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A Directory of NOAA's Primary International Responsibilities

January 1989

International and Intergovernmental
Liaison Staff
Room 5215 HCHB
National Oceanic and Atmospheric
Administration

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Preface

NOAA increasingly relies upon effective representation of its interests in the international arena in order to fulfill its primary mission: to provide the best ocean and atmospheric services to the United States public.

This report summarizes NOAA's primary international responsibilities organized by specific agreement or treaty. It includes a cursory review of new international developments relevant to NOAA's interests. It should not be read as a legal reference work, a public statement of U.S. policy or a summary of every NOAA international relationship. It remains a work in progress.

This guide to NOAA's international affairs responsibilities is intended to serve as a briefing document for new NOAA international affairs officers. It can be easily updated and can serve as a timely summary of key NOAA international responsibilities. The assistance of NOAA's international affairs staffs in the line offices in preparing this summary is greatly appreciated.

For further information about this report and on NOAA's international affairs activities, please contact Thomas L. Laughlin, Chief, International and Intergovernmental Liaison Staff, LA4, Room 5215 HCHB, Department of Commerce, Washington D.C. 20230

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3. Landsat

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Summary of NOAA Mission

The National Oceanic and Atmospheric Administration (NOAA) conducts research and gathers data about the oceans, atmosphere, space, and sun, and applies this knowledge to products and services that benefit all Americans plus foreign users of NOAA services.

Its services warn of dangerous weather, chart the seas and skies, guide the use and protection of ocean resources, and help plan for the future by enriching understanding of the complex physical environment.

NOAA provides these services through five major line organizations: the National Weather Service, the National Ocean Service, the National Environmental Satellite, Data, and Information Service, the National Marine Fisheries Service, and the Office of Oceanic and Atmospheric Research -- together with numerous special program units.

Established in 1970, NOAA is made up of some of the most venerable federal agencies. The National Ocean Service was established at President Jefferson's direction in 1807; the National Marine Fisheries Service in 1871, the National Weather Service in 1890. NOAA's more than 12,000 employees are stationed around the globe in laboratories, ships, aircraft, undersea habitats, weather stations, and many other locations. Their tools range from weather balloons to environmental satellite systems, advanced research ships and aircraft, and some of the world's most powerful computers.

IN SHORT

o The National Weather Service maintains a constant vigil for life-threatening dangers such as hurricanes, tornadoes, winter storms, and floods (National Hurricane Center, Pacific hurricane offices, National Severe Storms Forecast Center and River Forecast Centers). Its public weather forecasts influence the daily decisions of most Americans. Its forecasts for pilots, boaters, water resource managers, utility, industrial and recreational interests, farmers, and forecasters play a major role in the operation of the nation's economy.

International agreements, both bilaterally and through the United Nations specialized agencies, primarily the World Meteorological Organization, provide access to global weather data outside the U.S. This helps NOAA provide global analysis and forecast services which help other nations, in turn, strengthen their weather services.

o The National Ocean Service produces the nautical and aeronautical charts that guide travelers in the sea and air. Its geodetic surveys give precise definition to land boundaries. It protects the coastal zone, operates marine and estuarine sanctuaries and monitors ocean waters quality. NOS is also charting the U.S. Exclusive Economic Zone (EEZ).

o The National Environmental Satellite, Data, and Information Service manages the nation's civil environmental satellite systems and global data bases. It develops and provides environmental data and information products and services critical to the protection of life and property, and economy, energy development and distribution, global food supplies, weather and flood forecasts and development and management of natural resources for a wide variety of users. Its data centers (The National Climate Data Center, the National Oceanographic Data Center and the National Geophysical Data Center) constitute the largest environmental data storage retrieval system in the world. On the international level, data at these centers are shared through the World Data Center system, which makes physical environmental data available to anyone in the world. A fourth facility, the Assessment and Information Services Center provides assessments of impacts of environmental variations on food production, energy demands, transportation and communications, recreation, water management, health, commerce and construction.

o The National Marine Fisheries Service keeps a bountiful supply of nutritious fish and shellfish on America's tables by helping commercial and sport fishermen and managing the sea's living resources within 200 miles of our shore. NMFS administers the Fishery Conservation and Management Act (FCMA) of 1976 which was designed to assure that fishing stays within sound biological, economic, and other limitations, and that U.S. commercial and recreational fishermen have the opportunity to harvest all the fishery resources within these limitations. NMFS regulates foreign fishing in the U.S. exclusive economic

zone. It also protects marine habitats and such animals as the great whales, porpoises, and sea turtles (NOAA Habitat Protection Program; Marine Mammal Protection Act of 1972 and Endangered Species Act of 1973).

o The Office of Oceanic and Atmospheric Research investigates the oceans, the atmosphere, and sun-earth relationships vital to an understanding of our environment. Oceanic research includes the geology, chemistry, and biology of seafloor crustal spreading centers to help determine the commercial mining potential of deep-sea polymetallic sulfide deposits. A major effort is made to determine the ocean's role in climate, particularly through an international program called Tropical Ocean/Global Atmosphere, which is part of the World Climate Research Program. Atmospheric research includes studies aimed at improving prediction of regional climate variations and other economically important factors. NOAA scientists also study the effects of ocean and atmosphere on each other.

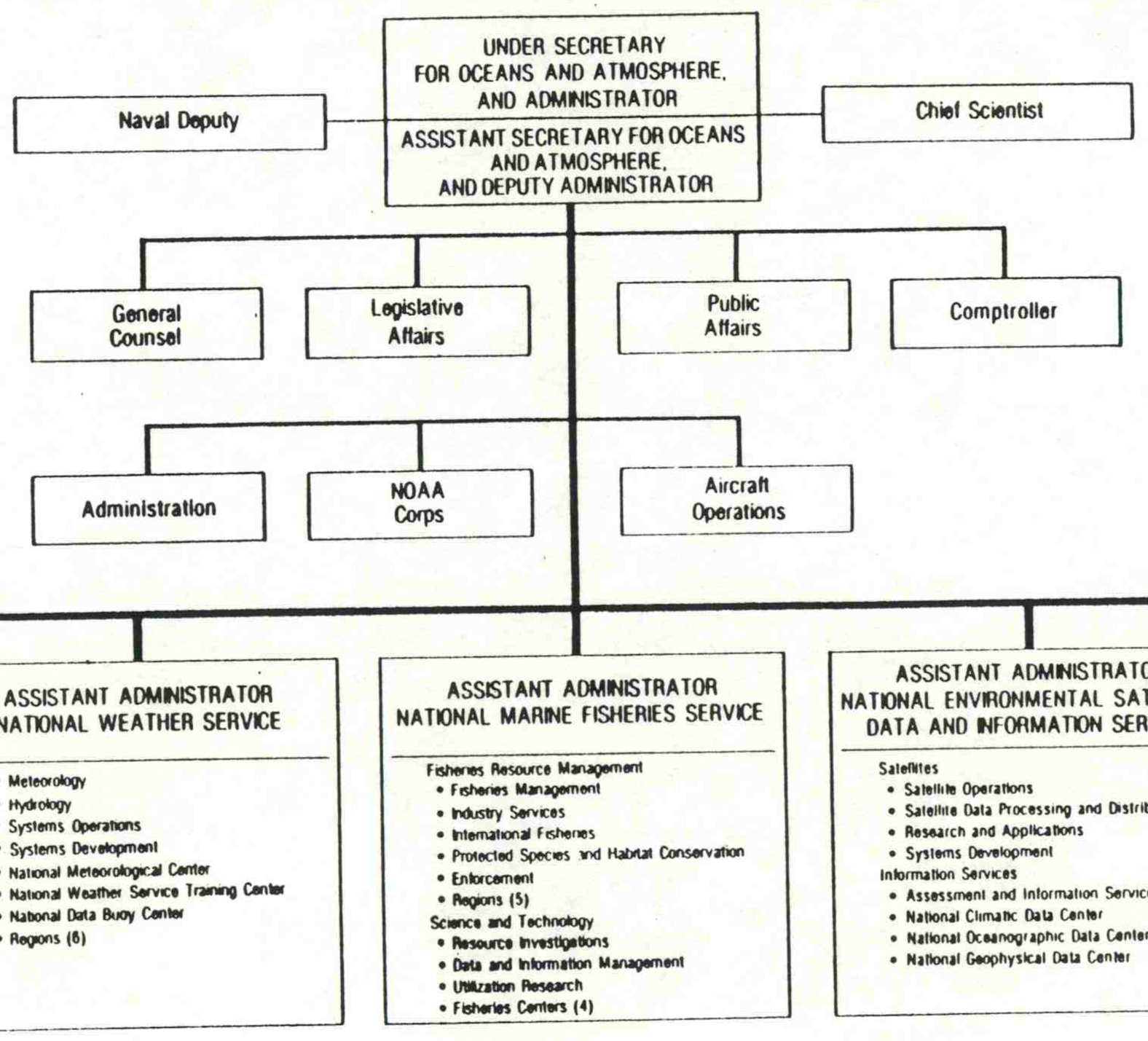
Research in meteorology and atmospheric chemistry seeks to determine the sources and movement of air pollutants, including those that cause acid rain. NOAA's Environmental Research Laboratories (nine laboratories and many research programs) are aimed at improving understanding of the oceans, Great Lakes, coasts, lower and upper atmosphere, and near space environment, and at improving predictions of changes occurring in these environments. Results are used to improve NOAA services to the nation. NOAA research is augmented by academic research, primarily through the National Sea Grant Program along with a number of cooperative institutes where NOAA research laboratories are co-located with academic institutions. As with the National Weather Service, activities organized under international agreements, both bilaterally and through United Nations agencies such as the Intergovernmental Oceanographic Commission (IOC) and the United Nations Environment Program (UNEP), provide access to scientists and institutions along with the data from other countries where support is beneficial.

o The NOAA Corps comprises 400 officer-scientists who make up the nation's seventh uniformed service, and serve in every environmental discipline, including oceanography, meteorology, biology, and physics. It operates 23 research ships and aircraft that collect environmental information and provide products on scales ranging from the regional to the global to help the U.S. use the marine environment wisely.

o The National Climate Program Office was created by Congress to assist the Nation in its efforts to understand and respond to natural and man-induced climate processes and their implications. NCPO coordinates a national plan for climate research and services and acts as the national focal point for international climate activities. Its priorities are (1) to improve the collection, storage and use of climate data and information; (2) to understand the impact of natural and man-induced changes of climate; and (3) to increase our ability to predict climate from one month to one season or more in advance. Activities include measurements and observations of weather and climate, management and analysis of data, development of climate prediction models and studies of climate processes. Also included is research on the societal and economic implications of climate, the effects of carbon dioxide on climate and the impact of climate on world food production.

Exhibit 1 to DOO 25-58

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION



ASSISTANT ADMINISTRATOR NATIONAL OCEAN SERVICE

- Charting and Geodetic Services
- Oceanography and Marine Assessment
- Ocean and Coastal Resource Management
- Marine Operations
- Ocean Services

ASSISTANT ADMINISTRATOR NATIONAL WEATHER SERVICE

- Meteorology
- Hydrology
- Systems Operations
- Systems Development
- National Meteorological Center
- National Weather Service Training Center
- National Data Buoy Center
- Regions (6)

ASSISTANT ADMINISTRATOR NATIONAL MARINE FISHERIES SERVICE

Fisheries Resource Management
- Fisheries Management
- Industry Services
- International Fisheries
- Protected Species and Habitat Conservation
- Enforcement
- Regions (5)

Science and Technology
- Resource Investigations
- Data and Information Management
- Utilization Research
- Fisheries Centers (4)

ASSISTANT ADMINISTRATOR NATIONAL ENVIRONMENTAL SATELLITE, DATA AND INFORMATION SERVICE

Satellites
- Satellite Operations
- Satellite Data Processing and Distribution
- Research and Applications
- Systems Development

Information Services
- Assessment and Information Services
- National Climatic Data Center
- National Oceanographic Data Center
- National Geophysical Data Center

ASSISTANT ADMINISTRATOR OFFICE OF OCEANIC AND ATMOSPHERIC RESEARCH

- Climatic and Atmospheric Research
- Sea Grant and Extramural Programs
- Environmental Research Laboratories

AMENDMENT 2
JUNE 18, 1987

Convention/Treaty/Agreement/Program

Status
EIF (entry into force)

Membership/HQ

General Description/Purpose

Areas of NOAA Participation

Priority Issues: 1989 & 1990

Key Meeting Dates: 1989 & 1990

Lead Agency/Department

Interagency Coordinating Mechanism

Noted where such mechanism exists.

