NOAA ANNUAL OPERATING PLAN FY 1990

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration

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UNDER SECRETARY FOR OCEANS AND ATMOSPHERE
Dr. John A. Knauss

ASSISTANT SECRETARY FOR OCEANS AND ATMOSPHERE
Jennifer Joy Wilson

DEPUTY UNDER SECRETARY FOR OCEANS AND ATMOSPHERE
Gray Castle

CHIEF SCIENTIST (ACTING)
Dr. Ned A. Ostenso

PREFACE

As NOAA enters its twentieth year we stand ready to fulfill the goal of being the nation's premier earth systems agency. NOAA faces urgent national and international problems involving the environment and the economy.

Strong management is the key to NOAA's meeting these challenges. Beginning in Fiscal Year 1990, management of NOAA will be based on an annually updated Strategic Plan. The Annual Operating Plan is the core of the Strategic Plan and defines NOAA's objectives. It will serve as the "agenda" for NOAA management, and NOAA senior management will measure progress against the plan in Monthly Operating Reviews.

As the planning process evolves, the strategic objectives will be refined. The Fiscal Year 1990 Annual Operating Plan is a tool to help shape NOAA's role in the coming decade. This document is our shared vision of NOAA's future as the primary earth systems agency for the United States and the World. It is a product of NOAA senior management's mutual commitment to meeting a worthwhile, common goal.

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EXECUTIVE SUMMARY

The NOAA Operating Plan for FY 1990 is divided into three sections. Each section represents a distinct organizational approach to NOAA management.

NOAA-wide, high priority, cross-cut programs, such as Climate and Global Change, are long-term commitments by the entire agency to address urgent problems of national concern. These programs are managed and budgeted in an integrated manner, and they involve significant effort by all NOAA components.

Line Office program objectives, discussed in the second section, reflect the specific operational requirements for meeting the mission of each of NOAA's major components. Although these objectives emphasize the internal organization required to carry out programs, they also include important linkages to and interdependencies with other NOAA components.

NOAA-level objectives, presented in the third section, reflect management initiatives that support all NOAA programs. The successful achievement of these NOAA-level objectives requires effort by all NOAA components.

A final section cross references specific Line Office objectives to the NOAA-wide, high priority programs.

NOAA'S HIGH PRIORITY PROGRAMS

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION'S MISSION IS TO DESCRIBE, MONITOR, AND PREDICT CONDITIONS IN THE ATMOSPHERE, OCEAN, SUN, AND SPACE ENVIRONMENT; TO ISSUE WARNINGS AGAINST IMPENDING DESTRUCTIVE NATURAL EVENTS; TO ASSESS THE CONSEQUENCES OF INADVERTENT ENVIRONMENTAL MODIFICATION OVER SEVERAL SCALES OF TIME; TO MANAGE AND DISSEMINATE LONG-TERM ENVIRONMENTAL INFORMATION; TO EXPLORE, MAP, AND CHART THE GLOBAL OCEAN AND ITS LIVING RESOURCES AND TO MANAGE THE USE AND CONSERVATION OF THOSE RESOURCES.

OBJECTIVE
NOAA-1

OBJECTIVE:

DESIGN AND IMPLEMENT THE AGENCY-WIDE CLIMATE AND GLOBAL CHANGE PROGRAM AS NOAA'S CONTRIBUTION TO THE U.S. GLOBAL CHANGE RESEARCH PROGRAM

BACKGROUND:

The Committee on Earth Sciences (CES) of the Federal Coordinating Council for Science, Engineering, and Technology has developed plans for the U.S. Global Change Research Program (USGCRP) that have been adopted by the President. Working within the CES framework, NOAA will continue to advance its mission responsibilities in the area of global change by improving climate prediction research and information services. In July of 1989, the Executive Branch issued the CES report, "Our Changing Planet: The FY 1990 Research Plan." NOAA plays an essential role in designing and implementing that national effort through the Climate and Global Change Program (NOAA). The long-term goal of the National C&GCR Program is "To establish a new national information service based on the achievement of reliable assessments and quantitative predictions of changing global climate." The first-year program funding (FY 89) was fully implemented as planned (14 new NOAA projects were established; 14 extramural grants were let). FY 1990 will see the start of work in several new areas including studies of the global hydrological cycles, ocean circulation, trace gases, and enhanced predictive modelling and information services.

The Director, Office of Climate and Atmospheric Research is responsible for the following planned actions.

PLANNED ACTIONS:

- Conduct and document a detailed NOAA-wide "accounting" of base programs contributing to USGCRP (7/90).
- Work with NESDIS to prepare a comprehensive planning prospectus (with critical policy issues) for NOAA satellite operations in support of the USGCRP for the period 1995-2005 (6/90).
- Survey NOAA requirements for facilities (e.g., ships and aircraft) to support the long-term Climate and Global Change Program (6/90).
- Implement projects funded in FY 1990 appropriation. (Three phases: 11/89, 3/90, 7/90).
- Work with NOS to initiate a comprehensive planning effort for the evolution of a global ocean observing system to support the USGCRP (1/90).
- Complete a Program Development Plan (PDP) for the modelling and analytical component of the NOAA Climate and Global Change program and develop multi-agency guidelines through CES for implementing it (9/90).
- Prepare a preliminary plan for the U.S. national contribution to the International Global Energy and Water Cycle Experiment (6/90).
- Develop, through a dialogue with the Coastal Ocean Program Office, the Climate and Global Change Program Office, and NOAA line offices, a cohesive agency-wide attack on the problems of the oceanic carbon cycle (4/90).
- Formulate, in cooperation with the National Science Foundation (NSF) and the World Ocean Circulation Experiment (WOCE) Program, plans for a long-term U.S. program of chemical tracer observations in the world's oceans (6/90).

- Formulate a draft PDP for the measurement technology element of Climate and Global Change; establish review and selection procedures (4/90).
- Initiate a planning effort for the long-term development of USGCRP's global observing system, including resulting management and data-base development components needed to support the program (3/90).
- Prepare final PDP for the Dynamical Extended Range Forecasting (DERF) portion of the USGCRP for FY 91 implementation (9/90).
- Develop, as part of the FY 92 budget cycle, the initial planning prospectus for a broadened NOAA role in the spectrum of CES science elements, where appropriate, with particular attention to the Ecological Systems and Dynamics and Human Interaction portions of the USGCRP (6/90).
- In the context of Climate and Global Change, work with NWS to develop a climate services element of the program, to be implemented on a NOAA-wide basis (8/90).

OBJECTIVE
NOAA-2

OBJECTIVE:

IMPLEMENT THE NOAA COASTAL OCEAN PROGRAM USING FY 1990 FUNDING AND BASE PROGRAM RESOURCES TO FULFILL THE MARINE SCIENCE RELATED REQUIREMENTS IDENTIFIED BY NOAA LINE OFFICES AS HAVING THE HIGHEST PRIORITY.

BACKGROUND:

The Department of Commerce (DOC) supported the FY 1990 and FY 1991 budget requests for the NOAA Coastal Ocean Program as part of a major NOAA management initiative to provide a focus for programs of agency-wide importance. NOAA's Coastal Ocean Program is one of three DOC objectives in the newly established Presidential Management By Objectives (MBO) program. A set of milestones consistent with the President's FY 1990 budget request ($12.4 million) has been sent to the Office of Management Budget (OMB).

The House-Senate Conference provided only $6.4 million for the Coastal Ocean Program in FY 1990, of which $350,000 is earmarked for the University of South Carolina and the Baruch Institute.

As part of an OMB crosscut of Federal Coastal Ocean Resources Research and Development (R&D), NOAA prepared a crosscut on related base programs. NOAA continues to work with OMB on developing an overall federal strategy for coastal R&D.

PLANNED ACTIONS:

- Prepare an inventory of Line Office mission requirements involving coastal science that describes methodologies to address NOAA natural resource responsibilities and emphasizes the practical application of research results. The inventory is an agenda for the NOAA Coastal Ocean Program for the next five years (4/90). Director, Coastal Ocean Program Office
- Develop an agency-wide research and implementation strategy for an ecological/oceanographic approach to fisheries management (6/90). Director, Coastal Ocean Program Office
- In support of the President's "No net loss of wetlands" goal, integrate the current estuarine habitat research plan with agency-wide objectives for mapping, restoration, and protection to form a comprehensive strategic plan for NOAA's near shore activities (6/90). Director, Coastal Ocean Program Office
- Through dialogue with other agencies and working through existing interagency mechanisms, develop a federal strategy for a National Coastal Ocean Program (8/90). Director, Coastal Ocean Program Office
- Develop a strategic plan for the NOAA Center of Ocean Analysis and Prediction at Monterey, California, to support highest priority marine science research requirements of Line Offices (9/90). Director, Office of Ocean Services, NOS
- Develop and implement a management structure including a formally chartered Coastal Ocean Council and an outside Advisory Panel (9/90). Director, Coastal Ocean Program Office
- Consider the needs of user communities in the planning process for the Coastal Ocean Program (continuing). Director, Coastal Ocean Program Office
- Conduct and document a detailed NOAA-wide "accounting" of base program contributions to the Coastal Ocean Program (7/90). Director, Coastal Ocean Program Office
- Survey NOAA requirements for facilities (e.g., ships and aircraft) to support the long-term Coastal Ocean Program (6/90). Director, Coastal Ocean Program Office

OBJECTIVE
NOAA-3

OBJECTIVE:

IMPLEMENT THE NEW MESOSCALE WEATHER PREDICTION OPERATIONS OF NWS THROUGH AN INTEGRATED NOAA-WIDE EFFORT

BACKGROUND:

NOAA's fundamental weather mission is to provide warnings to the public about severe weather and floods. In the past, weather prediction as a science has focused on the large ("synoptic") scale, approaching continental dimensions, due to scientific and technological limitations. Most severe weather events, including hurricanes, occur in atmospheric disturbances of lesser geographical scope, called the storm-scale or mesoscale of weather events.

Currently, flood warnings of the National Weather Service announce severe events in progress. In the modernized NWS of the 1990s new tools such as Doppler radars and more sophisticated satellite sensors can be used to initiate mesoscale numerical models that can predit such severe weather events. The public must have maximum lead time, as well as geographical specificity and reliability, for effective protection. Mesoscale prediction capability will improve weather and flood warnings.

During the 1990s, NOAA must sustain and expand its mesoscale weather prediction. Major investments by NWS, NESDIS, and OAR will be made to upgrade systems and implement new operational procedures. Marine weather hazards pose some of the greatest risks to the public, and user groups of NMFS and NOS can benefit greatly from NOAA's new mesoscale prediction capabilities.

PLANNED ACTIONS:

- Initiate a coordinated national scientific effort to advance mesoscale weather forecasting techniques and improve basic understanding of severe weather events (1/90). Director, National Storm Program Office (NSPO)
- Implement projects funded in the FY 1990 appropriations while developing a strong FY 1992 initiative that supports research requirements and includes allocation of aircraft and ship time (3/90). Director, NSPO
- Develop a NOAA-wide strategy to present NOAA's planned mesoscale weather prediction capabilities to the public and user groups (1/90). Director, NSPO and Director, NWS Transition
- Work through the Committee on Earth Sciences Subcommittee for Atmospheric Research to formulate a national (interagency) weather research strategy to be used as a basis for agency FY 1992 program initiatives (ongoing). Director, NSPO
- The working group for Marine Environmental Services will make recommendations regarding the Marine Board's report on "Improving Marine Observations and Forecasting" to the Under Secretary (ongoing). Federal Coordinator for Meteorological Services and Supporting Research

OBJECTIVE
NOAA-4

OBJECTIVE:

DEVELOP THE FRAMEWORK FOR A NOAA-WIDE DATA MANAGEMENT STRATEGY AS A BASIS FOR A LONG-TERM, COORDINATED NOAA DATA MANAGEMENT PROGRAM

BACKGROUND:

As a major earth science-based agency, NOAA routinely collects large quantities of environmental data to provide information and predictive services, as well as to expand the base of knowledge about the earth. NOAA also utilizes environmental data collected by other domestic and international organizations.

Scientific and operational data management, an activity that is the responsibility of all NOAA program managers, ranges from the preliminary design of environmental observation or sampling to permanent storage of data. As instrumentation in the earth sciences continues to advance the rate, sophistication, and quantity of environmental data, management of the information is crucial, especially in the case of satellite remote sensing data, the quantity of which will increase by orders of magnitude in the 1990s.

PLANNED ACTIONS:

- Establish a high-level Data Management and Information Program office (12/90). The Deputy Under Secretary for Oceans and Atmosphere
- Develop and evaluate alternatives to implement more programmatic responsibility, providing distributed, end-to-end management of data within NOAA (5/90). Director- designee, Data Management and Information Program Office
- Produce, in concert with the NOAA Line Offices, the already existing Data Management Team and the NOAA Climate and Global Change Program, a FY 1991 data management implementation plan and FY 1992 data management budget submission (9/90). Director, National Oceanographic Data Center
- Define and coordinate NOAA-wide data management policies and standards (8/90). Deputy Assistant Administrator for NESDIS
- Define the NOAA data management problem and long-term requirements, set priorities, and develop a strategy for addressing these data management requirements (9/90). Director-designee, Data Management and Information Program Office

NOAA'S

NATIONAL MARINE

FISHERIES SERVICE

NMFS'S MISSION IS TO ACHIEVE A CONTINUED OPTIMUM USE OF LIVING MARINE RESOURCES FOR THE BENEFIT OF THE NATION. THE MISSION IS ACCOMPLISHED THROUGH FOUR MAJOR AREAS OF ENDEAVOR WITHIN NMFS: RESOURCE SCIENCE, RESOURCE MANAGEMENT, HABITAT CONSERVATION, AND TRADE AND INDUSTRY SERVICES.

OBJECTIVE—RESOURCE SCIENCE
NMFS - 1

OBJECTIVE:

RESOURCE SCIENCE - IMPROVE THE EFFICIENCY AND EFFECTIVENESS OF NMFS SCIENCE PROGRAMS

BACKGROUND:

There is widespread concern that NMFS science cannot support existing and proposed regulations. Current monitoring efforts (catch, effort & ship surveys) yield insufficient data. Consolidations at OAR and NMFS laboratory facilities may result in more cost-effective operations. Most computer systems supporting science programs are obsolete, too costly, and do not support future growth in data bases and analytical requirements.

PLANNED ACTIONS:

- Contract for an independent review team to conduct an investigation of the effectiveness of the current science structure in meeting the agency's mission, goals, and objectives (12/89). Senior Scientist NMFS
- Assess options for possible efficiency increases, and operational savings arising from consolidations of NOAA laboratory facilities, and making greater use of universities. Subject study to independent review (7/90). Director, Laboratory Consolidation Study
- Review the procedures for monitoring commercial landings to determine whether statistical subsampling procedures are cost-effective, will provide improved confidence levels, and reduce the range of error so as to prevent overfishing and allow reasonable harvests (12/90). Director, Office of Research and Environmental Information
- Obtain phase I of a new nationwide computer system (1/91). Director, Office of Research and Environmental Information
- Examine cooperative fisheries unit approach used by U.S. Fish and Wildlife Service (F&WS) and joint institute approach used by NOAA/OAR (6/90). Senior Scientist NMFS
- Study OAR peer review mechanisms and propose adoption of relevant elements. Consult with Regional and Science Directors to develop consensus (6/90). Senior Scientist NMFS
- Participate in the NOAA-wide examination of laboratory program reviews and implement peer review procedures in accordance with emerging policies and guidelines (6/90). Senior Scientist NMFS
- Initiate annual status of stocks assessment and review (6/90). Senior Scientist NMFS; all NMFS Science Directors
- Conduct annual assessment technique workshop/symposium (10/90). Senior Scientist NMFS

OBJECTIVE:

RESOURCE MANAGEMENT - IMPROVE THE STATUS OF MAJOR U.S. FISHERY STOCKS BY IMPLEMENTING MANAGEMENT MEASURES NECESSARY FOR EFFECTIVE STEWARDSHIP, CONSERVATION AND MANAGEMENT

BACKGROUND:

Under the Magnuson Fisheries Conservation Management Act (MFCMA) goal of "Americanization" we have fully utilized our resources and most fish stocks have suffered from excessive fishing effort.

Increasing competition for limited resources has resulted in conflicts among users; one commercial gear vs. another commercial gear (eg. trawl vs. longline), at-sea vs. shoreside processors, commercial vs. recreational, and state vs. state. The increase in fishing effort often involves significant incidental catch of non-target and protected species.

Consensus on appropriate Federal and state management for the fully exploited stocks of king and Spanish mackerel has been impacted by uncertainty in the determination of Allowable Biological Catches (ABC) and in the implementation of Total Allowable Catch (TAC). Current state management measures include commercial quotas, recreational quotas, minimum sizes and bag limits, only some of which are compatible with Federal regulations.

Bycatches of crab and halibut in rapidly developing Alaskan groundfish fisheries adversely impact traditional fisheries creating serious allocation and biological stock problems. Existing fishing technologies do not assure acceptable protection of bycatch species while allowing the Optimum Yield (OY) of the target species to be taken by fishermen. Existing management regimes do not contain satisfactory measures for determining the amount of bycatch taken, the economic or the biological effects of such bycatches.

PLANNED ACTIONS:

- Work closely with the Fishery Management Councils to ensure that proposed management measures are adequate, appropriate, and enforceable (ongoing). All NMFS Regional Directors
- If the Councils do not provide effective management measures, consider the use of Secretarial Fishery Management Plans until appropriate amendments can be implemented (ongoing). Director, Office of Conservation and Management; all NMFS Regional Directors
- Strengthen the ecological, economic and social science abilities to assess the status of stocks, monitor stock and fishery status, and monitor the effectiveness of regulations through enhanced data collection programs for catch and effort (ongoing). Director, Office of Conservation and Management
- Develop equitable allocation procedures with Councils and states which are compatible with goals to maintain and/or restore resources to Optimum Yield levels and which reduce conflict between user groups (ongoing). All NMFS Regional Directors
- Continue to work with the Fishery Management Councils to implement bycatch control measures which provide more management flexibility to adjust bycatch limits and/or time-area closures (ongoing). All NMFS Regional Directors
- Examine efficiency and efficacy of the present Council Fishery Management Plan development process, documentation procedures, and requirements (ongoing). Director, Office of Conservation and Management

- Develop Council training and briefing program (8/90). Director, Office of Conservation and Management
- Review existing and proposed federal management measures for compatibility with existing state regulation (ongoing). All NMFS Regional Directors

OBJECTIVE—RESOURCE MANAGEMENT
NMFS - 3

OBJECTIVE:

RESOURCE MANAGEMENT - IMPLEMENT 602 GUIDELINES; FISHERY MANAGEMENT COUNCILS TO INCLUDE A DEFINITION OF OVERFISHING IN ALL FISHERY MANAGEMENT PLANS (FMPS)

BACKGROUND:

Thirty FMPs are currently approved by the Secretary, although few contain overfishing definitions. Each FMP must be found in compliance or amended to include such definitions no later than February 1991; all amendments must be submitted by November 1990.

Each definition must have sufficient scientific merit, be likely to prevent stock(s) from approaching or reaching an overfished status, provide a basis for objective measurement of the status of the stock, and be operationally feasible. Each FMP must also contain management measures to prevent overfishing.

PLANNED ACTION:

- Work with Fishery Management Councils to assess need for amendments and to develop schedules for preparation, submission, and implementation of amendments containing overfishing definitions (1/90). All NMFS Regional Directors
- Develop monitoring and evaluation systems for proposed overfishing definitions (2/90). Director, Office of Conservation and Management
- Review and approve/disapprove Council requests for exemptions from the requirement to amend FMPs for those FMPs already containing acceptable overfishing definitions (2/90). All NMFS Regional Directors; Director, Office of Conservation and Management
- Assess compliance with 602 requirements and deadlines and initiate appropriate action for those FMPs not in compliance to prevent overfishing and ensure recovery from overfishing (11/90 to 3/91). All NMFS Regional Directors; Director, Office of Conservation and Management

OBJECTIVE—RESOURCE MANAGEMENT
NMFS - 4

OBJECTIVE:

RESOURCE MANAGEMENT - WORK WITH THE FISHERY MANAGEMENT COUNCILS TO INITIATE INDIVIDUAL TRANSFERABLE QUOTAS OR OTHER EFFORT CONTROL/CONTROLLED ACCESS MANAGEMENT SCHEMES IN APPROPRIATE FISHERY MANAGEMENT PLANS

BACKGROUND:

Open-access fisheries (no limit to number of participants) may well be destined to overcapitalization and/or overfishing, as each harvester attempts to maximize catches from a finite resource base.

