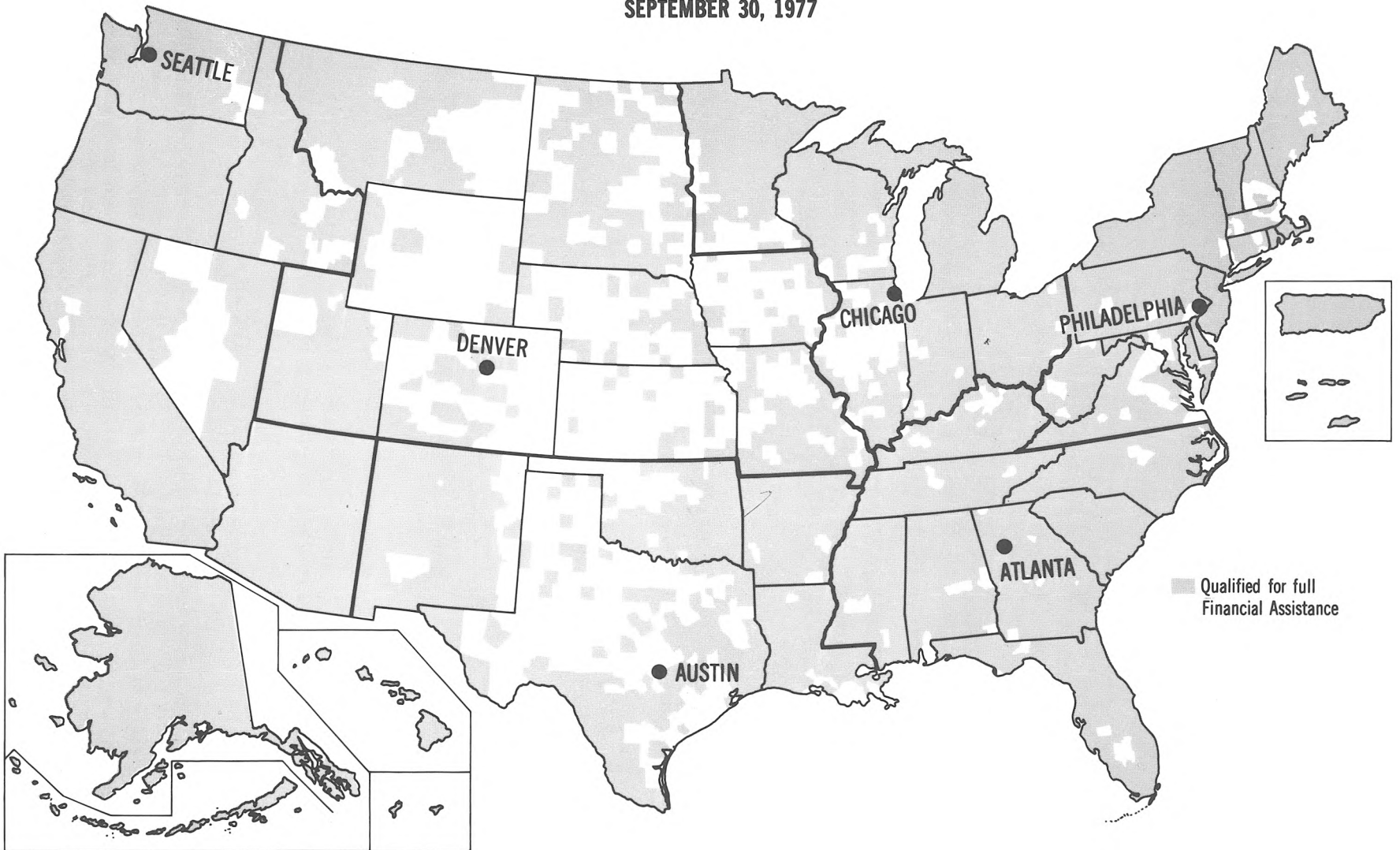


**DROUGHT AID**—This bridge-borne water line brought water to California's parched Marin County.

The Agency was authorized to make this assistance available to cities with a population of 10,000 or more States, Indian tribes, and nonprofit organizations designated as eligible areas by a Federal interagency committee. Areas of smaller size were assisted through programs administered by the U.S. Department of Agriculture.

# EDA QUALIFIED AREAS

SEPTEMBER 30, 1977



The funds were to be used for water system improvements and expansions, for the purchase and transportation of water for immediate relief from drought conditions, to implement water conservation measures, and to conduct other activities to mitigate the effects of the drought.

To meet emergency needs, the agency approved the first projects three weeks after the legislation was signed. In all, it approved 268 projects within 130 days.

The projects represented \$109 million in loans and \$66 million in grants. They were located in 145 counties, throughout 28 States, and in Puerto Rico.

Of the projects approved, 88 percent responded to existing or immediately foreseeable threats to public health and safety. Others were approved to correct economic problems caused by drought or to meet critical, but less serious, drought-related problems which threatened community water supplies.

Among the funds approved:

- 84 percent were used for water systems, including new construction and repairs.
- 10 percent went to meet the costs of purchasing and transporting water.
- 6 percent were approved for conservation and fire protection programs.

The agency maintained six emergency drought relief offices and 11 information offices for the program.

## Winter Olympics

Construction of facilities at Lake Placid, New York, for the XIII International Olympic Winter Games, to be held in 1980, was on schedule on September 30, 1977.

The indoor and outdoor recreational facilities are being constructed with a \$30.1 million grant, which the Economic Development Administration approved on March 28, 1977, to the Lake Placid 1980 Olympic Games, Inc., a nonprofit organization conducting the event.

Funds for the Olympic construction program were provided through a special appropriation under the Olympic Winter Games Authorization Act of 1976.

In addition to providing the necessary facilities for the 1980 Winter Olympics, the Lake Placid complex is expected to serve as a foundation for long-term economic growth in the Essex County area of New York. It will also serve as a site for the training of future participants in Olympic competition.

The Olympic construction program includes:

- Renovation of the Lake Placid Arena and construction of a new field house on an adjoining site in Lake Placid. The project will include development of four modern ice sports rinks with a combined seating capacity for 10,000 spectators. The complex will be used as the site for figure skating, ice dancing, hockey, and award and closing ceremonies during the games.
- Reconstruction of the existing 400-meter speed skating oval at the Lake Placid High School as a refrigerated, lighted track. The project will provide permanent and temporary seating for an estimated 7,000 spectators.
- Construction of a new 90-meter ski jump and reconstruction of an existing 70-meter jump to converge in a common run at the base of the hill at Intervale, just south of Lake Placid. The project involves construction of a 266-foot tower at the start of the 90-meter run and reconstruction of an existing tower to a 144-foot height for the 70-meter run. Spectator capacity at the site has been placed at 15,000.
- Development of a 1,000-meter refrigerated luge (sled) run, generated parallel to the existing bobsled run at the Mt. Van Hoevenberg Recreation Area, just south of Lake Placid. Spectator areas will be located at the start of the run, the "hairpin curve," the "Omega curve," and the finish line.

Completion of the program is scheduled for November 1979. The games are scheduled to start on February 13, 1980.

The Economic Development Administration is also supervising construction of housing for 1,800 athletes for the Olympics with \$22 million provided by the Department of Justice. These facilities are to be converted into a model correctional center for youth following the completion of the games.

## PLANNING, RESEARCH, AND DEVELOPMENT

### Planning

The Economic Development Administration provided \$23 million in fiscal 1977 for coordinated long-range planning to stimulate economic growth and to involve the private sector in community revitalization.

The program strives to help states, local communities, and Indian tribes develop the capacity to identify growth opportunities and to combine public and private resources in activities that will create permanent, long-term jobs.

The agency provides funds to establish planning programs in some areas and to strengthen the economic growth process in other areas with ongoing development programs.

Planning grants approved included:

- \$10 million for 200 multicounty economic development districts representing about 1,500 individual counties. District programs are designed to overcome long-term unemployment and lagging economic growth by regional planning. The districts conduct research for new business opportunities, promote their attractions among industry associations, and extend specialized services to small communities.
- \$3,740,000 for 84 Indian tribes, reservations, and multitrIBE planning organizations to plan community facilities that will attract industry, thus providing jobs for tribal workers.
- \$260,000 to eight areas that have demonstrated special needs for economic growth planning. Grants were approved for Puerto Rico and American Samoa; the City of Kenai, Alaska; Valley County, Montana; Fayette County, Pennsylvania; the Cape Ann and Cape Cod areas of Massachusetts; and the East Los Angeles (California) Community Union.
- \$5.5 million to support economic development planning processes in 47 States, the District of Columbia, Puerto Rico, the Virgin Islands, and Guam. This Federal assistance enables recipients to recognize and plan for energy resource development and to coordinate their budget and capital improvement programs with local areas.
- \$2.5 million to strengthen or establish programs for economic growth in 43 cities and the four urban counties of Fresno and Los Angeles in California, Dade in Florida, and Genesee in Michigan. The program has provided the recipients with the capacity to combine public and private investments in downtown and inner-city revitalization, in the reuse of existing industrial facilities, and for the coordination of neighborhood renovation.
- \$500,000 to 149 multicounty development districts designated by states to provide regional coordination of economic planning.
- \$600,000 to 31 multicounty development districts, enabling them to provide assistance in the form of professional services to local communities. The grants seek to help communities strengthen city-manager administration and to resolve special problems of energy and housing shortages.

### Research

The Economic Development Administration conducts a continuing program of study, training, and research to assist in determining the causes of unemployment, underemployment, underdevelopment, and chronic depression in the various areas and regions of the Nation.

The purpose of this research is to assist in the formulation and implementation of national, state, and local programs that will produce solutions to problems of adverse economic conditions.

The Agency's fiscal 1977 research program included continuation and implementation of 80 projects at a cost of \$2.5 million.

### Economic Adjustment

Under Title IX of the Public Works and Economic Development Act, the Economic Development Administration is authorized to provide special economic development and adjustment assistance.

Title IX increases the flexibility of the agency's programs, enabling it to respond in a timely manner to a wide variety of problems with two types of grants—developmental and implemental.

Developmental grants, for example, were awarded to the State of California to help prepare an adjustment strategy to overcome job and income losses anticipated in connection with the curtailment of B-1



bomber production and to Humboldt County, California, to help prepare a strategy to overcome structural changes anticipated in the area's economy as a result of planned expansion of the National Redwood Forest.

A \$6 million grant was awarded to the Commonwealth of Virginia for the implementation of an adjustment strategy that enabled former employees of the American Safety Razor Company to purchase their plant, thereby saving some 850 jobs in the Augusta County area. The strategy calls for Virginia to use repayments from a loan extended to the plant's new owners for the establishment of a revolving loan fund for future economic development projects.

The Economic Development and Adjustment Assistance Program in fiscal 1977 consisted of 49 grants amounting to a Federal investment of \$76.5 million. This represents 28 implementation grants totaling \$74.6 million and 21 developmental grants totaling \$1.9 million.

### **Trade Adjustment**

The Trade Act of 1974 authorizes the Economic Development Administration to assist businesses and communities adversely affected by imports. The ob-

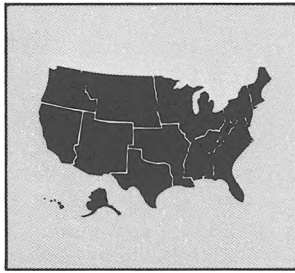
jectives of the trade adjustment program are to facilitate the orderly transfer of production resources to alternative uses and to help firms to meet new conditions of competition.

In fiscal 1977 the Agency received 125 petitions from firms requesting certification as eligible to apply for adjustment aid under the authority of the Trade Act. Seventy firms, representing 23 industries, were certified.

Trade adjustment assistance from the agency's business development loan program consisted of: eight fixed-asset loans for a total of \$2,085,700, 16 working-capital loans for a total of \$10,097,000, two guarantees of working-capital loans for a total of \$2,850,000, and one guarantee of a fixed-asset loan for \$900,000.

Fifteen projects received technical assistance funds. A primary purpose of this assistance is to help firms prepare trade adjustment programs aimed at restoring the economic health of businesses adversely affected by imports.

Four grants totaling \$11,727,870 were approved for communities with trade-related problems under the Agency's Title IX Special Economic Development and Adjustment Assistance program.