Lead NOAA Official

Responsible NOAA Office:
Lead:
Others

Foreign Counterparts

Noted as appropriate

Statutory Authority/Congressional Oversight

Since the Office of Legislative Affairs is preparing a comprehensive guide to NOAA statutory authorities, this section has largely been left blank. Unless otherwise noted, general NOAA statutory authorities apply.

Negotiations

Other Country or Countries

Forum or Fora of Negotiations

Agreements already concluded during negotiations

Description of General Problem

Nature and Purpose of U.S. Involvement

Priority Issues: 1989 & 1990

Key Meeting Dates: 1989 & 1990

Lead Agency/Department

Interagency Coordinating Mechanism

Responsible NOAA Office:
Lead:
Others:

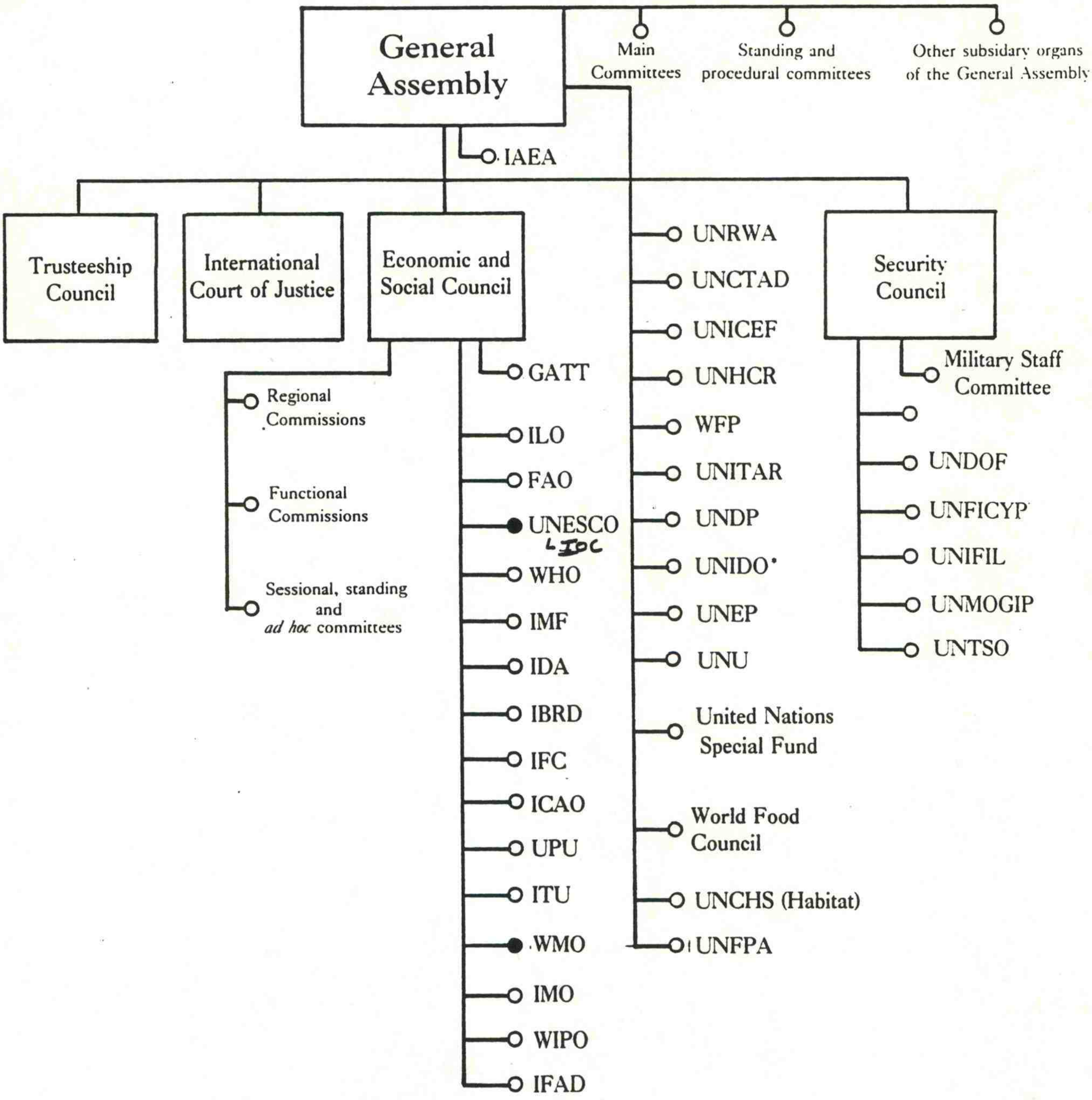
Statutory Authority/Congressional Oversight

II. Multilateral Organizations

A. United Nations Organizations

1. Intergovernmental Oceanographic Commission (IOC)
2. World Meteorological Organization (WMO)
3. United Nations Environment Programme (UNEP)
4. Food and Agriculture Organization (FAO)
5. International Civil Aviation Organization
6. International Maritime Organization (IMO)
7. United Nations Committee on the Peaceful Uses of Outer Space (COPUOS)

United Nations System



May 1988

Convention/Treaty/Agreement/Program

Intergovernmental Oceanographic Commission

Status

The IOC is a semi-automonous body established within UNESCO in 1960. (The U.S. decision to remain a member of the IOC, despite U.S. withdrawal from UNESCO in 1984, was taken after extensive interagency consultations.)

Membership/HQ

117 member states/Paris Headquarters

General Description/Purpose

The IOC is the only existing global intergovernmental oceanographic organization. Its role is to develop, recommend, promote, and coordinate marine science activities which require international cooperation, usually at the regional or global level. It is not the Commission's role to conduct research or provide ocean services. It is the responsibility of member states, through their national programs, to actually implement and support these cooperative activities.

To avoid duplication and ensure coordination, the IOC has formal agreements on cooperation with some thirteen UN bodies and other international organizations.

The IOC's activities are managed by an Assembly; Executive Council (33 member States elected by the Assembly who meet annually); a small secretariat (10-15 professionals); and a number of scientific and technical committees and regional subsidiary bodies to provide the necessary expert guidance.

Nature and Purpose of U.S. Involvement

- Influence the planning and direction of international oceanographic programs

- Provides a forum for establishing and maintaining contact in the international oceanographic community

- Facilitates U.S. access to waters under foreign jurisdiction

- It is not possible to quantify economic benefits for all IOC programs, but for the major ocean services programs alone, derived benefits have been identified in the billions of dollars, far exceeding our past contribution to the IOC ($ 450,000 FY88 State Department appropriation).

Ocean Science: IOC programs that support climate research such as ships of opportunity, global sea-level observational network (GLOSS) and drifting buoys are essential for the collection of ocean data in support of TOGA (Tropical Ocean/Global Atmosphere Experiment) and other ocean-related programs. GLOSS, for example, consists of 250 stations with 150 now operational and another 100 to be reactivated or installed. NOAA helped to establish 20 stations in the Indian and Pacific Oceans since 1985 with the assistance of the University of Hawaii.

Pollution: The IOC serves as the most efficient international mechanism for the U.S. to ensure data comparability, the use of standards, common methodology and intercomparison exercises essential for marine pollution research and monitoring.

Mapping: The IOC supports the compilation, analysis, contouring and printing in chart form of bathymetric data worldwide.

Living Resources: IOC coordination of research efforts on living marine resources has contributed to a continuing integration of regional and national efforts into programs of global scope. U.S. programs on Ocean Science in Relation to Living Resources are an important part of this global effort.

Oceanographic Data and Services: The IOC provides the international mechanisms necessary for oceanographic data (real-time, near real-time and historical) collection, exchange and archiving. Specific IOC programs such as ships of opportunity and global sea-level observational network are essential for data collection in support of high-priority interests of the U.S.

Tsunami Warning: The IOC is extremely useful as an intergovernmental coordination mechanism for tsunami warning, a program of major importance to the U.S.

Regional Programs: The U.S. has an interest in the Western Pacific, physical oceanography of the eastern Mediterranean, Western Indian Ocean and Caribbean.

<u>Areas of NOAA Participation</u>

WCRP (World Climate Research Program), Ocean mapping and tsunami warning, IODE (International Oceanographic Data Exchange), IGOSS (Integrated Global Ocean Services System), GESAMP (Group of Experts on the Scientific Aspects of Marine Pollution), GIPME (Global Investigation of Pollution in the Marine Environment), ocean dynamics and climate (TOGA-(Tropical Ocean/Global Atmosphere Experiment, and WOCE-World Ocean Circulation Experiment), GLOSS (Global Sea Level Observing System), OSLR (Ocean Science in Relation to Living Resources), TEMA (Training, Education and Mutual Assistance in the Marine Sciences) Regional Programs: WESTPAC, IOCARIBE, IOCINDIO, SOPAC.

Priority Issues: 1989 & 1990

Leadership Transition: The current IOC Secretary will be replaced by Gunner Kullenberg in early 1989.

Funding: The U.S. is trying to increase its contribution to the IOC so that it better supports U.S. interests and approximates the level of support the U.S. had provided prior to U.S. withdrawal from UNESCO.

Key Meeting Dates: 1989

June/July 1989: 15th IOC Assembly.

Meetings of technical bodies throughout year

Lead Agency/Department

NOAA traditionally has provided the U.S. permanent representative to the IOC.

Interagency Coordinating Mechanism

PIPICO: Panel on International Programs and International Cooperation in Ocean Affairs. State Department chair: William Erb.

Responsible NOAA Office

Lead Official:

NOAA PIPICO representativess: Richard Podgorny, N/IA
Candyce Clark, R/IA

U.S. Coordinators for Programs Associated with IOC Programs

TOGA - J. Michael Hall (NOAA)
WOCE - Tom Spence (NSF)
CCCO - Lou Brown (NSF)
OSLR - Glenn Flittner (NOAA)
OSNLR - Gary Hill (USGS)
GEBCO - Jim Ayres (DMA)
GIPME - Don Atwood (NOAA)
IGOSS - Tom Maginnis (NOAA)
IODE - Greg Withee (NOAA)
ITSU - Bill Rice (NOAA)
TEMA - Ned Ostenso (NOAA)
IOCINDIO - Richard Podgorny (NOAA)
SOPAC - Bill Erb (DOS)
SEATAR - Charles Helsley (Univ. of HI)

El Nino - Don Hansen (NOAA)
WESTPAC - Lou Brown (NSF)
IOCINCWIO - Lou Brown (NSF)
IOCARIBE - Harris Stewart
SOC - Worth Nolan (Texas A&M)
IOCEA - (U.S. Navy)
OPC - Don Heinrichs (NSF)
IBCCA - Troy Holcombe (NOAA)

Statutory Authority/Congressional Oversight

SUMMARIES OF SOME KEY IOC SCIENTIFIC GROUPS

CCCO-SCOR IOC Committee on Climatic Changes and the Ocean

The CCCO is a joint IOC-SCOR committee set up to identify ocean-climate problems that need international cooperation, to encourage research activities and to establish requirements for ocean observations. THE CCCO works closely with the WOCE and TOGA programs, providing guidance and support for the programs. In the future the CCCO hopes to play a large role in the research on carbon dioxide's affects on the atmosphere.

OPC - Technical Committee on Ocean Processes and Climate

The OPC was established by the IOC to coordinate the IOC activities in support of the World Climate Research Programme (WCRP). The OPC's main project is the Global Sea-level Observing System (GLOSS). GLOSS is comprised of many monitoring stations across the globe, that collect data for the program. GLOSS consists of 250 stations with 150 now operational and another 100 to be activated or installed. To help maintain GLOSS, TEMA helps support the system in countries that need technical and financial assistance. The OPC's GLOSS program works closely with IODE and IGOSS in data exchange.

GIPME - Scientific Committee for the Global Investigation of Pollution in the Marine Environment

The IOC established GOPME in 1972 to provide a scientific basis for the assessment of marine pollution and contamination and for the regulation of marine pollution, that includes monitoring programs on the regional and global level. The GIPME program relies on regional input and therefore works in cooperation with the UNEP's Oceans and Coastal Areas Program Activity Centers, in establishing pollution monitoring programs. Along with UNEP, GIPME is closely related to several IOC regional bodies that maintain a regional GIPME program One of GIPME's maine projects is MARPOLMON- Marine Pollution Monitoring System. MARPOLMON gathers data from individual regional pollution monitoring programs and provides the collected information for research and other uses. In the future, GIPME hopes to expand their programs with more regions setting up regional GIPME programs, and thus expanding the global marine pollution program.