Many management measures can control output, and represent a rational approach for natural resource management. They control mortality levels, thus preventing overfishing, economic dissipation, and economic and social dislocation. Output controls can involve different measures, e.g., Individual Transferable Quotas (ITQs), Individual Fishing Quotas (IFQs), fishery-wide quotas or Total Allowable Catches (TACs). ITQs may not be appropriate for all fisheries, and TACs do not control inputs unless attached to a limited entry scheme.

Other measures control input, which indirectly limit catches. These can involve different approaches, such as: a) limits on harvesting units (vessels), b) limits on gear types, c) area limitations, or d) seasonal limitations. Controlling fishing effort is accomplished through input measures.

Controlled access is most effective if implemented prior to overfishing (and thus overcapitalization). Otherwise, excess harvesting units must be removed from the fishery with a resulting economic cost to industry and government.

The Western Pacific Bottomfish and Seamount Groundfish FMP (1987), which provides a limited entry scheme for vessels and fishermen in that fishery, is being monitored for effectiveness.

PLANNED ACTION:

- Include effort control measures on Board of Directors' agenda (01/90). Program Management Officer
- Establish a supportive NOAA position on effort control (7/90). Assistant Administrator for Fisheries
- Determine the status of fisheries currently under management, and identify fisheries that may benefit from ITQ or effort control management measures (10/90). Director, Office of Conservation and Management
- Meet with individual NMFS Directors to plan strategic approaches during the summer Board of Directors meeting (8/90). Assistant Administrator, Deputy Assistant Administrator for Fisheries

OBJECTIVE:

RESOURCE MANAGEMENT - ESTABLISH OBSERVER PROGRAMS INCORPORATING DOMESTIC FISHING OBSERVER, MMPA OBSERVER, DRIFTNET OBSERVER, AND TUNA/PORPOISE OBSERVER PROGRAMS

BACKGROUND:

The North Pacific Council adopted a proposed Groundfish Observer Plan for domestic vessels on September 27, 1989, along with a motion which specifies 100% coverage for vessels over 125 ft. and 30% coverage for those from 60-125 ft. capable of taking an observer.

The recently negotiated bilateral agreements with Japan, Taiwan, and Korea, under the Driftnet Impact, Monitoring, Assessment, and Control Act of 1987, will require a combination of observers and transponders on foreign vessels engaged in driftnet fishing on the high seas.

Under the Marine Mammal Protection Act Amendments (MMPA) of 1988, a substantial number of new observers will be required on domestic vessels to examine the interaction of marine mammals and domestic fishing operations.

PLANNED ACTION:

- Coordinate with Sea Grant, other public and private institutions for the development of a strategy for recruitment and training of observers necessary to meet the requirements of FY 1990 and beyond (4/90). All NMFS Regional Directors
- Assess existing training, certification, and data handling procedures to determine whether efficiencies or improved economies of scale could be achieved, and the extent of resources required to carry out these activities (9/90). All NMFS Regional Directors
- Consult within NOAA, with the communications and the fishing industries, to explore the feasibility of transmitting observer data (real-time catch and bycatch information) by independent communications via satellite, and through the use of laptop computers aboard a few vessels to test as prototypes (12/90). Director, Office of Research and Environmental Information

OBJECTIVE—RESOURCE MANAGEMENT
NMFS - 6

OBJECTIVE:

RESOURCE MANAGEMENT - IDENTIFY THE ORIGIN OF DONUT HOLE POLLOCK AND PROMOTE MULTILATERAL COOPERATION IN CONSERVATION AND MANAGEMENT OF THE STOCKS

BACKGROUND:

As groundfish allocations to foreign fleets in the Alaska Exclusive Economic Zone (EEZ) diminished and ceased, foreign fleets have increasingly directed effort to pollock in the central Bering Sea "donut hole" beyond the bounds of the U.S.S.R. and U.S. EEZs.

Fleets from the Peoples Republic of China, Poland, Japan, South Korea, and the Soviet Union now fish the donut hole. Taiwanese vessels fished this area in the past, but have not been seen there during the past three years.

U.S. catcher/processors have not fished that area, but are expected to commence operations in the future. The donut hole pollock annual harvest (about 2 million metric tons) now exceeds the harvest in the U.S. EEZ.

Age composition (cohorts) of donut hole pollock indicate that they do not represent a discrete, self-perpetuating stock, but rather stock elements that migrate from the U.S. and/or the U.S.S.R. EEZ. The effects of large uncontrolled donut hole pollock harvest over time may diminish pollock production in the U.S. EEZ.

PLANNED ACTIONS:

- Foster international coordination of research aimed at (1) identifying the relationship of donut hole pollock to U.S. and U.S.S.R. stocks, and (2) determining the influence of donut hole pollock harvests on production in the U.S. and U.S.S.R. zones (11/89, 4/90). Alaska Regional Director; Director, Office of International Affairs
- Coordinate with the Soviet Union the planning and convening of scientific symposia to exchange data and analyze conservation requirements for donut hole pollock (11/89, 4/90). Alaska Regional Director; Director, Office of International Affairs
- Coordinate with the Soviet Union strategies to address the international issues associated with the donut hole fisheries and promote international acceptance of donut hole pollock management requirements, consistent with pollock conservation programs of the U. S. and the Soviet Union (ongoing). Alaska Regional Director

OBJECTIVE:

RESOURCE MANAGEMENT - CONTINUE NEGOTIATIONS AND IMPLEMENTATION OF 1990 DRIFTNET AGREEMENTS WITH JAPAN, KOREA, AND TAIWAN FOR COOPERATIVE SCIENTIFIC OBSERVER AND ENFORCEMENT AGREEMENTS

BACKGROUND:

Over 1,000 foreign driftnet vessels from Japan, South Korea, and Taiwan fish annually on the high seas of the North Pacific, mainly for squid and tuna/billfish. As a result of U.S. concern that these fleets may intercept and kill valuable U.S.-origin salmon, as well as marine mammals and seabirds, the "Driftnet Act" of 1987 became law. That Act requires the Secretary of Commerce, through the Secretary of State, to negotiate cooperative scientific monitoring and enforcement programs with the high seas driftnetting countries.

After multiple negotiating sessions, the Secretary of Commerce certified to the President on June 29, 1989, as required by the Driftnet Act, that Korea and Taiwan had failed to reach adequate agreements with the U. S. called for by the Act. The Secretary's notification was deemed a certification under the Pelly Amendment and authorizes the President, at his discretion, to restrict imports of fishery products from those countries. The Secretary reported that while an agreement was reached with Japan, its adequacy "will be reevaluated after the programs for 1990 have been developed." Agreements were later reached with Korea and Taiwan. The specifics of the program with Taiwan and Japan for 1990 remain to be negotiated. Trade restrictions will be reconsidered for all of these countries if they do not implement effective scientific monitoring and enforcement programs for 1990.

On December 22, 1989, the United Nations General Assembly approved a resolution on Large-Scale Pelagic Driftnet Fishing and its impacts on the living marine resources of the world's oceans and seas. The resolution calls for: (1) all interested members of the international community to review the best available scientific data on the impacts of large-scale pelagic driftnet fishing by June 30, 1991; and (2) all members to agree to moratoria on all large-scale pelagic driftnet fishing on the high seas by June 30, 1992, unless effective conservation and management measures are taken in a particular region based on statistically sound analysis to prevent unacceptable impacts of such fishing practices in that region and to ensure the conservation of the living marine resources of that region.

PLANNED ACTIONS:

- Complete position development for negotiations with Japan and Taiwan. Initiate, through the Department of State, the scheduling of talks (2/90). Director, Office of International Affairs
- Complete negotiations for scientific monitoring provisions of the 1990 program with Taiwan (Director, Office of International Affairs); complete logistical 1990 arrangements with Taiwan and Korea (7/90). Alaska Regional Director
- Complete negotiations for scientific monitoring and enforcement provisions of the 1990 program with Japan (Director, Office of International Affairs); complete logistical arrangements for 1990 (7/90). Alaska Regional Director
- Implement 1990 scientific monitoring and enforcement agreements with Japan, Korea, and Taiwan. Such programs will provide information on the impacts of the driftnet fisheries to facilitate activities envisioned in later years pursuant to the UN Driftnet Resolution. Alaska Regional Director; Director, Office of Enforcement
- If 1990 agreements are not completed and implemented with a particular country as called for by the Driftnet Act, provide the Under Secretary with statutory options and recommendations regarding sanctions under the Driftnet Act and Pelly Amendment. Director, Office of International Affairs

OBJECTIVE—RESOURCE MANAGEMENT
NMFS - 8

OBJECTIVE:

RESOURCE MANAGEMENT - COMPLETE ENDANGERED SPECIES RECOVERY PLANS

BACKGROUND:

The Endangered Species Act requires NMFS to develop and implement recovery plans for species that are listed as endangered or threatened. NMFS develops recovery plans with the assistance of recovery teams, made up of experts. After a recovery plan is developed, NMFS needs to establish an active implementation program. Recovery efforts must not only involve a NMFS commitment, but must include an effort by other Federal agencies (including other elements of NOAA), state and local governments, private industry, conservation organizations and the public.

NMFS has drafted recovery planning guidelines, including a proposed priority system for developing recovery plans and implementing tasks in recovery plans.

Recovery plans are needed for 17 endangered and threatened species under NMFS jurisdiction. A recovery plan for the Hawaiian monk seal is being implemented. NMFS is currently developing seven recovery plans (addressing nine species), as follows:

Right Whale
Humpback Whale
Shortnose Sturgeon
Kemp's Ridley Turtle
Green and Loggerhead Turtles, Atlantic
Hawksbill and Leatherback Turtles, Atlantic
Hawaiian Sea Turtles

Recovery plans need to be initiated for seven other species: sei, blue, bowhead, fin, grey and sperm whales and the Sacramento River winter-run chinook salmon.

PLANNED ACTIONS:

- Complete draft Right Whale Plan for public review (2/90). Director, Office of Protected Resources
- Complete draft Kemp's Ridley Plan for public review (4/90). Director, Office of Protected Resources
- Complete draft Green/Loggerhead Turtle Plan for public review (4/90). Director, Office of Protected Resources
- Complete final Humpback Whale Plan for agency approval (6/90). Director, Office of Protected Resources
- Complete draft Hawksbill/Leatherback Turtle Plan for public review (6/90). Director, Office of Protected Resources
- Following a priority system, initiate recovery plans and appoint recovery teams, as appropriate, for the seven remaining species at the rate of one or two per year. Director, Office of Protected Resources
- Appoint recovery team to draft recovery plan for highest priority species (4/90). Director, Office of Protected Resources
- Appoint recovery team to draft plan for next highest priority species (10/90). Director, Office of Protected Resources
- Coordinate implementation of completed recovery plans with other agencies and organizations. Appoint implementation groups and plan coordinators, as appropriate (ongoing). Director, Office of Protected Resources

OBJECTIVE—RESOURCE MANAGEMENT
NMFS - 9

OBJECTIVE:

RESOURCE MANAGEMENT - REDUCE THE MORTALITY OF PORPOISE IN THE PACIFIC TUNA FISHERY OVER TIME TO APPROACH THE ULTIMATE GOAL OF ZERO INCIDENTAL MORTALITY

BACKGROUND:

In the eastern tropical Pacific Ocean (ETP), fishermen search for schools of porpoise and encircle them with large purse seine nets to capture yellowfin tuna that swim beneath the porpoise. About 400,000 dolphin were killed each year by this method before the Marine Mammal Protection Act (MMPA) was enacted in 1972. At that time, the U.S. fleet was responsible for nearly 90 percent of the annual mortality.

Since the MMPA, annual quotas, regulations, and industry cooperation have resulted in improved fleet performance in the safe release of 99 percent of the porpoise encircled in U.S. purse seine nets. However, the foreign kill remains a major problem. About 70 percent of the yellowfin tuna consumed in the U.S. is imported.

Amendments to the MMPA in 1984 and 1988 require these nations to have a marine mammal regulatory program comparable to the U.S. program as a condition to continue exporting to the U.S. market. Purse seine fishing currently is the only economically and technologically feasible method of catching yellowfin tuna.

A contract study to identify alternate fishing methods has been let. Increased international efforts to eliminate porpoise mortality are actively being pursued. These efforts are designed to achieve the goal of zero porpoise mortality.

PLANNED ACTION:

- Actively pursue the identification of alternate fishing methods for catching yellowfin tuna which do not target on porpoise (contract study final report due 9/90). Southwest Regional Director
- Expand international opportunities for cooperative scientific research to determine the status of porpoise stocks (meeting with foreign scientists 12/89; ongoing). Southwest Regional Director
- Conduct annual reviews of current progress and future plans with fishing nations and industry on efforts to reduce porpoise mortality from the international fleet (12/89, 12/90). Southwest Regional Director
- Encourage cooperative efforts to achieve effective international enforcement of porpoise saving measures by all nations fishing on porpoise in the ETP. Conduct annual review of foreign reports (8/90). Southwest Regional Director
- Conduct international meetings to develop a cooperative system that will improve skipper performance in reducing porpoise mortality and which removes incompetent skippers from the ETP fishery (ongoing). Southwest Regional Director

OBJECTIVE—HABITAT CONSERVATION
NMFS - 10

OBJECTIVE:

HABITAT CONSERVATION - FULLY IMPLEMENT HABITAT POLICY; ACHIEVE NO NET LOSS IN MARINE HABITAT

BACKGROUND:

The United States is currently losing 275-400 thousand acres of wetlands annually, of which approximately 40 thousand are intertidal wetlands (excluding Alaska). In the U.S., only 95 million acres of the original 215 million remain.

Federal water resources agencies, including EPA, the Army's Corps of Engineers (COE) and Interior's Fish and Wildlife Service (FWS), are examining how to be responsive to President Bush's statement regarding "no net loss of wetlands". The NMFS Habitat Conservation Policy and Program are entirely supportive of a no net habitat loss goal.

NOAA represents the Department of Commerce on the Interagency Task Force on Wetlands under the Domestic Policy Council. NMFS is assigned to chair the NOAA Working Group on Marine Wetlands, which has been formed to develop NOAA's input to this important wetlands protection and conservation effort.

Responses to agency concerns on the draft amendments to the Fish and Wildlife Coordination Act (FWCA) are being developed. A meeting was held with OMB to discuss the draft amendments.

PLANNED ACTIONS:

- Conduct Internal Control Review of NMFS interaction with the COE section 10/404 permitting decisions which affect fisheries habitat (7/90). Director, Office of Protected Resources
- Strengthen FWCA by providing necessary documents, briefings, and testimony in support of proposed amendments (ongoing). Director, Office of Protected Resources
- Renegotiate the Commerce-Army Section 404(q) Memorandum of Agreement (8/90). Director, Office of Protected Resources
- Enter into national NMFS-COE program to restore and create habitats (5/90). Director, Office of Protected Resources
- Develop and implement a public and constituent education program (6/90). Director, Office of Protected Resources
- Develop and implement a national statistics program documenting NMFS habitat program actions (9/90). Director, Office of Protected Resources

OBJECTIVE—TRADE AND INDUSTRY SERVICES
NMFS - 11

OBJECTIVE:

TRADE AND INDUSTRY SERVICES - IMPROVE THE SAFETY, WHOLESOMENESS, QUALITY AND LABELING OF FISHERY PRODUCTS OF DOMESTIC AND FOREIGN ORIGIN TO PROTECT THE U.S. CONSUMER AND ENHANCE THE COMPETITIVENESS OF U.S. SEAFOOD PRODUCTS IN WORLD MARKETS

BACKGROUND:

Increasing pressure by consumer activists, several trade associations, and the seafood industry concerning seafood safety, wholesomeness, and labeling have resulted in significant seafood inspection legislative proposals. The sale of seafood harvested from polluted waters and of adulterated or mislabeled fishery products is injurious to the public welfare, destroys markets for properly labeled fishery products, and results in injury to consumers.

The Congressionally mandated Model Seafood Surveillance Project (MSSP) has held workshops and meetings with industry and government, as recommended by the National Academy of Science (NAS), to develop the Hazard Analysis Critical Control Point (HACCP) inspection system for all fishery products.

PLANNED ACTION:

- Complete the MSSP and submit the final report to Congress (12/90). Director, Office of Trade and Industry Services
- Identify constraints in the present voluntary inspection program that hinder incorporation of HACCP into the program; begin incorporating HACCP into the current program as the HACCP models are completed; and, per OMB guidance, develop a new voluntary inspection service with Food and Drug Administration (FDA) for implementation in FY 1991 (ongoing). Director, Office of Trade and Industry Services
- Complete development of a joint NOAA/FDA mandatory seafood inspection system. Director, Office of Trade and Industry Services
- Determine if the present water quality indicators regulating the harvest of molluscan shellfish protect public health (11/90). Southeast Regional Director

OBJECTIVE—TRADE AND INDUSTRY SERVICES
NMFS - 12

OBJECTIVE:

TRADE AND INDUSTRY SERVICES - ACHIEVE MODIFIED REGULATIONS OR ADMINISTRATIVE ACTIONS IN INDIVIDUAL FOREIGN COUNTRIES AND THE EUROPEAN ECONOMIC COMMUNITY WHICH RESULT IN FREER TRADE BENEFITS TO THE U.S. FISHING INDUSTRY

BACKGROUND:

The U.S. fishing industry has become increasingly aware of export markets and the need for such markets to fully utilize the resources available from U.S. industry. The largest export markets (the European Common Market, Japan, Korea, etc.) are protected by many tariff and non-tariff measures that restrict access of U.S. products. Many countries subsidize their domestic production so that it unfairly competes with U.S. products in these countries markets, in the U.S. market, and in other countries markets. Seafood standards, labeling requirements, and inspection protocols can all interfere with the free flow of trade in the absence of harmonized approaches to these areas. Bilateral and multilateral opportunities exist to enhance U.S. trade competitiveness.

PLANNED ACTIONS:

- Attend appropriate meetings of the Uruguay Round of multilateral trade negotiations under the General Agreement on Tariffs and Trade (GATT) (2/90; others as scheduled). Director, Office of Trade and Industry Services
- Monitor action to remove the Korean balance of payments justification for its restrictive licensing system (ongoing). Director, Office of Trade and Industry Services
- Organize and attend the first meeting of the Work Groups on Fishery Product Standards and Inspection under the U.S./Canada Free Trade Agreement (FTA); determine agenda, priorities and schedule of meetings in 1990 (1/90). Director, Office of Trade and Industry Services
- Determine action to enforce our GATT and FTA rights in the case of Canadian restrictions on West Coast herring and salmon (ongoing, pending bilateral agreement). Director, Office of Trade and Industry Services
- Conduct regional briefing for industry, the Regional Councils, and NMFS Regional Offices to prepare for final agreements in the Uruguay Round -- beginning at North Pacific Council meeting, mid-March, 1990 (3/90). Director, Office of Trade and Industry Services
- Develop case to defend new U.S. lobster importation law and participate in dispute settlement panel proceedings (Ongoing, pending bilateral agreement). Director, Office of Trade and Industry Services

NOAA'S NATIONAL OCEAN SERVICE

NOS'S MISSION IS TO PROVIDE SCIENTIFIC AND MANAGEMENT PROGRAMS THAT: PROVIDE AERONAUTICAL AND NAUTICAL CHARTS AND TIDE TABLES; A NETWORK OF GEODETIC CONTROL AND PROCEDURES; AND, WORKING WITH STATE AND LOCAL GOVERNMENTS, PROGRAMS IN PHYSICAL, BIOLOGICAL, AND CHEMICAL OCEANOGRAPHY THAT ASSESS AND PRESERVE THE HEALTH OF THE NATION'S COASTAL, MARINE, AND ESTUARINE RESOURCES; AS WELL AS THE MONITORING AND PREDICTION OF THE GLOBAL OCEAN ENVIRONMENT.