# Chapter X

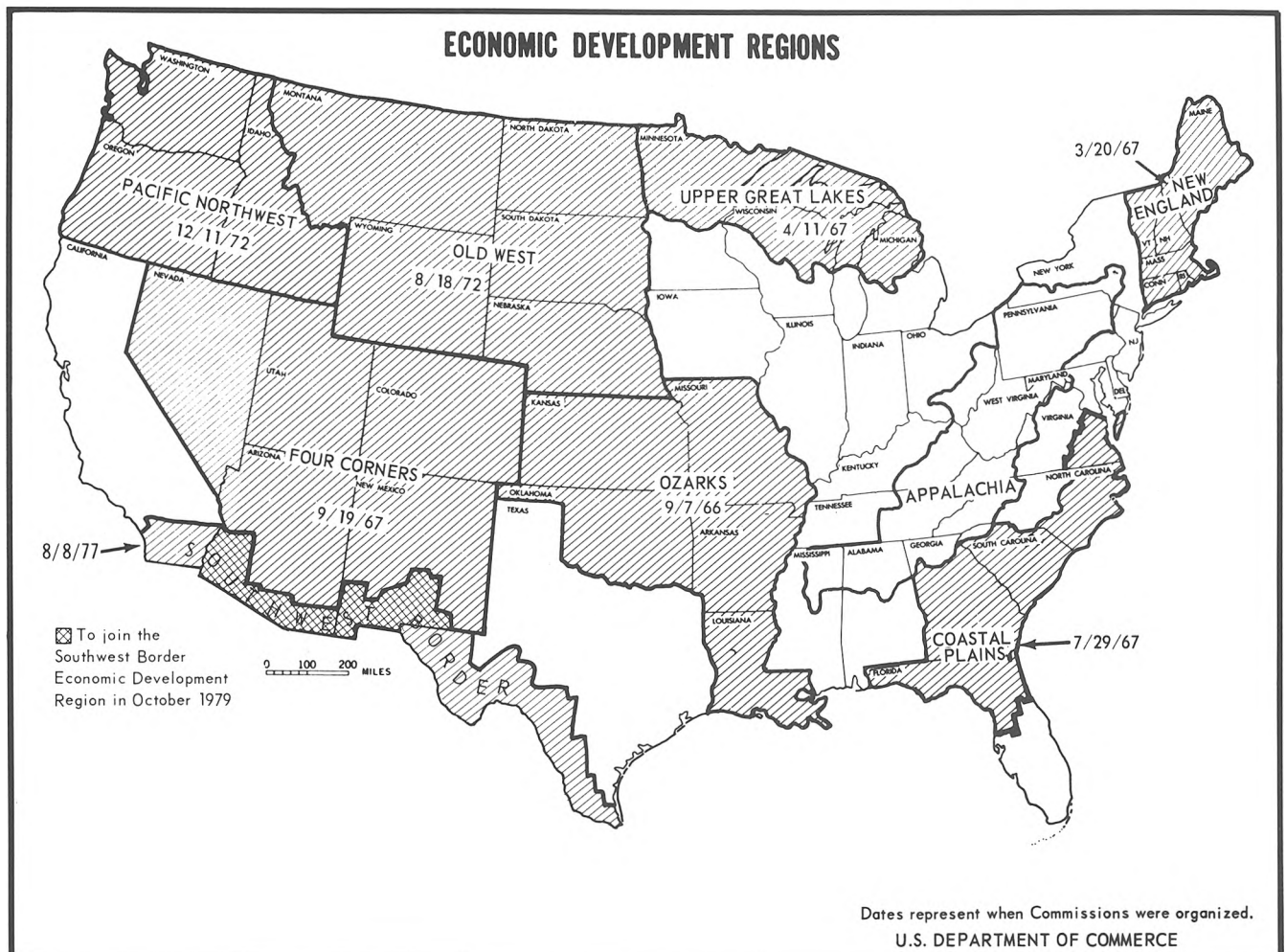
## REGIONAL ACTION PLANNING

### MISSION

The Regional Action Planning Commissions are Federal-State organizations which jointly seek to plan and carry out development programs in multistate regions. These economic development regions are designated by the Secretary of Commerce, as authorized by Title V of the Public Works and Economic Development Act of 1965, as amended, upon a finding that they are experiencing economic decline or adjustment.

The Regional Commissions assist their regions by engaging in planning, research, technical assistance, demonstration programs, and direct and supplemental funding of Federal grant-in-aid programs. Thirty-four States with a total population of 66.5 million participate in the regional development program either on a whole or partial-state basis.

The Regional Commissions were appropriated a total of \$63.5 million during fiscal 1977. Total obligations amounted to \$60.6 million, and of that amount \$39.1 million or 64.5 percent was applied to technical as-



sistance and demonstration projects, and \$17.6 million or 29 percent was used to supplement Federal grant-in-aid projects. Table X in the appendix summarizes spending during the reporting period.

During most of fiscal 1977 there were seven Regional Commissions: Coastal Plains, Four Corners, New England, Old West, Ozarks, Pacific Northwest, and Upper Great Lakes. On August 8 an eighth Commission was organized. This was the Southwest Border Commission, to serve 36 counties along the Mexican Border in California, Arizona, New Mexico, and Texas.



## COASTAL PLAINS

The Commission continued to press forward in its economic development efforts in the four major program areas of industrial development, human resources, agriculture and forestry, and natural resources.

In its industrial development strategy, the Commission placed increased emphasis on studies and technical assistance in new mineral utilization technologies. Through its Area Magnetic Surveys, it also identified deposits of commercial grade titanium which can have a significant economic impact on the region.

A program was initiated to attract foreign investment to the region through trade shows and to expose regional producers to markets abroad.

As a result of substantial data reflecting a possible shortage of fresh water supply, the Commission sponsored an interstate groundwater consortium providing a forum for addressing the problems of incompatible state-to-state data, as well as identifying alternative courses of action to address saltwater intrusion and reduced groundwater.

In addition the Commission continued its support of human resource development, recreation and tourism, and transportation.



## FOUR CORNERS

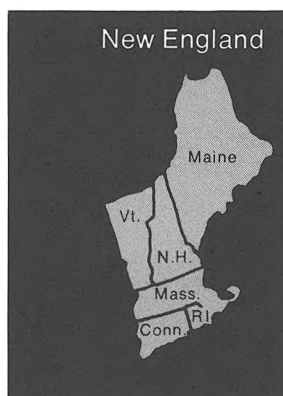
The Commission placed continued emphasis on the revision and updating of its Regional Development Plan. The five member states and the substate planning districts participated fully in the formulation of the Plan.

Program emphasis was placed on energy development and conservation as well as on industrial and human resource development. The Commission extended assistance in such new development areas as fly ash insulating block, conversion of animal waste to biomethane gas for using in public and private facilities, and guayule rubber production.

Assistance was also provided to 48 communities and areas severely affected by drought for new or improved water and/or sewer systems, saving or creating 3,000 direct jobs.

In an effort to improve service to the region, the Commission offices were relocated from Farmington to Albuquerque, New Mexico.

During the year, the Commission made 64 grants for the construction of public facilities and 120 awards for technical assistance and demonstration projects. Total expenditures amounted to \$8 million.



## NEW ENGLAND

The Commission continues to be an active Federal/State partnership with a strong commitment to the revitalization of the New England economy. In

fiscal 1977, the Commission continued its efforts to focus its funds on the resolution of regional rather than intrastate problems, with substantial accomplishments being made in its three program areas of transportation, economic development, and energy.

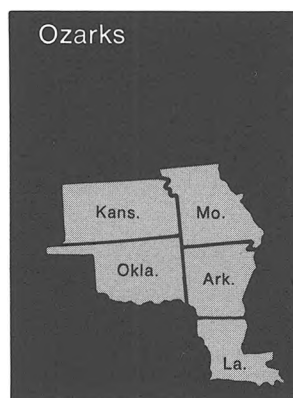
By continuing support of its Rail Rehabilitation project, over 225 miles of track used by the region's railroads were repaired or refurbished, putting to work 400 of the unemployed.

International trade promotion, fishing industry revitalization, labor market research, metric conversion assistance, regional economic analysis, and small business assistance were major components of the Commission's economic development program.

In the field of energy, Federal policy analysis, solar energy research and development, and low-income home winterization, the Commission continued to strongly emphasize the regional energy strategy developed by the Governors, which includes extending the life of scarce fuels, reducing the region's dependence on oil, increasing the use of renewable resources, minimizing the price of energy, and accelerating the development of New England energy industry.

coal-bearing substate areas of the region; provided for delivery of space-age computer management techniques to individual agricultural operations throughout the region; accepted transfer of \$1.1 million from the Department of Defense and contracted for a final environmental impact statement and feasibility study regarding the Glasgow Air Force Base closure; and continued regionwide efforts in accelerating soil surveys, improving range management, and providing community technical assistance.

The Commission closed out its excess property program, having transferred \$35 million in excess property to recipients for economic development purposes.

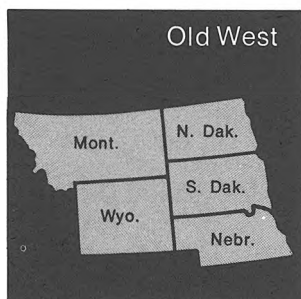


## OZARKS

The Commission strengthened its regional development program with major emphasis on income and job generating projects and programs. Some \$34 million in 71 public facility projects related to economic growth were financed by the ability of the Commission to provide \$7.4 million in supplemental assistance. The Commission continued its regionwide program of planning and technical assistance so as to implement the objectives set out in its approved regional economic development action plan.

First efforts were started toward implementation of the new demonstration authorities in health and air transportation for rural growth centers. Initial projects were a satellite rural medical center and a demonstration project to relieve urban air congestion and stimulate rural employment.

The Commission's ongoing regional programs in multistate tourism development, expansion of international trade opportunities, and improvement of commuter air service to smaller urban centers were continued.



## OLD WEST

The Commission's Regional Development Plan was approved by the Secretary, thus permitting the Commission to begin supplemental grant participation with Federal grant-in-aid agencies. The first such activity involved the Bureau of Outdoor Recreation.

In addition, the Commission moved forward in those areas of social and economic development to which it has made strong commitments, such as energy, health, and environment. It concluded an agreement with the Public Health Service to improve health services in rural areas; completed a pattern of ensuring state involvement in overall energy development environmental impact statements in





## **PACIFIC NORTHWEST**

During fiscal year 1977, the Pacific Northwest Regional Commission continued its emphasis on technical assistance programs by funding over \$7 million in regional activities.

Natural resource programs received special attention again this year. Many demonstration and study projects related to enhancement of the Columbia River steelhead and salmon fisheries were implemented. Emergency drought assistance efforts received high priority, and continuation of the regional forest productivity studies and the applications of NASA remote sensing technology to a regional land project both provided the Commission with a successful program.

In addition, the regional excess property program was concluded after making available millions of dollars in needed property to eligible recipients. Other programs, including energy, agriculture, and international trade, also made noteworthy contributions to the region.

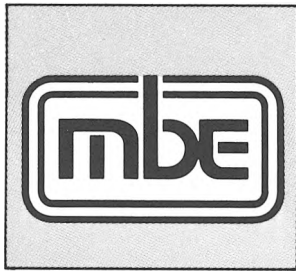


## **UPPER GREAT LAKES**

In recognition of changing energy supplies and the importance of an adequate transportation network to economic development, the Commission funded programs to encourage balanced transportation, study energy policy, and conserve fuel in northern Michigan, Minnesota, and Wisconsin.

Regional recreation and tourism was given high priority. The significance of year-round Northern recreation was demonstrated by the world renowned Birkebeiner Cross-Country Ski Race, held on a Commission-funded trail. Promotion of a circle tour of Lake Superior recreational resources was begun.

A Commission-funded study revealed significant shifts in population trends. Plagued by out-migration in the past, the region is now growing faster than the other areas of the three states and must provide jobs for a rapidly expanding labor force.