OSLR-IOC-FAO Guiding groups of experts on Ocean Science in Relation to Living Resources

The IOC and FAO established the Group of Experts on OSLR to encourage the development of OSLR, including the International

Recruitment Project (IREP), and to provide scientific and technical advice to IOC regional OSLR projects. the OSLR works with the IOC-CCCO, IGOSS, IODE-ICES and regional bodies of the FAO.

IGOSS- Joint IOC-WMO Working Committee for the Integrated Global Ocean Services System

IGOSS is a IOC-WMO joint committee that provides services world-wide, and develops and coordinates ocean data and services for governments, commercial business and academic study. At this time, IGOSS has two main projects, the Drifting Buoy Programme, and the Ship of Opportunity Programme. IGOSS works in cooperation with IODE, OPC and GLOSS to provide and organize ocean data.

IODE- Technical Committee on International Oceanographic Data and Information Exchange

The main objective of the IODE is "to facilitate the exchange of oceanographic data, to standardize the forms for reporting and coding data, to encourage the preparation of data catalogues, and to assist in the development of data centers". Throughout the world, the IODE has established data centers that collect data and prepare the information for publication. The services the IODE provide leads to cooperation with many IOC subsidiary bodies and programmes. Three programmes that IODE works closely with are IGOSS, and the international programs of TOGA and WOCE. The IODE recognizes the growing importance of these three programs and hopes to increase their support of them in the future.

TEMA- Technical Committee for Training, Education and Mutual Assistance in the Marine Sciences

TEMA helps coordinate training and education in marine sciences for member states. Most regional and subsidiary bodies have a TEMA group, which analyze what is needed in each area and how to meet those needs effectively.

Convention/Treaty/Agreement/Program

World Meteorological Organization

Status

EIF: Convention, March 23, 1950
Expires: No expiration date

Membership/Hqs

Specialized Agency of United Nations
160 Member Countries
Secretary-General: Professor G. O. P. Obasi (Nigeria)
Headquarters: Geneva, Switzerland

General Description/Purpose

The WMO facilitates, coordinates and promotes international cooperation in meteorology and hydrology. It facilitates the establishment of networks of stations and centers to provide regular meteorological and hydrologic observations and services; promotes systems for the rapid exchange of meteorological information; promotes standardization of observations and statistics; furthers the application of meteorology to aviation, shipping, water resources, agriculture, etc.; promotes research and coordinates international experiments; facilitates; and promotes activities in operational hydrology. It also promotes the application of climate information to food, water, and energy activities.

The supreme body of the WMO the Congress composed of delegates representing member governments meets once every 4 years. It adopts a program and budget for the four-year financial period, sets the policy for the Organization, adopts a Long-Term Plan, elects the Executive Council, and selects the Secretary-General. The Executive Council is composed of 36 directors of meteorological services acting as representatives of the Organization rather than an individual country: the President, 3 Vice Presidents, 26 elected members, and 6 Presidents of the Regional Associations elected by those regional bodies. The Council meets once a year. It carries out the decisions of the Congress, approves the biennial program and budget, and acts on behalf of the Organization between Congresses. There are in addition, 8 technical commissions, 6 regional associations, and a secretariat.

Nature and Purpose of U.S. Involvement

The U.S. is involved in all WMO programs. The U.S. operates one of the 3 World Meteorological Centers (Moscow and Melbourne are the others) and a Regional Specialized Meteorological Center in Miami for Tropical Cyclones. Participation in WMO provides the

U.S. constant access to global weather data. It also provides the U.S. with the opportunity to help shape the international agenda in areas of importance to the U.S. and the world, such as climatic change, meteorological response to hazardous emissions, etc.

Areas of NOAA Participation

World Weather Watch Program, World Climate Program, Hydrology and Water Resources Program, Research and Development Program.

Priority Issues: 1989 & 1990

Begin to implement the work of the Intergovernmental Panel on Climatic Change in the three areas of scientific assessment, impacts, and response strategies. Support the development of WOCE on sound scientific grounds and with appropriate international structure.

Key Meeting Dates: 1989 & 1990

June 1989 WMO Executive Council
June 1990 WMO Executive Council

Lead Agency/Department

NOAA/Commerce

Interagency Coordinating Mechanism

NOAA/NWS coordinates with agencies.

Responsible NOAA Office

Lead Official: Dr. Elbert W. Friday, Jr., Permanent Representative of the US to the WMO

Others: James Neilon, W/OM3

Statutory Authority/Congressional Oversight

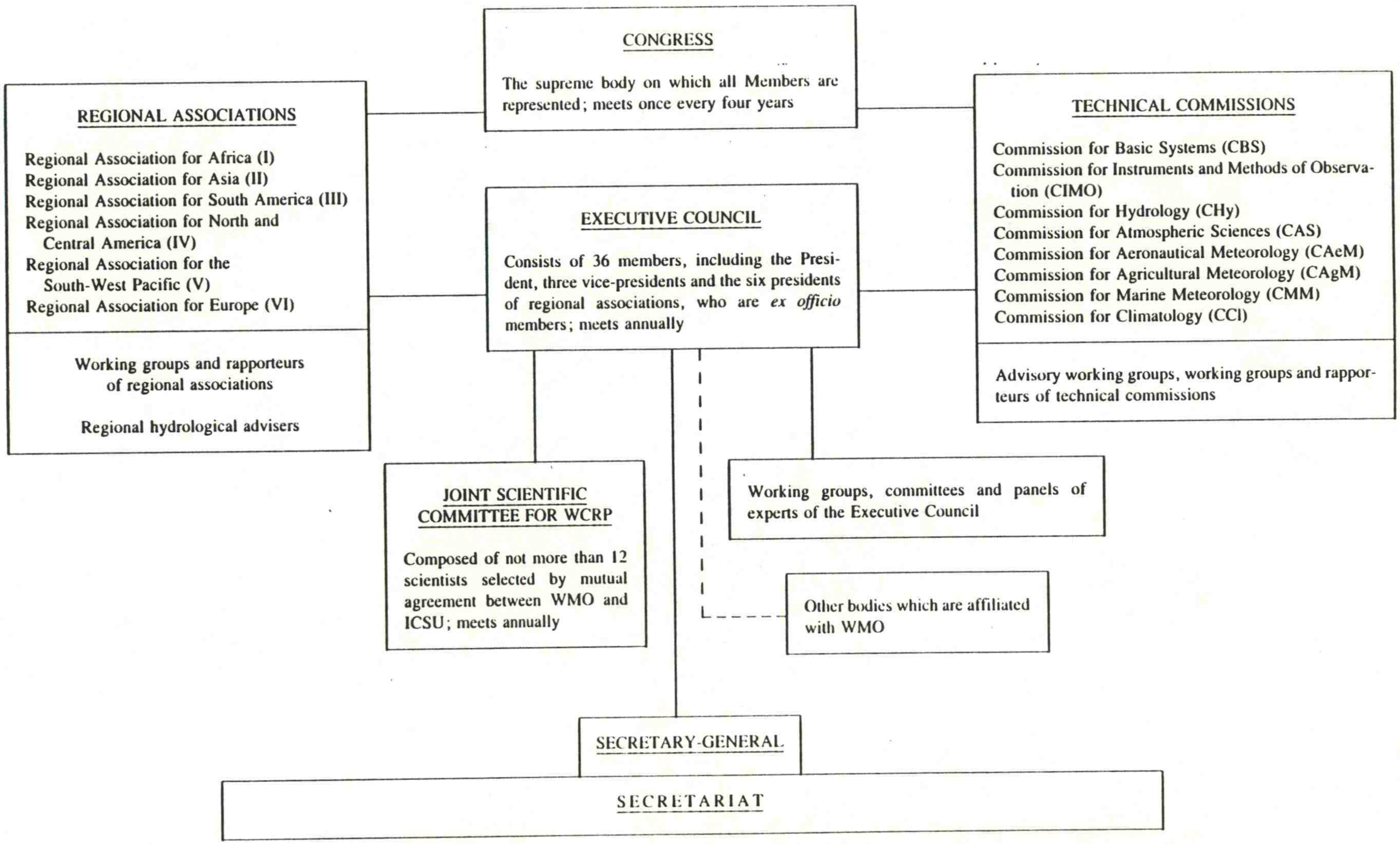


Figure 17 — Organizational structure of WMO

Convention/Treaty/Agreement/Program

United Nations Environment Programme
(UNEP was established in 1973 by U.N.G.A. Res. 2997.)

Status

EIF:
Expire:

Membership/HQ

Membership: All countries participating in the United Nations
HQ: Nairobi

General Description/Purpose

UNEP coordinates and promotes the environmental activities of the United Nations system. UNEP is not an executing agency for environmental projects. Most programs in which UNEP participates are also associated with other UN agencies. UNEP currently has 288 on-going activities in areas including:

- monitoring of land, air and water systems;
- training and technical cooperation
- strengthening of national environmental infrastructure
- development and dissemination of information
- negotiation of environmental agreements

UNEP's environmental assessment work addresses broad global environmental problems such as stratospheric ozone depletion and climate change. It has set up global ocean and atmospheric (BAPMON) monitoring systems to assess global pollution trends.

In the marine environment, management activities are largely undertaken with the Oceans and Coastal Areas Program which has set up eight regional legal instruments for marine environmental protection and nine regional action plans.

UNEP operates under the oversight and policy guidance of a 58-member Government Council which reports to the UN General Assembly through the United Nations Economic and Social Council. The 58 members are elected to three year terms.

UNEP's annual budget is approximately $35 million. The UNEP budget consists of an assessed account supported by United Nations funds and an Environment Fund account financed by voluntary governmental contributions. (The U.S. decreased its voluntary contribution to UNEP in 1987 by more than 33%, from $8.6 million to $6.8 million.)

Nature and Purpose of U.S. Involvement (List Direct U.S. Benefits)

Areas of NOAA Participation

- Participate in and provide leadership to UNEP/WMO/etc.-sponsored international scientific assessments of the climate change and stratospheric ozone depletion and the development of the Montreal protocol stratospheric ozone depletion.

- Participate in regional studies of the impacts of climate change.

- Participate in global background air pollution monitoring system (BAPMON)

- Participate in two regional seas program, South Pacific Regional Environment Program (SPREP) and Caribbean Environment Program.

- Advance cooperation in marine pollution research and monitoring through a variety of technical programs and experts groups (GESAMP (Group of Experts on the Scientific Aspects of Marine Pollution) GIPME (Global Investigation of Pollution in the Marine Environment), CARIPOL) often in cooperation with the Intergovernmental Oceanographic Commission.

- Advance marine mammal conservation worldwide through implementation of a Global Plan of Action, endorsed by the UNEP Government Council, for the rational conservation, management and utilization of all species of marine mammals.

- Participate in the Global Resources Information Database (GRID) which coordinates, within a common geographic reference system, the numerous environmental data sets that have been collected and continue to be collected by UN specialized agencies.

- Promotion of biological diversity.

Priority Issues: 1989 & 1990

Intergovernmental Panel on Climate Change: An international scientific assessment of this problem is now in its planning stage: UK chairs science group; USSR chairs impacts group; and US chairs response group.

Ozone Depletion/International Scientific Assessment: The findings of the scientific assessment, now underway, may spur the parties to the Montreal Protocol to reconsider whether the protocol's control provisions should be made more stringent.

Regional Seas Programs:

SPREP: U.S. technical agencies are taking a more active interest in SPREP (South Pacific region) and may conduct some activities under its umbrella.

Caribbean: U.S. technical agencies are taking a more active

interest in the Caribbean Action Plan and may conduct/expand some activities under its umbrella. CARIPOL and UNEP will sponsor a technical experts meeting in January to identify key pollution monitoring objectives.

Biological Diversity: Continued study by UNEP on whether an umbrella convention/shared secretariat could be created for the numerous specific treaties on biological diversity.

Key Meeting Dates: 1989 & 1990

May 1989: Governing Council

October 1989: Meeting of the Intergovernmental Committee of the Caribbean Environment Program and Meeting of the Parties to the Cartagena Convention

Meetings of the Intergovernmental Climate Panel and international scientific assessment on stratospheric ozone depletion.