OBJECTIVE
NOS-1

OBJECTIVE:

MODERNIZE BASIC OCEAN SERVICES

BACKGROUND:

Investment in new technology to support NOS programs has lagged in recent years. Aging systems and equipment are now seriously impacting NOS's ability to meet basic statutory responsibilities. Several program initiatives are underway to correct these deficiencies. Foremost among these is a major effort to modernize all phases of the nautical charting program -- from data collection through compilation, printing, and distribution. Another major effort is to acquire and deploy a new National tide and water level network. Future plans include upgrading and expanding basic oceanographic data collection systems. Many of NOS's upgrades are tied to upgrades of other NOAA facilities (e.g., ships).

PLANNED ACTIONS:

- Implement the Next Generation Water Level Measurement System (NGWLMS). Complete installation of second set of 50 field units (9/90). Director, Office of Oceanography and Marine Assessment
- Develop the next generation of Shipboard Environmental (Data) Acquisition System (SEAS). Replace the HP-85/Bathy systems SEAS units with MS-DOS/Sippican Systems for 10 Expendable Bathythermograph (XBT) units (9/90). Director, Office of Ocean Services
- Modernize the nautical charting program. Exercise contract option to collect data for 50 charts for the Automated Nautical Charting System II (ANCS II) project (5/90). Director, Office of Charting and Geodetic Services
- Initiate Marine Board review of NOS technology applications. Request Marine Board to convene a group of scientific experts to provide advice on any future NOS technologies (1/90). Assistant Administrator
- Develop future requirements and identify available technology for expanded ocean observation program. Co-sponsor interagency workshop to explore new in situ sensors (physical, chemical, biological, optical) and their role in an expanded global observations network (8/90). Director, Office of Ocean Services
- Develop requirements for upgrades to the Digital Ice Forecasting and Analysis System (DIFAS). Complete requirements upgrade plan (4/90). Director, Office of Ocean Services

OBJECTIVE
NOS-2

OBJECTIVE:

STRENGTHEN THE APPLIED OCEAN SCIENCE PROGRAM

BACKGROUND:

A strong, interdisciplinary oceanographic program is critical to expanding our knowledge base and advancing our understanding of the ocean system. It is our goal to incorporate the best available scientific understanding and techniques into our operational data collection, monitoring, assessment, and prediction activities. Particular efforts will be directed toward the NOS geodesy program, circulation program, global sea-level program, and the developing global ocean observation network. Cooperative research projects and planning will be undertaken with NOAA research laboratories.

PLANNED ACTIONS:

- Improve the quality control on all NOS data, analysis, and products, including document for photogrammetry (7/90). Director, Office of Charting and Geodetic Services. Install hardware and software for an improved Quality Improvement Performance System (QUIPS II) (12/89). Director, Office of Ocean Services
- Strengthen circulation program and modelling capability. Complete circulation models for Long Island Sound (4/90). Implement the Harvard Gulf cast model at the NOAA Oceanography Products Center (7/90). Director, Office of Ocean and Marine Assessment and Director, Office of Ocean Services
- Work with science community on scope, type, and frequency of global ocean observations. Develop a strategy for an Integrated Observing Network consistent with interagency and international plans and requirements (5/90). Director, Office of Ocean Services
- Improve measurements to strengthen application of geodetic Very Long Baseline Interferometry (VLBI) and Global Positioning System (GPS) technology. Connect GPS observations at six tide gauges to VLBI stations (9/90). Director, Office of Charting and Geodetic Services
- Conduct ocean minerals research in support of licensing program. Conduct "Main" research cruise with Scripps to study impact of Deep Seabed Mining on Environment and prepare "Seabed Mining" research cruise report (5/90). Director, Office of Ocean and Coastal Resource Management
- Strengthen Estuarine Research Reserves. Complete Education/Interpretive Plan for refinements to the National Estuarine Reserve Research System (NERRS) (5/90). Director, Office of Ocean and Coastal Resource Management
- Strengthen NOS oceanography program. Develop strategy to realign oceanographic activities (1/90). Assistant Administrator
- Coordinate U.S. Integrated Global Ocean Services System (IGOSS) and Intergovernmental Oceanographic Commission (IOC) activities. Ensure participation of the U.S. Delegation to the IOC Executive Council (3/90). Director, Office of International Affairs

OBJECTIVE
NOS-3

OBJECTIVE:

DIRECT SCIENCE/INFORMATION TOWARD COASTAL AND OCEAN MANAGEMENT NEEDS

BACKGROUND:

The development of and increasing population pressures in coastal areas have greatly increased the requirements for more detailed and timely information for decision-makers at all levels of government. NOS will expand its focus and direct its efforts to develop cost effective and easy-to-use systems for disseminating data and information to users. Efforts will be directed at the development of new interactive work stations and Geographic Information System (GIS) capabilities and the establishment of a National Ocean Communications Network for dissemination of products.

PLANNED ACTIONS:

- Develop new geographic information systems. Demonstrate Costal Ocean Management, Planning, and Assessment System (COMPAS) to the state of Texas (11/89-9/90). Complete the development of Interactive Marine Analysis and Forecast System (IMAFS) software for data ingestion, inventory and retrieval (9/90). Director, Office of Oceanography and Marine Assessment; Director, Office of Ocean Services
- Implement NOAA Ocean Communications Network (NOCN) at the NOAA's Ocean Products Center/Center for Ocean Analysis and Prediction (OPC/COAP) to support the NOAA Coastal Ocean Program and other related users at: Beaufort (12/89); Seattle (5/90); Narragansett (6/90); and Great Lakes (9/90). Director, Office of Ocean Services
- Implement state and local portions of the Ocean Data Collection Platform Information program. Initiate a follow-up survey of state and local agencies and develop plans for inventory access by state and local agency user groups (6/90). Director, Office of Ocean Services
- Continue the Exclusive Economic Zone (EEZ) mapping program. Develop a plan for the publication and release of EEZ data to the public (6/90). Director, Office of Charting and Geodetic Services
- Maintain a basic national geodetic reference network. Complete all leveling surveys for the North American Vertical Datum (NAVD) 88 project (460 kilometers the 1st quarter, 680 kilometers the quarter thereafter). Director, Office of Charting and Geodetic Services
- Produce strategic assessments and reports to document the status of the coastal and ocean environment. Complete a report on population growth in coastal areas (9/90). Director, Office of Oceanography and Marine Assessment
- Support Intergovernmental Panel on Climate Change (IPCC) activities. Conduct an IPCC Workshop on adaptive options and policy implications of sea-level rise (11/89). Director, Office of International Affairs

OBJECTIVE NOS-4

OBJECTIVE:

ENSURE EFFECTIVE COASTAL AND OCEAN MANAGEMENT

BACKGROUND:

Through a number of programs such as the Coastal Zone Management (CZMA) program, NOS has a tremendous opportunity to advance NOAA interests toward better management of coastal and ocean resources. In the coming year, a major focus will be strengthening the federal-state partnership under CZMA and building closer cooperative ties with EPA, Interior's Minerals Management Service (MMS) and U.S. Geological Survey (USGS), and the "coastal community." Closer internal coordination will also be pursued with other NOAA Line Offices, particularly NMFS.

PLANNED ACTIONS:

- Expand the state geodetic advisor program. Sign agreements with two new states, assuming negotiations are successful and funding is adequate (9/90). Director, Office of Charting and Geodetic Services
- Ensure effective designation and management of Estuarine Research Reserve and Marine Sanctuaries. Complete designations for: Flower Garden Banks (7/90), Monterey Bay (6/90), Norfolk Canyon (9/90), and Virginia National Estuarine Research Reserve (9/90). Director, Office of Ocean and Coastal Resource Management
- Ensure effective management of CZMA. Work closely with state CZM offices. Complete negotiations for preparation of 306 annual work plans (6/90). Director, Office of Ocean and Coastal Resource Management
- Implement the Coastal Zone Management - National Estuary Program Memorandum of Understanding (CZM-NEP MOU). Continue to monitor coordination under CZM-NEP MOU and report on the status of the program (3-9/90). Director, Office of Ocean and Coastal Resource Management
- Support NOAA's Fisheries Enforcement Activities. Provide access to real-time analyses and forecast guidance from the NOAA's Ocean Products Center (OPC), Joint Ice Center (JIC), Center for Ocean Analysis and Prediction (COAP), and the Navy's Fleet Numerical Oceanographic Center (FNOC) (3/90). Director, Office of Ocean Services
- Establish a NOAA-EPA Policy Coordination Group. Select members, determine the scope of activities, and set a quarterly meeting schedule (12/89). Deputy Assistant Administrator
- Participate in bilateral and multilateral activities to promote effective coastal and ocean management. Continue cooperative projects with Japan and China (continuing). Director, Office of International Affairs
- Increase coordination with the Department of Interior - MMS. Conduct a joint review of the FY 90-91 Outer Continental Shelf (OCS) lease plans and sanctuary site designation plans (3/90). Director, Office of Ocean and Coastal Resource Management
- Fulfill, in cooperation with other NOAA Line Offices, requirements of NOAA/Navy Memorandum of Understanding. Conduct a NOAA-Navy meeting to discuss ocean science policy (4/90). Director, Office of Ocean Services

OBJECTIVE
NOS-5

OBJECTIVE:

CONTRIBUTE TO THE PROTECTION OF LIFE AND PROPERTY

BACKGROUND:

NOS makes a primary contribution to protecting the life and property of those who live and work around the coastal and offshore waters of the nation, as well as users of the national airspace. Through a range of programs including the nautical and aeronautical charting program, HAZMAT program, tide and water level program, ice forecasting program, and coastal hazards program, NOS provides products and services to make the coastal and ocean areas a safe environment. During the year major efforts will be directed at updating nautical charts, expanding support for hazardous spills, and strengthening coastal hazard planning and coordination. Cooperative activities with National Weather Service will be continued in the areas of storm surge and in high seas and ice forecasting and prediction.

PLANNED ACTIONS:

- Maintain effective HAZMAT response capability. Develop and/or update contingency plan studies of the transport of hazardous materials through the ports of Boston, Hampton Roads, Tampa, Mobile, Long Beach, San Francisco, Pittsburgh, and New Orleans (8/90). Director, Office of Oceanography and Marine Assessment
- Produce national tide and water level tables. Deliver Tidal Current Prediction Tables for the Atlantic and Pacific Coasts of North America and Asia to the Department's printing office for publication (7/90). Director, Office of Oceanography and Marine Assessment
- Support damage assessments of the risks to human health and the environment that result from human-induced pollution. Develop recommendations for the second-year Damage Assessment Program in Prince William Sound (3/90). Director, Office of Oceanography and Marine Assessment
- Expand the coverage and services provided by the Joint Ice Center and NOAA's Ocean Products Center. Expand Digital Ice Forecasting and Analysis System (DIFAS) operations to all areas of Alaska and some Antarctic areas (6/90). Implement computer worded high seas forecast capability for the Atlantic Ocean (8/90) Director, Office of Ocean Services
- Produce timely and accurate nautical charts. Produce 380 new chart editions for printing (95/quarter). Director, Office of Charting and Geodetic Services
- Produce timely and accurate aeronautical charts. Meet national airspace requirements every 56 days. Meet national defense charting requirements every six months. Director, Office of Charting and Geodetic Services
- Work with the Federal Emergency Management Agency (FEMA) and other federal and state agencies on coastal hazards planning (continuing). Director, Office of Ocean and Coastal Resource Management
- Implement Marine Board Forecast Recommendations for "Improving Marine Observations and Forecasting." (9/90) Director, Office of Ocean Services

OBJECTIVE
NOS-6

OBJECTIVE:

CONTRIBUTE TO THE NOAA CLIMATE AND GLOBAL CHANGE PROGRAM

BACKGROUND:

NOS global ocean observation and monitoring programs provide key scientific data and information to aid researchers in studying changes in the earth system. The Geostationary Satellite (GEOSAT) program provides an operational space-based measurement of global sea-level. The global sea-level program, employing the Next Generation Water Level Measurement System (NGWLMS), will provide accurate in-situ measurements of sea-level change. NOS also provides operational support for the International Tropical Ocean and Global Atmosphere (TOGA) program, deploying and collecting Expendable Bathythermograph (XBT) data, and data from ocean buoys and other platforms. NOS will place the ocean observation program on sound footing and begin the deployment of the new global sea-level network. Operational GEOSAT products also will be continued. NOS plans to provide substantial support to the development of the global ocean observing system.

PLANNED ACTIONS:

- Establish a global absolute sea-level monitoring network. Install NGWLMS field units at five Global Sea Level Sites in FY 1990 (3-9/90). Director, Office of Oceanography and Marine Assessment
- Support the TOGA monitoring program. Begin NOS Operations Management for Tropical Atmospheric-Ocean Moored Buoy Array (4/90). Director, Office of Ocean Services
- In the context of the Climate and Global Ocean Observing Program, initiate a comprehensive planning effort for the evolution of a global ocean observing system to support the U.S. Global Change Research Program (1/90). Director, Office of Ocean services
- Work with the relevant international bodies to develop and support a global ocean observing program. Participate in Intergovernmental Oceanographic Commission (IOC) and the World Meteorological Organization (WMO) committees to support intergovernmental coordination for a global observing program (ongoing). Director, International Affairs and Director, Office of Ocean Services
- Strengthen the application of absolute gravity at 24 stations to support the NOAA Global Sea-Level Project (6 stations/quarter). Director, Office of Charting and Geodetic Services

OBJECTIVE
NOS-7

OBJECTIVE:

CONTRIBUTE TO THE NOAA COASTAL OCEAN PROGRAM

BACKGROUND:

Through NOS's National Status and Trends (NS&T) program, strategic assessment program, and coastal mapping activities, NOAA is building an up-to-date scientific information base on all aspects of our coastal ocean environment. The systematic monitoring of changes in the coastal ocean environment is essential to documenting natural and human-induced changes and making effective public management decisions that address problem areas. In support of the President's "no-net-loss of wetlands" policy, particular attention will be paid this year to wetland and water body management.

PLANNED ACTIONS:

- Conduct a national status and trends analysis of coastal environmental quality. Complete a summary report on 1988-1989 NS&T program monitoring results (8/90). Director, Office of Oceanography and Marine Assessment
- Produce strategic assessments and reports to document the status of the coastal and ocean environment. Publish a summary of Coastal Habitat/Species Distributions in West Coast Estuaries (4/90). Director, Office of Oceanography and Marine Assessment
- Support the development of the new Center for Ocean Analysis and Prediction (COAP) and ocean modelling capabilities. Prepare and distribute the Program Development Plan for activities at the COAP (3/90). Director, Office of Ocean Services
- Conduct specialized coastal and wetlands mapping projects. Prepare and hold a symposium in Michigan for federal, state, and local officials to investigate possible Geographic Information System (GIS) systems for the Great Lakes (8/90). Director, Office of Charting and Geodetic Services
- Develop regional approaches to water body management and conflict resolution. Provide technical assistance on state and regional ocean management (9/90). Director, Office of Ocean and Coastal Resource Management
- Support NOAA's Coast Watch and Nutrient Enhanced Coastal Ocean Productivity Programs. Provide training in the analysis of physical oceanographic features for fisheries applications (7/90). Director, Office of Ocean Services
- Participate in bilateral and multilateral activities to promote marine environmental research, such as the International Mussel Watch Program (continuing). Director, Office of International Affairs
- Support implementation of the President's no-net-loss of wetlands goal. Participate on the NOAA wetlands task force (continuing). Director, Office of Ocean and Coastal Resource Management

OBJECTIVE
NOS-8

OBJECTIVE:

CONTRIBUTE TO NOAA'S GLOBAL ENVIRONMENTAL SCIENCE DATA MANAGEMENT PROGRAM

BACKGROUND:

NOAA has accumulated extensive, valuable files of seafloor and geodetic data and information that could be useful for assessment of environmental trends, scientific studies, and Global Information System (GIS) applications. By converting these data to digital format and applying new data storage technologies, NOS can provide rapid access to historical data that date back to the 19th century. These data are now stored in paper or analog form such as text, figures, maps, drawings, and numerical tables. These files currently require extensive manual efforts to reproduce and distribute; instability of much of the data storage media has resulted in loss of data.

PLANNED ACTIONS:

- Process and disseminate large-scale data sets to evaluate global and regional conditions and trends. Process and distribute existing Geostationary Satellites (GEOSAT) altimeter data, create and disseminate synthesized biogeochemical data sets, upgrade existing Digital Ice Forecasting and Analysis System (DIFAS), and distribute Exclusive Economic Zone Maps (continuing). Director, Office of Ocean Services and Director, Office of Charting and Geodetic Services
- Digitize historic ocean data sets to provide long-term time records for analyzing global trends (continuing). Director, Office of Ocean Services
- Establish a research and development research to evaluate GIS systems and their utility in information dissemination to user communities. Science Advisor
- Participate in the development of Earth Observation Satellite Data and Information System (EOSDIS) data requirements (continuing). Director, Office of Ocean Services

NOAA'S

OFFICE OF OCEANIC AND

ATMOSPHERIC RESEARCH

OAR'S MISSION IS TO CONDUCT RESEARCH AND TECHNOLOGY DEVELOPMENT TO IMPROVE THE PREDICTION OF THE ATMOSPHERIC AND MARINE ENVIRONMENTS AND THE MANAGEMENT OF MARINE RESOURCES. ITS COMPREHENSIVE RESEARCH PROGRAMS PROVIDE THE BASIS FOR IMPROVEMENTS IN NOAA'S PRESENT SERVICES AND THE DIRECTION FOR MEETING THE PROBLEMS OF TOMORROW.

OBJECTIVE
OAR-1

OBJECTIVE:

CLIMATE AND AIR QUALITY RESEARCH - IMPROVE UNDERSTANDING AND DEVELOP A PREDICTION CAPABILITY IN SEASONAL, INTERANNUAL, AND LONG-TERM CLIMATE AND AIR QUALITY

BACKGROUND:

NOAA's interannual and seasonal climate research has made substantial progress in understanding the mechanisms behind climate events such as the El Nino-Southern Oscillation (ENSO). This understanding is being applied to develop the ability to predict these types of phenomena. NOAA administers the U.S. component of the international Tropical Oceans-Global Atmosphere (TOGA) program, the primary activity in this area.

NOAA has a tradition of research and monitoring of long-term climate changes and has developed some of the world's best climate models, data sets, and theories (e.g., why the Antarctic ozone hole has formed). NOAA's climate research activities are the foundation of a new NOAA program, Climate and Global Change. Through this program, NOAA will gain a predictive understanding of the earth system and a scientific basis for policy decisions relating to global change.

NOAA's air quality research is focused on natural processes that contribute to problems like acidic deposition and high levels of surface ozone. Studies focus on atmospheric chemistry, transport, fluxes, and trends. Much of this research has been conducted as part of the National Acid Precipitation Assessment Program (NAPAP). Although NAPAP is concluding, air quality remains a major focus of NOAA's research in order to provide scientific expertise for policy discussions, such as revising the Clean Air Act.