## Chapter XI

# MINORITY BUSINESS ENTERPRISE

### MISSION

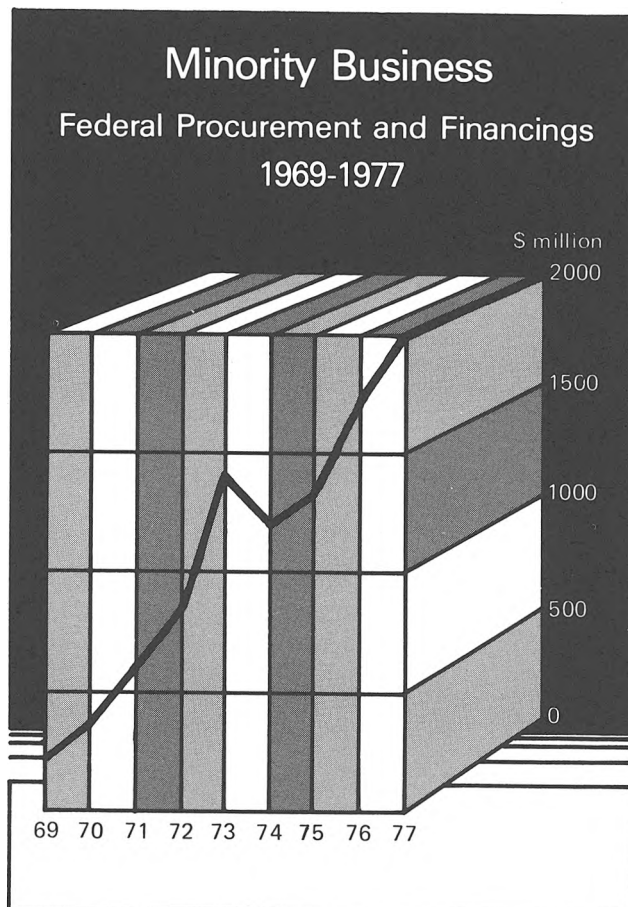
The Office of Minority Business Enterprise was established by Executive Order 11458 in 1969. Executive Order 11625, issued in 1971, expanded the programs and activities of the Office.

As the coordinator in Government for minority business development, the Office works closely with other Federal departments having large procurement budgets, regulatory responsibilities, or loan and grant authorities to ensure the interests of minority business are being met under their programs.

A principal coordinating vehicle is the Interagency Council for Minority Business Enterprise composed of Under Secretary-level officials of every major Federal department and agency. During fiscal 1977, 35 such departments and agencies reported measurable minority business support activity totaling \$2 billion. This includes Government grants, loans, and loan and bond guarantees to and procurements from minority firms.

The Office promotes the interests of minority firms in the private sector by identifying opportunities, markets, technology, and financing.

The Office assists individual minority entrepreneurs to start new businesses or expand existing ones. The assistance includes management advice, technical assistance, marketing help, or financial packaging. It is offered by community-based agencies in over 250 locations which receive financial support for operating expenses from the Office.



### NEW INITIATIVES

In fiscal 1977 the Office began a new effort aimed at developing minority businesses in expanding sectors of the economy. The emphasis is on larger business opportunities and technical industries. Already this new initiative has produced a \$5 million minority business acquisition, the largest in U.S. history. And feasibility studies are underway for minority operations in telecommunications, energy-related enterprises, recycling operations, and other business areas.

The Office stepped up its technology commercialization effort during 1977 to provide minority business opportunities through the development of commercial applications for new technologies. Regional technology centers have been set up in Washington, D.C. and four States. Program emphasis is on the partnership between Government and industry in the creation of long-term opportunities for minority business in the private sector.

## MARKETING

Government procurement from minority forms amounted to \$1.2 billion during fiscal year 1977. The figure includes direct Government sales and sub-contract work performed for prime Federal contractors.

In September 1977, President Carter called on Federal agencies to double their purchases from minority businesses during the next two fiscal years. The President announced the drive at a White House meeting of the Interagency Council for Minority Business Enterprise where he also endorsed several other minority enterprise goals. A portion of the \$4 billion worth of public construction scheduled to take place under the Public Works Act of 1977 is reserved for minority building contractors and companies in related industries. This Act requires that grantees place 10 percent of the total value of the work with minorities in the form of direct awards or subcontracts.

In the private sector, the National Minority Purchasing Council, made up of leading corporations and organizations, promotes marketing opportunities for minority firms. The Council reported sales contracts valued at \$797 million for calendar year 1976. The 1977 effort is expected to produce \$1 billion in sales.

The Council added 118 new members during 1976, bringing the total of its participating organizations to 964. Included are 303 "Fortune 500" companies.

Marketing services provided by community local business development organizations, supported by the Office, produced 9,107 procurement contracts during fiscal 1977, 28 percent more than the 1976 total. The amount of the contracts equaled \$735.9 million, 51 percent more than last year's total.

Over half of the contracts obtained were in the construction industry. The private sector was the source of 58 percent of the contract awards with government (Federal, state and local) accounting for the balance. Sales contracts secured through the National Minority Purchasing Council and contractor with public and private business won by minority firms without Office assistance are not included in these figures.

Insurance in force on the books of the Nation's 39 minority life insurance companies grew by approximately 43 percent during 1977, reflecting in part the effect of a special industry marketing program sponsored by the Office. This program will continue in 1978.

## CAPITAL DEVELOPMENT

As the Federal Government Coordinator for minority business development, the Office encourages award of Government loans and loan and bond guarantees to minority businesses and Government grants in support of minority business enterprise. During fiscal 1977, \$531.5 million was disbursed for loan and loan and bond guarantees, and \$320.4 million for grants. Small Business Administration financing amounting to \$509.8 million accounted for the largest portion of this total.

Minority enterprise small business investment companies use private capital to generate capital flow to minority businesses. In September 1977 there were 90 active minority investment companies with total private capitalization of \$52 million. This amount can produce up to \$900 million worth of financing through Government and commercial loans.

In 1970 the Office launched a special drive to strengthen minority-owned banks. Today there are 78 minority banks with total deposits of over \$1.5 billion compared with 31 banks with deposits of less than \$400 million in 1970.

Minority-owned savings and loan association deposits exceeded \$1 billion during 1977 although the number of associations was reduced from 78 to 75 through mergers.

The Office encourages Government and private organizations to use the services of minority banks. President Carter added his support to this effort during fiscal 1977 in a memorandum to all agencies in which he established a Federal deposit goal of \$100 million. The goal was within reach at the close of the year.



Special programs aimed at helping builders secure a bigger share of the construction business. Mr. Cully is the founder of Free State Contractors Association, a local minority builders trade group.



Mexican American businessman Joseph Longoria, left, owns and operates General Medical Systems, a medical test instrument manufacturing firm. Mr. Longoria received part of his financing through the MESBIC (minority enterprise small business investment company) program and also works with development organization in Dallas where his company is located. This organization is supported by the Office of Minority Business Enterprise.

The President also asked the Treasury Department, in its capacity as a member of the Interagency Council for Minority Business Enterprise, to lead a task force study of sources of capital and mechanisms for financial assistance for minority business. The study will be completed during 1978.

## MANAGEMENT AND TECHNICAL ASSISTANCE

During fiscal 1977, 43,516 clients received some form of management or technical assistance at Office-

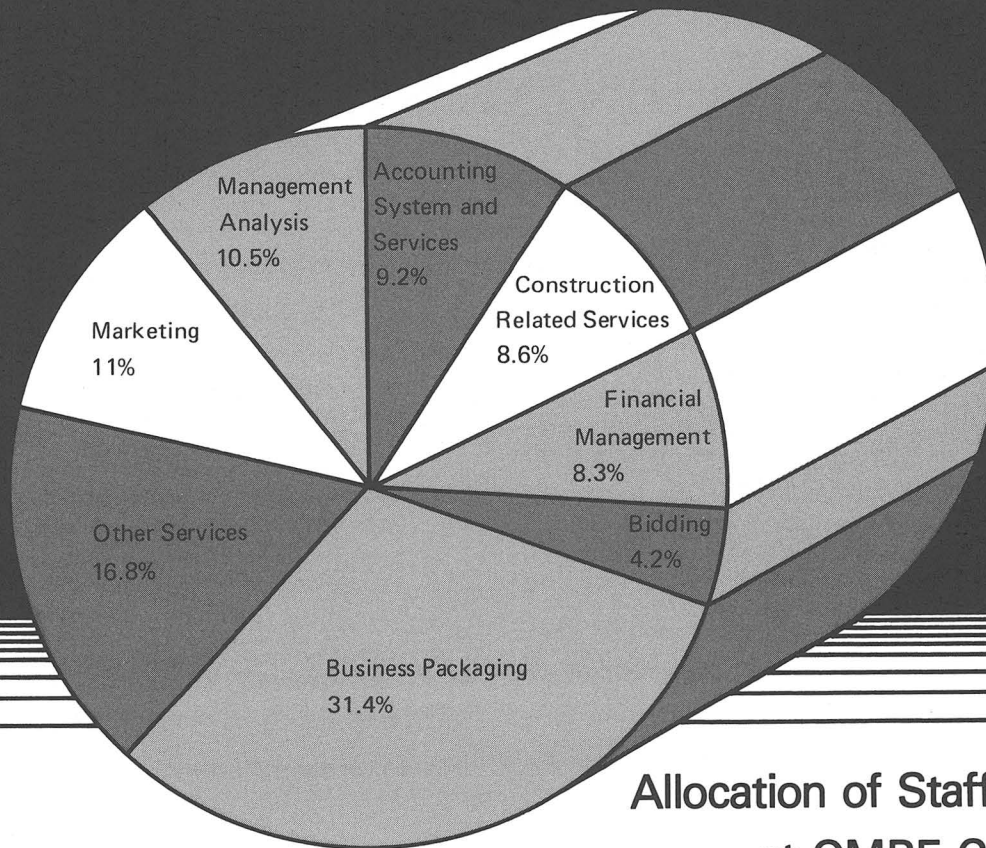


After his arrival in this country from South Vietnam nine years ago, Sy Dinh Do worked in his parents' restaurant. Then, in 1975, he went out on his own and set up the Kona Tiki, a Polynesian style restaurant located in Annapolis, Maryland. The business employs 13 full-time and 6 part-time workers. A business development organization, supported by the Office of Minority Business Enterprise, in Annapolis assisted him with his new business.

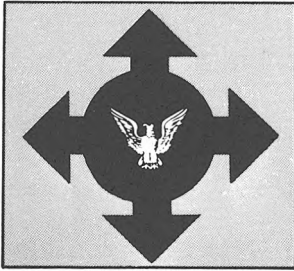
sponsored business development agencies. This figure includes the owners of 21,947 existing business firms.

Some 9,100 of the business owners were assisted in winning sales contracts through the local organizations' marketing programs. Clients were also assisted in preparing 6,252 approved financial packages totaling \$349.4 million. Included were 4,887 loans to minority firms totaling \$263.4 million; 894 bonds valued at \$60.2 million; 248 lines of credit totaling \$13.7 million; 115 grants for \$4.3 million; and 108 other financial packages adding up to \$7.9 million.





**Allocation of Staff Time  
at OMBE Centers**



# Chapter XII

## GENERAL ADMINISTRATION

### ADMINISTRATIVE MANAGEMENT

The **Assistant Secretary for Administration** has staff responsibility for all administrative management activities required in the overall operation of the Department and, in addition, provides management services to the Office of the Secretary and selected operating units. The Assistant Secretary oversees the operations of the organizations described below.

The **Office of Administrative Services and Procurement** reported \$394.1 million in Department-wide procurement during fiscal year 1977. This amount compares with procurement in fiscal year 1976 as follows:

	Fiscal 1976	Fiscal 1977
(in millions of dollars)		
Maritime ship construction program .....	\$ 79.3	\$ 67.1
Other procurement .....	302.5	327.0
Total .....	\$381.8	\$394.1

Of the \$394.1 million, awards to small businesses amounted to \$101.3 million. This includes \$28 million in Small Business Administration set-asides and \$27.4 million to minority business enterprises, of which \$7.5 million was awarded under the Administration's 8(a) program.

An estimated \$500,000 was saved in procurement during fiscal 1977, primarily through blanket orders, reduced personhours, cost and price analysis, and recoupment of disallowed costs.

During calendar-year 1976, excess property costing \$6.07 million was transferred out of the Department for possible use by other Government jurisdictions and by educational and charitable institutions, as well as for sales to the public.

The Department-wide injury-frequency rate for calendar 1976 was 11 percent lower than in 1975. During 1976, 149 tort claims were processed; the accident rate for motor vehicles increased by 3 percent over the previous calendar year.

The 1976 Combined Federal Campaign of the National Capital Area was an outstanding success. The Department of Commerce finished as the top executive Department in the Federal Government.

The **Office of ADP Management** was established in November 1976 to consolidate the functions of ADP policy and procurement with computer operations and ADP support services for the Office of the Secretary and related units. During this reporting period the Office evaluated 38 requirements studies for ADP equipment, software, and services valued at more than \$12 million and conducted computer installation reviews at three major ADP facilities. The Office also awarded \$17.9 million in ADP contracts and has \$67.9 million in new procurements presently underway.