Chemicals: Transboundary Movement guidelines

Lead Agency/Department

Department of State

Interagency Coordinating Mechanism

DOS coordination

Responsible NOAA Office

Coordinator: Candyce Clark

Others: Thomas Laughlin: South Pacific Regional Envir. Prog.
Arthur Paterson: Caribbean Regional Envir. Prog.

NOAA's National Geophysical Data Center director serves as a member of the GRID Scientific and Technical Advisory Committee.

Statutory Authority/Congressional Oversight

The United Nations Program and Budget Act of 1973 initiated U.S. financial support for UNEP.

TABLE 2

Major U.S. Goals Related to UNEP Programs

1. Strengthen institutional and scientific capacity of developing countries.

2. Integrate environmental considerations into development policies within developing countries.

3. Improve capabilities to predict changes in atmospheric composition (ozone and global climate).

4. Protect marine environments and coastal areas.

5. Protect wildlife species and habitat and maintain biological (genetic) diversity (e.g., endangered species, tropical forests).

6. Conserve forest areas, in particular tropical forests, and promote good forest management techniques.

7. Promote sustainable productivity of arid and semi-arid lands in developing countries (e.g., combat desertification).

8. Protect environment and health from the effects of toxic chemicals, pesticides and hazardous wastes.

9. Promote sound management and prevent pollution of water resources.

10. Protect sensitive environmental areas including wetlands, freshwater lakes and rivers, and mountain ecosystems.

11. Improve environmental awareness and practices of industry.

12. Protect environment and health from possible adverse effects of products developed through biotechnology.

13. Improve quality, accessibility, and dissemination of environmental and scientific data and information.

14. Obtain earth-science data for research and monitoring of climate, soils, plants, animals and water.

15. Promote environmentally sound patterns of energy uses.

16. Promote development and adoption of appropriate agreements and conventions on the environment.

17. Ensure safe and healthful working conditions.

18. Promote integration of environmental considerations intc human settlement planning.

Note: These goals were derived from U.S. agency operational goals and objectives related to UNEP programs. The goals reflect the intent of numerous statutes such as the National Environmental Protection Act (NEPA), the Foreign Assistance Act of 1986, the Foreign Service Act, and the Clean Water Act.

The benefits most common to the most agencies from these three UNEP program areas include:*

1. Access to formal and informal channels for the exchange of research results, technical and scientific studies, methodologies, techniques and equipment with other countries;

2. Establishment of U.S. cooperative research projects with other countries;

3. Broadening of the U.S. domestic research base and increased scientific understanding through exposure to scientific phenomena abroad;

4. Mechanisms for the exchange of technical personnel to enhance capabilities of U.S. Government professionals;

5. Mechanisms for establishing and implementing collaborative programs to address complex environmental issues, particularly those requiring the participation of developing countries;

6. Mechanisms for worldwide dissemination of U.S. scientific information and access to otherwise unobtainable scientific data and measurements from countries such as the U.S.S.R.;

7. International fora for peer review of U.S. scientific papers;

8. Opportunities to influence environmental policies of other countries;

9. Access to information sources (often computer sources) on environmental efforts, projects and programs of other governments and organizations, thereby reducing unnecessary duplication;

10. Funding for participation of U.S. scientists, and therefore representation of U.S. interests, in international meetings, negotiations, workshops and other fora;

11. Increased awareness of environmental issues that may not yet be a priority in developing countries (e.g., tropical forests) through information dissemination and discussion.

* The three programs are: Environmental Assessment Programs , Environmental Management programs and Environmental Support programs.

SOURCE
The United Nations Environment Program: A Survey of U.S. Participation and Benefits, August 1987, DOS/OES.

Convention/Treaty/Agreement/Program

Food and Agriculture Organization
(founded in 1945)

Status

EIF:
Expire:

Membership/HQ

United Nations Body. 158 members
HQ: Via Delle Terme di Caracalla, 00100 Rome, Italy

General Description/Purpose

FAO is the largest of the UN specialized agencies. As the leading international body for food and agriculture, FAO is involved at every level of agricultural, forestry and fisheries FAO's Committee on Fisheries (COFI) manages international cooperation in this area. There are regional fishery bodies including: Indo-Pacific Committee (IPFC), Indian Ocean Fishery Commission (IOFC), Fishery Commission for the Eastern Central Atlantic (CECAF) and Western Central Atlantic Fishery Commission (WECAF).

Priorities of the Committee on Fisheries include:

- the conservation and rational utilization of fishery resources in marine and inland waters;
- small-scale fisheries development;
- aquaculture development;
- improved fish utilization and marketing;
- promotion of the role of fish in nutrition;
- assistance to developing countries in the planning of fisheries development, management and investment;
- strengthening of national and regional fishery data and information services;
- continued technical support for FAO regional fishery bodies.

COFI's Subcommittee on Fish Trade addresses changes in trade structure, the development of terms of trade, and trading arrangements.

Nature and Purpose of U.S. Involvement (List Direct U.S. Benefits)

To enhance management of renewable resources; promote U.S. leadership in international ocean/resource management.

Areas of NOAA Participation

NMFS attends regular regional meetings of FAO (such as CECAF), the Committee on Fisheries and its Sub-Committee on Trade. NOAA also provides expertise, seconds professionals to the FAO secretariat on a limited bases. However there is no direct NOAA dollar support. The U.S. makes regular contributions to FAO.

Priority Issues: 1989

Level of U.S. contribution to FAO

Designation of Assistant Director-General for Fisheries

Key Meeting Dates: 1989

May 1989: Eighteenth Session of the Committee on Fisheries

Lead Agency/Department

State Department/USDA/NOAA

Interagency Coordinating Mechanism

USDA convenes interagency meetings to prepare for FAO Council and FAO Regional Conferences. NOAA/NMFS convenes interagency meetings to prepare for COFI and its Sub-Committee on Trade.

Responsible NOAA Office

Lead Official: Robin Tuttle

Others: Thomas Billy

Statutory Authority/Congressional Oversight

Convention/Treaty/Agreement/Program

International Civil Aviation Organization

Status

EIF:
Expire:

Membership/HQ

UN Organization. 152 contracting States.
SG: Mr. Yves Lambert
HQ: 1000 Sherbrook Street West, Montreal, P.Q. Canada H3A 2R2

General Description/Purpose

- Encourage the safe and orderly growth of international civil aviation;
- Encourage the arts of aircraft design and operation for peaceful purposes;
- Meet the needs of the world's peoples for safe, regular, efficient and economical air transportation between Contracting States
- Promote safety of flight in international air navigation;
- Promote generally the development of all aspects of international civil aviation

ICAO's sovereign body, the Assembly, meets at least triennially. Its government body, the Council (33 States elected by the Assembly) adopts international standard and recommends practices which are incorporated into one or more of the 18 Annexes to the Convention. As a contracting State, the U.S. is obligated to either abide by the provisions of these Annexes or to notify the world, through ICAO, of any deviations.

In addition to the machinery to maintain these annexes, ICAO is involved in technical assistance to developing countries, administration of joint support programs, user charges guidelines, and preparation of economic and statistical studies of international civil aviation.

Nature and Purpose of U.S. Involvement (List Direct U.S. Benefits)

Safe, efficient and economical international air transportation is of direct to the U.S. public as well as its airline, aerospace and tourist industries.

Areas of NOAA Participation

Primarily in provision of meteorological services (NWS) and in preparation aeronautical charts (NOS). Minor involvement in Search and Rescue (NOS,NESDIS). Environment Protection -- Aircraft engine emissions (OAR).

Priority Issues: 1989 & 1990

- Continued implemnetation of the World Area Forecast System (WAFS)
- Continued work work the issue of 12 hour Sigmets
- Continued involvement with the work of the Committee on Future Air Navigation Systems
- Adoption by the Facilitation Division in Spring 1989 of detailed recommendations to improve the access of the mobility-limited passenger to international air transport.
- Continued work in support of the Microwave Landing System (MLS) Transition Plan as well as the Collision Avoidance System (TCAS), Mode S Secondary Surveillance Radar (SSR) System and Atuomatic Dependent Surveillance.

Key Meeting Dates: 1989 & 1990

May 1989:	CAR/SAM II
1989:	WAFS Meeting
March 1989:	AMSS Panel
April 1989:	FANS V
1990	Met/Com/Ops Panel
1990:	AMSS Panel

Lead Agency/Department

State Department

Interagency Coordinating Mechanism

Interagency Group on International Aviation (DOT/FAA is secretariat)

Responsible NOAA Office

Lead Official:

Others: Dorothy Haldeman

Statutory Authority/Congressional Oversight

Convention/Treaty/Agreement/Program

International Maritime Organization

Status

EIF:
Expire:

Membership/HQ

Multilateral Organization
SG: Mr. C.P.Srivastava
HQ: 4 Albert Embankment, London SE1 7SR

General Description/Purpose

Maritime safety and pollution prevention, especially pollution from ships. Five areas of general interest: safety, pollution prevention, law, facilitation of commerce (e.g., documentation) and technical cooperation.

IMO is executive secretariat for London Dumping Convention

Nature and Purpose of U.S. Involvement (List Direct U.S. Benefits)

Promote strengthened international standards for the vessel source pollution and maritime safety.

Areas of NOAA Participation

NOAA is primarily involved with the Marine Environment Protection Committee. The U.S. will chair this committee in 1989: RADM Sidney A. Wallace, USCG (retired).

NOAA is participating in an international working group to draft a manual for designating sea areas as either Special Areas or Particularly Sensitive Areas under the International Convention for the Prevention of Pollution from Ships (MARPOL 73/78).

In addition, the US/NOAA has been a leader building the international consensus on establishing guidelines for MARPOL 73/78 Annex V for international regulations to prohibit or otherwise restrict discharges into the ocean of all types of garbage generated during the normal operation of a ship. The purpose of these U.S. introduced guidelines, finalized at MEPC 26, September 1988, is to: (1) assist national authorities in developing programs and enacting domestic laws to implement Annex

V; (2) assist vessel operators in complying with the requirements set forth in Annex V and domestic law, and (3) assist port terminal operators in assessing the need for and providing, adequate reception facilities for garbage generated on different types of ships.

Priority Issues: 1989 & 1990

1. IMO will develop a manual for designating sea areas either Special Areas or Particularly Sensitive Areas: criteria for designating such areas, procedures for submitting proposals to IMO, information on how protective measures could be implemented, a description of certain case studies and an inventory of areas which have already been designated. (NOAA Role)

2. The U.S., is consulting with States in the Gulf region regarding the possible designation of the Gulf of Mexico as a Special Areas under Annex V of MARPOL 73/78. The U.S. will have to address Cuba's proposal to expand the areas to the wider Caribbean basin. Venezuela supports the Cuban proposal and in addition wants special areas designation extended to include Annex I and V. (NOAA Role)

3. Delays in U.S. payment of its annual assessments until October 1 or later each year cause serious constraints on the IMO and, next year, could cause the U.S. to lose its voting priveleges (if the rescheduled biennial meeting in October convenes before U.S. payment).

Key Meeting Dates: 1989 & 1990

March 1989: MEPC

April 1989: The U.S., through NOAA, will sponsor the Second International Conference on Marine Debris, 2-7 April 1989, Honolulu, Hawaii.

October: Biennial meeting of IMO Assembly.

December 1989: MEPC will review the draft manual on criteria for designating particularly sensitive areas and special areas.

Lead Agency/Department

Transportation (Coast Guard)

Interagency Coordinating Mechanism

DOS has a Shipping Coordination Committee. Some 13-14 agencies relate to IMO activities.

Responsible NOAA Office

Lead Official: Tim Keeney GC

Others:

Statutory Authority/Congressional Oversight

Convention/Treaty/Agreement/Program

United Nations Committee on the Peaceful Uses of Outer Space

Status

EIF:
Expire:

Membership/HQ

Total: 53 Member States
Chairman: Austria
HQ: United Nations Headquarters

General Description/Purpose

COPUOS reports to the Special Political Committee of the United Nations General Assembly. It is divided into two subcommittees, Legal and Scientific and Technical, which meet annually as does COPUOS.

Nature and Purpose of U.S. Involvement

This is an important arena for the coordination of international space programs, the development of space science and applications and the creation of international space law.

Areas of NOAA Participation

NOAA/NESDIS advises the U.S. delegation to COPUOS on policies and positions relating to the U.S. civil remote sensing satellite program. NOAA/NESDIS is also responsible for drafting and coordinating U.S. position papers on satellite remote sensing, data applications and training.