PLANNED ACTIONS:

- Interannual and Seasonal Climate. NOAA will contribute to TOGA by:
  - Expanding the TOGA-TAO-ARRAY (Array of surface wind and thermistor chain moorings in the equatorial Pacific Ocean) array (5/90). TOGA Program Manager
  - Analyzing ocean-atmosphere simulations of ENSO events (6/90). Director, Geophysical Fluid Dynamics Laboratory (GFDL)
  - Completing the National Academy of Sciences Midlife Review (7/90). TOGA Program Manager
- Long-Term Climate. NOAA will continue its research programs and provide scientific expertise to policy discussions as follows:
  - Lead science assessment for Montreal Protocol negotiations (10/89). Director, Aeronomy Laboratory (AL)
  - Chair U.S. delegation to the Science Working Group of the Intergovernmental Panel on Climate Change (IPCC) (11/89, 9/90). Director, AL
  - Model the effects of mountains on climate (11/89). Director, GFDL
  - Study ozone and nitrous oxide budgets (3/90). Director, AL
  - Study methane trends (4/90). Director, Climate Monitoring and Diagnostics Laboratory (CMDL)
  - Determine characteristics of the deep water boundary current (7/90). Director, Atlantic Oceanographic and Meteorological Laboratory (AOML)
  - Analyze a data-assimilating ocean model (8/90). Director, AOML

- Air Quality. NOAA will continue research relevant to policy and regulatory needs of Congress and EPA:
  - Apply remote sensing methods to measure ozone (2/90, 9/90). Director, Wave Propagation Laboratory (WPL)
  - Contribute to the NAPAP final assessment by reporting the results of the Western Atlantic Ocean Experiment (8/90). Director, Air Resources Laboratory (ARL)
  - Analyze the formation of rural ozone (8/90). Director, AL

OBJECTIVE
OAR-2

OBJECTIVE:

WEATHER RESEARCH - IMPROVE OPERATIONAL 1-TO-48-HOUR PREDICTION OF HAZARDOUS REGIONAL AND LOCAL WEATHER EVENTS

BACKGROUND:

NOAA's weather research enhances the understanding of mesoscale (on the order of tens of kilometers) phenomena, develops new observational techniques, and capitalizes on the deployment of the new generation remote weather-observing systems and modernized computing and data processing technologies. This research is required to obtain the maximum benefits of productivity and efficiency improvements and achieve the prediction potential inherent in the modernized and restructured National Weather Service.

The short-term objective of NOAA's weather research and development is to obtain funding for the Mesoscale Weather Research Program as called for by P.L. 100-685 Section 407(b) paragraph (3) and the National Implementation Plan for Modernization of the National Weather Service.

The NOAA Mesoscale Weather Research Program has been developed through an exhaustive NOAA planning process involving key senior scientists. The program is a fundamental component of an interagency and national meteorological community effort to meet NOAA's long-range objective for weather research.

PLANNED ACTIONS:

- Systems Research. NOAA will:
  - Begin installation of the Wind Profiler Demonstration Network (3/90, 6/90). Director, Forecast Systems Laboratory (FSL)
  - Install a second Advance Weather Interactive Processing System (AWIPS)-90 prototype workstation (7/90). Director, FSL
  - Demonstrate the feasibility of adding temperature profiles to network wind profilers (7/90). Director, Wave Propagation Laboratory (WPL)
  - Develop new remote sensing techniques and instrumentation (8/90). Director, WPL
  - Initiate data management/access activities in preparation for National Stormscale Operational and Research Meteorology Program (STORM) field phases (9/90). Director, FSL
- Forecasting Research. NOAA will:
  - Investigate meteorological processes observed in synoptic and mesoscale severe weather and hurricanes to improve understanding and prediction (2/90). Director, Atlantic Oceanographic and Meteorological Laboratory (AOML) and (4/90) Director, National Severe Storm Laboratory (NSSL)
  - Evaluate, refine, and improve numerical forecast models of hurricanes and mesoscale phenomena (5/90). Directors, AOML NSSL, and FSL
  - Develop, refine, and apply diagnostic aids (expert systems) to improve understanding and forecasts of potentially hazardous weather (7/90). Directors, FSL and NSSL
  - Transfer four-dimensional assimilation (4DDA) techniques for operational evaluation and initiate STORM 4DDA activities (8/90). Directors, FSL and NSSL
  - Improve long-range and seasonal weather forecasts (9/90). Director, Geophysical Fluid Dynamics Laboratory (GFDL)

- Mesoscale Weather Research/STORM. NOAA has committed to begin STORM and mesoscale research activities in FY 1990 and FY 1991. OAR will:
  - Work with other Line Offices to redirect available, but limited, scientific resources to STORM-related activities and will request ADF support for hardware, instrumentation, and computer needs (3/90). Director, NSSL
  - Coordinate a NOAA initiative request for FY 1992 that reflects NOAA's research priorities and the STORM plans (3/90). Director, NSSL

OBJECTIVE
OAR-3

OBJECTIVE:

SOLAR-TERRESTRIAL RESEARCH AND SERVICES - PROVIDE THE NECESSARY INFORMATION TO MAKE COMPLETE AND ACCURATE FORECASTS AND WARNINGS OF THE NEAR-EARTH ENVIRONMENT

BACKGROUND:

NOAA's Space Environment Service Center, operated jointly with the Air Force, is the nation's only operational monitoring and forecasting facility for solar activity and its effects on the earth's atmosphere.

NOAA's operational capability is of great economic importance because solar activity has tremendous influence on communications, satellite orbits, and power and pipeline transmissions, as well as causing a radiation hazard for humans in space. To support this operational function, research is conducted to improve understanding and prediction of solar activity and its effects.

Solar activity follows an 11-year cycle. Currently, solar activity is rising rapidly toward a maximum and is expected to reach its peak in early 1990 and remain high for several years, endangering current satellite programs. NOAA is continuing to upgrade its services and to inform its customers of the value of such service during a solar maximum.

Within the next decade, new sources of data will be available to the forecasters and researchers that will provide new understandings of the solar-terrestrial environment.

PLANNED ACTIONS:

- Forecasting. NOAA will focus on improving forecasts and warnings of the solar-terrestrial environment by:
  - Analyzing user requirements (1/90). Director, Space Environmental Laboratory (SEL)
  - Developing forecast verification algorithms (3/90) Director, SEL
  - Replacing aging Space Environment Laboratory Data Acquisition and Display System (SELDADS) equipment in the Forecast Center (9/90). Director, SEL
- Research. NOAA will conduct research on methods for giving operational forecasters the best information from the data received at the facility by:
  - Acquiring and analyzing newly available Interplanetary Scintillation (IPS) data (8/90). Director, SEL
  - Developing improved observational, quality control, data analysis, and forecasting techniques and technologies (2/90). Director, SEL

OBJECTIVE
OAR-4

OBJECTIVE:

OCEAN AND GREAT LAKES RESEARCH - STRENGTHEN THE SCIENTIFIC BASIS FOR FORMULATING NATIONAL POLICY DECISIONS INVOLVING OCEANIC AND GREAT LAKES RESOURCES AND FOR PROMOTING DEVELOPMENT AND GROWTH OF MARINE- RELATED INDUSTRIES

BACKGROUND:

Coastal and Great Lakes areas of the U.S. are developing at an accelerating rate, with increased effects on environmental quality and the health and productivity of aquatic resources. The challenge to the nation is to preserve and maintain the quality and abundance of marine resources while allowing for competing uses of the environment.

The NOAA role is to provide the knowledge base upon which optimal regulatory policies can be formed. NOAA's approach is to increase understanding of the natural functioning and variability of a system as a basis for discerning and predicting the impacts of human activities.

Research at the NOAA laboratories and Sea Grant universities is providing the foundation for new initiatives within the Coastal Ocean Program (COP).

NOAA's National Sea Grant College Program has developed a strong infrastructure of marine research, education, and technology transfer at academic institutions: This program will assume many of the mission-related marine research and development responsibilities that NOAA no longer has the resources to conduct in-house.

NOAA operates the National Undersea Research Program (NURP), the only federal program for providing undersea research support to the scientific community.

PLANNED ACTIONS:

- Marine Environmental Research. NOAA laboratories and Sea Grant institutions will conduct research on:
  - The ocean chemistry impact of seafloor spreading centers in (1) the Juan de Fuca Ridge (12/89) [Director, Pacific Marine Environmental Laboratory (PMEL)] and the Mid-Atlantic Ridge (6/90). Director, Atlantic Oceanographic and Meteorological Laboratory (AOML)
  - Nutrient-Enhanced Coastal Productivity (COP)--examining the effect of high anthropogenic nutrient loading from the Mississippi River to the Gulf of Mexico shelf on the water quality and productivity (9/90). Director, Oceanic Research (OR)
  - Estuarine Habitat Studies (COP)--increasing the understanding of habitat functioning and how this affects secondary production (9/90). Director, OR
- Large (Great) Lake Processes. NOAA will participate in international (International Joint Commission) and interagency (EPA, F&WS) research directed at:
  - Developing mass balance approaches and ecosystem models as a basis for managing toxic contaminants in the lakes (5/90). Director, Great Lakes Environmental Research Laboratory (GLERL)
- Marine Resources. NOAA will broaden its research to understand the processes and mechanisms controlling the productivity of living resources in coastal ecosystems by:
  - Completing planning for research that will provide a comparative assessment of the processes controlling recruitment in the frontal system of the South Atlantic Bight (5/90). Director, OR
  - Emphasizing data analysis and numerical modelling in the Fisheries Recruitment Oceanography (FOCI) program in Shelikof Strait, Alaska (6/90). Director, PMEL

- Conducting a workshop and developing a plan for coordinated state, federal, industry, and academic research on options for improving oyster yield (8/90). Director, OR
- Defining the secondary metabolism of marine invertebrates and developing DNA technology for producing transgenic fish (9/90). Director, OR

- Arctic Oceans. NOAA will proceed with two major field efforts in the Bering/Chukchi Seas:
  - Begin U.S./U.S.S.R. joint cruise to define the northward flow of Pacific water into the Arctic Ocean and its effect on productivity and global climate (9/90). Director, PMEL
  - Plan for an interagency coordinated research program, under the Interagency Arctic Research Policy Committee, on the physical dynamics and thermodynamics of ice edges and open water areas (polynyas) and their effect on biological productivity and oceanic carbon flux (9/90). Director, Program Development and Coordination Staff (PDC)

OBJECTIVE OAR-5

OBJECTIVE:

IMPROVE OAR PLANNING, PROGRAM DEVELOPMENT, AND MANAGEMENT PROCESSES

BACKGROUND:

OAR has pursued a programmatic approach to management in its personnel performance, budget development, program review, and management control systems. FY 1989 accomplishments include:

- Restructuring SES plans to emphasize national scientific leadership and NOAA-wide activities.
- Completing NOAA/OAR research strategies in ocean systems and solar terrestrial services.
- Developing cross NOAA programs in Global Change and in Coastal Ocean research (estuaries/productivity).
- Reorganizing the Office of Oceanic Research Programs and selective laboratories (e.g., Forecast Systems Lab/Air Resources Lab).

OAR and NOAA, in general, are faced with a complex and difficult set of management problems that relate to an increased set of demands (e.g., Global Change) and the diminished real resources to maintain and enhance its infrastructure, such as talent, computers, scientific instrumentation, ships and aircraft, and institutional structures.

PLANNED ACTIONS:

- Develop an issue paper on maintaining and improving NOAA institutional infrastructure related to the Climate and Global Change and Coastal Ocean Programs (1/90). Deputy Assistant Administrator
- Define long-range OAR ship requirements based on current usage and future NOAA program requirements (2/90). Executive Director
- Continue to modernize scientific computers in OAR
  - Install a supercomputer at the Geophysical Fluid Dynamics Laboratory (GFDL) (5/90). Director, GFDL
- Maintain scientific competitiveness with non-government employers by obtaining permission to hire senior scientists in Non-Supervisory GS-16 positions (ST-3104) and develop a candidate selection process (6/90). Deputy Assistant Administrator
- Refine program development plans for NOAA/OAR efforts in Coastal Ocean and Global Change (7/90). Director, Oceanic Research (OR) and Director, Climatic and Atmospheric Research (CAR)
- Produce a series of NOAA/OAR Long-Range Research Strategic Plans--two volumes completed.
  - OAR's Research Strategy for the 1990s and Beyond (9/90). Assistant Administrator
  - Weather Modernization (to printer by 9/90). Deputy Director, Environmental Research Laboratories (ERL)
  - Environmental Quality (to printer by 10/90). Deputy Director, ERL

OBJECTIVE
OAR-6

OBJECTIVE:

PROMOTE COOPERATION IN OCEANIC AND ATMOSPHERIC SCIENCE BETWEEN AMERICAN AND FOREIGN SCIENTISTS

BACKGROUND:

International cooperation allows NOAA to: (1) secure access to facilities and geographic areas that would otherwise not be available, (2) acquire scientific data that would otherwise be difficult to obtain, and (3) reduce the cost of oceanographic and atmospheric research through international joint support of research activities.

In some cases OAR's international activities staff acts on behalf of the entire U.S. government, especially administering research agreements with the People's Republic of China, the Soviet Union, and France.

OAR seeks to foster cooperation within NOAA on technical exchanges, joint projects, and information exchanges. Scientists in NOAA's Environmental Research Laboratories, the National Sea Grant College Program, and NOAA's joint institutes play major roles on the American side of these activities.

PLANNED ACTIONS:

- *France.* Hold biennial meeting to define and affirm objectives and activities under agreement (Undersecretary is U.S. lead). Plan U.S.-French field research for 1991-1993, focused on studying the structure and dynamics of the Mid- Atlantic Ridge (continuing). Chief, International Activities Staff
- *U.S.S.R.* Hold periodic meetings to define and affirm objectives under the World Ocean Agreement (Undersecretary is U.S. lead). Facilitate joint Soviet-American research in the Arctic. Arrange cooperation with Soviet laboratories in research on large lakes and lidar technology (continuing). Chief, International Activities Staff
- *People's Republic of China (PRC).* Hold periodic meetings to define and affirm U.S. objectives and activities under the U.S.-PRC Marine and Fisheries Science and Technology agreement (10/89). A major OAR project under this bilateral has been Chinese participation in the Tropical Ocean and Global Atmosphere (TOGA) program through use of Chinese ships for research cruises in the western Pacific with both U.S. and Chinese scientists. In light of current uncertainties in the Chinese political environment, we need to reestablish activities in TOGA (continuing). Chief, International Activities Staff
- *India.* Launch a joint Indo-U.S. climate research program that can contribute to NOAA's climate and global change program. Continue joint solar terrestrial research activities using rupee funds (11/89 and continuing). Chief, International Activities Staff

NOAA'S NATIONAL ENVIRONMENTAL SATELLITE, DATA, AND INFORMATION SERVICE

NESDIS'S MISSION IS TO PROVIDE MONITORING OF THE EARTH'S SURFACE AND SPACE ENVIRONMENT CONDITIONS; NEAR-CONTINUOUS OBSERVATIONS OF THE EARTH'S WESTERN HEMISPHERE; AND IMPROVED OCEANIC AND ATMOSPHERIC OBSERVATIONS AND DATA DISSEMINATION CAPABILITIES. IT ALSO PROVIDES WORLDWIDE ENVIRONMENTAL DATA AND INFORMATION PRODUCTS AND SERVICES TO THE GENERAL PUBLIC, AND TO FEDERAL, STATE, AND LOCAL AGENCIES.

OBJECTIVE
NESDIS-1

OBJECTIVE:

REVIEW REQUIREMENTS FOR OPERATIONAL SATELLITE OBSERVATION SYSTEMS, DATA, AND PRODUCTS, AND PLAN NEEDED PROGRAM REVISIONS

BACKGROUND:

The new National Space Policy issued by the National Space Council reaffirms NOAA's role as manager of federal civilian operational remote sensing programs.

NOAA's overall satellite remote sensing requirements were reviewed informally within the past two years. Requirements for ocean remote sensing, improved solar measurements, and improved atmospheric soundings were identified.

NOAA's current satellite remote sensing program is driven by well-developed public and general societal recognition of the importance of weather satellites. Nonmeteorological observations have, in a sense, "come along for the ride" to the extent that instruments have been developed to meet more than just meteorological requirements. Other special priorities also have led to capabilities such as the ozone sensing instruments.

The emphasis in NOAA's satellite program primarily has been to meet meteorological requirements, given improvements in spacecraft and instruments, at least possible cost. Recently the cost of this program has been of special concern due to the anticipated high costs for the new GOES satellites.

PLANNED ACTIONS:

- Initiate comprehensive review of NOAA satellite remote sensing requirements. Involve the scientific community and private sector users in advisory capacities (10/89). Assistant Administrator and Deputy Assistant Administrator for Satellite and Information Services
- Obtain NOAA top management guidance/constraints as this requirements study begins (10/89). Assistant Administrator and Deputy Assistant Administrator for Satellite and Information Services
- Take into account, in the review, the full range of NOAA's mission so that the satellite program is driven by climate and global change, coastal and open ocean, and other interests, as well as the synoptic and mesoscale meteorological needs (6/90). Assistant Administrator and Deputy Assistant Administrator for Satellite and Information Services
- From this review, develop a set of priorities that form the basis for a long-term action plan (6/90). Assistant Administrator and Deputy Assistant Administrator for Satellite and Information Services

OBJECTIVE
NESDIS-2

OBJECTIVE:

CONTINUE GOES SATELLITE COVERAGE AT LEAST COST

BACKGROUND:

NASA has experienced large cost increases relative to their earlier estimates on their contract with Ford Aerospace/ITT to develop the next series of GOES spacecraft for NOAA.

A number of steps have been taken by NOAA and NASA to help reduce this cost growth and decrease the risk of a discontinuity in GOES service.

This problem was largely caused by inadequate planning by NASA and the contractor. In developing plans for these spacecraft design and risk reduction steps were inadequate. A launch vehicle failure in 1986 destroyed a GOES, creating an increased urgency to complete a new series as soon as possible.

PLANNED ACTIONS:

- Keep the pressure on NASA and the GOES contractor. Follow up to assure directives are carried out. Accept limited performance compromises to reduce costs and to assure continuous GOES coverage (continuing). Assistant Administrator and Deputy Assistant Administrator for Satellite and Information Services
- Monitor the planning for the pending series of GOES satellites (continuing). Assistant Administrator and Deputy Assistant Administrator for Satellite and Information Services
- Operate and improve satellite command, control, acquisition, and product development as well as validation, application, production, and distribution of data. Manage continued operation of GOES 7, including on- board fuel consumption, to extend its lifetime (continuing). Assistant Administrator and Deputy Assistant Administrator for Satellite and Information Services
- Complete arrangements for international backup to GOES program (4/90). Assistant Administrator and Deputy Assistant Administrator for Satellite and Information Services

OBJECTIVE
NESDIS-3

OBJECTIVE:

CONTINUE POLAR SATELLITE COVERAGE AT LEAST COST

BACKGROUND:

Recognizing that the cost for the world's polar-orbiting operational environmental satellites should be shared among those countries that benefit, France, the United Kingdom, and Canada have contributed instruments that fly on NOAA polar satellites, thus somewhat reducing NOAA's costs.

Continuing discussions between NOAA and the European Space Agency and EUMETSAT (the European consortium for meteorological satellites), coupled with planning for the European polar platform as a part of the international space station program, have resulted in preliminary commitments from Europe to provide a spacecraft, launch it, and provide operations support for the "morning" polar satellite orbit.

This commitment, when followed up by longer-term European commitments and by a successful development effort for a new series of NOAA "afternoon" polar satellites, will reduce the cost of continuing NOAA's polar satellite program by an estimated one billion dollars through the year 2010.

PLANNED ACTIONS:

- Continue working with the Europeans, confirming and following up on their commitment. Work with our international partners to promote cost sharing. (continuing). Assistant Administrator and Deputy Assistant Administrator for Satellite and Information Services
- Take appropriate steps to prepare and launch the next seven NOAA polar satellites, assuring continuity of service and costs reductions. Procure the instruments necessary to fly both NOAA and European satellites in the late 1990s and beyond. Operate and improve satellite command, control, acquisition, and product development, validation, application, production, and distribution of data (continuing). Assistant Administrator and Deputy Assistant Administrator for Satellite and Information Services
- Explore alternatives for operational spacecraft configurations in the late 1990s and beyond, including the use of small satellites (lightsats), and plan for the procurement of spacecraft to assure continuity of service in 1996 and beyond (continuing). Assistant Administrator and Deputy Assistant Administrator for Satellite and Information Services

OBJECTIVE
NESDIS-4

OBJECTIVE:

PLAN AND IMPLEMENT NOAA ROLE IN THE LANDSAT PROGRAM

BACKGROUND:

The President has ratified National Space Council recommendations to continue the Landsat program. NOAA is responsible for assuring continued operation and spacecraft development at least through 1996.