The **Appeals Board** considers protests of private contractors on decisions that may be appealed to the Secretary. It also processes certain appeals in the fields of export administration and foreign excess property and is assigned other cases for initial hearing or appellate review. The Board is quasijudicial in nature. It considered 62 cases in fiscal 1977, of which 40 were disposed of and 22 carried over into Fiscal Year 1978. The Chairman of the Board acts as Chairman of the Examiners Committee for the Foreign Trade Zones Board and prepares Secretarial action in Maritime Subsidy Board matters. In addition, the Chairman has continued to serve as Hearing Commissioner on a case involving violations of the Export Administration Act.

The **Office of Audits** worked closely with other Department offices in reviewing program effectiveness and ensuring the efficient and economical use of resources. The Office prepared and issued 35 reports on internal operations of the Department and 392 reports on operations of the Department's contractors and grantees. It reviewed an additional 799 reports prepared by independent public accountants.

The Office also took action to utilize ADP to supply information for audit planning, manage external audit workload, and provide managers with better

information for tracking progress of work and assignment of staff.

The Interagency Auditor Training Center, which was reassigned to the Office of Audits in fiscal 1977, conducted 98 courses enrolling 2,154 persons. Revenues from the courses exceeded \$361,000. The Center is the only Federal facility oriented primarily to the needs of Government auditors.

The **Office of Budget and Program Evaluation**, formerly the Office of Budget and Program Analysis, continued to work toward greater effectiveness and efficiency by improving policies and procedures in numerous areas. For example, the Office continued its efforts to develop specific and realistic quantitative objectives for departmental programs wherever possible. Increased emphasis was placed on the development and monitoring of performance measures for primary use in the budget execution process.

The Office provided basic guidance, as directed by the President, to all departmental operating units for the implementation of zero-base budgeting in developing the budget for Fiscal Year 1979. It also initiated new procedures, utilizing automatic data processing, to expedite the process of tracking reports for budget execution.

The Office's evaluation unit completed a number of major studies, including a review of international trade programs (jointly with the Department of the State) and assessments of Sea Grant, Fishing Vessel Subsidy, and Experimental Technology Incentives programs. Other activities included a review of the administrative practices of the Coastal Zone Management Program, an evaluation of economic and allied fisheries management data, and an ongoing assessment of the Local Public Works program.

In the area of **Civil Rights**, the Department received 113 complaints of discrimination during fiscal 1977. Eighty-three complaints were closed. The other 30 cases required final departmental decisions by the Director of Equal Employment Opportunity.

The **Office of Financial Management Services** instituted a system of statistical sampling that greatly reduced the processing time required to audit travel vouchers. The Office also devoted considerable time to working with the Office of ADP Management in establishing a system of revised controls for input of data into the payroll system. These revisions will be implemented early in 1978.

The **Office of Investigations and Security** evaluated 712 full field investigations and conducted 38 administrative investigations involving employee misconduct. The Office also completed 21 discrimination complaint investigations and 47 investigations involving suspected criminal activity, 13 of which were referred either to the Department of Justice or to the FBI.

The **Office of Organization and Management Systems** conducted a number of major studies. Among these were reviews of the Department's industrial analysis, public affairs and congressional relations programs, and an examination of its field operations and structures. As the Department's major liaison with the President's Reorganization Project, the Office chaired a task force that studied the Department's overall organizational structure, coordinated the transfer of telecommunications and statistical policy functions from the Executive Office of the President to the Department, and worked with agency officials to implement major organizational changes in the Domestic and International Business Administration, the National Oceanic and Atmospheric Administration, and the National Bureau of Standards. In addition, the Office played the lead role in the Department's actions to implement the policies and procedures required under the Freedom of Information Act, the Privacy Act, and the Federal Advisory Committee Act and coordinated the Department's actions in response to the President's request to reduce the number of Federal advisory committees and the volume of paperwork.

The **Office of Emergency Readiness** participated in two major Government-wide readiness exercises dealing with regional requirements for resource management activities. It also participated in an internal evaluation of selected industrial mobilization activities and related preparedness measures.

During the year, the **Office of Personnel** emphasized a number of innovative concepts directed towards improving work force management. These included experimentation with flexible work hours, the establishment of joint labor-management committees to improve employee participation in decisions affecting the work environment, the increased use of part-time employees, and special management training programs designed to strengthen accountability in supervision and work force management.

The redesign of Department career management programs, as directed by the Office, has resulted in a more responsive and effective system of achieving merit system objectives. In addition, concerted ef-

forts by management in the areas of position review and management effectively have halted increases in the average grade for the Department. This grade stabilization has contributed to a more effective and economical utilization of personnel resources.

The **Office of Publications** reports that fiscal 1977 sales of printed materials by the Department totaled \$32,800,000. The Department once again led other Government agencies in sales of publications through the Superintendent of Documents, registering a figure of \$8,700,000. The remainder of Department sales resulted from direct distribution by various Bureaus. Departmental expenditures on printing totaled \$30,370,000. Of this amount, \$12,570,000 percent was procured commercially.

The Office's Composition Division, established in 1976, showed strong growth during the past fiscal year. Following an evaluation of the operation by the Assistant Secretary for Administration, approval was given for the purchase of new phototypesetting equipment. By offering in-house composition capability, the Division has achieved major economies for Department publishers.

## POLICY

The **Assistant Secretary for Policy** serves as the principal adviser to the Secretary on all policy matters, including those relating to the assessment of regulatory impacts on business and industry, energy and strategic resource development, domestic and international economic and business matters—particularly those which involve more than one departmental agency—and other matters of direct concern to the Secretary. The Assistant Secretary for Policy also serves as the Co-Executive Director of the Commerce Council.

The Assistant Secretary oversees the efforts of three units within the office: the Office of Policy Development and Coordination, the Office of Energy and Strategic Resource Policy, and the Office of Regulatory Economics and Policy. The Bureau of International Economic Policy and Research also reported to the Assistant Secretary for Policy until August 15, 1977, when the Bureau was transferred to the Assistant Secretary for Domestic and International Business.

The **Office of Policy Development and Coordination** coordinates the analysis and development of selected policy issues that cut across departmental

agencies. It also serves as a problem-solving and conceptual group on selected policy matters of direct concern to the Assistant Secretary for Policy and the Secretary of Commerce.

During the reporting period, analytical activities focused on the economic outlook, tax stimulus and tax reform measures as part of a general review of fiscal policy, Social Security financing, anti-inflation policy options, technology policy, the impact of foreign exchange on trade, a compilation of departmental Federal programs impacting on State and local finances, consumer agency legislation, minority business policy, the financing of aircraft noise reduction, national health insurance, energy impact legislation, and public incentives for private employment.

In addition, the Office took the lead in coordinating an interagency review of trade adjustment assistance; contributed to the development of a plan to revitalize the American shoe industry; and participated in the formulation of policies relating to international trade in commodities and world health. Also, in conjunction with the Economic Development Administration and as mandated by Public Law 95-28, the Office initiated a study to examine, among other things, the long-term share of national expenditure devoted to public works and past and present financing of public works investment. As a participant in the development of an urban and regional policy, the Office worked through the Cabinet-level Urban and Regional Policy Group; activities included Department proposals relating to the Economic Development Administration's urban initiatives, the review and evaluation of Urbank, and analysis of proposals by other Departments and Agencies. In addition, the Office produced, with the Department of Labor, a major analysis for the President entitled, "Productivity and Quality of Working Life: Issues and Initiatives."

The Office provided liaison and staff support for the Secretary with the Pension Benefit Guarantee Corporation, the Interagency Task Force on Product Liability, the National Transportation Policy Study Commission, the Water Resources Council, the Interagency Task Force for Development of Human Rights Policy, and the National Center for Productivity and the Quality of Working Life.

In other areas, the Office lent assistance and coordination to the Commerce Policy Council (renamed the Commerce Council on August 26, 1977), sup-



plied departmental budget monitoring for the Assistant Secretary for Policy, and provided weekly the Secretary's Report to the President and Cabinet Briefing Book.

The **Office of Energy and Strategic Resource Policy** supplies policy development and coordination on strategic resource issues of direct concern to the Secretary and Assistant Secretary, particularly in the areas of energy, commodities, and ocean policy.

## **Energy**

During the first half of the fiscal year, the Office developed the Voluntary Industrial Energy Conservation Program; the number of firms reporting voluntarily increased from 1,700 to 3,037. Working through the Domestic and International Business Administration, the Office sponsored Energy Efficiency Sharing Program seminars at which over 3,000 firms shared their knowledge of energy conservation applications. Also, an International Technology Transfer Program was developed for the exchange of information between domestic and foreign firms on energy conservation technology.

In 1977 analytical support was provided to the Secretary on major energy matters, including the choice of modes and routes for transporting Alaskan natural gas into the lower 48 States, west-to-east transportation of crude oil, and the impact of domestic energy taxes on U.S. competitiveness abroad.

During the period of severe winter weather in 1977, a daily situation report on unemployment related directly to natural gas curtailment was prepared. In addition, the Office published a 'Forecast of Likely U.S. Energy Supply/Demand Balances for 1985 and 2000' to help alleviate uncertainty in the business community.

During the latter half of fiscal 1977, the Office provided staff support for the development of the President's National Energy Plan through legislative comment and information drawn from experience with several conservation programs. To prepare for the transfer of its conservation functions to the Department of Energy, the Office separated its conservation and analysis functions. The Office also cochaired the Energy Policy Committee of the Economic Policy Council. Through this Committee, a comprehensive survey was compiled of energy-related activities and programs within the Department, so that continuing departmental responsibilities in energy could be clearly defined.

## **Strategic Resources and Commodities**

The Office regularly participated on U.S. delegations to meetings of major international forums and intergovernmental organizations involving discussions and negotiations for international commodity agreements, such as the United Nations Conference on Trade and Development and the Conference on International Economic Cooperation.

Developments affecting U.S. imports of and international trade in primary commodities were continually analyzed by the Office. It considered strategic and economic stockpile issues and contributed analyses of these issues to interagency discussions.

## **Oceans**

During the year, the Office initiated a comprehensive study of current Federal ocean policy. This study, to be carried out in conjunction with the National Oceanic and Atmospheric Administration and other Federal departments and agencies, will provide an up-to-date review of major ocean-related programs and issues as a basis for the development of future plans.

A series of studies to analyze the international economic and legal aspects of deep seabed mining issues also was begun. These studies will provide information for use in the formulation of legislation and administrative policy regarding U.S. operations in this field.

In addition, the Office participated in the formulation of a number of policy papers on major ocean issues. These papers covered such diverse subjects as the Law of the Sea, international reorganization of ocean programs, Antarctic Treaty revisions, and fishery conservation and management activities.

The **Office of Regulatory Economics and Policy** provides review, analysis, and coordination on regulatory policy matters.

During fiscal 1977, the Office supplied economic guidance in preparing departmental reports on regulatory issues; reviewed economic regulations relating to transportation and communications, inflation impact assessments, proposals for regulatory research, and reports of other agencies and private organizations; and evaluated the impact of proposed social regulations, primarily in the environmental, safety, and health areas.

The Office conducted economic analyses regarding clean air, water pollution control, resource conservation and recovery, noise reduction in the workplace, and surface and air transportation regulations. A major report published by the Office, 'Toward Regulatory Reasonableness' (January 13, 1977), traced the development of environmental, safety, and health regulations; assessed their economic impacts and costs and benefits; and suggested directions for future regulatory changes. The Office also prepared a working paper analyzing differing estimates of pollution-abatement expenditures and examined issues relating to air transportation regulations. An analysis of the economic implications of current trucking regulations is continuing, as are analyses on issues relating to regulatory delays, conflicts and overlaps between regulations, the differential effects of regulations on producer and consumer groups, and proposals for process and institutional improvements in the regulatory system.

The Office formulated and coordinated implementation of the Department's regulatory activities for the former Departmental Regulatory Policy Committee and coordinates departmental activities relating to the Administration's program to improve Government regulations. It participates in the Interagency Regulatory Working Group; the Interagency Toxic Substances Strategy Committee, for which it chairs the work group on nonregulatory incentives; the Interagency Task Force on Workplace Safety and Health and other interagency groups. The Office also was represented on the U.S.-U.S.S.R. Working Group on Harmonization of Air and Water Pollution Standards, as well as on academic-Government conferences on the measurement of economic impact on regulations.