Priority Issues: 1989

1. Space applications relevant to developing countries
2. Safe uses of nuclear power sources in outer space
3. Spin-offs from space programs
4. Redefinition of COPUOS statement of work

Key Meeting Dates: 1989 & 1990

February/March:	Science and Technical Subcommittee
March/April:	Legal Subcommittee
June:	COPUOS Plenary

Similar calendar for 1990

Lead Agency/Department

Department of State

Interagency Coordinating Mechanism

State Department

Responsible NOAA Office

Lead Official: Jeffrey MaClure, NESDIS

Others:

Statutory Authority/Congressional Oversight

II. B. Fisheries

1. International Commission for the Conservation of Atlantic Tuna (ICCAT) (International Convention for the Conservation of Atlantic Tunas)
2. Inter-American Tropical Tuna Commission (IATTC) (Convention for the Establishment of an Inter-American Tropical Tuna Commission)
3. North Atlantic Salmon Conservation Organization (NASCO) (Convention for the Conservation of Salmon in the North Atlantic Ocean)
4. Northwest Atlantic Fisheries Organization (NAFO) (Convention on Future Multilateral Cooperation in the Northwest Atlantic Fisheries) (U.S. membership under consideration)
5. International North Pacific Fisheries Commission (INPFC) International Convention for the High Seas Fisheries of the North Pacific Ocean)
6. International Pacific Halibut Commission (IPHC) (Convention for the Preservation of the Halibut Fishery of the Northern Pacific Ocean and the Bering Sea)
7. Antarctic Marine Living Resources Commission (Convention for the Conservation of Antarctic Marine Living Resources, CCAMLR)

INTERNATIONAL COMMISSION FOR THE CONSERVATION OF ATLANTIC TUNAS (ICCAT)

Basic Instrument

International Convention for the Conservation of Atlantic Tunas (TIAS 6767), 20 U.S.T. 2887, 1969

Implementing Legislation

Atlantic Tunas Convention Act of 1975 (16 U.S.C. 971)

Member Nations

Angola, Benin, Brazil, Canada, Cape Verde, Cuba, Equatorial Guinea, France, Gabon, Ghana, Ivory Coast, Japan, the Republic of Korea, Morocco, Portugal, Sao Tome and Principe, Senegal, the Republic of South Africa, Spain, the Soviet Union, Uruguay, the United States, and Venezuela

Commission Headquarters

International Commission for the Conservation of Atlantic Tunas
Principe de Vergara 17
Madrid 1, Spain
Executive Secretary: Dr. Olegario Rodriguez-Martin
Telephone: 275-85-24

Budget

The Commission has approved a budget for calendar year 1989 of $750,000. The U.S. contribution for 1989 is $46,218.

U.S. Representation

A. Appointment Process

The Atlantic Tunas Convention Act of 1975 provides that not more than three Commissioners shall represent the United States in ICCAT. Commissioners are appointed by and serve at the pleasure of the President. Of the three U.S. Commissioners one can be a salaried employee of any state or political subdivision thereof, or the Federal Government. (A NMFS official has served as a U.S. representative to ICCAT since its formation; current "Government" Commissioner is Mr. Carmen J. Blondin.)

B. U.S. Commissioners:

Carmen J. Blondin
Deputy Assistant Secretary for
International Interests
DOC/NOAA
Washington, D.C. 20230

Leon J. Weddig
National Fisheries Institute
Suite 580
2000 M Street, N.W.
Washington, D.C. 20036

Michael B. Montgomery
215 North Marengo Drive
2nd Floor
San Marino, CA 91101

C. Advisory Structure:

The U.S. Commissioners are required, under the Atlantic Tunas Convention Act, to constitute an advisory committee of not less than five nor more than twenty individuals selected from the various groups concerned with the fisheries covered by the Convention. The U.S. Commissioners appoint advisory committee members for a term of 2 years, with eligibility for reappointment. The Advisory Committee is invited to attend all non-executive meetings of the U.S. Commissioners and at such meetings have the opportunity to examine and to be heard on all proposed programs of investigation, reports, recommendations, and regulations of the Commission.

Description

A. Mission/Purpose:

The ICCAT was established to provide an effective program of international cooperation in research and conservation in recognition of the unique problems related to the highly migratory nature of tunas. The Commission is responsible for providing internationally coordinated research on the condition of the Atlantic tunas and their environment, as well as for the development of regulatory harvest proposals for consideration by the Convention Parties. The objective of such regulatory proposals is to conserve and manage species of tuna throughout their range in a manner which achieves the maximum sustainable catch.

B. Organizational Structure:

The ICCAT is comprised of a (1) commission, (2) council, (3) executive secretary, and (4) subject area panels. The Commission consists of not more than three delegates from each contracting party. The Council is an elected body within the Commission consisting of a chairman, vice-chairman, and representatives of not less than four or more than eight Contracting Parties and which performs such functions as are assigned to it by the Convention or Commission . Although the Council is supposed to meet at least once between regular meetings, since 1978 Special Meetings of the Commission have been held in lieu of meetings of the Council. The Executive Secretary is responsible for coordinating the programs of investigation, preparing budget estimates, disbursing funds and accounting for expenditures; preparing the collection and analysis of data to accomplish the purposes of the convention; and preparing scientific, administrative, and other reports for approval by the Commission. Panels are established by the Commission and are responsible for review of the species under their purview; collection of scientific and other information; proposing recommendations for joint actions; and recommending studies by the Contracting Parties. Standing Committees on Research and Statistics (SCRS) and Finance and Administration have been established by the Commission.

C. Programs:

The Commission concerns itself with (1) joint planning of research, coordination of research carried on by agencies of the Parties in accordance with its plans, and joint evaluation of the results of such research; (2) the collection and analysis of statistical information relating to the condition of fishery resources in the Convention Area; and (3) joint formulation of regulatory proposals for submission to the Parties.

Regulatory proposals approved by the Commission are submitted to governments for approval. These recommendations become effective for all Parties within approximately 6 months (unless otherwise stated) provided objections are not made during that period by concerned Contracting Governments. Each Party to the Convention has the responsibility for implementing and enforcing the Commission's recommended conservation regulations.

The Commission has taken regulatory actions with regard to three species of Atlantic tunas: yellowfin, bigeye, and bluefin tuna. In 1972 the Commission recommended a ban on the taking of yellowfin tuna weighing less than 3.2 kilograms (kg) in amounts greater than an incidental catch allowance per trip of 15 percent of all yellowfin tuna on board a vessel. These regulations were extended to bigeye tuna in 1979.

In 1974, regulatory measures were recommended for Atlantic bluefin tuna which included a 6.4 kg minimum size regulation and a limit on fishing mortality to 1974 levels. The capture of bluefin tuna in the western Atlantic was prohibited in 1981 except for a small catch necessary for continuing scientific monitoring of the stock. This catch was allocated to the ICCAT member nations which had actively participated in the fishery (United States, Canada, Japan) while Brazil and Cuba, whose catches were less than 50 metric tons (mt) annually, were exempt from these regulations. The Commission established a total allowable catch (TAC) of 2,660 mt for the 1983 fishing season (including quotas for the United States at 1,387.3 mt, Canada at 573.3 mt, and Japan at 699.4 mt). Due to the continued concern over the low level of abundance of small bluefin tuna, the Commission also limited the catch of bluefin smaller than 120 centimeters in length to no more than 15 percent in weight of the catch limit in the western Atlantic. Further, no directed fishery was permitted in spawning areas such as the Gulf of Mexico.

At each of its meetings since 1983, the Commission has approved an extension of the existing management regime for an additional year including those provisions in effect in the eastern Atlantic. The SCRS has noted that present catch levels were likely to stop the decline of the stock as well as allow stock increases in the long term.

No new management measures concerning other stocks of tuna or tuna-like fish were considered by the Commission at its 1988 meeting. In response to U.S. proposals, the Commission approved startup funding to begin pilot studies in 1987 for an enhanced billfish research program.

Staff Contacts

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Department of State (DOS):

Brian Hallman
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Washington, D.C. 20520
Phone: 647-2335

INTER-AMERICAN TROPICAL TUNA COMMISSION (IATTC)

Basic Instrument

Convention between the United States of America and the Republic of Costa Rica for the establishment of an Inter-American Tropical Tuna Commission, 1949 (TIAS 2044)

Implementing Legislation

Tuna Conventions Act of 1950 (64 Stat. 777), as amended (16 U.S.C, 95-961)

Member Nations

United States, Panama, Japan, Nicaragua, and France. Mexico, Costa Rica, and Canada have withdrawn effective November 8, 1978, April 27, 1979, and May 17, 1984, respectively.

Commission Headquarters

Inter-American Tropical Tuna Commission
c/o Scripps Institute of Oceanography
La Jolla, California 92037
Director of Investigations: Dr. James Joseph
Telephone: (619) 453-6100 - (FTS - 893-6100)

Budget

The IATTC budget was $3,303,192 in FY 1988. Proposed budgets for FY 1989 and FY 1990 are $3,525,454, and $3,525,000 respectively. The expenses of the Commission are paid by the Contracting Parties in relation to the proportion of the total catch from the fisheries covered by this Convention utilized by the Parties. The U.S. contribution to IATTC was $2,648,000 in FY 1986, $2,745,000 in FY 1987, and $2,679,000 in both FY 1988 and FY 1989.

U.S. Representation

A. Appointment Process:

The Tuna Conventions Act of 1950 provides that the United States shall be represented by a total of not more than four Commissioners, of which at least one must be an officer of NOAA and not more than one can reside elsewhere than in a state whose vessels maintain a substantial fishery in the area of the Convention. The Commissioners are appointed by and serve at the pleasure of the President.

B. U.S. Commissioners:

Henry R. Beasley
Director, Office of International Affairs
NOAA Fisheries
1335 East West Highway
Silver Spring, MD 20910

Robert Chapman MacDonald
410 Jerome Avenue
Astoria, Oregon 97103

Jack Gorby
525 North Bellagio Terrace
Los Angeles, California 90049

Wymberley Coerr
143 San Remo
Carmel, California 93921

C. Advisory Structure:

The Act requires the U.S. Commissioners to appoint an Advisory Committee composed of not less than five nor more than 15 persons selected from the groups participating in the fisheries included under the Convention. The terms of the Advisory Committee members are fixed by the Commissioners. The Advisory Committee members are invited to attend all non-executive meetings and given opportunity to examine and to be heard on all proposed programs, reports, recommendations, and regulations of the Commission.

Description

A. Mission/Purpose:

The IATTC was established to maintain the populations of yellowfin and skipjack tuna and other kinds of fish taken by tuna fishing vessels in the eastern Pacific Ocean at a level which will permit maximum sustained catches.

B. Organizational Structure:

The IATTC consists of a commission composed of national sections and a Director of Investigations. The Commission selects a chairman and a secretary from different national sections for 1-year terms to be succeeded by representatives of different nationalities.

The principal duties of the Commission are (1) to study the biology of the tropical tunas, tuna baitfish, and other kinds of fish taken by tuna vessels in the eastern Pacific Ocean and the effects of fishing and natural factors upon them, and (2) to recommend appropriate conservation measures, when necessary, so that these stocks of fish can be maintained at levels which will afford the maximum sustained catches. Each national section has one vote. Approval of decisions, resolutions, recommendations and publications is only by unanimous vote of the Commission. National sections may consist of from one to four members appointed by the governments or the respective Contracting Parties. Each national section may establish an advisory committee which is invited to attend non-executive sessions of the Commission meetings. The Director of Investigations is appointed by the Commission and is responsible for drafting programs of investigations, budget formulation, accounting and administrative support, directing technical staff, coordinating Commission work with other organizations and preparing administrative, scientific, and other reports of the Commission.

C. Programs:

To fulfill its mission, the Commission carries out an extensive research program. This program is conducted by a permanent, internationally recruited staff selected and employed by the Director of Investigations, who is responsible to the Commission.

The Commission recommends proposals for joint action by the member governments aimed at maintaining the resources at a high level. The regulations recommended by the Commission thus far apply only to yellowfin tuna. Regulation of this fishery has relied on a direct limitation on the catch, i.e., catch quotas, as a means of limiting fishing mortality to achieve optimum abundance of yellowfin tuna. Regulations were first proposed at a Commission meeting held in 1961, but were not implemented until 1966. Regulations were imposed each year through 1979. New features have been added from time to time, providing for special allowances to be taken by vessels experiencing certain economic hardships.