The National Space Council will soon decide on an implementation plan to support continuity, perhaps beyond 1996, including assignments of responsibility for program management and funding.

PLANNED ACTIONS:

- Continue to support the National Space Council planning effort. Take steps to have this program cooperatively funded by those agencies that use Landsat data while emphasizing NOAA's willingness to operate the nation's civilian operational environmental satellites (11/89). Assistant Administrator and Deputy Assistant Administrator for Satellite and Information Services
- Take action to implement the President's Landsat program (11/89). Assistant Administrator and Deputy Assistant Administrator for Satellite and Information Services
- Continue management oversight of contractor development of Landsat 6, coordinate with the Air Force for its launch, and oversee the contractor's performance in operating Landsat 6, including data distribution (continuing). Assistant Administrator and Deputy Assistant Administrator for Satellite and Information Services
- Continue management oversight of international Landsat program relationships for Landsats 4, 5, and 6 (continuing). Assistant Administrator and Deputy Assistant Administrator for Satellite and Information Services
- Determine how Landsat 4/5 operations will be funded for FY 1990, given that the Congress is providing only half of the needed funding (11/89). Assistant Administrator and Deputy Assistant Administrator for Satellite and Information Services

OBJECTIVE
NESDIS-5

OBJECTIVE:

IMPROVE THE QUALITY CONTROL, STORAGE INTEGRITY, AND ACCESSIBILITY OF ENVIRONMENTAL DATA AND INFORMATION

BACKGROUND:

There is a continual pressure from all disciplines in both government and the private sector for higher quality environmental data. Data quality has become increasingly important because of global climate change research.

Data from all parts of the globe are needed to form homogeneous data sets to study the cause and effect of climate trends. Data exist in many parts of the globe but are not readily available. Those that are now available do not form a homogeneous data base because of differences among countries in instrumentation, observing practices, and urbanization. Long historical series of global and regional data sets are particularly important for the study of global change.

NOAA is modernizing its observing and communication networks through automation and implementation of new technologies. New processing systems to control quality and to archive these data will be required. Techniques to analyze and treat the data from previous observing systems to form a homogeneous data series must be developed.

PLANNED ACTIONS:

- Work with the World Meteorological Organization (WMO) and other international organizations to promote the full and open exchange of environmental data. Use current NOAA bilateral agreements and focus on the exchange of data and information for the study of global change (continuing). Assistant Administrator and Deputy Assistant Administrator for Satellite and Information Services
- Take the lead in establishing and coordinating a national program to construct global and regional environmental data sets. Initiate actions to expand the national historical climate network data base to include global data and improve the availability and quality of environmental data and information (6/90). Assistant Administrator and Deputy Assistant Administrator for Satellite and Information Services
- Implement a national program to measure and ensure data quality and integrity (continuing). Assistant Administrator and Deputy Assistant Administrator for Satellite and Information Services
- Work with the environmental research and science communities to understand their needs and structure NOAA data bases to make them more accessible, timely, and useful (continuing). Assistant Administrator and Deputy Assistant Administrator for Satellite and Information Services
- Prepare environmental data summaries and analyses to provide national and international benchmarks for global change and other applications (continuing). Assistant Administrator and Deputy Assistant Administrator for Satellite and Information Services

OBJECTIVE
NESDIS-6

OBJECTIVE:

DEVELOP, OPERATE, AND EVALUATE THE NOAA EARTH SYSTEMS DATA DIRECTORY SYSTEM

BACKGROUND:

NOAA/NESDIS has been identifying requirements, reviewing existing NOAA and other data directory systems, and evaluating system alternatives for a NOAA Earth Systems Data Directory System over the past year.

The National Institute of Standards and Technology (NIST) has given technical assistance, as a part of the Interagency Working Group on Data Management for Global Change.

Special attention has been given to reviewing the capabilities and limitations of current systems that provide some of these directory functions, including the widely used National Environmental Data Referral Service (NEDRES) system, the National Oceanographic Data Center's (NODC) Ocean Science Information Exchange (NOSIE), and the NOAA Product Information Catalog (PIC).

As a part of NOAA's government-wide cooperative participation in environmental data management, we have prepared descriptions of over 300 NOAA data sets in "DIF" (data interchange format) standard format for exchange with other agencies. Their 300 data sets now constitute the majority of the entries in NASA's data directory system.

NOAA/NESDIS has decided on a system configuration that is being implemented as a prototype NOAA Earth Systems Data Directory System. It comprises all NOAA data sets described in DIF format, and will be accessible on various networks and on a dial-in basis.

PLANNED ACTIONS:

- Evaluate the prototype NOAA Earth Systems Data Directory System relative to NOAA-wide requirements, as well as those of other agencies, the scientific community, and other potential users (10/89). Assistant Administrator and Deputy Assistant Administrator for Satellite and Information Services; Director, National Oceanographic Data Center
- Revise the system as indicated and include all NOAA data set descriptions in DIF format (4/90). Assistant Administrator and Deputy Assistant Administrator for Satellite and Information Services, Director; National Oceanographic Data Center
- Expand system availability nationally and internationally, working with NOAA Public Affairs to publicize its availability (continuing). Assistant Administrator and Deputy Assistant Administrator for Satellite and Information Services; Director, National Oceanographic Data Center

NOAA'S NATIONAL WEATHER SERVICE

NWS'S MISSION IS TO PROVIDE WEATHER AND FLOOD WARNINGS, FORECASTS, AND ADVISORIES FOR ALL OF THE UNITED STATES, ITS TERRITORIES, ADJACENT WATERS AND OCEAN AREAS PRIMARILY FOR THE PROTECTION OF LIFE AND PROPERTY.

OBJECTIVE—FORECASTING
NWS 1

OBJECTIVE:

FORECASTING - MAINTAIN INFRASTRUCTURE REQUIRED FOR EFFECTIVE LOCAL WARNING AND FORECAST SERVICES

BACKGROUND:

Providing warning and forecast services to protect life and property is the main mission of the NWS. Because most NWS field offices are minimally staffed, staff turnover or illness causes an operational shortage, most notably in offices where fewer than ten employees are typically assigned.

The existing NWS telecommunications gateway and field distribution systems are saturated and need to be upgraded in order to sustain field operations until the future systems being acquired under the modernization program are implemented.

Most existing operational systems are obsolete and increasingly difficult to maintain; a number of these current systems are not covered in the new suite of technologies planned for the modernization (e.g., upper air weather balloon system, and assorted meteorological and hydrological sensors). Efforts to maintain and to extend existing systems continue. The experts needed to maintain these critical systems are in high demand. The salaries offered by other federal agencies (FAA) and private industry are higher.

To ensure a continuous supply of radiosondes for upper air sounding, the NWS will issue a solicitation inviting vendors to submit for testing radiosondes they believe meet NWS requirements.

PLANNED ACTIONS:

- Assemble the Request for Proposals (RFP) package and initiate an internal review for the upgrade of the NWS Telecommunication Gateway (4/90), and complete the evaluation of alternative approaches for the upgrading of the Automation of Field Operations Services (AFOS) System Monitoring and Coordination Center (8/90). Director, Office of Systems Operations
- Award sole source contract to the National Center for Atmospheric Research for development of an experimental system to determine specifications and requirements for a replacement upper air system (9/90). Director, Office of Systems Operations
- Develop approaches to retaining staff and create competitive grade levels.
  - Provide NOAA personnel office with the proposed alternate standard for multiple grade promotions (GS 5/7/9) of field maintenance trainees (7/90). Director, Management and Budget
- Issue qualified products list (QPL) solicitation package for radiosondes (8/90). Director, Office of Systems Operations

OBJECTIVE—FORECASTING
NWS 2

OBJECTIVE:

FORECASTING - PROVIDE RIVER AND FLOOD FORECAST SERVICES FOR THE PROTECTION OF LIFE AND PROPERTY AND SUPPORT OF THE NATION'S ECONOMY

BACKGROUND:

Reliable supplies of fresh water are increasing in value. Flood damages continue to rise in real dollars. Man's capacity to impact the hydrologic cycle remains one of the primary connections between human activities and potential climate change.

Current hydrologic services focus primarily on flood forecasting.

Over 30,000 flood-prone locations receive forecasting services, gathered and interpreted from about 3,000 explicit forecast points and from the NWS county/multi-county flash flood watch and warning program.

The NOAA Hydrologic Services Program operates in an interagency arrangement for data collection and water management decision making. Major cooperating federal departments include the Departments of Interior, Defense, and Agriculture, as well as hundreds of state, local, regional, private, and quasi public- sector organizations.

PLANNED ACTIONS:

- Maintain operational readiness of Hydrologic Services Program (continuing). Director, Office of Hydrology
- Implement replacement and/or enhancement of operational systems in the Hydrologic Services Program. [Support for some of these systems will be subsumed under Advanced Weather Interactive Processing System (AWIPS) implementation] (continuing). Director, Office of Hydrology
- Implement a national verification program for flood forecasting services beginning with a pilot project in 1990 (9/90). Director, Office of Hydrology

OBJECTIVE—FORECASTING
NWS 3

OBJECTIVE:

FORECASTING - PROVIDE NATIONAL METEOROLOGICAL GUIDANCE PRODUCTS AND ANALYSIS

BACKGROUND:

Numerical weather prediction by state-of-the-art computer models at National Centers provides the underpinnings to NWS forecast operations. Significant economic benefits can be derived from improved forecasting. Increased computer power will reduce error in meteorological forecasts.

National Center operations are supported by obsolete Class VI Super Computers (Cyber 205s). The manufacturer has stopped production, leaving the NWS without hardware and software.

As a part of the NWS Modernization and Associated Restructuring, budget support will pay to provide next generation Class VII computers, at least one order of magnitude faster than the preceding class. Additionally, the Center needs improved numerical operational models to fully exploit the power of the Class VII systems.

Budget support has already been provided to enable the National Meteorological Center (NMC) to procure and install a modern, interim computer system during FY 1990. This interim system will insure continued reliable operations of NMC models and delivery of centrally prepared products that are essential to NWS field warning and forecast operations.

PLANNED ACTIONS:

- Acquire and install a state-of-the-art interim computer system to alleviate dependence on older Class VI systems (3/90). Director, National Meteorological Center
- On the interim system, execute all models in the current operational suite with at least the same run times and accuracies as on the Cyber 205 systems (6/90). Director, National Meteorological Center
- Initiate operational usage of model output from the new system (7/90). Director, National Meteorological Center
- Rework operational models to achieve an overall speed-up by at least a factor of three over their run times on the Cyber systems (9/90). Director, National Meteorological Center
- In support of Mesoscale weather prediction, develop Mesoscale modelling capabilities using new Class VII computers (10/90). Director, National Meteorological Center

OBJECTIVE—MODERNIZATION
NWS 4

OBJECTIVE:

MODERNIZATION - REALIZE SERVICE IMPROVEMENT THROUGH NEW AND ENHANCED PRODUCTS AND SERVICES FOR THE MODERNIZED AND RESTRUCTURED NATIONAL WEATHER SERVICE

BACKGROUND:

National Weather Service employees must have the scientific knowledge and skills to fully utilize new data sets and deliver improved warning and forecast services. NWS needs to recruit and retain highly skilled scientific and technical personnel.

New or upgraded personnel systems must replace outdated procedures and facilities must be streamlined without degradation of on-going services.

The field office workforce must be confident of job security before national policies are implemented.

PLANNED ACTIONS:

- Detailed NWS plans will be developed that will permit an effective transition of existing services, operations, and support functions to the new technologies and organization (6/90). Director, Transition Program Office
- Implement the initial NEXRAD operations training for NWS operational meteorologists and hydrologists in Norman as part of a multi year effort (continuing). Directors, Joint System Program Office, Office of Hydrology, and Office of Meteorology.
- New personnel classification and position management standards for Hydrologists/Meteorologists will be forwarded for Departmental clearance (7/90). Director, Office of Management and Budget
- Begin implementation of a modern hydrometeorological forecast service which emphasizes a close partnership between the disciplines of hydrology and meteorology (described in "Hydromoteorological Service Operations for the 1990s") (12/89). Director, Office of Hydrology
- Develop field maintenance staffing approaches which lead to improved near-term retention rates and stable transition to the future maintenance program.
  - Finalize the future field maintenance structure (5/90). Director, Office of Systems Operations
  - Define roles of maintenance work force for a modernized NWS (6/90). Director, Office of Systems Operations
- Major pre-Modernization and Associated Restructuring Demonstration (MARD) risk reduction activities will be undertaken at Boulder, Denver (11/89), and Norman (8/90). Director, Office of Systems Development
- Demonstrate modernized hydrometeorological field operations.
  - Complete River Forecast Center (RFC) baseline forecast system (9/90). Director, Office of Hydrology
  - Complete the Weather Forecast Office (WFO) hydrometeorological component in the Denver AWIPS Risk Reduction and Requirements Evaluation (DAR3E) workstation for summer 1990 test (7/90). Director, Office of Hydrology
  - Complete baseline software for Next Generation Weather Radar (NEXRAD) precipitation estimates for hydrologic operations (9/90). Director, Office of Hydrology
- Perform operational tests of hydrometeorological interfaces between "modernized" RFCs and WFOs (continuing). Director, Office of Hydrology and Director, Office of Meteorology

OBJECTIVE—MODERNIZATION
NWS 5

OBJECTIVE:

MODERNIZATION - DEVELOP AND INTEGRATE NEW/UPGRADED SYSTEMS AND FACILITIES REQUIRED FOR THE MODERNIZATION AND ASSOCIATED RESTRUCTURING OF THE NATIONAL WEATHER SERVICE

BACKGROUND:

NWS must integrate major new technical components in the 1990s, including Next Generation Weather Radar (NEXRAD), Automated Surface Observing System (ASOS), Advanced Weather Interactive Processing System (AWIPS), and Class VII computers as well as advanced geostationary and polar orbiting satellites.

This year the NWS will award contracts for NEXRAD full production, ASOS production, and the Class VII computer systems.

All systems, new and existing, must be integrated to provide the hydrometeorological capabilities required to deliver the improved warning and forecast services of the modernized and restructured National Weather Service.

Facilities to accommodate systems, personnel, and operations of the modernized and restructured National Weather Service must also be provided.

PLANNED ACTIONS:

- Seek reaffirmation by the Secretary of Commerce of NEXRAD Mission Need Statement to maintain NEXRAD schedule, exercising UNISYS Full-Scale Production option (11/89). Director, Joint Systems Program Office
- UNISYS must demonstrate corrective actions for NEXRAD testing deficiencies by the end of December, 1989, to maintain current schedule (12/89). Director, Joint Systems Program Office
- Seek reaffirmation by the Secretary of Commerce of the ASOS Mission Need Statement to maintain ASOS schedule in awarding the Production contract (6/90). Director, Office of Systems Operations
- Seek and justify FY 1991 budget amendment from NOAA Comptroller for funds to keep ASOS on the current schedule (8/90). Director, Office of Systems Development
- Advise the Deputy Under Secretary in the selection of an ASOS Production Contractor (8/90). Director, Office of Systems Development
- Ensure that all NOAA/DOC/GSA actions required for release of AWIPS Development Phase RFP are completed (3/90). Director, Office of Systems Development
- Complete the technical specifications for the NOAA Weather Radio Console Replacement System (9/90). Director, Office of Systems Development

OBJECTIVE—MODERNIZATION
NWS 6

OBJECTIVE:

MODERNIZATION - GAIN CONGRESSIONAL, PUBLIC, AND EMPLOYEE ACCEPTANCE AND SUPPORT FOR THE MODERNIZATION AND ASSOCIATED RESTRUCTURING OF THE NATIONAL WEATHER SERVICE

BACKGROUND:

The National Weather Service must inform all affected organizations and individuals about the goals and ramifications of modernization and associated restructuring.

Targeted audiences include:

- NWS employees and their union
- Congressional and state delegations
- Federal, state and local agencies
- Print and broadcast media
- Private industry
- Academic and scientific community
- Professional societies and trade associations

The Strategic Plan defines the hierarchy of plans required to effect modernization and associated restructuring:

- National Implementation Plan
- Modernization and Associated Restructuring Demonstration (MARD) Implementation and Evaluation Plan
- Regional Transition Plans
- Site Implementation Plans

Structured agency-wide and headquarters Transition Management Meetings are held routinely to set objectives, resolve policy issues, and review progress.

PLANNED ACTIONS:

- NOAA must address Departmental requested changes to the National Implementation Plan in connection with the "two tier" service concept and with multiyear resource requirements information to be submitted to Congress (11/89). Director, Transition Program Office
- All Regional Transition Plans and the first half of the 115 Site Implementation Plans must be prepared (10/90). Director, Transition Program Office
- MARD Plan and action to obtain the services of the National Academy of Sciences as an independent evaluator of MARD must be completed (5/90). Director, Transition Program Office
- The Work Breakdown Structure 0600 (WBS-0600), of the Modernization and Associated Restructuring (MAR) delineates the process to brief the states. Governors and Cabinet-level executives will be briefed with Congressional delegations by August. These briefings are ongoing and the entire schedule will be repeated starting in September. The schedule is revised in response to specific state requests for briefings. Director, Transition Program Office
- Conduct a national field office managers meeting to foster understanding and commitment to the modernization among NWS employees (4/90). Director, Transition Program Office

OBJECTIVE—MODERNIZATION
NWS 7

OBJECTIVE:

MODERNIZATION - ENSURE OPERATIONAL NWS FIELD OFFICE ACCESS TO SATELLITE IMAGERY CRITICAL TO THE WARNING AND FORECAST PROGRAM

BACKGROUND:

Weather Service Modernization/Transition requires satellite data access at NEXRAD Weather Service Offices (WSOs). Redundancy or backup of present field Satellite Weather Information System (SWIS) is not available.

GOES-I delays increase the potential of not having geostationary satellite data in the early 1990s.

A close cooperative effort involving both NESDIS and NWS is required to effectively address operational satellite data requirements.

PLANNED ACTIONS:

- Ensure access to meteorological satellite data from other U.S. and foreign services (continuing). Director, Office of Meteorology
- Design and procure a satellite processing and display system (Micro-Swis) for use at NEXRAD WSO and as a back-up to the current satellite data terminals at the Weather Service Forecast Offices (9/90). Director, Office of Systems Operations
- Assist in the review and update of the existing NESDIS NO-GOES Contingency Plan (continuing). Director, Office of Meteorology
- Develop NWS NO-GOES plan of action (8/90). Director, Office of Meteorology
- Review NWS requirements for operational satellite observations and programs in support of NESDIS revalidation of NOAA polar satellite requirements (6/90). Director, Office of Meteorology

OBJECTIVE—MODERNIZATION
NWS 8

OBJECTIVE:

MODERNIZATION - ENHANCE NOAA HYDROLOGICAL FORECASTING SERVICES

BACKGROUND:

Enhanced hydrological forecasting services will provide the resources needed to capitalize on the technologies provided by the NWS modernization initiative by providing improved forecast services for water management. This integrated approach will improve flood forecasting services as well as provide support for the NOAA environmental data management, climate, and Coastal Ocean Programs.

The drought of 1988 highlighted deficiencies of the current information base. Proven techniques exist to provide critical forecast information, including forecast reliability, for risk-based decisionmaking in all water-sensitive sectors.

The Under Secretary for Oceans and Atmosphere has recognized the importance of this program in dealing with the economic and environmental problems of the next decade.

The NWS will plan a demonstration project to test the integrated technologies and justify the benefits of enhancing NOAA hydrological forecasting services.