## GENERAL COUNSEL

The General Counsel is the chief legal officer of the Department and legal adviser to the Secretary and other Department officials. He is responsible for advice and guidance on all legal matters and related policy questions, except for those involved in the issuance of patents or the registration of trademarks, and provides legal guidance to all Department operating units.

The General Counsel is responsible for certain aspects of substantive legislation, including the preparation or review of departmental proposals, expressions of official opinion on the merits of proposed or pending legislation, statements concerning legislation made before Congress, and ad-

vice to the President on enrolled enactments. He also is responsible for the preparation or review of departmental comments on environmental and energy regulations proposed by other agencies.

During fiscal 1977, the Department received requests for comments on over 1,030 items of legislation, including approximately 478 requests from the Congress and 64 enrolled enactments. It also received more than 80 requests to comment on agency regulations in the environmental and energy fields. Departmental witnesses testified at over 125 congressional committee hearings exclusive of appropriation hearings.

In the area of administration, legal services were provided to support such Department-wide activities as procurement, personnel, budget and appropriations, tort and other claims, equal opportunity, internal organization, and rulemaking.

The General Counsel provided legal advice on matters involving conflict of interest questions, the census laws, advisory committees, the recommendations of the U.S. Administrative Conference, the Privacy Act of 1974, and the Freedom of Information Act. Procurement contracts and grant documents were also reviewed, and advice was furnished on contract-related problems, including many disputes which were either settled or resolved administratively or judicially.

In the area of domestic and international business, the General Counsel supplied legal services to the Domestic and International Business Administration and to the U.S. Travel Service. On the domestic level, counsel was furnished on antitrust, consumer protection, energy, environment, and product liability issues, as well as on the administration of the Department's industrial mobilization program. Legal advice was also given on such matters as restrictions on the export of energy products and legislation to extend and amend the Export Administration Act of 1969.

Regarding international commerce, the General Counsel provided advice on matters involving the Arab boycott of Israel, U.S. trade with countries of the Middle East and with countries having non-market economies, and questionable corporate practices by American corporations abroad.

The General Counsel also assisted in litigation concerning export licensing restrictions against certain high-technology products and other aspects of the export administration program, foreign-trade zones,

and a special program that permits duty-free importation of certain scientific instruments when equivalent U.S. instruments are unavailable.

In the areas of science and technology, the General Counsel advised the Assistant Secretary, the National Bureau of Standards, the National Technical Information Service, the Patent and Trademark Office, the Office of Telecommunications, the Office of Environmental Affairs, and the Office of Product Standards. Advice covered such major topics as domestic and international standards, transfer of technology, intellectual property, metric conversion, energy issues, telecommunications, environmental affairs, and consumer technology.

## **OFFICE OF COMMUNICATIONS**

Creating public awareness of Department of Commerce programs, services, and facilities constitutes the primary function of the Office of Communications. In reaching the myriad constituencies served by the Department, the Office of Communications relies on all segments of the news media, as well as on its own resources for producing pamphlets, reports, brochures, and other printed materials.

Public appearances by the Secretary of Commerce whose speaking schedule included 38 out-of-town

appearances and 28 in Washington, D.C., contributed greatly to the Office's efforts. As the chief spokesperson for the Department, the Secretary participated in 75 interviews with national print and electronic media representatives. She also conducted 20 press conferences at business locations in this country and abroad.

The News Room issued 2,250 press releases, responded to more than 15,000 inquiries from the general public and the press, and filled some 2,200 media requests for Department publications. In addition, the News Room handled distribution of 550 periodic releases and processed 290 speech texts and statements. Internally, the News Room prepared and distributed 235 issues of the daily 'Commerce News Digest,' and 26 issues of 'Commerce America,' the Department's biweekly magazine, including two specials devoted exclusively to world trade.

The Office of Communications also updated the Department's booklet, "Serving The Nation," which describes the various agencies, operating bureaus, and activities of the Department.

The Broadcast Division, which transmits economic reports and other newsmaking materials to network affiliates and independent radio stations throughout the country, broadened its coverage and accelerated its weekly feature service.

**Table I-A.—Secretaries of Commerce and Labor, and of Commerce**

(Through September 30, 1977)

	<i>Begun</i>	<i>Ended</i>
<i>Commerce and Labor:</i>		
George B. Cortelyou .....	Feb. 18, 1903	June 30, 1904
Victor H. Metcalf .....	July 1, 1904	Dec. 16, 1906
Oscar S. Straus .....	Dec. 17, 1906	Mar. 5, 1909
Charles Nagel .....	Mar. 6, 1909	Mar. 4, 1913
<i>Commerce:</i>		
William C. Redfield .....	Mar. 5, 1913	Oct. 31, 1919
Joshua W. Alexander .....	Dec. 16, 1919	Mar. 4, 1921
Herbert C. Hoover .....	Mar. 5, 1921	Aug. 21, 1928
William F. Whiting .....	Aug. 22, 1928	Mar. 4, 1929
Robert P. Lamont .....	Mar. 5, 1929	Aug. 7, 1932
Roy D. Chapin .....	Aug. 8, 1932	Mar. 3, 1933
Daniel C. Roper .....	Mar. 4, 1933	Dec. 23, 1938
Harry L. Hopkins .....	Dec. 24, 1938	Sept. 18, 1940
Jesse H. Jones .....	Sept. 19, 1940	Mar. 1, 1945
Henry A. Wallace .....	Mar. 2, 1945	Sept. 20, 1946
W. Averell Harriman .....	Oct. 7, 1946	Apr. 22, 1948
Charles Sawyer .....	May 6, 1948	Jan. 20, 1953
Sinclair Weeks .....	Jan. 21, 1953	Nov. 10, 1958
Lewis L. Strauss* .....	Nov. 13, 1958	June 30, 1959
Frederick H. Mueller .....	Aug. 10, 1959	Jan. 19, 1961
Luther H. Hodges .....	Jan. 21, 1961	Jan. 15, 1965
John T. Connor .....	Jan. 18, 1965	Jan. 31, 1967
Alexander B. Trowbridge .....	June 14, 1967	Mar. 1, 1968
C.R. Smith .....	Mar. 6, 1968	Jan. 19, 1969
Maurice H. Stans .....	Jan. 21, 1969	Feb. 15, 1972
Peter G. Peterson .....	Feb. 29, 1972	Feb. 1, 1973
Frederick B. Dent .....	Feb. 2, 1973	Mar. 26, 1975
Rogers C.B. Morton .....	May 1, 1975	Feb. 2, 1976
Elliot L. Richardson .....	Feb. 2, 1976	Jan. 20, 1977
Juanita M. Kreps .....	Jan. 23, 1977	.....

\*Interim Appointee.



**Table I-B.—KEY DEPARTMENT OFFICIALS**

(As of September 30, 1977)

Secretary of Commerce .....	Juanita M. Kreps
Executive Assistant to the Secretary .....	Isabel E. Hyde
Special Assistant to the Secretary .....	Frank V. Fowlkes
Assistant to the Secretary .....	Lawrence O. Houstoun
Director of Communications .....	Ernest A. Lotito
Counselor to the Secretary for Congressional Affairs .....	Andrew E. Manatos
Special Assistant to the Secretary for Regional Economic Coordination .....	Robert T. Hall (Acting)
Under Secretary of Commerce .....	Sidney Harman
Deputy Under Secretary for Regional Affairs .....	Anne Wexler
Special Assistant to the Under Secretary .....	Pallas D. Martin
Assistant Secretary for Policy .....	Jerry J. Jasinowski
Deputy Assistant Secretary for Policy Development and Coordination .....	Lucy A. Falcone
Assistant Secretary for Administration .....	Elsa A. Porter
Deputy Assistant Secretary .....	Guy W. Chamberlin, Jr.
Deputy to the Assistant Secretary .....	Mento A. Sponis
Special Assistant for Civil Rights .....	Arthur Cizek
Director, Office of Administrative Services and Procurement .....	Donald B. Moore
Deputy Director, Office of Audits .....	Joseph A. Sickon
Director, Office of Automatic Data Processing .....	Jan S. Prokop
Director, Office of Budget and Program Analysis .....	Richard H. Austin (Acting)
Director, Office of Emergency Readiness .....	Richard J. Pidgeon
Director, Office of Financial Management Services .....	Clyde E. Ahrnsbrak
Director, Office of Investigations and Security .....	William H. Randolph
Director, Office of Organization and Management Systems .....	Joseph O. Smirolodo
Director, Office of Personnel .....	John M. Golden
Director, Office of Publications .....	David Farber
Chairman, Appeals Board .....	Hugh J. Dolan
General Counsel .....	Charles L. Haslam
Deputy General Counsel .....	Homer E. Moyer, Jr.
Chief Economist .....	Courtenay M. Slater
Deputy Chief Economist .....	Vacant
Director, Bureau of the Census .....	Manuel D. Plotkin
Deputy Director, Bureau of the Census .....	Robert L. Hagan
Associate Director for Demographic Fields .....	Daniel B. Levine
Associate Director for Economic Fields .....	Shirley Kallek
Director, Bureau of Economic Analysis .....	George Jaszi
Assistant Secretary for Economic Development (Head of the Economic Development Administration) .....	Robert T. Hall
Deputy Assistant Secretary .....	Harold W. Williams
Deputy Assistant Secretary for Economic Development Planning .....	Victor A. Hausner
Deputy Assistant Secretary for Economic Development Operations .....	George T. Karras
Federal Cochairman of the Regional Action Planning Commissions:	
Coastal Plains Regional Commission .....	Claud Anderson
Four Corners Regional Commission .....	Kenneth F. Baskette
New England Regional Commission .....	Joseph J. Grandmaison
Ozarks Regional Commission .....	Patsy A. Danner
Upper Great Lakes Regional Commission .....	William R. Bechtel
Old West Regional Commission .....	George D. McCarthy
Pacific Northwest Regional Commission .....	Patrick J. Vaughan
Southwest Border Regional Commission .....	Cristobal P. Aldrete

Assistant Secretary for Domestic and International Business (Head of the Domestic and International Business Administration) .....	Frank A. Weil
Deputy Assistant Secretary.....	Vacant
Deputy Assistant Secretary for International Commerce.....	William D. Moran
Deputy Assistant Secretary for Resources and Trade Assistance.....	Robert E. Shepherd
Deputy Assistant Secretary for Domestic Commerce.....	Stanley J. Marcuss
Deputy Assistant Secretary for East-West Trade .....	Alan A. Reich
Deputy Assistant Secretary for Field Operations.....	J. Raymond DePaulo
Deputy Assistant Secretary for International Economic Policy and Research.....	S. Stanley Katz
Assistant Secretary for Tourism (Head of the U.S. Travel Service) .....	Fabian Chavez, Jr.
Deputy Assistant Secretary.....	Jeanne R. Westphal
Director, Office of Minority Business Enterprise .....	Randolph T. Blackwell
Deputy Director .....	Allan A. Stephenson
Assistant Secretary for Science and Technology .....	Jordan J. Baruch
Deputy Assistant Secretary.....	Francis W. Wolek
Deputy Assistant Secretary for Product Standards.....	Howard L. Forman
Deputy Assistant Secretary and Director, Office of Environmental Affairs.....	Sidney R. Galler
Director, National Bureau of Standards.....	Ernest Ambler (Acting)
Deputy Director.....	Ernest Ambler
Director, Institute for Basic Standards.....	Arthur O. McCoubrey
Director, Institute for Materials Research.....	John D. Hoffman
Director, Institute for Applied Technology .....	Vacant
Director, Institute for Computer Sciences and Technology.....	Vacant
Director, National Technical Information Service.....	William T. Knox
Commissioner of Patents and Trademarks .....	Lutrelle F. Parker (Acting)
Assistant Commissioner for Patents .....	Rene D. Tegtmeyer
Assistant Commissioner for Trademarks.....	Bernard A. Meany
Director, Office of Telecommunications.....	John M. Richardson
Administrator, National Oceanic and Atmospheric Administration .....	Richard A. Frank
Deputy Administrator .....	Vacant
Associate Administrator .....	Vacant
Director, National Marine Fisheries Service .....	Robert W. Schoning
Director, National Ocean Survey.....	Allen L. Powell
Director, National Weather Service.....	George P. Cressman
Director, Environmental Data Service .....	Thomas S. Austin
Director, National Environmental Satellite Service .....	David S. Johnson
Director, Environmental Research Laboratories .....	Wilmot Hess
Administrator, National Fire Prevention and Control Administration.....	Howard D. Tipton
Deputy Administrator .....	David A. Lucht
Assistant Secretary for Maritime Affairs (Head of the Maritime Administration).....	Robert J. Blackwell
Deputy Assistant Secretary.....	Howard F. Casey
Assistant Administrator for Operations .....	John J. Nachtsheim
Assistant Administrator for Maritime Aids.....	Roy H. Yowell