Since 1979 a conservation program has not been in effect for the Commission Yellowfin Regulatory Area, largely because of U.S. reluctance to agree to implementation of a catch quota level which would not apply to major participants in the fishery. The Commission did not recommend an international yellowfin tuna catch quota for 1987 in view of the condition of the yellowfin tuna resource in the eastern tropical Pacific which was found to be at its highest level of

abundance in recent years. The resource has benefited from large year classes entering the fishery in 1984 and 1985 and the favorable size composition of the catch in 1985 and 1986 when the fishery focused on harvesting larger fish. The Commission did approve a resolution which noted that the conditions which had favored increased abundance were unprecedented and could be expected to occur only infrequently. At its 1988 Annual Meeting, the Commission recommended an initial catch quota for 1988 for yellowfin tuna in the Commission Yellowfin Regulatory Area of 190,000 tons with provision for the Commission's Director of Investigations to increase this limit up to 250,000 tons if warranted by resource conditions. The member countries are not currently in a position to implement IATTC quotas because there is no assurance that they would be observed by non-member countries, such as Mexico, that harvest large amounts of Eastern Pacific tuna. Nevertheless, the IATTC recommendation provides a basis for all participants in these fisheries to evaluate conservation needs of the resource.

In 1976, the Commission embarked upon an international program to address the problem of the incidental take of porpoises in the tuna fishery. The Commission agreed on a policy to maintain tuna production at near current levels and at the same time maintain stocks of porpoise at or above levels that would ensure their survival in perpetuity. In connection with this policy, the Commission authorized a program for porpoise research which focuses on (1) the recruitment and training of scientific technicians who will collect data from vessels at sea on the stocks of porpoise in the eastern Pacific; and (2) workshops to evaluate and disseminate porpoise-saving techniques and gear technology. The scientific technician program was initiated in January 1979. In 1987 the Commission also approved a resolution on the incidental take of porpoise, calling upon all interested nations whose flag vessels participate in the eastern Pacific purse-seine fishery to take appropriate steps to encourage their fishermen to employ fishing gear and procedures that have proven effective in reducing porpoise mortality.

Status of the Commission

Efforts to renegotiate the Convention establishing IATTC were initiated by Mexico and Costa Rica in 1977 and stalled in 1980. Since then, the United States has focused on the development of a regional licensing scheme, which culminated in the signature on March 15, 1983, by the United States, Costa Rica, and Panama of the Eastern Pacific Ocean Tuna Fishing Agreement. This agreement, however, has not received the ratifications needed to bring it into force. Mexico has

been working through the Organization Latinoamerican de Desarollo Pesquero (OLDEPESCA) to negotiate a tuna management convention that would emphasize coastal state authority. In the meantime, IATTC continues to provide an internationally recognized focal point for both tuna and porpoise assessment and monitoring in the eastern tropical Pacific.

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NORTH ATLANTIC SALMON CONSERVATION ORGANIZATION (NASCO)

Basic Instrument

Convention for the Conservation of Salmon in the North Atlantic Ocean (TIAS 10789), 1983

Implementing Legislation

Atlantic Salmon Convention Act of 1982 (16 U.S.C. 3601)

Member Nations

Canada, Denmark (in respect of the Faroe Islands and Greenland), the European Economic Community (EEC), Finland, Iceland, Norway, Sweden, United States, and the U.S.S.R.

Commission Headquarters

North Atlantic Salmon Conservation Organization
11 Rutland Square
Edinburgh, EH1 2AS Scotland
United Kingdom
Secretary: Dr. Malcolm Windsor
Telephone: 031-228-2551

Budget

The Convention provides that 30 percent of the Organization's budget will be borne equally by the Parties; 70 percent will be based on recent catches of salmon in intercepting fisheries. The Council budget was 259,515 pounds sterling in 1988 with a U.S. contribution of 8,690 pounds. The Council adopted a budget for 1989 of 266,650 pounds sterling of which the U.S. contribution will be 8,939 pounds. A forecast budget for 1990 was estimated to be 264,150 pounds of which the U.S. contribution would be 8,828 pounds. The NASCO budget has increased significantly due to the purchase of a NASCO headquarters in Edinburgh. The 1989 budget reflects the highest repayment values on that loan.

U.S. Representation

A. Appointment Process:

The Atlantic Salmon Convention Act of 1982 provides that the United States shall be represented on the Council and Commissions by three U.S. Commissioners to be appointed by the President to serve at his pleasure. Of the Commissioners, one must be an official of the U.S. Government and

two must be individuals (not officials of the U.S. Government) who are knowledgeable or experienced concerning the conservation and management of salmon of U.S. origin. The current U.S. Federal Commissioner is a NOAA official, Mr. Allen Peterson, Director, NOAA Fisheries, Northeast Fisheries Center. Mr. Peterson has also been elected to serve as president of NASCO's Council, to serve a two-year term beginning in 1989.

B. U.S. Commissioners:

Allen E. Peterson, Jr.
Director, NOAA F/NEC
14 Elm Street
Gloucester, Massachusetts 01930

Richard A. Buck, Chairman
Restoration of Atlantic Salmon in America, Inc.
Box 164
Hancock, New Hampshire 03449

Frank E. Carlton
President, National Coalition for
Marine Conservation, Inc.
P.O. Box 23298
Savannah, Georgia 31403

C. Advisory Structure:

The U.S. Section of NASCO was formally constituted to provide the U.S. Commissioners with advice, with particular reference to development of U.S. policies, positions, and negotiating tactics. Membership of the U.S. Section includes public and ex officio members. Public members are appointed by the Commissioners and serve for a term of 2 years with eligibility for an additional two-year term. Public members are limited to 15 in number and must be persons knowledgeable or experienced concerning the conservation and management of salmon of U.S. origin. Ex officio members include:

(1) the Chairman (or designee) of the New England Fishery Management Council;

(2) a representative of the fishery agency of each of the States of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, and Connecticut;

(3) the Deputy Assistant Secretary of State for Oceans and Fisheries Affairs or his representative;

(4) a representative of the National Oceanic and Atmospheric Administration and Department of Commerce; and

(5) a representative of the Fish and Wildlife Service, Department of the Interior.

Description

A. Mission/Purpose:

The purpose of NASCO is: (1) to promote the acquisition, analysis, and dissemination of scientific information pertaining to salmon stocks in the North Atlantic Ocean, and (2) to promote the conservation, restoration, enhancement, and rational management of salmon stocks in the North Atlantic Ocean through international cooperation. While there is no Convention Area (the Convention applies to the salmon stocks which migrate beyond areas of fisheries jurisdiction of coastal states of the Atlantic Ocean north of 36½ N latitude throughout their migratory range), there are three distinct Commission Areas; North American, West Greenland, and Northeast Atlantic.

B. Organizational Structure:

The Organization consists of a: (1) Council; (2) three regional Commissions: North American Commission (NAC), West Greenland Commission (WGC), and North-East Atlantic Commission (NEAC); and (3) the Secretary.

The Council (which consists of representatives of all Contracting Parties): (1) provides a forum for the study, analysis, and exchange of information on salmon stocks subject to the Convention; (2) provides for consultation and cooperation concerning salmon stocks beyond Commission Areas; (3) coordinates the activities of the Commissions, (4) establishes working arrangements with the International Council for the Exploration of the Seas (ICES) and other fisheries and scientific organizations; (5) makes recommendations concerning the undertaking of the scientific research, (6) supervises and coordinates the administrative, financial, and other internal affairs of the Organization, and (7) coordinates the Organization's external relations.

The three Commissions each have the following functions: (1) provide for consultation and cooperation among their members, (2) propose regulatory measures for intercepting salmon fisheries, and (3) make recommendations to the Council concerning the undertaking of scientific research.

Canada and the United States are members of the NAC. Canada, the EEC, the United States, and Denmark, in respect of Greenland, are members of the WGC. Denmark, in respect of the Faroe Islands, the EEC, the U.S.S.R., Iceland, Norway,

and Sweden are members of the NEAC. In case of the NAC, the EEC may submit and vote on proposals for regulatory measures concerning salmon stocks originating in the territories of its member States. Canada and the United States each have similar rights in the case of the NEAC.

C. Programs:

The Convention prohibits salmon fishing beyond areas of fisheries jurisdiction of coastal states. Within areas of coastal state fisheries jurisdiction, salmon fishing is prohibited beyond 12 nautical miles from baselines used to measure the breadth of the territorial sea except: (1) off West Greenland, salmon fishing may take place up to 400 miles from baselines, and (2) off the Faroe Islands, it may take place within the Faroese area of fisheries jurisdiction.

The fifth annual meeting held in June 1988 produced agreement for the first time in all three commissions. The NAC continued existing regulatory measures, including the Canadian closure of the Newfoundland and Labrador fishery from October 15 through December 31 to reduce Canadian interceptions of U.S.-origin salmon. The WGC established a three-year quota of 2,520 mt (total) for the three fishing years 1988, 1989, and 1990. In no single year can the annual catch exceed the annual average by more than 10 percent. This quota is slightly lower than the 850 mt limit set for 1987. Poundage would be adjusted upward if the season starting date is delayed, allowing the salmon to grow larger. The NEAC, the last of the three commissions to achieve agreement on regulatory measures is in the second year of a three-year effort limitation program to be monitored annually. The total catch during the three-year trial period shall not exceed 1,790 mt (or approximately 626.5 mt in any one year).

Scientific advice is provided to NASCO by ICES. A working group within ICES provides information on catch statistics, population analyses, stock composition/distribution/origin, and associated research results in response to specific requests from NASCO.

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DOS:

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Washington, D.C. 20520
Phone: 647-1948

NORTHWEST ATLANTIC FISHERIES ORGANIZATION (NAFO)

Basic Instrument

Convention on Future Multilateral Cooperation in the Northwest Atlantic Fisheries (entered into force January 1, 1979, but not for the United States).

Implementing Legislation

None: On May 3, 1979, the President transmitted the NAFO Convention to the Senate, which gave its advice and consent on July 27, 1983. The President signed the instrument of accession on September 6, 1983. The United States has not yet sought to accede to the Convention, pending enactment of necessary implementing legislation. Draft implementing legislation was prepared by the Department of State (DOS) in August 1985. Action is on hold within DOS following initial consultations with DOC/NOAA/NMFS.

Member Nations

Bulgaria, Canada, Cuba, the EEC, the Faroe Islands, the German Democratic Republic, Iceland, Japan, Norway, Poland, Romania, and the U.S.S.R. (Spain and Portugal are represented by the EEC.)

Commission Headquarters

Northwest Atlantic Fisheries Organization
P.O. Box 638
Dartmouth, Nova Scotia, Canada B2Y 3Y9
Executive Secretary: Captain J.C. Esteves Cardoso
Telephone: (902) 469-9105

Budget

The NAFO adopted a budget for FY 89 of $813,000 Canadian dollars. There is no U.S. contribution since the United States is not a NAFO member. Due to a somewhat complicated weighting system, Canada is the largest contributor to NAFO's budget with a 1989 contribution estimated at $336,601 (Canadian).

U.S. Representation

There are no U.S. Commissioners since the United States is not a member of NAFO. The NAFO meetings have traditionally been attended by observers from NMFS and DOS. U.S. scientists from the NMFS Northeast Center have routinely attended scientific committee meetings since the formation of NAFO.

Description

A. Mission/Purpose:

NAFO is a successor organization to the International Commission for the Northwest Atlantic Fisheries (ICNAF). Its purpose is: (1) to provide for continued multilateral consultation and cooperation with respect to the study, appraisal, and exchange of scientific information and views relating to fisheries of the Convention Area and (2) to conserve and manage fishery resources of the Regulatory Area, i.e., that part of the Convention Area which lies beyond the areas in which coastal states exercise fisheries jurisdiction. The Convention Area is located within the waters of the Northwest Atlantic ocean roughly north of 35½ north latitude and west of 42½ west latitude. (Note: The Convention applies to all fishery resources of the Convention Area with the exception of: salmon, tunas and marlins, cetacean stocks managed by the International Whaling Commission or any successor organization, and sedentary species of the Continental Shelf.)