PLANNED ACTION:

- Determine resource requirements for a FY 1991 demonstration project (3/90). Director, Office of Hydrology

OBJECTIVE—NOAA-WIDE SUPPORT
NWS 9

OBJECTIVE:

NOAA-WIDE SUPPORT - DEVELOP NWS COASTAL OCEAN METEOROLOGICAL AND OCEANOGRAPHIC ANALYSIS, MODELING, PREDICTION, AND WARNING CAPABILITIES TO SUPPORT NOAA COASTAL OCEAN PROGRAM

BACKGROUND:

The population within 50 miles of the coast is growing dramatically, increasing the risk for public safety, storm damage, and coastal pollution.

Citizens are focusing more attention on the coastal ocean. NOAA Line Offices must interact in addressing requirements for monitoring, prediction, and services.

The lack of necessary Coastal and Oceanic Observation Data severely constrain the NWS's capacity to develop reliable models necessary for accurate and timely forecasting.

Most hurricane damage is due to storm surge coastal flooding, yet progress in modelling hurricane storm surge is slow because reimbursable funding arrangements with other federal agencies and in-base storm surge funds are only sufficient to complete a limited number of basin models per year.

Extra-tropical storm surges are also responsible for numerous deaths and most of the coastal erosion and habitat loss. No proven models exist for predicting extra-tropical storm surge. Tsunamis are another threat; time of arrival is predictable, but techniques for predicting coastal inundation are unreliable. While funds are not yet available to develop either model, funding support has been requested through the Coastal Ocean Program Initiative in the current budget request.

PLANNED ACTIONS:

- Continue working with NOAA Sea Grant (Marine Advisory Service) to expand the cooperative Mariner Report (MAREP) - similar to aviation Pilot Reports, a near term method for filling data voids (continuing). Director, Office of Meteorology
- Develop a risk reduction plan to explore the potential of coastal NEXRAD sites to detect maritime conditions such as the offshore wind field, waves, and fog. A test of these capabilities will be performed at the Melbourne, Florida office (9/90). Director, Office of Systems Development
- Begin development of a non-tropical storm surge model that can be used to study and predict winter coastal storms and the damaging coastal floods they produce (9/90). Director, Office of Systems Development
- The current model update cycle is too long in comparison to significant physical coastal changes resulting from hurricanes, severe weather, and larger scale winter storms, as well as coastal economic development. New and more frequently revised models must be constructed for hurricane climatology to provide critical data to FEMA and states for evacuation and land use planning. Twelve high priority basins still need model development, and the 33 existing models need updating at the rate of 5 to 7 per year (pending receipt of funds). Director, Office of Systems Development
- Begin development of a standard tsunami inundation model, adaptable to individual coastal segments of Alaska, Hawaii, and the west coast, to predict distribution and extent of flooding (pending receipt of funds). Director, Office of Meteorology

OBJECTIVE—NOAA-WIDE SUPPORT
NWS 10

OBJECTIVE:

NOAA-WIDE SUPPORT - BUILD A CLIMATE SERVICES PROGRAM BASED ON NEAR-REAL-TIME CLIMATE MONITORING, DIAGNOSTICS, PREDICTION, AND THE DISTRIBUTION OF CLIMATE PRODUCTS AND INFORMATION

BACKGROUND:

Climate services is a natural complement to climate research and is an essential link to the science and user community. The most critical element is the transfer of technology from research into operational methods. NOAA must strengthen "technology transfer" through the Experimental Climate Center Program. There is a commitment already to extramural research funding. Collaboration with the National Science Foundation (NSF) and careful management are needed.

Since 1984, the Tropical Ocean and Global Atmosphere (TOGA) research program has supported the development of near-real-time climate monitoring and diagnostics, and the production of the Climate Diagnostics Bulletin.

The World Meteorological Organization (WMO) World Climate Program has sponsored the Global Precipitation Climatology Project (GPCP), currently funded by the Climate and Global Change Program. The project is now operational and mature.

PLANNED ACTIONS:

- The TOGA Research Program and the Global Precipitation Climatology Project should be transitioned into a more secure, operational basis through Global Change support for Climate Services (9/90). Director, Climate Analysis Center
- In the context of the Climate and Global Change Program, take the lead in the development of a comprehensive plan for macroscale hydrologic modelling (9/90). Director, Office of Hydrology
- In the context of Climate and Global Change, develop the Climate Services element of the program, implementing it on a NOAA-wide basis (8/90). Director, Climate Analysis Center
- In the context of the Climate and Global Change Program, lead the preparation of a final Program Development Plan for the Dynamic Extended Range Forecasting (DERF) portion of the U.S. Global Change Research Program for FY 1991 implementation (9/90). Director, Climate Analysis Center

OBJECTIVE—NOAA-WIDE SUPPORT
NWS 11

OBJECTIVE:

NOAA-WIDE SUPPORT - ESTABLISH SCIENTIFIC UNDERSTANDING AND TECHNOLOGIES NECESSARY TO IMPROVE AND PROVIDE CAPABILITIES FOR OBSERVING, ANALYZING, MODELLING, AND PREDICTING SIGNIFICANT WEATHER PHENOMENA

BACKGROUND:

Hazardous weather phenomena and heavy precipitation are not adequately handled by existing science and technology. It is essential to capture smaller spatial scales and shorter life cycles. New observing techniques based on remote sensing must be proven. New data analysis and "4-D data assimilation" techniques are needed.

Higher resolution models with improved physics are also needed. Additional data management, diagnostic, and interpretation aids must also be developed.

A national effort to address mesoscale research needs and opportunities has been defined (STORM Program).

PLANNED ACTIONS:

- Use the National Stormscale Operational and Research Meteorology (STORM) Program to provide an integrated approach to an interagency budget initiative for FY 1992 (5/90). Director, Office of Meteorology
- Support STORM objectives through development and demonstration activities focusing on enhancements and improved coupling of hydrometeorological modelling and data systems (continuing). Director, Office of Hydrology
- To the maximum extent practicable, without interfering with operational activities, researchers will be given opportunities to have access to NWS data and field facilities associated with the modernized NWS operations (continuing). Director, Office of Meteorology
- Complete baseline software for short-term prediction of precipitation and flash-flood potential from NEXRAD data. (9/90). Director, Office of Hydrology

NOAA

LEVEL

OBJECTIVES

OBJECTIVE
PA-1

OBJECTIVE:

BOLSTER NOAA'S PUBLIC PROFILE AS THE FEDERAL GOVERNMENT'S PREMIER EARTH SYSTEMS AGENCY

BACKGROUND:

Although NOAA represents nearly one-half of the Commerce Department's budget and personnel, neither NOAA nor the Department of Commerce get commensurate credit for outstanding public service and leading-edge science carried out by NOAA's component organizations.

Likewise, individual Line Offices fail to benefit from being associated with higher profile components, as they will in an integrated and synergistic NOAA.

The Director, Office of Public Affairs (PA) is responsible for the following planned actions.

PLANNED ACTIONS:

- Move toward integration of the NOAA name as the official given name for all Line Office (i.e., NOAA Ocean Service, NOAA Satellite Service). Use of the NOAA name should be made by employees in all references to NOAA component organizations,including official stationery, telephone answering, facilities signage, publications, press releases, and at every other opportunity (continuing).
- Aggressively market the collective NOAA identity to the media and the public via every tool employed in private external relations. Bring to bear the individual strengths of NOAA's line organizations by relating shared missions, e.g., Coastal Oceans Programs and NWS. Imprint on the media's consciousness the notion that NOAA means everything to do with the oceans and atmosphere, just as NASA means "space" (continuing).
- Carry this collective NOAA identity to specialized external trade and interest groups through speeches and presentations by all NOAA employees. Incorporate a brief, coordinated "NOAA Message" in all speeches and presentations delivered by NOAA personnel to external audiences (5/90).
- Issue a series of NOAA "backgrounders" to a comprehensive media list, beginning January 1990, to acquaint reporters with NOAA's environmental expertise and responsibilities. Backgrounders will reinforce the NOAA identity with the media and set the stage for media interest in interviews with senior NOAA officials, both in Washington and while traveling (3/90).
- Involve Secretary Mosbacher and, where possible or appropriate, the President in NOAA activities or announcements (continuing).
- Implement media "training and comfort" courses for all AAs and other senior NOAA employees whose positions and expertise assure they will be called on frequently by the media (continuing).
- Work with Departmental PA Director in effort to get Departmental publications policy modified to give NOAA PA more flexibility in issuing attractive publications while still maintaining cost controls on overall publications. Explore reinstatement of a NOAA magazine and complete a new, high quality generic NOAA brochure for public dissemination coincident with NOAA's 20th anniversary (continuing).
- Move toward consolidation of NOAA publications within PA to insure more graphic uniformity and excellence. Move toward full desktop publishing capability to cut costs and eliminate unnecessary NOAA publications. Aim for broader circulation of NOAA publications, particularly to opinion- makers (continuing).

- Better utilize the NOAA fleet and aircraft to showcase NOAA research efforts and abilities. Capitalize on the desirable, often shoreside, locations of NOAA's facilities to take the NOAA message to media and influential external groups. Utilize NOAA weather service facilities and personnel during implementation of modernized weather services to acquaint media and public with NOAA weather, satellite, and other operations (continuing).
- Take more full advantage of the assets of NOAA's already well-known "command posts," and research facilities, including the National Hurricane Center, NESDIS's Search and Rescue Mission Control, Geophysical Fluid Dynamics Laboratory (GFDL), the Boulder Labs, etc. (continuing).
- Develop an overall communications strategy for NOAA to insure that NOAA initiatives are well-thought-out, enjoy Departmental, Administration, intergovernmental, and public acceptance, and are communicated well in the media so that NOAA bolsters its identity. On controversial NOAA regulatory actions, "set the table" with interested groups, Departmental, Administration, and state and local officials, as well as the media, to maximize NOAA credibility and minimize negative coverage (continuing).
- Bolster NOAA PA effort aimed at Radio-TV, from which most people now derive their principal news. Move toward establishment of a radio actuality capability and built programs to take advantage of additional television coverage, where possible (continuing).

OBJECTIVE
DUS-1

OBJECTIVE:

IMPLEMENT AN INTEGRATED NOAA EXECUTIVE MANAGEMENT PROCESS BASED UPON THE ESTABLISHMENT OF OBJECTIVES THROUGH STRATEGIC PLANNING

BACKGROUND:

Executive management decisions regarding agency-wide objectives, programs, and budgets have not been based upon an explicit long- range plan at the NOAA level.

Beginning in FY 1990 a "rolling" Five-Year Strategic Plan will be prepared by NOAA senior managers to provide a framework for agency management through Monthly Operating Reviews, budget decision-making, and personnel performance evaluation.

Completion of the planned actions stated below are the joint responsibilities of Assistant Administrators, Staff Office Directors, and their senior managers. The Office of the Comptroller shall have lead responsibility for supporting this objective.

PLANNED ACTIONS:

- Initiate FY 1992 budget request cycle based on preparations for strategic plan (1/90).
- Complete NOAA FY 1990 Annual Operating Plan (3/90).
- Amend performance plans to reflect NOAA Annual Operating Plan (3/90).
- Prepare a NOAA Five-Year Strategic Plan (6/90).
- Complete NOAA FY 1991 Annual Operating Plan (9/90).

OBJECTIVE
DUS-2

OBJECTIVE:

IMPLEMENT TOTAL QUALITY MANAGEMENT AS NOAA'S METHOD OF MANAGEMENT

BACKGROUND:

Strengthened management is essential for NOAA's successful response to urgent national and international problems involving the environment, natural hazards, and the economy. NOAA is committed to implement Total Quality Management as our management philosophy. The use of this total organizational approach in meeting the needs and expectations of our customers is considered essential for achieving our strategic goal to be the Earth Systems Agency for the United States.

Total Quality Management (TQM) is a long-term commitment to ensure that improvements in service are continuous and the desire for excellence is deeply embedded within NOAA. It provides a systematic, consistent, organization-wide perspective to achieve high-level, quality performance. Its focus is on increasing value of our products and services to our customers by assuring that all work processes are able to provide the service that customers want.

The implementation of TQM through NOAA will involve the active commitment of top executives, managers, and employees in creating a culture of excellence that emphasizes:

- Top management leadership and support
- Strategic planning
- Focus on the customer
- Employee training and recognition
- Employee empowerment and teamwork
- Measurement and analysis
- Quality assurance

Inherent in quality improvement is: a) the avoidance of rework due to errors, unclear procedures, or other causes; b) continuous reduction in cycle time; and, c) the elimination of nonessential work. Resources saved by "doing the right things right the first time" translates into improved productivity and better service to NOAA's customers.

The Deputy Under Secretary will serve as NOAA's representative on the Department's Quality and Productivity Council.

Assistant Administrators, Staff Office Directors, and their senior managers are responsible for the implementation of Total Quality Management throughout their organizations. The Office of Administration shall provide staff support, such as training and technical assistance, for this requirement.

PLANNED ACTIONS:

- Each month, the Principals and Major Program Representatives shall address the TQM aspects of their Annual Operating Plan objectives through the Monthly Operating Review process (ongoing).
- Develop and implement a NOAA-wide TQM orientation/training plan (5/90). Training and self-training materials are to be provided to all levels of the organization through a phased program. Director, Office of Administration
- Publicize the Department's Productivity Center as a resource center of reference materials and provide technical expertise to assist organizations in their TQM efforts (3/90). Comptroller
- The use of TQM as NOAA's management philosophy for achieving its strategic goal and objectives shall be incorporated into the Five-Year Strategic Plan (6/90 and continuing).

OBJECTIVE
COMP-1

OBJECTIVE:

CONDUCT NOAA'S AUDIT AND INTERNAL CONTROL PROGRAM IN ACCORDANCE WITH THE INSPECTOR GENERAL ACT, THE FEDERAL MANAGERS' FINANCIAL INTEGRITY ACT, AND DEPARTMENTAL POLICY

BACKGROUND:

By memorandum July 26, 1989, the President stated that he had selected "Government Management and Integrity" as an objective to be included in the Management By Objectives System. Identified as a selected milestone under the objective is:

> "Increase the priority of, and policy and program level attention to, internal control programs mandated under the Federal Managers' Financial Integrity Act, and audit follow-up mandated by the Inspector General Act Amendments of 1988, so as to reduce the risk of unidentified fraud and waste."

PLANNED ACTIONS:

- Solicit candidates for NOAA's FY 1990 Internal Control Review Plan and provide the Plan to the Assistant Secretary for Administration for Departmental approval (9/89). Comptroller
- Conduct eight internal control reviews during FY 1990, in compliance with OMB Circular A-123, GAO Standards, and DOC guidelines (9/90). Chief, Audits and Internal Control Branch
- Provide the Assistant Secretary for Administration quarterly status reports on the correction of Bureau Material Weaknesses and the implementation status of Internal Control Review recommendations (9/90). Chief, Audits and Internal Control Branch
- Assist NOAA Line and Staff Offices' participation in Office of the Inspector General and General Accounting Office audits and inspections, and reach appropriate audit resolution with the auditing agencies (9/90). Chief, Audits and Internal Control Branch
- Provide the Assistant Secretary for Administration quarterly status reports on the implementation status of audit recommendations (9/90). Chief, Audits and Internal Control Branch

OBJECTIVE
GC-1

OBJECTIVE:

DEVELOP A NATURAL RESOURCE DAMAGE ASSESSMENT CAPABILITY TO EVALUATE DAMAGE TO PROTECTED RESOURCES AND BRING ACTION AGAINST RESPONSIBLE PARTIES

BACKGROUND:

Under the Superfund Act, as amended, NOAA, as a natural resource trustee, is directed to evaluate Superfund sites for potential injury to NOAA resources. Evaluations have been conducted by NOAA Coastal Resource Coordinators since 1983. Injury to NOAA resources has been found at over 300 Superfund sites. Review of the evaluations indicates that actions must be brought against potentially responsible parties at certain sites by March 20, 1990, in order to meet the statute of limitations. Other cases will need to be considered for litigation later in FY 90. Creation of a damage assessment team consisting of scientists, attorneys, and economists is necessary to conduct the damage assessments, develop restoration strategies, and coordinate litigation with the Department of Justice.

The General Counsel is responsible for the following planned actions.

PLANNED ACTIONS:

- Determine which damage assessment/restoration planning cases NOAA will bring in FY 90 (12/89).
- Establish NOAA organizational structure to accomplish the damage assessments required for litigation (12/89).
- Develop a centralized data-based management system to track the cases (12/89).
- Initiate and announce litigation on selected cases (3/90).
- In coordination with OCRM, EPA, and the Department of Justice, and other Co-Trustees, conduct damage assessments and develop restoration strategies for cases in litigation in coordination with EPA, the Department of Justice, and other Co-Trustees (9/90).
- Explore settlement options for each case (9/90).
- Establish a system to assess other non-Superfund sites as potential candidates for litigation (8/90).
- Convene a conference on restoration, organized by habitat (9/90).

OBJECTIVE
GC-2

OBJECTIVE:

STRENGTHEN COMPLIANCE WITH NOAA'S REGULATIONS

BACKGROUND:

Appropriate fines, expeditiously collected, deter violation of law. The laws that NOAA enforces generally require a formal hearing by an independent administrative law judge before NOAA may collect monetary penalties or civil forfeitures. Although this process protects important rights of citizens, it has been criticized by some as too slow to deter violations of laws NOAA administers. Thorough investigation and careful legal review requires time, but an integrated enforcement and litigation approach should reduce that time to the absolute minimum and focus the agency's enforcement and legal resources on cases of greatest importance. This approach would also address the scarcity of enforcement officers in the field. Furthermore, integrated enforcement would shorten the time from detection to collection of monetary penalties, increasing the deterrent effect of the overall program.

The General Counsel and the Director, Office of Enforcement, are responsible for the following planned actions.

PLANNED ACTIONS:

- Conduct an enforcement/litigation meeting at which attorneys and enforcement agents develop a work plan. The plan will define the yardstick to be used to measure accomplishments, define current status under the yardstick, and provide for quarterly review of accomplishments (5/90).
- Design a pilot program for East Coast enforcement using shared agent-attorney computer system (3/90).
- Publish work plan (6/90).
- Employ compliance officers and paralegals to perform routine enforcement and legal support tasks (9/90).

OBJECTIVE:

REVIEW MORE THAN 200 AUTHORIZING STATUTES WHICH NOAA WHOLLY OR PARTIALLY ADMINISTERS TO DETERMINE WHICH NO LONGER ARE CONSISTENT WITH NOAA'S MISSION AND OBJECTIVES; IDENTIFY AREAS IN WHICH NEW LEGISLATIVE AUTHORITY IS NEEDED.

BACKGROUND:

NOAA currently derives its authority from over 200 statutes. NOAA was created as an agency of the Department of Commerce (DOC) by Reorganization Plan No. 4 of 1970. The new agency was comprised of an already existing entity within DOC, the Environmental Science Services Administration (ESSA), which consisted of the Coast and Geodetic Survey and the Weather Bureau; and the Central Radio Propagation Laboratory of the National Bureau of Standards, now known as the Environmental Research Laboratory of the Office of Oceanic and Atmospheric Research (OAR). Reorganization Plan No. 4 also transferred to NOAA certain programs of the Department of the Interior, Department of Transportation, National Science Foundation, and the Department of the Navy. Consequently, unlike most agencies, NOAA does not operate under a comprehensive organic legislative document. While NOAA's principal programmatic authorities are derived from approximately 100 statutes, such as the Magnuson Fishery Conservation and Management Act and the Weather Service Organic Act of 1890, NOAA also is responsible for reporting, consulting, and other activities under more than 100 additional statutes. A comprehensive review of NOAA's statutory authorities, by a policy task force and working group, is necessary to assess NOAA's authorities in light of its mission and goals and to determine if existing authorities should be abolished and new legislation enacted to enable NOAA to realize its goals.

The General Counsel with the support of the Assistant Administrators and the Chief Scientist is responsible for the following actions.