**Table I-C.—Department Employment**

(End of year employment, fiscal 1973 through 1977<sup>a</sup>)

	1973	1974	1975	1976	1976 Transition Quarter	1977
<b>General Funds:</b>						
Census .....	2,343	2,452	2,564	2,576	2,576	2,577
Bureau of Economic Analysis .....	392	411	416	414	414	425
Economic Development Administration .....	742	719	654	760	765	1,246
Regional Action Planning Commissions .....	49	53	55	56	55	50
Domestic and International Business Administration .....	1,765	1,921	1,795	1,778	1,588	1,519
United States Travel Service .....	98	122	115	110	112	119
Office of Foreign Direct Investments .....	101	9	...	...	...	...
Office of Minority Business Enterprise .....	305	263	216	202	206	194
<b>Science and Technology:</b>						
National Bureau of Standards .....	2,072	2,072	3,139	1,854	1,854	1,854
Patent and Trademark Office .....	2,793	2,918	2,750	2,725	2,700	2,673
National Technical Information Service .....	74	321	54	32	36	8
Office of Telecommunications .....	197	231	249	31	28	35
National Fire Prevention and Control Administration .....	...	...	19	59	60	88
National Oceanic and Atmospheric Administration .....	12,254	12,544	12,546	11,518	11,567	11,756
Maritime Administration .....	1,540	1,480	1,439	1,284	1,272	1,268
General Administration .....	326	342	328	351	359	390
Subtotal, General Funds .....	25,051	25,858	26,339	23,750	23,592	24,202
Other Funds <sup>b</sup> .....	9,246	9,324	9,380	13,271	13,289	13,220
Total, All Funds .....	34,297	35,182	35,719	37,021	36,881	37,422

<sup>a</sup>Amounts for fiscal 1973 through 1977 have been adjusted so as to be comparable to the Department's fiscal 1977 organization structure.

<sup>b</sup>Other funds include public enterprise, intragovernmental, and trust funds. Employment, but not obligations, is included for allocation accounts carried in the budget schedules of other agencies. Advances and reimbursements between Commerce appropriation accounts are excluded.

**Table I-D.—Department Financing**  
(Obligations (in thousands), fiscal 1973 through 1977<sup>a</sup>)

	1973	1974	1975	1976	1976 Transition Quarter	1977
<b>General Funds:</b>						
Census Bureau.....	\$54,995	\$50,212	\$61,438	\$72,067	\$19,492	\$88,622
Bureau of Economic Analysis.....	6,758	8,276	9,959	11,671	3,128	12,784
Economic Development Administration.....	326,875	239,999	312,858	821,807	113,086	6,579,115
Regional Action Planning Commissions.....	42,528	40,935	39,954	60,824	18,465	60,591
Domestic and International Business						
Administration.....	61,933	68,406	63,963	64,445	16,477	58,200
United States Travel Service.....	8,996	11,455	11,236	12,358	3,640	14,469
Office of Foreign Direct Investments.....	2,426	2,504	...	...	...	...
Office of Minority Business Enterprise.....	36,036	48,991	62,983	46,126	12,519	57,885
Science and Technology:						
National Bureau of Standards.....	52,286	61,220	60,416	64,128	16,686	68,898
Patent and Trademark Office.....	67,234	71,908	77,598	84,666	22,170	87,969
National Technical Information						
Service.....	1,495	1,632	2,120	1,474	392	827
Office of Telecommunications.....	5,348	5,045	1,568	1,351	324	1,339
National Fire Prevention and Control						
Administration.....	...	...	4,927	9,476	2,513	14,466
National Oceanic and Atmospheric						
Administration.....	364,631	417,609	470,508	539,951	149,374	610,423
Maritime Administration.....	719,169	581,121	398,912	428,757	106,758	569,251
National Industrial Pollution Control						
Council.....	320	...	...	...	...	...
General Administration.....	<sup>b</sup> 9,533	9,386	12,802	14,060	3,873	22,911
Subtotal, General Funds.....	1,760,563	1,619,052	1,591,242	2,233,161	488,897	8,247,750
Other Funds <sup>b</sup> .....	169,700	170,524	211,200	254,979	64,896	278,346
Total, All Funds.....	1,930,263	1,789,223	1,802,442	2,488,140	553,793	8,526,096

<sup>a</sup>Amounts for fiscal 1973 through 1977 have been adjusted so as to be comparable to the Department's fiscal 1977 organization structure.

<sup>b</sup>Other funds include public enterprise, intragovernmental, and trust funds. Employment, but not obligations, is included for allocation accounts carried in the budget schedules of other agencies. Advances and reimbursements between Commerce appropriation accounts are excluded.



**Table II.—Reports Published by the Bureau of the Census**

(Fiscal 1973 through 1977)

	1973	1974	1975	1976	1976 Transition Quarter	1977
<b>Current Program</b>						
Retail, Wholesale, and Selected Service Trade Statistics .....	80	203	121	101	31	123
Manufacturing and Industrial Statistics .....	630	564	603	577	176	572
Current Population Survey .....	83	141	154	124	38	...
Construction Statistics.....	81	76	89	90	21	86
Housing Statistics.....	11	7	11	20	7	40
Agriculture Statistics.....	20	20	21	22	3	21
State and Local Governments .....	30	24	22	34	10	30
Foreign Trade Statistics.....	139	116	129	133	31	124
Statistical Abstracts and Special Reports.....	102	56	111	41	10	52
Geography.....	18	10	26	27	8	19
Transportation.....	1	<sup>a</sup> ...	...	1	...	...
Economic Statistics and Surveys.....	7	53	7	4	2	99
Subtotal for Current Programs.....	1,202	<sup>a</sup> 1,270	1,294	1,174	337	1,166
<b>Censuses:</b>						
Population and Housing:						
1960 .....	...	...	...	...	...	...
1970 .....	295	140	34	6	1	...
1977 .....	...	...1	...	...	...	1
Government... 1972 .....	3	8	10	...	...	...
1977 .....	...	...	...	...	...	2
Economic..... 1967 .....	2	4	...	...	...	...
1972 .....	46	873	378	76	13	...
Agriculture .... 1969 .....	50	22	4	...	...	...
1974 .....	...	...	...	236	1,713	...
1977 .....	...	...	...	...	...	112
Business..... 1977 .....	...	...	...	...	1	...
Industry ..... 1977 .....	...1	...	...	...	...	5
Construction ..... 1977 .....	...	...	...	...	...	3
Subtotal for Census.....	396	1,047	426	318	1,727	124
Total all reports .....	1,598	<sup>a</sup> 2,317	1,920	1,492	2,064	1,290

<sup>a</sup>Revised.

**Table III-A.—Selected Patent Workload Data**

(Fiscal 1973 through 1977)

Item	1973	1974	1975	1976	1976 Transition Quarter	1977
Applications for patents received:						
Inventions.....	100,900	103,479	101,283	101,807	25,215	101,821
Plants .....	109	109	163	144	50	202
Reissues .....	382	391	465	438	100	564
Designs .....	5,541	4,948	5,751	6,838	1,659	7,186
Total.....	106,932	108,927	107,662	109,227	27,024	109,773
Application disposals by examiners:						
Applications allowed.....	77,093	76,687	76,475	71,784	16,949	67,800
Designs allowed .....	4,100	4,023	4,553	4,593	1,116	3,950
Applications abandoned.....	37,954	39,316	40,231	35,119	8,080	34,463
Designs abandoned.....	1,681	1,735	1,973	1,816	544	1,732
Total.....	120,828	121,761	123,232	113,312	26,689	107,945
Applications pending, June 30: <sup>a</sup>						
Pre-examination.....	30,515	30,551	26,434	18,524	18,113	14,604
Designs in pre-examination .....	726	682	1,080	774	545	602
Under examination .....	137,088	125,028	112,392	115,788	116,535	120,368
Designs under examination .....	6,952	6,186	6,558	7,293	7,521	8,968
Post examination .....	<sup>a</sup> 30,583	24,421	28,468	24,483	22,233	23,148
Designs in post examination .....	2,491	1,926	1,322	1,050	898	658
In Issue process .....	14,201	13,959	15,048	12,939	15,392	12,048
Designs in issue process .....	747	897	1,295	1,185	1,077	852
Total in office .....	<sup>a</sup> 223,303	203,650	192,597	182,036	182,314	181,248
Patents granted:						
Inventions.....	<sup>a</sup> 67,552	79,300	<sup>b</sup> 70,179	<sup>b</sup> 75,325	16,259= <sup>n</sup>	67,972
Plants .....	146	211	155	195	22	164
Reissues .....	<sup>a</sup> 274	367	398	434	98	435
Designs .....	3,441	4,439	3,632	4,781	1,314	4,261
Total.....	<sup>a</sup> 71,413	84,317	<sup>b</sup> 74,364	<sup>b</sup> 80,735	17,694	72,832
Pendency to Issue or Abandonment	23.6	22.4	20.7	19.4	—	18.9
Design Pendency to Issue or Abandonment.....	<sup>c</sup>	<sup>c</sup>	<sup>c</sup>	19.1	—	18.7

<sup>a</sup>Includes design applications. Transition period figures are for September 30.

<sup>b</sup>Revised.

<sup>c</sup>In 1975, an additional 667 applications were published, but not issued, under the trial voluntary protest program; in 1976 there were 1,303 published but not issued.

**Table III-B.—Selected Trademark Examining Workload Data**

(Fiscal 1973 through 1977)

Item	1973	1974	1975	1976	1976 Transition Quarter	1977
Applications for trademark filed:						
For registration .....	<sup>a</sup> 36,204	34,193	33,898	37,074	10,161	44,539
For renewal.....	5,614	5,633	5,687	6,833	1,424	6,251
Disposals by Office:						
Maturing to registration.....	27,863	27,185	29,651	31,266	7,336	27,431
Abandoned .....	8,015	9,352	<sup>a</sup> 11,905	7,986	2,937	9,055
Pendency to First Action.....	9.0	6.0	4.5	3.0	n.a.	3.0

<sup>a</sup>Revised.**Table III-C.—Income From Patent and Trademark Fees<sup>1</sup>**

(Fiscal 1973 through 1977—in thousands of dollars)

	1973	1974	1975	1976	1976 Transition Quarter	1977
Patent and Design issue fees, including printing.....	\$9,592	\$11,172	\$10,769	\$11,117	\$2,756	\$10,181
Application filing fee for Patent, Design, Reissue, Trademark and Trademark renewal including extra claims where applicable .....	9,946	10,547	10,260	10,467	2,820	10,982
Printed copies of U.S. Patents, Designs, Trademarks, and reproduction of records, including subscription service and special service on orders.....	3,539	3,631	3,436	3,456	889	3,510
Recording assignments.....	1,665	1,669	1,581	1,582	420	1,620
Appeals, including briefs .....	700	966	886	798	199	772
Making, mounting, correction and comparison of drawings.....	182	214	252	232	63	242
Filing of affidavits pertaining to use or nonuse of Trademarks .....	139	142	139	141	38	142
Certification of records .....	64	118	109	104	29	117
Disclosure documents filed.....	83	132	87	84	26	106
Trademark oppositions and cancellations.....	44	45	46	51	13	49
Petition fees .....	40	44	47	44	11	43
Other fees* .....	125	142	149	164	52	216
Total.....	\$26,119	\$28,822	\$27,761	\$28,240	\$7,316	\$27,980

\*Comprises over 48 types of fees amounting to less than \$30,000 for each type.

<sup>1</sup>For further details see the "Commissioner's Annual Report" for Fiscal Year indicated.