B. Organizational Structure:

The NAFO consists of a General Council, Fisheries Commission, Scientific Council, and a Secretariat. The General Council provides executive guidance for the Secretariat and provides a forum for member nations' approval of programs and regulations. The Scientific Council provides a forum for the exchange of scientific information and views relating to the fisheries of the Convention Area; compiles, maintains, and publishes statistics pertaining to the fisheries, including environmental/ecological factors in the Convention Area; provides scientific advice to coastal states when requested to do so; and provides scientific advice to the NAFO Fisheries Commission. The Fisheries Commission is responsible for the management and conservation of the fishery resources of the Regulatory Area.

C. Programs:

NAFO has established and maintains conservation and enforcement measures in the Regulatory Area. These measures include TAC's and member nation allocations, mesh size and chafing gear requirements, notification and registration requirements for fishing vessels operating in the Regulatory Area, and data reporting requirements. The management strategy of NAFO has been dominated by the Canadian adherence to the F 0.1 mortality rate which results in yields close to F max, but with the catch composed of larger more valuable fish. This philosophy has been challenged by the EEC and has since been referred to the Scientific Council for evaluation to be reported at the 1987 annual meeting.

NAFO conducts a program of joint international enforcement in the Regulatory Area as well as an International Scientific Observer Program. Management measures are not binding on any contracting nation which formally objects to a proposed management measure.

The most significant management measure to date is the continued moratorium on cod fishing in the Flemish Cap area, which as been achieved by consensus. This protection has been necessary to rebuild the stocks. Many other stocks in the area are declining, but NAFO has lacked the consensus necessary to impose restrictive catch limits.

In addition to advice provided to the Fisheries Commission on Regulatory Area stocks, the NAFO Scientific Council provides advice to coastal states, at their request, on stocks within their 200-mile zones. In particular, the Scientific Council provides assessment advice on shrimp in Subareas 0 and 1 and shrimp off East Greenland as well as assessment advice on harp and hood seals in Newfoundland and Labrador.

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Phone 647-2009

INTERNATIONAL NORTH PACIFIC FISHERIES COMMISSION (INPFC)

Basic Instrument

International Convention for the High Seas Fisheries of the North Pacific Ocean with Annexes and Protocols, 1952 (TIAS 2786)

Implementing Legislation

North Pacific Fisheries Act of 1954 (as amended: 68 Stat. 698; 71 Stat. 310; 86 Stat. 784; 92 Stat. 1949)

Member Nations

Canada, Japan, and the United States

Commission Headquarters

International North Pacific Fisheries Commission
6640 Northwest Marine Drive
Vancouver, B.C., Canada V6T 1X2
Executive Director: Mr. Bernard E. Skud
Telephone: (604) 228-1128

Budget

The Commission budget for FY 1988/89 is $407,400 (Canadian funds). The U.S. contribution is $142,300.

U.S. Representation

A. Appointment Process:

The U.S. Section to INPFC must be represented on the Commission by not more than four Commissioners who are appointed by the President and serve at his pleasure. Each U.S. Commissioner is appointed for a term not to exceed four years, but is eligible for reappointment. Of these Commissioners, one shall be an official of the U.S. Government, two shall be residents of the State of Alaska, and the other Commissioner must be a resident of a State of Washington. In addition, the Secretary of State, in consultation with the Secretary of Commerce, may designate from time to time Alternate U.S. Commissioners to the INPFC.

B. U.S. Commissioners: (Term expiration date in parentheses)

James W. Brooks (designated Alternate Commissioner, May 1988)
Deputy Director, Alaska Region
NOAA Fisheries
P.O. Box 21668
Juneau, Alaska 99802

Richard B. Lauber (June 4, 1992)
Vice President and Manager
Pacific Seafood Processors Association
P.O. Box 1625
Juneau, Alaska 99802

Dayton L. Alverson (June 4, 1990)
Natural Resources Consultants
4055 21st Avenue, West
Seattle, Washington 98119

Clement V. Tillion (June 4, 1989)
Chairman, U.S. Section to the INPFC
P.O. Box 6409
Halibut Cove, Alaska 99603

C. Advisory Structure:

Pursuant to the North Pacific Fisheries Act, the Advisory Committee to the U.S. Section to INPFC must be composed of not less than six nor more than twenty-one members; it currently consists of twenty-one members. The Advisory Committee is invited to all non-executive sessions of the Commission and may examine and be heard on all proposed programs of study and investigation, reports, and recommendations of the U.S. Section. Two-thirds of the membership of the Advisory Committee must consist of individuals who reside in the State of Alaska.

Description:

A. Mission/Purpose:

The Commission serves as a forum for coordinating the collection, exchange, and analysis of scientific data regarding anadromous species within Convention waters (i.e., the North Pacific) as well as non-anadromous species, and several marine mammal and seabird species. It also has applied certain management criteria to the Japanese mothership and landbased salmon fisheries so as to minimize interceptions of North American-origin salmon stocks.

B. Organizational Structure:

The Commission has two main committees: the Standing Committee on Finance and Administration and the Standing Committee on Biology and Research. These committees are responsible for providing accurate and timely advice to the Commission in areas relating to the finances of the Secretariat and the scope of scientific research conducted under the auspices of the Commission.

C. Programs:

Under the present Annex to the Convention, Japan's mothership salmon fishery is: (1) prohibited from fishing for salmon south of 56 degrees North latitude and east of 175 degrees East longitude; (2) limited in time when it can fish and levels of fishing effort north of 56 degrees North latitude beyond the U.S. Exclusive Economic Zone (EEZ); and (3) limited in time when it can fish west of 175 degrees East longitude within the U.S. EEZ and between 170 and 175 degrees East, north of 46 degrees North latitude, beyond the U.S. EEZ. In addition, operations of the Japanese landbased salmon fishery are restricted to oceanic areas west of 174 degrees East longitude.

In 1986, the parties amended the Annex to the Convention to phaseout Japan's mothership fishing in the high seas area of the Bering Sea (to be accomplished by 1994). The three Parties agreed to continue to increase the exchange of data on salmon and other species in the Convention Area and to work cooperatively, pursuant to a Memorandum of Understanding, to undertake a 3- to 5-year scientific study to determine more accurately the continent of origin of salmon in Convention waters.

The 35th Annual Meeting of the INPFC was held in Tokyo, Japan, from October 31 to November 4, 1988. The three national sections considered a wide-range of issues regarding North Pacific fisheries including the operations of the Japanese mothership salmon fishery under the Annex to the Convention, the unregulated pollock fisheries in the central Bering Sea beyond 200-mile zones, the Japanese high seas squid driftnet fishery, and the illegal harvest of salmon by non-member nations. The most pressing issue under consideration by the Commission was the recent prohibition of Japanese salmon fishing in the U.S. EEZ as a result of a judicial action (the Kokechik decision) and the Japanese desire to convert the mothership fishery to a landbased fishery. Progress was made in addressing these issues and further consultations between the three Governments were held in Washington, D.C., in December 1988.
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The 36th Annual Meeting of the INPFC has been scheduled for November 7-11, 1989, in Seattle, Washington.

Staff Contacts

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DOS:

Robert J. Ford
OES/OFA
Room 5806
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Washington, D.C. 20520
Phone: (202) 647-2009

INTERNATIONAL PACIFIC HALIBUT COMMISSION (IPHC)

Basic Instrument

Convention for the Preservation of the Halibut Fishery of the Northern Pacific Ocean and Bering Sea, 1953 (TIAS 2900)

Implementing Legislation

Northern Pacific Halibut Act of 1982 (as amended: 50 Stat. 325; 67 Stat. 494; 79 Stat. 902; 97 Stat. 78)

Member Nations

Canada and the United States

Commission Headquarters

International Pacific Halibut Commission
P.O. Box 95009
University Station
Seattle, Washington 98105
Director: Dr. Donald A. McCaughran
Telephone: (206) 634-1838

Budget

The Commission approved budget for FY 1988/89 is $1,707,500. The U.S. contribution is one-half of this amount ($853,750).

U.S. Representation

A. Appointment Process:

The United States is represented on the IPHC by three Commissioners who are appointed by the President for a determinate period. Of these Commissioners, one must be a NOAA official, one must be a resident of Alaska, and one must be a non-resident of Alaska. In addition, one of these three Commissioners must be a voting member of the North Pacific Fishery Management Council. The Secretary of State, in consultation with the Secretary of Commerce, may designate from time to time Alternate U.S. Commissioners to the IPHC.

B. U.S. Commissioners: (term expiration date is in parentheses)

James W. Brooks (designated Alternate Commissioner, May 1988)
Deputy Director, Alaska Region
National Marine Fisheries Service, NOAA
P.O. Box 21668
Juneau, Alaska 99802

Richard I. Eliason (December 12, 1989)
Alaska State Senate
P.O Box 143
Sitka, Alaska 99835

George A. Wade (December 12, 1989)
Chief Executive Officer
VWH Company, Ltd.
P.O. Box 9448
Seattle, Washington 98109

C. Advisory Structure:

There are no formal provisions for a U.S. Advisory Committee to IPHC, although an informal group made up of U.S. and Canadian industry representatives, known as the IPHC Conference Board, does attend and voice concerns at annual Commission meetings.

Description

A. Mission/Purpose:

The IPHC was created to conserve, manage, and rebuild the halibut stocks in the Convention Area to those levels which would achieve and maintain the maximum sustainable yield from the fishery.

B. Organizational Structure:

The IPHC consists of a Commission and staff. The Commission is comprised of six members; three representatives appointed by each Contracting Party. All decisions of the Commission are made by a concurring vote of at least two of the Commissioners of each Contracting Party. The research programs and regulatory actions of the Commission are coordinated by the IPHC staff, in consultation with the Commissioners. The IPHC staff currently includes over 20 employees, most of whom are fishery biologists; the rest are administrative and support staff.

C. Programs:

Under the Protocol to the Convention, the Commission retains a research staff and recommends, for the approval of the Parties, regulations designed to achieve the purpose of the Convention. The Protocol provides for: (1) the setting of quotas in the Convention Area, and (2) joint regulation of the halibut fishery in the entire Convention Area under Commission regulations. Neither U.S. nor Canadian halibut fishing vessels are presently allowed to fish in the waters of the other country.

The IPHC held its 64th Annual Meeting in Sitka, Alaska, January 25-28, 1988. The Commission approved a total catch quota of 73.73 million pounds for 1988, 4.9 million pounds more than the 68.825 million pound quota in 1987. The IPHC scientific staff reported that the halibut resource is rebuilt throughout much of its range, particularly in the Gulf of Alaska. The staff also noted that the incidental catch of halibut in fisheries targeting on other groundfish species has decreased in the Convention waters off Alaska, thus contributing to stock improvement.

In other areas, the IPHC decided to retain a ban on the use of automated hook extractors in an attempt to reduce the problem of sub-legal mortality. In addition, the Commission adopted a policy of flexibility in establishing and modifying fishing periods within season.

The 65th Annual Meeting of the IPHC is scheduled to be held in Vancouver, Canada, between January 24-27, 1989.

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COMMISSION FOR THE CONSERVATION OF ANTARCTIC MARINE LIVING RESOURCES (CCAMLR)

Basis Instrument

Convention for the Conservation of Antarctic Marine Living Resources (TIAS 10240), 1982

Implementing Legislation

Antarctic Marine Living Resources Convention of 1984 (16 U.S.C. 2431)

Member Nations

Argentina, Australia, Belgium, Brazil, Chile, European Economic Community, France, German Democratic Republic, India, Japan, Republic of Korea, New Zealand, Norway, Poland, South Africa, Spain, the U.S.S.R., the United Kingdom, the United States, (Note: Greece, Sweden and Uruguay are acceding states).

Commission Headquarters

Commission for the Conservation of Antarctic
Marine Living Resources
25 Old Wharf
Hobart, Tasmania 7000 Australia
Executive Secretary: Dr. Darry L. Powell
Telephone: 002-310366

Budget

The Commission budget was $1,154,800 in 1988; a budget of $1,215,300 has been adopted for 1988. The U.S. contribution is determined by formula based on an equal share for each Commission member. The U.S. contribution for 1989 will be $46,414.

U.S. Representation

A. Appointment Process

The United States Representative to the Commission is appointed by the Secretary of Commerce and Director of the National Science Foundation (NSF). The United States Representative to the Scientific Committee is appointed by the Secretary of Commerce in consultation with the Secretary of State and Director of NSF.