PLANNED ACTIONS:

- Subject to final review upon adoption of its Strategic Plan assess NOAA's stated mission and objective to determine if any changes should be made (policy task force) (12/89).
- Compile a list of all NOAA statutes and identify duplication and inconsistencies as well as new authorities that may be needed (working group) (3/90).
- Recommend legislative changes to policy task force (working group) (4/90).
- Decide which legislative changes to recommend to the Department (policy task force) (5/90). Obtain clearance by NOAA Under Secretary (5/90).
- Draft legislative proposals for inclusion in the Department's legislative program for the first session of the 102nd Congress.

OBJECTIVE
OA-1

OBJECTIVE:

DEVELOP AND IMPLEMENT AN EFFECTIVE GRANTS AND COOPERATIVE AGREEMENTS PROGRAM

BACKGROUND:

In FY 89, NOAA made over 700 financial assistance awards worth more than $200 million. Several audits by the Office of the Inspector General, (OIG) revealed problems with: NOAA grants administration procedures in solicitation and application review stages; program office monitoring of recipient organizations; and the role of the grants awarding offices. The overall purpose of this annual operating plan objective is to strengthen NOAA's grant and cooperative agreement administration.

The Office responsible for the planned actions is the Procurement, Grants, and Administrative Services Office within the Office of Administration (OA).

PLANNED ACTIONS:

- Meet with program office and the OIG staff to explore methods for improvement (12/89).
- Issue memorandums from the Deputy Under Secretary to NOAA grantees and program officers outlining recent changes and consolidation in the administration of grants and requesting their cooperation (12/89).
- Resolve all outstanding audits and develop procedures to prevent future backlogs (2/90).
- Initiate Line Office reviews of grant programs and procedures and their effectiveness (2/90).
- Recruit qualified grants management specialists and grants technical assistants to fully staff the Grants Management Division to meet the needs of program offices and the recipient community (3/90).
- Develop a NOAA Financial Assistance Policy Manual (4/90).
- Review several existing NOAA grant and cooperative agreement programs that are effective and efficient to determine which portions can be adapted to improve the overall NOAA grants and cooperative agreements procedures (8/90).
- Develop and implement internal procedures to ensure timely and accurate handling of all phases of grants administration (8/90).
- Receive and coordinate findings from Line Office reviews of their respective programs and make recommendations to the Deputy Under Secretary (8/90).
- Develop an automated financial assistance data base that would make available to all NOAA officials involved in the awarding of grants descriptive project information on prior grants to appropriate managers (9/90).

OBJECTIVE
OA-2

OBJECTIVE:

DEVELOP AND IMPLEMENT A NOAA-WIDE RECRUITMENT AND DEVELOPMENT PROGRAM WHICH ATTRACTS QUALITY CANDIDATES (MINORITY AND NON-MINORITY)

BACKGROUND:

For more than ten years, there has not been a centralized recruitment program at the NOAA level. Each Line Office has generally served as its own recruitment agent. The Line Offices and Administrative Support Centers (ASCs) have been involved in a number of Equal Employment Opportunity (EEO)-related activities, including some targeted recruitment, but there has been limited publicity of these efforts within or outside the particular Line Office.

The persistent under representation of women and minorities in our mission-related occupations and the shrinking pool of all new entry-level workers seeking federal jobs highlight our current need. At the same time, there is a lack of overall analysis to monitor if and how current efforts are translating into employment opportunities. Clearly, we need a NOAA-wide recruitment strategy--a single focal point for coordinating activity and monitoring results.

The Office responsible for implementing the planned actions is the Personnel and Civil Rights Office within the Office of Administration (OA).

PLANNED ACTIONS:

- Assess on-going recruitment efforts:
  - Prepare a concept paper with input from Assistant Administrators that outlines a plan for developing a coordinated nationwide recruitment strategy (12/89).
  - Determine short-term (one to two years) hiring needs based on discussions with Assistant Administrators and Staff Office Directors; identify any specific educational qualifications required for targeted positions (12/89).
  - Assess recruitment needs over the next five to ten years (12/89).
- Management EEO Awareness.
  - Conduct a series of contractor run EEO training sessions that will, in part, educate managers about their affirmative employment responsibilities (3/90, 6/90).
  - Evaluate contractor run EEO training programs (7/90).
- Assess current recruitment and outreach efforts within Line/Staff Offices and ASCs.
  - Develop a "catalog" of existing and new outreach programs within NOAA and create a mechanism to track the progress of program participants (4/90).
  - Review past successful programs for current applicability (i.e., Graduate Scientist Program) (4/90).
  - Publish findings, highlighting successful efforts that might be transferrable across organizational lines (4/90).
- Develop new resource guides and recruitment materials.
  - Update the NOAA Careers Exhibit (2/90).
  - Produce a visually attractive NOAA recruitment brochure which can be used in conjunction with recruiting visits (3/90).
  - Produce "A Manager's Guide to Selected Employment Programs and Appointing Authorities," a desk reference on hiring information for NOAA managers (3/90).
  - Produce a "How To Prepare A Standard Form 171 guide" (5/90).
  - Produce a standardized recruitment package for managers as well as Personnel and EEO Specialists who participate in recruitment activities (8/90).

- Contact potential recruitment sources.
  - Initiate contacts with professional associations and special interest groups and establish a visitation schedule (4/90).
  - Identify educational institutions within a 50 mile radius of our most populated employment locations that offer academic concentrations that meet our program needs (or are willing to tailor their curricula to our needs) (4/90).
  - Identify female and minority populations within schools in heavily populated NOAA areas to supplement efforts where strong recruitment ties already exist (5/90).
  - Develop a visitation report form to be completed by recruiters after recruiting visits and interview of job candidates (7/90).
- Evaluate effectiveness of new strategy and resource materials and make necessary program adjustments and issue operating plan for next fiscal year (9/90).

OBJECTIVE
OA-3

OBJECTIVE:

INTEGRATE NOAA-WIDE ADMINISTRATIVE AND FINANCIAL SYSTEMS TO STREAMLINE RESOURCE MANAGEMENT, IDENTIFY COST EFFICIENCIES, IMPROVE PRODUCTIVITY, AND ASSURE NOAA PROJECTS ARE PROPERLY SUPPORTED

BACKGROUND:

The Office of Administration (OA) has already undertaken several initiatives to bring about integration of NOAA's financial and management information systems, including the establishment of the NOAA standards committee, a database management system (DBMS) standard, and the implementation of a wide area network. Administrative systems for procurement, personnel, grants, and finance have been standardized throughout the Administrative Support Centers (ASCs).

New opportunities have arisen from the recent directive to convert the Interactive Financial Management System (I-FIMA) and Line Office administrative systems from an obsolete hardware and software environment to a new relational database environment on an IBM mainframe computer. A standardized commitment tracking system has been endorsed. In addition a Council has been established to regulate change and to provide oversight for implementing changes to systems.

In two of the regions, prototypes of the new Electronic Administrative Support Interface (EASI) software are now operational, allowing selected users to process forms electronically with the Administrative Support Centers (ASC). This software, when fully operational, will allow NOAA to move to a virtually paperless environment for all of its administrative transactions.

The Office responsible for implementing the planned actions is the Information Systems and Finance Office within OA.

PLANNED ACTIONS:

- Establish an Administrative and Financial Management Council (Council) to approve and steer a NOAA-wide management process for integrating administrative and financial systems (1/90).
- Reconvene the NOAA Standards Committee with representatives from the Line Offices to provide input and support to the Council (1/90).
- Schedule Council meeting to set agenda for implementing the management process to integrate changes to the administrative and financial systems (3/90).
- Complete conversion of existing Interactive FIMA system and subsystems to the new ORACLE-based system (5/90).
- Provide on-going training during the conversion process so that users are able to smoothly transfer to the new ORACLE based system (on-going).
- Enhance interface between the standardized commitment tracking systems and the Interactive FIMA system within each Line Office (6/90).
- Deploy the Electronic Data Interchange (EDI) software (Electronic Administrative Support Interface (EASI) system) for the electronic interaction of clients with their ASCs, ultimately leading to automated distribution and processing of official documents and their integration into NOAA's Management Information Systems and a paperless work environment (7/90).
- Complete integration of wide-area network with administrative systems for each Line Office, including specialized systems developed by the Line Offices to meet their requirements (9/90).

OBJECTIVE
OA-4

OBJECTIVE:

IMPLEMENT AN EFFECTIVE TELECOMMUNICATIONS AND ADP SECURITY PROGRAM IN NOAA

BACKGROUND:

NOAA is implementing a data security program in accordance with P.L. 100-235, and OMB Circular No. A-130. The goal is to develop safeguards necessary to protect sensitive information and to assure continuity of critical programs as well as the management controls that assure those safeguards.

For 1990, the OA goal is to define a schedule of specific responsibilities and methodologies for security. We will issue a NOAA ADP Security Directive that builds on the gains already made. We will also develop a comprehensive risk management program that stresses the commitment of NOAA management and staff to security awareness. Successful implementation of this program will yield a computing environment far less subject to interruption or unauthorized disclosure.

The Office of Administration (OA) will oversee and guide this program in conjunction with NOAA's major program offices and their Information Technology Security Officers (ITSOs), who will take the lead in implementing the security directive. The Office responsible for the planned actions is the Information Systems and Finance Office within OA.

PLANNED ACTIONS:

- Develop an Information Technology (IT) security directive and coordinate its review and implementation with NOAA Security Officers and Information Technology facility managers (3/90).
- Conduct a security workshop for the ITSOs (1/90).
- Provide a security awareness training program for newly assigned or hired employees (3/90).
- Select and distribute computer virus detection software for NOAA microcomputers. Develop virus safeguard procedures for NOAA networks (5/90).
- Develop a comprehensive risk management program. Some elements of this risk management program will be: the distribution of guidelines for contingency planning; guidelines for certification of sensitive systems; a complete review of disaster plans for sensitive systems; and a management process to review and maintain risk analysis and security plans (7/90).
- Continue site reviews of NOAA's sensitive systems (9/90).

OBJECTIVE
OA-5

OBJECTIVE:

EVALUATE AND IMPROVE THE EFFECTIVENESS AND EFFICIENCY OF THE ADMINISTRATIVE SUPPORT CENTERS (ASCs)

BACKGROUND:

The Administrative Support Centers (ASC) were created almost ten years ago to provide consolidated administrative support services to all Department of Commerce field components. The National Oceanic and Atmospheric Administration (NOAA), which accounts for the majority of clients serviced by the ASCs, is the host agency for all of the bureaus serviced and provides policy and operational direction to the ASCs. The Centers provide services in the areas of personnel, procurement, real and personal property, finance, engineering, supply and warehousing, some systems support, and other services that may be required at a particular field site.

The ASC concept was implemented based on the assumption that it would streamline the delivery of administrative support services to Commerce field components and would achieve economies of scale that would lower administrative costs. The concept has been successful. A customer survey conducted two years ago showed that most clients felt the ASCs provided good or outstanding service. Clients have indicated that the price for ASC services is reasonable.

The future of the ASC concept is dependent on top NOAA management support and interest, continued efforts to improve service to both NOAA and non-NOAA clients, and successful strategies to lower the cost of doing business while maintaining the quality and level of service currently provided.

The Office responsible for implementing the planned actions is the ASC Coordination Staff within OA.

PLANNED ACTIONS:

- Continue to work closely with the ASCs to identify best practices and facilitate cross-cutting initiatives for improved services and lower costs (on-going).
- As part of routine self-evaluation activities, conduct an assessment of procurement operations at the ASCs. Submit written findings and recommendations to the Director, OA. Milestones for implementing accepted recommendations will be developed following the Director's review (4/90).
- Develop and implement a standard process for accomplishing the Electronic Data Interchange (EDI) of administrative information among clients, ASCs, and vendors. This process and the software that supports it have been named "EASI" (Electronic Administrative Support Interface). EASI software will be used as a standard for processing administrative transactions electronically, thus moving toward a paperless environment, reducing processing time and mailing costs, and eliminating errors caused currently by rekeying. The transition from a paper-intensive to an electronic environment will be engineered to build support for the change in the user community and familiarize them with the concepts of EDI.

  Version One of EASI software should be developed and distributed to clients (7/90).

- Conduct an external review of the ASCs this year to determine whether their mission as originally envisioned is being accomplished, assess their effectiveness, and recommend ways to:
  - optimize the capacity of the ASCs to meet the changing needs of client organizations;
  - continue to improve the timeliness and quality of the services provided; and
  - restructure for increased effectiveness if necessary.

  Contract award for the study is scheduled for July, 1990. Milestones will be established following contract award (8/90).

OBJECTIVE
NC-1

OBJECTIVE:

PROVIDE SHIP SUPPORT TO NOAA PROGRAMS AND OTHER ACTIVITIES IN ACCORDANCE WITH THE APPROVED ALLOCATION PLAN

BACKGROUND:

NOAA Ships acquire marine data required for nautical charting, living marine resource assessment and research, environmental monitoring, exclusive economic zone surveys, and oceanographic and atmospheric research programs. The ship time is allocated to these programs annually by NOAA's Fleet Allocation Council (FAC) and the ships are operated in accordance with a Fleet Allocation Plan approved by the FAC.

PLANNED ACTIONS:

- Operate fleet in accordance with approved Fleet Allocation Plan (ongoing). Directors, Atlantic Marine Center and Pacific Marine Center
- Provide report to the FAC on FY 89 Fleet Accomplishments (3/90). Director, Office of NOAA Corps Operations (NC)
- Lead development of FY 91 Fleet Allocation Plan (5/90). Director, NC
- Develop initiative for FY 92 that will increase number of days at sea while reducing costs through use of improved technology (6/90). Director NC
- Revise draft Fleet Modernization Plan as appropriate after assessment of future fleet requirements by the Chief Scientist's Office (9/90). Director, NC
- Survey ship requirements on support of NOAA-wide programs to assure that adequate ship time is available to these new programs (4/90). Director, NC

OBJECTIVE
NC-2

OBJECTIVE:

PROVIDE MISSION-READY AIRBORNE PLATFORMS AND PERSONNEL TO SUPPORT NOAA PROGRAMS AND OTHER ACTIVITIES IN ACCORDANCE WITH THE APPROVED ALLOCATION PLAN

BACKGROUND:

NOAA aircraft support NOAA research and service programs as well as those of other federal agencies. Currently, these aircraft are involved in hurricane research and reconnaissance; weather, oceanographic, and environmental research; marine biological surveys; aeronautical charting; coastal mapping and airport photography. The flight time is allocated by the NOAA Aircraft Allocation Council (NAAC) on an annual basis.

PLANNED ACTIONS:

- Provide aircraft support in accordance with approved Aircraft Allocation Plan (continuing). Director, Aircraft Operations Center (AOC)
- Provide report to NAAC on FY 89 Aircraft accomplishments (3/90). Director, AOC
- Lead the development of FY 91 Aircraft Allocation Plan (4/90). Director, AOC
- Survey aircraft requirements in support of NOAA-wide programs to assure that adequate aircraft resources are available to these new programs (3/90). Director, AOC
- Conduct a cost effectiveness/comparison study of different aircraft fleet configurations, including use of outside resources to fulfill the missions of AOC in an effort to reduce costs and improve service (10/90). Director, AOC, and Comptroller

OBJECTIVE CS-1

OBJECTIVE:

INCREASE THE EFFECTIVENESS OF NOAA'S LEADERSHIP IN NATIONAL PROGRAMS ESTABLISHED BY LAW OR EXECUTIVE ACTION

BACKGROUND:

NOAA is assigned chairmanship and secretariat responsibilities for various federal interagency groups related to the ocean and the atmosphere. NOAA is also represented on other interagency committees.

Historically, the Executive Branch and the Congress have looked to NOAA to provide scientific and programmatic leadership in such areas as the National Climate Program and National Ocean Pollution Program. This leadership is expressed in active efforts to build consensus among senior federal program managers concerning the overall direction of federal activities in specific areas, promotion of joint activity, and the orchestration of NOAA-managed programs to fulfill federal goals.

Future efforts should concentrate on using interagency mechanisms, such as interagency boards, to assist the Administration in development of environmental science policy and to assist the NOAA Line Offices in coordination of planned and ongoing environmental science program in cooperation with other federal agencies.

The Chief Scientist is responsible for the following planned actions.

PLANNED ACTIONS:

- Review NOAA's existing and newly planned interagency responsibilities (4/90).
- Identify additional areas for NOAA leadership at the interagency level in support of the President's policies (6/90).
- Develop explicit objectives to guide NOAA's leadership and participation in the interagency arena (8/90).
- Develop a strategy for using the interagency Board mechanism to assist the NOAA Line Offices coordinate ongoing science programs (9/90).
- Develop a strategy for a closer association between NOAA's interagency Boards and the science policy development groups of the Administration, i.e., CEQ, OSTP, OMB, President's Domestic Policy Council; for example, use the NOAA interagency National Ocean Pollution Policy Board to assist the Domestic Policy Council in coordinating federal wetlands related activities in support of the President's "no-net- loss" of wetlands goal (9/90).

OBJECTIVE
CS-2

OBJECTIVE:

IMPLEMENT APPROPRIATE PEER/USER REVIEW PROCEDURES FOR ALL NOAA PROGRAMS ON A SYSTEMATIC AND CONTINUING BASIS

BACKGROUND:

As an earth science-based operational agency, NOAA must assure that the quality of its scientific and technological activities are adequate to fulfill NOAA's mission.

Peer review is the accepted means to evaluate the quality of science-based programs. Because most NOAA operational programs provide practical products to external users, the evaluation of NOAA's programs should extend beyond scientific peers to include the users or beneficiaries of NOAA's products and services. The review/evaluation process is applied unevenly throughout the agency at this time. In order to provide guidance to the agency through the presentation of a number of options of conducting the review process, it will prove helpful to survey the approaches and mechanisms used by other science agencies, e.g., the National Science Foundation, the National Aeronatics and Space Administration, the National Institute of Standards and Technology, and possibly the National Institute of Health.

The Chief Scientist is responsible for the following planned actions.

PLANNED ACTIONS:

- Each Line Office will examine current peer/user review procedures (4/90).
- Undertake appropriate expansion or revision of peer review procedures (6/90).
- Compile information annually that summarizes reviews of NOAA's programs (9/90).

OBJECTIVE
DAS-1

OBJECTIVE:

ENHANCE NOAA EFFECTIVENESS IN INTERNATIONAL AFFAIRS; IDENTIFY AND RESPOND TO MERGING INTERNATIONAL OPPORTUNITIES FOR NOAA

BACKGROUND:

There is rapidly increasing domestic and international attention to changes in the global environment. This includes not only the well-publicized issue question of "global change" but also several subsidiary and related questions, including biodiversity, large marine ecosystems, regional seas, and data management. These trends will affect both NOAA's multilateral programs and bilateral relationships.

NOAA is uniquely suited within the U.S. government to contribute to many of these issues. Effective action in any of these areas requires international cooperation, whether through research or regulatory actions.

At present, NOAA is not well prepared to deal with emerging international issues on an integrated basis. In order to make our proper contribution, as well as to compete successfully with other agencies, NOAA must adopt a more active coordinated approach to international environmental issues.

The relationship of international competitiveness and the environment are of primary interest to the Secretary of Commerce.

The Under Secretary has been asked to set up a high-level task force on this topic. He has asked the Deputy Administrator to chair this group.

NOAA has continuing responsibilities and goals pursuant to its various bilateral and multilateral programs.