**Table VI.—Selected Bureau of International Commerce Workload Data**

(Fiscal 1973 through Fiscal 1977)

	1973	1974	1975	1976	1976 Transition Quarter	1977
<b>INTERNATIONAL COMMERCIAL INFORMATION ACTIVITIES</b>						
Overseas Business Reports prepared .....	75	62	...	56	14	54
Trade Lists sold .....	50,525	<sup>a</sup> 2,320	2,682	9,600	750	5,400
Export Mailing Lists sold <sup>b</sup> .....	145	1,625	2,528	2,400	610	2,500
World Traders Data Reports sold .....	36,486	28,904	17,634	20,632	6,022	23,500
Agent/Distributor Service Reports sold <sup>c</sup> .....	3,357	5,931	5,541	4,167	964	4,900
<b>TRADE AND INDUSTRIAL EXHIBITIONS<sup>d</sup></b>						
Exhibitions .....	20	23	13	6	4	15
Exhibitors <sup>e</sup> .....	766	876	524	213	158	625
12-month Sales (000's) .....	172,555	236,444	239,800	112,300	76,200	347,000
Agency Agreements Established .....	177	160	275	149	51	277
<b>TRADE CENTERS<sup>d</sup></b>						
Joint Export Establishment Promotions .....	17	29	21	4	0	6
Between-show Promotions .....	983	1,012	1,021	568	0	512
Exhibitions .....	57	56	76	72	8	69
Exhibitors <sup>e</sup> .....	2,135	2,171	4,479	2,399	230	3,383
12-month Sales (000's) .....	327,900	413,894	505,400	551,300	42,900	630,900
Agency Agreements Established .....	537	461	890	685	49	578
<b>TRADE MISSIONS<sup>d</sup></b>						
Missions .....	84	92	33	31	5	54
Mission Members .....	615	672	724	270	35	253
<b>COMMERCIAL REPRESENTATION ACTIVITIES</b>						
Personnel Selections and Placements .....	610	615	370	452	36	392
Foreign Service Consultations <sup>f</sup> .....	254	290	190	1,086	174	657
Evaluation Reports .....	598	545	531	906	172	90
Foreign Service Posts Inspected .....	90	127	116	88	22	89
Foreign Service Personnel Trained .....	207	209	220	868	29	354

<sup>a</sup>Represents Target Market Trade Lists, consolidated lists previously sold separately.

<sup>b</sup>The Export Mailing List program began in fiscal 1973.

<sup>c</sup>The Agent/Distributor Service was operated on a limited "pilot" basis until November 1972, when it became worldwide.

<sup>d</sup>Fiscal 1975 information for this data excludes Bureau of East-West Trade accomplishments.

<sup>e</sup>Beginning with fiscal 1976, represents "participants" rather than "exhibitors." <sup>f</sup>Beginning with fiscal 1976, represents person-days rather than individuals consulted and trained.



**Table VII.—Foreign Visitor Arrivals to the United States by Area of Permanent Residence**  
(Calendar 1974 Through 1977)

Area	1974		1975		1976		1977	
	Total	Percent change from 1973	Total	Percent change from 1974	Total	Percent change from 1975	Total	Percent change from 1976
Europe.....	1,508,455	-6.0	1,477,858	-2.0	1,885,822	+27.6	1,890,000	+0.2
South America .....	394,753	+11.2	431,115	+9.2	510,193	+18.3	560,000	+9.8
Central America.....	142,128	+6.9	138,017	-2.9	176,597	+28.0	190,000	+7.6
West Indies.....	359,448	-0.1	337,684	-6.1	395,964	+17.3	375,000	-5.3
Asia.....	992,213	+17.4	1,002,137	+1.0	1,146,373	+14.4	1,160,000	+1.2
Oceania.....	172,150	-8.0	184,747	+7.3	249,731	+35.2	245,000	-1.9
Africa.....	42,798	+15.8	52,721	+10.3	74,320	+41.0	80,000	+7.6
Other Overseas.....	634	+13.3	65	-89.9	47	-26.6	—	—
Total Overseas.....	3,617,579	+2.6	3,624,340	+0.2	4,439,047	+22.5	4,500,000	+1.4
Mexico .....	1,840,849	+13.7	2,155,651	+17.1	1,920,509	-10.9	2,000,000	+4.1
Canada .....	8,664,825	-1.6	9,918,127	+14.5	11,163,683	+12.6	12,100,000	+8.4
Total .....	14,123,253	+1.2	15,698,118	+11.2	17,523,239	+11.6	18,600,000	+6.1

\* Estimated based on actual arrivals for first 9 months of 1977.

**Table VIII.—Selected Maritime Administration Workload Data**

(Fiscal 1973 through 1977)

	1973	1974	1975	1976	1976 Transition Quarter	1977
<b>Construction-Differential Subsidies:</b>						
Number of new ships contracted for .....	17	12	3	2	2	9
Total ships under construction subsidy (At end of period) .....	55	52	44	32	31	30
Total expenditures (in million dollars) .....	\$185.8	\$200.3	\$240.8	\$194.1	\$41.8	\$218.5
<b>Operating-Differential Subsidies:</b>						
Companies with long-term contracts .....	21	23	26	25	25	21
Ships covered .....	185	177	190	194	187	186
Total subsidy paid (in million dollars) .....	\$216.8	\$226.5	\$237.4	\$272.2	\$85.3	\$309.5
Companies in Soviet Grain Program .....	52	49	42	43	43	28
Ships covered .....	88	87	80	87	88	79
Total Subsidy paid (in million dollars) .....	\$9.8	\$31.4	\$5.7	\$28.3	\$10.2	\$34.3
<b>Ship Financing Guarantees:</b>						
Vessels covered .....	456	764	1,067	1,827	1,888	2,172
Shipboard lighters covered .....	2,171	2,221	2,138	2,463	2,666	2,665
Principal covered by Guarantees (in million dollars) .....	\$2,579.0	\$3,762.0	\$4,213.4	\$4,900.0	\$4,950.9	\$5,771.6
<b>Government-owned Ships:</b>						
National Defense Reserve Fleet .....	541	487	419	348	347	333
Number under bareboat charter .....	0	6	4	3	1	3
General Agency Agreement .....	0	0	0	0	0	0
<b>U.S.-Flag Oceanborne Foreign Trade:</b>						
Long tons carried in U.S.-flagships (million tons) .....	39.9	41.0	3.1	33.8	(a)	(b)
Percent of U.S. foreign trade .....	6.3	6.5	5.1	4.8	(a)	(b)

<sup>a</sup>On calendar year basis.

<sup>b</sup>Data for calendar year 1977 no available.

**Table IX-A—Economic Development Administration  
Summary of Local Public Works by State  
for Fiscal, 1977**

State Name	Round I Amount	Round II Amount	No. Proj.	Total Amount
<b>STATES</b>				
Alabama .....	18,775,916	34,631,039	104	53,406,955
Alaska .....	10,239,381	45,586,273	133	55,825,654
Arizona.....	12,993,311	68,194,427	195	81,187,738
Arkansas.....	10,289,418	30,000,000	160	40,289,418
California .....	245,660,822	479,883,005	1,076	725,543,827
Colorado.....	12,221,707	30,572,600	109	42,794,307
Connecticut .....	47,602,794	80,674,949	183	128,277,743
Delaware.....	10,006,451	29,864,000	86	39,870,451
District of Columbia.....	10,000,000	30,000,000	22	40,000,000
Florida .....	133,775,660	161,647,407	392	295,423,067
Georgia .....	25,064,945	76,681,000	277	101,745,945
Hawaii .....	9,921,262	30,201,644	70	40,122,906
Idaho .....	10,047,611	30,565,686	117	40,613,297
Illinois.....	63,772,954	89,763,859	233	153,536,813
Indiana .....	22,317,362	39,893,970	129	62,211,332
Iowa.....	11,778,586	30,000,000	132	41,778,586
Kansas.....	10,104,431	30,263,286	121	40,367,717
Kentucky .....	15,748,665	30,600,000	97	46,348,665
Louisiana .....	24,743,968	35,664,529	132	60,408,497
Maine.....	10,000,000	30,067,250	115	40,067,250
Maryland.....	19,594,130	39,282,000	98	58,876,130
Massachusetts .....	50,702,240	133,844,398	250	184,546,638
Michigan.....	155,440,092	215,581,035	520	371,021,127
Minnesota.....	16,808,195	30,972,980	103	47,781,175
Mississippi.....	10,000,948	31,885,591	147	41,886,539
Missouri .....	19,488,670	36,590,999	103	56,079,669
Montana.....	10,000,078	32,978,144	74	42,978,222
Nebraska .....	10,207,348	30,522,617	59	40,729,965
Nevada .....	10,045,407	31,985,954	87	42,031,361
New Hampshire .....	10,093,861	30,000,000	79	40,093,861
New Jersey .....	99,371,070	221,966,368	547	321,337,438
New Mexico.....	10,301,328	52,442,492	144	62,743,820
New York .....	231,664,768	495,307,570	923	726,972,338
North Carolina.....	28,440,683	45,454,280	145	73,894,963
North Dakota .....	10,073,608	29,999,964	111	40,073,572
Ohio .....	58,799,581	156,680,362	420	215,479,943
Oklahoma .....	16,455,034	50,979,927	153	67,434,961
Oregon.....	29,137,685	56,735,604	184	85,873,289
Pennsylvania .....	82,246,973	186,980,863	460	269,227,836
Rhode Island.....	15,933,581	32,904,000	49	48,837,581
South Carolina .....	13,655,985	30,259,130	118	43,915,115
South Dakota .....	10,257,425	34,795,181	203	45,052,606
Tennessee .....	23,862,216	30,863,118	155	54,725,334
Texas.....	54,694,253	91,240,689	243	145,934,942
Utah.....	10,072,534	31,823,519	88	41,896,053
Vermont.....	10,022,317	31,243,000	133	41,265,317
Virginia.....	22,028,824	40,455,500	118	62,484,324
Washington.....	40,131,670	79,220,381	192	119,352,051
West Virginia.....	10,207,592	31,052,000	115	41,259,592
Wisconsin.....	21,376,137	34,821,041	135	56,197,178
Wyoming.....	10,335,650	29,999,993	88	40,335,643

**Table IX-A—Economic Development Administration  
Summary of Local Public Works by State  
for Fiscal, 1977 (cont.)**

State Name	Round I Amount	Round II Amount	No. Proj.	Total Amount
<b>TERRITORIES</b>				
American Samoa .....	3,922,725	1,779,300	2	5,702,025
Guam.....	2,153,650	6,280,000	11	8,433,650
Puerto Rico .....	116,076,784	168,052,000	447	284,128,784
Trust Territories.....	0	6,760,000	25	6,760,000
Virgin Islands.....	4,130,020	5,180,000	5	9,310,020
U.S. General .....	0	0	0	0
Totals.....	1,962,798,306	4,011,674,924	10,617	5,974,473,230

\* Excludes funds set aside for administrative purposes.