PLANNED ACTIONS:

- Convene representatives of the Line Offices to review and coordinate NOAA-wide international activities (continuing), through the International Affairs Coordinating Group (IACG)
- Identify needed actions to improve coordination and coherence for NOAA's interactions with multilateral and bilateral activities such as the United Nation's Environmental Program (UNEP), World Meteorological Organization (WMO), Intergovernmental Oceanographic Commission (IOC), Intergovernmental Panel on Climate Change (IPCC), the Committee on Earth Observing Satellites (CEOS) (8/90). International and Intergovernmental Liaison Staff (IILS)
- Convene an international conference on large marine ecosystem (10/90). Chief, IILS
- Develop a cross-cut of NOAA programs related to the topic of biodiversity. Use this cross-cut as the basis of NOAA's contribution to UNEP negotiation on biodiversity. Secure NOAA participation on the U.S. delegation to the UNEP- sponsored group of experts meeting (Spring 90). Chief, IILS
- Expand and integrate Line Offices' participation in the Caribbean and South Pacific Regional Seas Programs, by developing a plan for NOAA contributions, insuring NOAA representation at international meetings, and securing NOAA leadership support for agency personnel participation (7/90). Chief, IILS
- Develop a NOAA position on how to interface with the international community in developing an integrated global data management system in support of global change studies (7/90). NESDIS/NWS
- Create a NOAA integrated approach for dealing with UNEP's non-global change programs (3/90). Chief, IILS

- Begin preparations for the U.N. Conference on Environment and Development (3/90). Chief, IILS
- Create a NOAA integrated approach for dealing with all international organizations and working through its bilateral relationship on the subject of global environmental change (7/90). Chief, IILS
- Create a NOAA integrated approach for preparations of the Economic Summit (1/90). Chief, IILS
- Provide semi-annual international updates to the Under Secretary (1/90). Chief, IILS
- Coordinate Arctic, Antarctic, and Pacific Island Network affairs (continuing). Chief, IILS
- Establish and direct a DOC Task Force on Competitiveness and the Environment (continuing). Under Secretary for Oceans and Atmosphere
- Continue advice to U.N. on climate change; seek ADF funds for joint research with the Peoples Republic of China (PRC) and attend 1991 working group; continue implementation of Indo-U.S. Research Program (continuing). OAR
- Take the lead in establishing and coordinating construction of global and regional environmental data systems; obtain U.S. government access to foreign satellite and in situ data; ensure continued foreign polar instrument contributions and European assumption of morning polar service; arrange an international backup for GOES program, continue international Landsat program relationships oversight; actively participate in International Space Year research, applications and education activities; expand NOAA Earth Systems Data Directory availability internationally (continuing). NESDIS
- Recommend retaliation against Korea for restrictive import licensing; work with ITA to develop DOC position on lobster import ban legislation; work with Mexico through MEXUS-Gulf agreement to research remote sensing possibilities for sampling larval fish, TED technology transfer, sea turtle habitats, shrimp recruitment, and billfish; work with State Department to negotiate agreements to protect sea turtles; work domestically and internationally to protect Atlantic swordfish (continuing). NMFS
- Expand through multilateral and bilateral activities global ocean data collection, monitoring and analysis of change in support of climate change activities, provide leadership for U.S. participation in IOC, support development of the International Mussel Watch Program and other multilateral activities which promote effective coastal and ocean management, participate in preparing a report of the IPCC Coastal Zone Management Subgroup with the goal of defining acceptable adaptive responses to the coastal impacts of global climate change (continuing). NOS
- Continue to promote international cooperation in meteorology and hydrology through NOAA's technical leadership in WMO activities and bilateral agreements with several countries, including Brazil and China. Continue to contribute to the improvement and operation of hydrometeorological services in other countries through the WMO Voluntary Cooperation Program and bilateral agreements with developing countries, particularly in Latin America and the Caribbean (continuing). NWS

OBJECTIVE
LA-1

OBJECTIVE:

IDENTIFY AND RESPOND TO OPPORTUNITIES IN OCEANIC AND ATMOSPHERIC RELATED ACTIVITIES WITH OTHER FEDERAL GOVERNMENT AGENCIES, STATE AND LOCAL GOVERNMENT ORGANIZATIONS, INDUSTRY GROUPS AND TRADE ASSOCIATIONS; MAINTAIN OPEN LINES OF COMMUNICATION WITH CONSTITUENT GROUPS INTERESTED IN AND/OR AFFECTED BY NOAA'S PROGRAMS

BACKGROUND:

NOAA discharges its responsibility by providing information that shapes the decisions of others. In large measure, how this information is transmitted determines NOAA's credibility and stature. An ever present need exists to translate in-coming and out-going messages with comprehension and reliability to improve decision-making and avoid the twin barriers of misunderstanding and mistrust. Both "medium" and "message" are significant. Search and find missions are needed to capitalize on relationships with public and private agencies where common cause may be found.

PLANNED ACTIONS:

- Develop an events planning calendar for 1990, in order to plan opportunities for NOAA interaction externally (3/90). Director, Office of Legislative Affairs (OLA)
- Expedite appropriate and effective participation by Line and Staff Offices in the annual (and regularly scheduled) meetings of related public and private organizations (progress reviews 4/90 and 7/90). Deputy Director, External Affairs (EA)
- Arrange for NOAA memberships on appropriate committees of related organizations (progress reviews 4/90 and 9/90). Chief, Constituent Affairs
- Promote and assist in NOAA involvement in national activities, such as Earth Day and National Science and Technology week (progress reviews 4/90 and 9/90). Deputy Director, External Affairs
- Identify significant opportunities such as NOAA's upcoming 20th Anniversary to launch a variety of "getting to know NOAA" fora (progress reviews 4/90 and 9/90). Chief, Constituent Affairs
- Capture existing Line Office networks as data base of potential users for NOAA's products and services (6/90). Chief, Constituent Affairs
- Conduct a series of exploratory meetings with constituencies where no current network is in place (9/90). Chief, Constituent Affairs
- Solicit business liaison planning input from DOC's Office of Business Liaison (for example, to develop consultation relationship with agribusiness and insurance industry on NWS modernization 3/90). Chief, Constituent Affairs
- Periodically provide written or electronic "updates" of major NOAA actions to NOAA's constituency groups (progress reviews 6/90 and 9/90). Director, Office of Legislative Affairs (OLA)
- Where possible, use leverage of existing affiliations of nontraditional NOAA constituencies as first point of contact (ongoing). Chief, Constituent Affairs
- Advise NOAA's senior management concerning personal interactions with constituent groups, including scheduling one-on-ones, pre-briefing on emerging issues, preparation of speeches/talking points, and followup (ongoing). Director, OLA

OBJECTIVE
LA-2

OBJECTIVE:

DEVELOP AND COORDINATE A NOAA-WIDE EFFORT TO EDUCATE THE GENERAL PUBLIC IN EARTH SYSTEMS SCIENCE AND INCREASE AWARENESS AND USE OF NOAA SERVICES AMONG OUR CONSTITUENTS

BACKGROUND:

America's future economic prosperity will largely depend on our ability to achieve and maintain an educated workforce. Today, as never before, this entails education and training in the environmental sciences. NOAA is particularly well-suited to provide educational opportunities to the workforce and to the general public. In addition, NOAA, in cooperation with others, has a responsibility to transmit its knowledge to both the national and international user communities. The following planned actions suggest an active and visible role for NOAA in meeting this two-fold objective.

PLANNED ACTIONS:

- Develop a proposed Earth Systems Science Education (ESSE) framework for NOAA-wide participation (3/90). Chief, Program Support Staff, OLA
- Support NOAA program officials in the development of ESSE programs for youth (progress reviews 5/90 and 9/90). Chief, Program Support Staff
- Establish and maintain NOAA participation in the Federal Interagency Committee on Education and its relevant subcommitteess (progress review 6/90). Deputy Director for Constituent Affairs
- Collaborate with National Science Foundation on development of teacher guides for use with the 8-part PBS TV series, *The Blue Revolution* (6/90). Senior Consultant
- Develop an appropriate youth information network with the National Science Teachers Federation, National Wildlife Federation., Junior Scholastic, Children's Television Workshop, etc. (9/90). Chief, Constituent Affairs
- Develop and provide an "integrated presentation" of NOAA products and services to its users (9/90). Chief, Program Support Staff
- Improve user awareness of specific earth system science applications (6/90). Chief, Constituent Affairs
- Identify opportunities to establish public-private partnerships for earth system science initiatives (3/90). Deputy Director for Constituent Affairs

OBJECTIVE
LA-3

OBJECTIVE:

DEVELOP AND IMPLEMENT A NOAA INTERGOVERNMENTAL AFFAIRS PROGRAM

BACKGROUND:

NOAA's State Partnership Program represents a skeletal effort to engage state governments' interests and concerns. A more comprehensive effort is needed to provide a full-fledged intergovernmental program.

PLANNED ACTIONS:

- Accelerate the established state partnership program with the creation of an intergovernmental affairs staff (6/90). Director, Office of Legislative Affairs (OLA)
- Design a work plan to ensure cross-NOAA consultation on designated priorities (4/90). Director, OLA
- Seek opportunities to work with local governments and bona fide local community organizations to further common goals (progress reviews 4/90, 6/90 and 9/90). Federal/State Partnership Program Officer

OBJECTIVE
LA-4

OBJECTIVE:

UTILIZE ADVANCED INFORMATION TECHNOLOGIES TO ASSURE EFFECTIVE AND EFFICIENT COMMUNICATION BETWEEN NOAA OFFICIALS AND CONGRESS

BACKGROUND:

The Office of Congressional and Legislative Affairs in 1990 will have in place the personnel (both professional and support) and the necessary computer hardware and software to function effectively with the Congress.

PLANNED ACTIONS

- Establish an improved system to log and track Congressionally mandated reports (3/90). Chief, Legislative Affairs
- Fully utilize a computer-based legislative tracking system for House and Senate bills (progress reviews 4/90 and 6/90). Chief, Legislative Affairs
- Establish an improved system that will enable prompt and efficient responses to Congressional inquiries (4/90). Deputy Director for Congressional and Legislative Affairs
- Plan for and implement Congressional briefing for members and staffs on NOAA issues (progress reviews monthly). Deputy Director for Congressional and Legislative Affairs
- Plan, conduct, and follow-up on Congressional courtesy visits by NOAA senior management personnel (continuing). Deputy Director for Congressional and Legislative Affairs

OBJECTIVE
LA-5

OBJECTIVE:

IMPLEMENT THE DEPARTMENT'S LEGISLATIVE AGENDA FOR NOAA WITH EMPHASIS ON THE NEED TO PROVIDE THE MOST CREDIBLE RESPONSES TO THE CONGRESS

BACKGROUND:

Because of the over 200 statutes that govern NOAA's operations, NOAA must maintain a complex dialogue with the Congress in connection with our legislative agenda. As NOAA programs evolve to address changes in material needs, information must be supplied to the Congress in a timely and responsive manner. The Office of Legislative Affairs (OLA) is responsible for leading and coordinating a NOAA-wide effort to provide necessary information to the Congress.

PLANNED ACTIONS:

- Establish a proactive schedule of visits and contacts with Hill staff by Congressional Affairs Specialists for information exchange (continuing). Congressional Affairs Specialists
- Schedule briefings on Capitol Hill utilizing agency expertise to explain our programs and the various issues in which members and staff and NOAA have a mutual interest (1/90; monthly reviews). Deputy Director for Congressional and Legislative Affairs
- Fully utilize our electronic communications capacity, involving Hill staff, NOAA, and other federal agency personnel (9/90). Chief, Legislative Affairs
- Establish a reliable communications system for the transmission of speeches, testimony, news releases, and other relevant information to the Congress (1/90). Deputy Director for Congressional and Legislative Affairs

NOAA - WIDE HIGH PRIORITY PROGRAMS AND THEIR SUPPORTING OBJECTIVES

CLIMATE AND GLOBAL CHANGE:

NESDIS-1	Satellite Observation Systems
NESDIS-5	Management of environmental data and information
NESDIS-6	Develop and operate the NOAA Earth Systems Data Dictionary System
NWS-10	Climate & Global Change
OAR-1	Climate & Air Quality Research
OAR-4	Ocean & Great Lakes Research
OAR-5	Management Activities
NOS-4	Ensure effective coastal and ocean management
NOS-6	Contribute to the NOAA Climate and Global Change Program

COASTAL OCEAN AND MARINE RESOURCES:

NESDIS-1	Satellite Observation Systems
NESDIS-2	Continue GOES satellite coverage
NESDIS-3	Continue polar satellite coverage
NESDIS-4	Plan and implement NOAA role in the LANDSAT program
NESDIS-5	Manage environmental data and information
NESDIS-6	Develop and operate the NOAA Earth Systems Data Directory System
NWS-9	Coastal Ocean
OAR-4	Ocean & Great Lakes Research
OAR-5	Management Activities
OAR-6	International Activities
NOS-1	Modernize our basic ocean services
NOS-2	Strengthen our Applied Ocean Science Program
NOS-3	Direct sciences toward coastal and ocean management needs
NOS-4	Ensure effective coastal and ocean management
NOS-5	Contribute to the protection of life and property
NOS-7	Contribute to the NOAA Coastal Ocean Program
NMFS-1	Improve the efficiency and effectiveness of NMFS science programs
NMFS-10	Implement NMFS Habitat Policy; achieve no net loss in marine habitat

MESOSCALE WEATHER PREDICTION:

NESDIS-1	Satellite Observation Systems
NESDIS-2	Continue GOES satellite coverage
NESDIS-3	Continue polar satellite coverage
NESDIS-5	Management of environmental data and information
NWS-1	Local Warnings & Forecasts
NWS-2	Hydrologic Services
NWS-3	Central Guidance
NWS-4	Future Operations & Services
NWS-5	Systems Development & Integration
NWS-6	External & Internal Coordination
NWS-11	Research
NWS-7	Satellites
NWS-8	Hydrologic Forecasting Techniques
OAR-2	Weather Research
OAR-5	Management Activities
NOS-2	Strengthen our Applied Ocean Science Program
NOS-5	Protection of Life and Property

NOAA - WIDE HIGH PRIORITY PROGRAMS AND THEIR SUPPORTING OBJECTIVES (continued)

MANAGEMENT OF ENVIRONMENTAL DATA:

NESDIS-1	Satellite Observation Systems
NESDIS-2	Continue GOES satellite coverage
NESDIS-3	Continue polar satellite coverage
NESDIS-4	Plan and implement the NOAA role in the LANDSAT program
NESDIS-5	Manage environmental data and information
NESDIS-6	Develop and operate the NOAA Earth Systems Data Dictionary System
OAR-1	Climate & Air Quality Research
OAR-2	Weather Research
OAR-3	Solar-Terrestrial Research & Services
OAR-4	Ocean & Great Lakes Research
OAR-5	Management Activities
NOS-2	Strengthen our Applied Ocean Science Program
NOS-3	Direct science toward coastal and ocean management needs
NOS-4	Ensure effective coastal and ocean management

ACRONYMS

ABC	Allowable Biological Catches
AFOS	Automation of Field Operations
AL	Aeronomy Laboratory
ANCS II	Automated Nautical Charting System II
AOC	Aircraft Operations Center
AOML	Atlantic Oceanographic and Meteorological Laboratory
ARL	Air Resources Laboratory
ASCs	Administrative Support Centers
ASOS	Advanced Surface Observing System
AWIPS	Advanced Weather Interactive Processing System
CAR	Climate and Atmospheric Research
CEOS	Committee on Earth Observing Systems
CES	Committee on Earth Sciences
CMDL	Climate Monitoring and Dynamics Laboratory
COAP	(NOAA) Center of Ocean Analysis and Prediction
COE	(Army) Corps of Engineers
COMPAS	Coastal Ocean Management, Planning and Assessment System
COP	Coastal Ocean Program
CZMA	Coastal Zone Management Act
CZM-NEP MOU	Coastal Zone Management - National Estuary Program Memorandum of Understanding
DAR^{3}E	Denver AWIPS Risk Reduction and Requirements Evaluation
DBMS	Data Base Management System
DERF	Dynamic Extended Range Forecasting
DIFAS	Digital Ice Forecasting and Analysis System
DOC	Department of Commerce
EASI	Electronic Administrative Support Interface
EC	European Common Market
EDI	Electronic Data Interchange
EEO	Equal Employment Opportunity
EEZ	Exclusive Economic Zone
EOSDIS	Earth Observation Satellite Data and Information System
EPA	Environmental Protection Agency
ERL	Environmental Research Laboratory
ESSA	Environmental Science Services Administration
ESSE	Earth Systems Science Education
ETP	Eastern Tropical Pacific Ocean
EUMETSAT	The European Consortion for Meteorological Satellite
FDDA	Four-Dimensional Assimilation
FEMA	Federal Emergency Management Agency
FNOC	(Navy's) Fleet Numerical Oceanographic Center
FOCI	Fisheries Recruitment Oceanography
FSL	Forecast Systems Laboratory
FTA	(U.S./Canada) Free Trade Agreement
FWCS	Fish and Wildlife Coordination Act
FWS	Fish and Wildlife Service
GATT	General Agreement on Tariffs and Trade
GFDL	Geophysical Fluid Dynamics Laboratory
GIS	Geographic Information System
GLERL	Great Lakes Environmental Research Laboratory
GOES	Geostationary (Satellite)
GPCP	Global Precipitation Climatology Project
GPS	Global Positioning System
HACCP	Hazard Analysis Critical Control Point
IAGC	International Affairs Coordinating Group
I-FIMA	Interactive Financial Management System

ACRONYMS (continued)

IFQs	Individual Fishing Quotas
IGOSS	Integrated Global Ocean Services System
IMAFS	Interactive Marine Analysis and Forecast System
IOC	Intergovernmental Oceanographic Commission
IPCC	Intergovernmental Panel on Climate Change
IPS	Interplanetary Scintillation
IT	Information Technology
ITLS	International and Intergovernmental Liaison Staff
ITQ	Individual and Transferable Quotas
ITSOs	Information Technology Security Officers
JIC	Joint Ice Center
MAR	Modernization and Associated Restructuring
MARD	Modernization and Associated Restructuring Demonstration
MBO	Management By Objectives
MFCMA	Magnuson Fisheries Conservation Management Act
MMPA	Marine Mammal Protection Act
MMS	(Department of Interior's) Minerals Management Service
MSSP	Model Seafood Surveillance Project
NAPAP	National Acid Precipitation Assessment Program
NAAC	NOAA Aircraft Allocation Council
NAS	National Academy of Science
NAVD	North America Vertical Datum
NC	Office of NOAA Corps Operations
NEDRES	National Environmental Data Referral Service
NERRS	National Estraine Reserve Research System
NESDIS	National Environmental Data and Information System
NEXRAD	Next Generation Weather Radar
NGWLMS	Next Generation Water Level Measurement System
NIST	National Institute of Standards and Technology
NMFS	National Marine Fisheries Service
NOCN	NOAA Ocean Communications Network
NODC	National Oceanographic Data Center
NOS	National Ocean Service
NOSIE	National Ocean Science Information Exchange
NSF	National Science Foundation
NSPO	National Storm Program Office
NSSL	National Severe Storm Laboratory
NS&T	National Status & Trends
NURP	National Undersea Research Program
NWS	National Weather Service
OA	(NOAA's) Office of Administration
OAR	Oceanic and Atmospheric Research
OCS	Outer Continental Shelf
OIG	Office of Inspector General
OMB	Office of Management and Budget
OPC	(NOAA's) Ocean Products Center
OR	Oceanic Research
PA	(NOAA's Office of) Public Affairs
PDC	Program Development & Coordination Staff
PDP	Program Development Plan
PIC	Product Information Catalog
PMEL	Pacific Marine Environmental Laboratory
PRC	People's Republic of China
QUIPS II	Quality Improvement Performance System
R&D	Research and Development
RFC	River Forecast Center

ACRONYMS (continued)

RFP	Request for Proposals
SEAS	Shipboard Environmental (Data) Acquisition System
SEL	Space Environment Laboratory
SELDADS	Space Environment Laboratory Data Acquisition and Display Systems
STORM	National Stormscale Operational and Research Meteorology
TAC	Total Allowable Catch
TOGA	Tropical Ocean and Global Atmosphere
UNEP	United Nation's Environmental Program
USGCRP	U.S. Global Change Research Program
VLBI	Very Long Baseline Interferometry
WBS-0600	Work Breakdown Structure - 0600
WMO	World Meteorological Organization
WOCE	World Ocean Circulation Experiment
WPL	Wave Propagation Laboratory
XBT	Expendable Bathythermograph