**Table IX-B—Economic Development Administration  
Summary of Local Public Works by State  
for Fiscal, 1977**

State Name	Grant Amount	Loan Amount	No. Proj.	Total Amount
Alabama .....	80,000	320,000	1	400,000
Alaska .....	0	0	0	0
Arizona.....	8,051,500	2,000,000	8	10,051,500
Arkansas .....	598,000	833,000	4	1,431,000
California .....	24,518,810	54,656,159	106	79,174,969
Colorado .....	1,371,800	3,257,900	7	4,629,700
Connecticut .....	0	0	0	0
Delaware.....	0	0	0	0
District of Columbia.....	0	0	0	0
Florida .....	0	0	0	0
Georgia .....	20,000	80,000	1	100,000
Hawaii .....	0	0	0	0
Idaho .....	1,826,551	1,237,650	10	3,064,201
Illinois.....	3,520,650	5,057,350	10	8,578,000
Indiana .....	24,000	551,700	2	575,700
Iowa.....	194,500	220,500	2	415,000
Kansas.....	251,000	427,000	1	678,000
Kentucky .....	0	0	0	0
Louisiana .....	0	0	0	0
Maine .....	0	0	0	0
Maryland.....	0	0	0	0
Massachusetts .....	0	0	0	0
Michigan .....	2,160,400	1,936,000	9	4,096,400
Minnesota .....	1,866,000	1,866,000	7	3,732,000
Mississippi .....	0	0	0	0
Missouri .....	346,000	519,000	1	865,000
Montana.....	213,500	100,000	2	313,500
Nebraska .....	280,000	1,120,000	1	1,400,000
Nevada .....	100,000	0	1	100,000
New Hampshire .....	0	0	0	0
New Jersey .....	0	0	0	0



**Table IX-B—Economic Development Administration  
Summary of Local Public Works by State  
for Fiscal, 1977—(Continued)**

State Name	Grant Amount	Loan Amount	No. Proj.	Total Amount
New Mexico.....	1,312,000	1,836,000	6	3,148,000
New York .....	0	0	0	0
North Carolina.....	550,200	1,283,800	1	1,834,000
North Dakota .....	522,000	0	3	522,000
Ohio .....	0	0	0	0
Oklahoma .....	2,485,800	13,530,000	8	16,015,800
Oregon.....	1,722,030	4,184,00	13	2,140,430
Pennsylvania .....	0	0	0	0
Rhode Island .....	0	0	0	0
South Carolina .....	0	0	0	0
South Dakota .....	705,000	1,429,000	2	2,134,000
Tennessee .....	0	0	0	0
Texas.....	154,000	0	2	154,000
Utah.....	375,000	975,000	2	1,350,000
Vermont.....	0	0	0	0
Virginia.....	1,678,350	2,860,800	5	4,539,150
Washington.....	9,219,600	10,493,800	45	19,713,400
West Virginia.....	164,500	0	1	164,500
Wisconsin.....	1,266,450	1,913,300	6	3,179,750
Wyoming.....	0	0	0	0
American Samoa .....	0	0	0	0
Guam.....	0	0	0	0
Puerto Rico .....	250,000	250,000	1	500,000
Trust Territories.....	0	0	0	0
Virgin Islands.....	0	0	0	0
U.S. General .....	0	0	0	0
Totals.....	65,827,641	109,172,359	268	175,000,000

**Table IX-C—Fiscal 1977  
Economic Development Projects<sup>a</sup>, Part 1**

(Dollars in thousands)

Fiscal 1977	Public Works		Business Development			Technical Assistance	
	No. of Proj.	Amount	No. of Proj.	Direct Loans	Guarantees <sup>b</sup>	No. of Proj.	Amount
<b>STATES</b>							
Alabama .....	5	2,306,780	3	1,750,750	0	2	150,000
Alaska .....	3	3,124,690	0	0	0	5	61,964
Arizona.....	4	1,909,366	0	0	0	0	36,400
Arkansas.....	8	6,203,200	2	750,000	1,500,000	3	89,500
California .....	15	8,238,814	7	2,498,000	0	20	1,093,675
Colorado .....	5	1,403,500	0	0	0	3	225,407
Connecticut .....	0	0	1	0	6,750,000	3	213,405
Delaware .....	0	0	0	0	0	0	0
District of Columbia.....	1	695,000	4	3,097,000	0	13	1,246,121
Florida .....	3	704,000	4	5,100,000	0	8	207,450

**Table IX-C—Fiscal 1977  
Economic Development Projects<sup>a</sup>, Part 1 (cont.)**

(Dollars in thousands)

Fiscal 1977	Public Works		Business Development			Technical Assistance	
	No. of Proj.	Amount	No. of Proj.	Direct Loans	Guarantees <sup>b</sup>	No. of Proj.	Amount
Georgia .....	5	3,629,314	0	0	0	12	578,665
Hawaii .....	3	1,468,800	0	0	0	1	23,443
Idaho .....	7	4,521,540	1	750,000	0	4	82,100
Illinois.....	5	1,680,000	0	0	0	0	0
Indiana .....	5	4,755,100	0	0	0	1	100,000
Iowa.....	3	902,500	0	0	0	0	30,000
Kansas.....	3	2,268,000	0	0	0	1	45,375
Kentucky .....	2	3,607,272	3	355,000	104,000	1	80,000
Louisiana .....	8	4,699,917	0	0	0	5	196,950
Maine .....	1	1,050,000	2	2,000,000	0	6	194,722
Maryland.....	0	0	0	0	0	3	101,177
Massachusetts .....	6	9,403,100	1	750,000	0	9	557,682
Michigan .....	8	6,442,740	4	550,000	6,300,000	7	324,358
Minnesota .....	4	2,934,800	0	0	0	3	239,147
Mississippi .....	3	4,505,500	0	0	0	2	85,000
Missouri .....	4	2,008,800	2	608,000	0	6	739,463
Montana.....	6	3,023,480	1	1,200,000	0	3	299,530
Nebraska .....	1	1,025,000	1	1,000,000	0	0	0
Nevada .....	1	459,636	0	0	0	2	91,400
New Hampshire .....	0	0	0	0	0	1	119,700
New Jersey .....	12	4,329,200	9	7,788,000	0	9	598,068
New Mexico.....	7	2,046,600	0	0	0	2	113,820
New York .....	7	36,461,833	25	15,667,200	2,785,000	19	993,870
North Carolina .....	7	2,972,322	1	200,000	0	6	198,045
North Dakota .....	6	3,473,500	0	0	0	4	85,079
Ohio .....	5	6,020,000	0	0	0	3	50,030
Oklahoma .....	14	7,449,948	0	0	0	9	224,625
Oregon.....	6	3,737,400	2	950,000	0	8	180,810
Pennsylvania .....	12	11,356,000	2	1,500,000	0	9	162,341
Rhode Island .....	0	0	3	4,900,000	0	3	93,995
South Carolina .....	3	2,736,000	0	0	0	2	20,000
South Dakota .....	2	455,100	0	0	0	3	26,696
Tennessee .....	10	4,842,800	0	0	0	6	185,322
Texas.....	12	7,764,200	1	0	1,080,000	10	544,012
Utah.....	1	303,300	1	780,000	0	0	0
Vermont.....	1	202,400	0	0	0	2	61,250
Virginia.....	2	835,000	1	0	315,000	0	0
Washington.....	15	9,877,590	0	0	0	7	351,000
West Virginia.....	5	2,370,300	0	0	0	3	65,000
Wisconsin.....	10	5,457,100	1	1,000,000	0	3	46,581
Wyoming.....	0	0	0	0	0	0	0
<b>TERRITORIES</b>							
American Samoa .....	1	368,000	0	0	0	0	0
Guam.....	1	288,000	0	0	0	0	0
Puerto Rico .....	0	0	1	433,868	0	2	170,000
Trust Territories.....	0	0	0	0	0	0	0
Virgin Islands.....	0	0	0	0	0	0	0
U.S. General.....	0	0	0	0	0	46	2,027,137
Totals.....	258	196,317,442	83	53,627,818	18,834,000	281	13,410,315

\* Includes \$30.2 million for construction of facilities for 1980 Winter Olympic Games.

**Table IX-C—Fiscal 1977  
Economic Development Projects<sup>a</sup>, Part 2**

(Dollars in thousands)

1976 Transition Quarter	Planning Grants		Econ. Adjustmt		State Total	
	No. of Proj.	Amount	No. of Proj.	Amount	No. of Proj.	Amount
<b>STATES</b>						
Alabama .....	7	455,200	1	151,500	18	4,814,230
Alaska .....	9	589,200	0	0	17	3,775,854
Arizona .....	2	529,000	0	0	7	2,474,766
Arkansas .....	14	898,775	0	28,600	27	9,470,075
California .....	13	710,380	7	7,870,675	62	20,411,544
Colorado .....	3	135,300	0	5,000	11	1,769,207
Connecticut .....	1	200,000	0	0	5	7,163,405
Delaware .....	1	115,315	0	0	1	115,315
District of Columbia .....	1	105,000	0	0	19	5,143,121
Florida .....	6	488,300	0	0	21	6,499,750
Georgia .....	21	1,035,400	1	38,500	39	5,281,879
Hawaii .....	1	75,000	1	90,000	6	1,657,243
Idaho .....	12	447,700	1	150,000	25	5,951,340
Illinois .....	4	360,750	1	45,000	10	2,085,750
Indiana .....	5	444,700	4	16,000,000	15	21,299,800
Iowa .....	5	241,000	0	0	8	1,173,500
Kansas .....	5	226,200	0	0	9	2,539,575
Kentucky .....	3	773,932	2	1,965,000	11	6,885,204
Louisiana .....	11	721,255	0	0	24	5,618,122
Maine .....	6	353,000	0	0	15	3,597,722
Maryland .....	2	208,500	0	0	5	309,677
Massachusetts .....	7	623,900	0	0	23	11,334,682
Michigan .....	13	598,700	1	50,000	33	14,265,798
Minnesota .....	7	616,300	1	200,000	15	3,990,247
Mississippi .....	15	877,896	0	0	20	5,468,396
Missouri .....	9	486,700	1	2,750,000	22	6,592,963
Montana .....	10	470,800	1	186,500	21	5,180,310
Nebraska .....	1	110,000	0	0	3	2,135,000
Nevada .....	1	77,900	0	0	4	628,936
New Hampshire .....	2	120,555	1	57,952	4	298,207
New Jersey .....	1	275,000	2	9,214,950	33	22,205,218
New Mexico .....	17	699,200	0	0	26	2,859,620
New York .....	12	496,170	3	3,880,000	66	60,284,073
North Carolina .....	9	558,500	2	3,477,750	25	7,406,617
North Dakota .....	7	364,100	0	0	17	3,922,679
Ohio .....	3	286,000	1	96,000	12	6,452,030
Oklahoma .....	15	1,000,900	1	60,000	39	8,735,473
Oregon .....	6	506,000	0	0	22	5,374,210
Pennsylvania .....	9	530,600	1	12,465,000	33	26,013,941
Rhode Island .....	0	0	0	0	6	4,993,995
South Carolina .....	11	628,000	0	0	16	3,384,000
South Dakota .....	13	522,100	0	0	18	1,003,896
Tennessee .....	9	600,500	1	60,000	26	5,688,622
Texas .....	18	828,450	2	5,718,375	43	15,935,037
Utah .....	5	346,500	0	0	7	1,429,800
Vermont .....	1	47,900	0	0	4	311,550
Virginia .....	6	278,300	1	6,000,000	10	7,428,300
Washington .....	14	615,700	0	0	36	10,844,290
West Virginia .....	10	370,300	6	2,185,064	24	4,990,664
Wisconsin .....	6	570,650	0	1,100,000	20	8,174,331
Wyoming .....	1	37,500	1	60,000	2	97,500

**Table IX-C—Fiscal 1977  
Economic Development Projects<sup>a</sup>, Part 2 (cont)**

(Dollars in thousands)

1976 Transition Quarter	Planning Grants		Econ. Adjustmt		State Total	
	No. of Proj.	Amount	No. of Proj.	Amount	No. of Proj.	Amount
<b>TERRITORIES</b>						
American Samoa.....	0	0	0	0	1	368,000
Guam.....	0	0	0	0	1	288,000
Puerto Rico .....	0	130,000	0	0	3	733,868
Trust Territories.....	0	0	0	0	0	0
Virgin Islands.....	0	100,000	0	0	0	100,000
U.S. General.....	1	77,000	0	2,593,650	47	4,697,787
Totals.....	371	22,966,028	44	76,499,516	1,037	381,655,119

\* Includes \$30.2 million for construction of facilities for 1980 Winter Olympic Games.

**Table X—Regional Action Planning  
Commission Obligations**

(Fiscal 1977, in thousands of dollars)

	Supplemental Grants Fiscal 1977	Technical Assistance Fiscal 1977	Administration Fiscal 1977	Total by Area Fiscal 1977
Coastal Plains .....	2,269	6,655	475	9,399
Four Corners .....	3,991	4,045	532	8,568
New England .....	...	7,986	642	8,628
Old West .....	825	7,598	489	8,912
Ozarks .....	6,529	3,128	567	10,224
Pacific Northwest .....	...	7,068	434	7,502
Southwest Border .....	...	100	147	247
Upper Great Lakes .....	4,003	2,228	409	6,640
OREC.....	...	109	362	471
Total by Activity.....	17,617	38,917	4,057	60,591

**Table XI—Summary of Performance Indicators by Type Organization  
Funded by the Office of Minority Business Enterprise**

	LBDO	CCAC	BRC	ST. OMBE	OTHER ORGS.	TOTAL
Number of Clients .....	34,935	3,048	1,658	1,931	1,944	43,516
Number of Financial Packages.....	5,065	1,074	38	73	2	6,252
Dollar Value of Financial Packages .....	\$280.158	\$62.181	\$3.687	\$2.984	.335	\$349.345
Number of Procurements.....	4,428	3,931	149	594	5	9,107
Dolar Value of Procurements .....	\$501.625	\$195.218	\$11.186	\$27.674	.159	\$735.862
Number of Businesses Receiving Assistance .....	16,474	2,421	1,090	1,142	820	21,947