B. U.S. Representative:

There is no appointed U.S. Representative as of this date. The Acting U.S. Representative is:

R. Tucker Scully
Director, Office of Oceans
and Polar Affairs
OES/OPA, DOS
Washington, D.C. 20520

U.S. Representative to the Scientific Committee:

Izadore Barrett
Director, NOAA F/SWC
LaJolla, California
Phone: FTS 893-7067
Commercial (619)-453-2820

C. Advisory Structure:

The U.S. Representative to the Scientific Committee is responsible for providing scientific advice to the Commissioner on the operation of the U.S. Antarctic Marine Living Resources (AMLR) directed research program; on the status of krill, finfish, squid, marine mammal, and bird populations; on data requirements; on the long-term program of work of the Scientific Committee; and on recommendations for conservation and management measures. Permanent Working Groups on Krill, Fish Stock Assessment, and the CCAMLR Ecosystem Monitoring Program have been constituted to develop and review research proposals and results.

Description

A. Mission/Purpose

The 1982 Convention established CCAMLR for the purpose of protection and conservation of the marine living resources found in the waters surrounding Antarctica. The Convention is based upon an ecosystem approach to the conservation of marine living resources and incorporates standards designed to ensure the conservation of individual populations and species and the Antarctic marine ecosystem as a whole.

B. Organizational Structure

CCAMLR is comprised of the Commission, Executive Secretary, and a Scientific Committee. The Commission consists of one representative from each member nation and is responsible for facilitating research, compiling data of the status of and

changes in Antarctic marine living resources, ensuring the acquisition of catch and effort data,publishing information, identifying conservation needs, adopting conservation measures, and implementing a system of observation and inspection. The Executive Secretary handles the administrative matters for the Commission. The Scientific Committee is comprised of scientific advisors from the member nations and recommends research programs and conservation measures to the Commission.

C. Programs:

The Commission adopted its first conservation measures during the 1984 session (CCAMLR III). Conservation measure 1/III closes the waters within 12 nautical miles of South Georgia to fishing for other than scientific purposes. Conservation measure 2/III prohibits the use of pelagic and bottom trawls of less than 120 mm mesh size in the directed fishery for Notothenia rossii, Dissostichus eleginoides and 80 mm mesh size in the directed fishery for Notothenia gibberifrons, N. squamifrons, and Champsocephalus gunnari. These measures became binding on all members of the Commission on April 5, 1985.

The 1985 session of the Commission adopted measure 3/IV prohibiting directed fishing on N. rossii around South Georgia (Statistical Subarea 48.3) and requesting members to keep by-catches of N. rossii in fisheries directed to other species to the level allowing the optimum recruitment to the stock.

The 1986 session of the Commission adopted four conservation measures. Measure 4/V established regulations on mesh size measurements which supplement Measure 2/III. Measure 5/V prohibits directed fishing on N. rossii in Area 48.1 around the Antarctic Peninsula and requests members to keep by-catches of N. rossii in fisheries directed to other species to the level allowing the optimum recruitment to the stock. Measure 6/V applies the same prohibition-consideration to Area 48.2. Fishing around South Georgia was further addressed in Measure 7/V by establishing authority for the Commission at the 1987 meeting to adopt limitations on catch, or equivalent measures binding for the 1987/88 and subsequent fishing seasons.

The 1987 session adopted three conservation measures. Measure 8/VI limited the total catch of C. gunnari in Area 48.3 in the 1987/88 season to 35,000 tons. Measure 9/VI established a catch reporting system for C. gunnari in Area 48.3 and measure 10/VI prohibited a directed fishery on C. gunnari in Area 48.3 from April 1 until October 1, 1988.

The 1988 session adopted two measures. Measure 11/VII prohibited a directed fishery on C. gunnari in Area 48.3 from November 4, to November 20, 1989, and closed the fisheries for C. gunnari, N.

rossii, N. gibberifrons, Chaenocephalus aceratus and Pseudochaenichthys georgianus from April 1 to October 1, 1989. Measure 12/VII set a catch limit on Patagonotothen brevicauda guntheri of 13,000 tons in Area 48.3 for the 1988/89 season, implemented through the 9/VI catch reporting system.

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II. C. Marine Mammals

1. International Whaling Commission (IWC)
2. Convention for the Conservation of Antarctic Seals

INTERNATIONAL WHALING COMMISSION (IWC)

Basic Instrument

International Convention for the Regulation of Whaling, 1946, (TIAS 1849); Protocol amending 1956 (TIAS 4228)

Implementing Legislation

Whaling Convention Act of 1949 (64 Stat. 421, 16 U.S.C. 916-9162)

Member Nations

Antigua and Barbuda
Argentina
Australia
Belize
Brazil
Chile
China, People's Republic of
Costa Rica
Denmark
Egypt
Finland
France
FRG
Iceland
India
Ireland
Japan
Kenya
Korea, Republic of
Mauritius
Mexico
Monoco
Netherlands
New Zealand
Norway
Oman
Peru
Philippines
Senegal
Seychelles
Solomon Islands
South Africa
Spain
Sweden
Switzerland
St. Lucia
St. Vincent
United Kingdom
United States
U.S.S.R.
Uruguay

Commission Headquarters

International Whaling Commission
The Red House
Station Road, Histon
Cambridge, CB4 4NP, United Kingdom
Secretary: Dr. R. Gambell
Telephone: 011-44-220-233 971

Budget

The Commission approved a budget of 556,550 pounds sterling($874,480) for 1987-88. The U.S. contribution amounts to 18,696 pounds sterling ($29,913).

U.S. Representation

A. Appointment Process:

The Commissioner is appointed by the President, on the concurrent recommendations of the Secretary of State and the Secretary of Commerce, and serves at his pleasure. The President may also appoint a Deputy U.S. Commissioner.

B. U.S. Commissioner:

William E. Evans
Under Secretary for
Oceans and Atmosphere
Department of Commerce/NOAA
Washington, D.C. 20230

Deputy Commissioner:

Norman C. Roberts
2810 Hidden Valley Road
La Jolla, California 92037

C. Advisory Structure:

U.S. representation in the IWC has no formal (legislated) advisory structure. The IWC Commissioner does consult, however, with the IWC Interagency Committee which includes representatives of the DOS, the Marine Mammal Commission, other Federal agencies, conservation organizations, and other interested parties.

Description

A. Mission/Purpose:

The 1946 Convention has as its objective the proper conservation of world whale stocks, thus making possible the orderly development of the whaling industry. The Convention established the IWC to provide for a continuing review of the condition of whale stocks and for such additions to or modifications of the agreed conservation measures as might appear desirable.

B. Organizational Structure:

The IWC consists of the Commission, Secretariat, and subject area committees. The Commission is composed of one member from each Contracting Government, and may be accompanied by one or more experts and advisors. Each member government has one vote. Decisions of the Commission are by simple majority of those members voting, except that a three-fourths majority of those

members is required for actions to amend the provisions of the Schedule. The Commission can determine its own rules of procedure and may appoint its own Secretary and staff. The Committees may be set up by the Commission from its own members and experts or advisors to perform such functions as it may authorize.

C. Programs:

The IWC normally meets once a year to review the condition of whale stocks and to modify conservation measures as appropriate. The Commission has used various means of regulating commercial whaling including the fixing of open and closed seasons, open and closed areas, protected species, size limits for each species, and limits on the catch of whales in any one season. The IWC has also maintained an international observer program which places observers from other countries on board whaling vessels and at land whaling stations to monitor commercial whaling operations.

Recent actions by the IWC include establishment of a whale sanctuary in the Indian Ocean area, prohibition on the use of cold grenade (nonexploding) harpoons to kill whales for commercial purposes, a moratorium on all commercial whaling from the beginning of the 1985-86 pelagic and 1986 coastal seasons, and the adoption of a separate and distinct management scheme for aboriginal subsistence whaling. Criteria for evaluating research involving the killing of whales under special permits were established in 1986 because of concerns that some countries would use special permits for scientific research as a means of circumventing the zero catch limits for commercial whaling. Additional criteria were added to the existing guidelines for review of research programs in a resolution adopted in 1987 and the IWC Scientific Committee was called upon to review such programs. The resolution allows the Commission to recommend, based upon the Scientific Committee's advice, that member governments refrain from issuing or revoke permits when the Scientific Committee evaluation warrants such action. The Commission has since adopted resolutions recommending that four Governments, Iceland, Japan, Korea, and Norway, refrain from issuing or revoke scientific permits either currently in force or proposed. At the 1988 Annual IWC Meeting, quotas were established for aboriginal/subsistence whaling for bowhead whales, (taken by U.S. natives), gray whales (taken by Soviet and U.S. natives) minke and fin whales (taken by Greenland natives) and humpback whales (taken by St. Vincent and the Grenadines natives).

The Commission established a Working Group at the 1987 Annual Meeting to examine questions relating to the operation of the Convention. This Working Group will meet again at the 1989 meeting as will a new Working Group to examine the situation of small-type whaling. The working groups will meet prior to next year's meeting along with other established working groups and sub-committees. A comprehensive assessment of the status of the stocks has been undertaken during the moratorium on commercial whaling.

Staff Contacts

NOAA Fisheries:

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Room 7306
1335 East West Highway
Silver Spring, MD 20910
Phone: (301) 427-2276

DOS:

Claudia Kendrew
OES/OPA, DOS
Washington, D.C. 20520
Phone: (202) 647-3262

Convention/Treaty/Agreement/Program

Convention for the conservation of Antarctic Seals (CCAS).

Status

Entered into force: March 11, 1978

Membership/HQ

Thirteen members
The United Kingdom is the Depositary Government for the Convention. No Commission or Scientific Committee has been established. The Scientific Committee on Antarctic Research (SCAR) assists the Parties to the Convention by receiving sealing information from the Parties and providing them with scientific advice.

General Description/Purpose

CCAS is an agreement to promote and achieve the objectives of protection, scientific study and the rational use of Antarctic seals and to maintain a satisfactory balance within the ecological system. The current population of Antarctic seal stocks is estimated at 15 million. Reported seal catches are not viewed by the Parties as having a significantly harmful effect on the total stocks of Antarctic species nor on the ecological system.

Nature and Purpose of U.S. Involvement

To promote the ecosystem management of Antarctic seals. The United States includes a representative from the environmental community on its delegation to meetings of Parties to CCAS.

Area of NOAA Participation

NOAA/NMFS attends meetings of CCAS and the SCAR Working Group of Specialists on Seals.

Priority Issues: 1989

None. Parties at the 1988 meeting made only minor recommendations for institutional changes or changes to the Annex to the Convention.

Key Meeting Dates: 1989

The 1988 meeting was the first times the Parties to the Convention had met since CCAS entered into force. It was occasioned by a 1986/87 Soviet commercial sealing expedition and

research cruise, the only reported commercial take since 1978. Given that none of the Parties have indicated plans for commercial sealing in the foreseeable future, no meeting date has been set for 1989 or beyond.

Lead Agency/Department

Department of State/NOAA.

Interagency Coordinating Mechanism

State Department convenes delegation meetings to prepare for CCAS.

Responsible NOAA Office

Lead Official: Michael Tillman
Others: Robin Tuttle, John Bengston

Statutory Authority, Congressional Oversight

None.

II. D. Trade and Economic Cooperation

1. General Agreement on Tariffs and Trade (GATT)
2. FAO/WHO Codex Alimentarius Commission
3. Committee for Fisheries of the Organization for Economic Cooperation and Development (OECD)
4. Convention on International Trade in Endangered Species of the World Fauna and Flora

Negotiations

General Agreement on Tariffs and Trade (GATT) (GATT was signed in 1947; Uruguay Round Negotiations were launched in 1986)

Other Country and Countries

About 95 countries, all the industrialized (OECD) countries and nearly 70 developing countries and several with centrally planned economies are engaged in Uruguay Round Negotiations under auspices of the GATT.

Forum or Fora of Negotiations

The purpose of the GATT is to work towards fair and free trade. Multilateral trade negotiations are the forum in the current Uruguay Round discussions in Geneva. Negotiating strategies are worked out in the capitals of participating countries.

The negotiations are done in a number of different negotiating groups. Such groups as Tariffs, Non-Tariff Measures, Agriculture, GATT Articles, Natural Resource Based Products, and Subsidies and Countervailing Measures are potentially dealing with fisheries issues.

Agreements already concluded during negotiations. None in the area of fisheries.

Description of General Problem

New protectionist pressures have challenged the multilateral trade system. From the fisheries point of view the establishment of the Exclusive Economic Zones (EEZ's) have created need for improved market access for fishery products of the coastal countries such as the United States.

Nature and Purpose of U.S. Involvement

NOAA's position is to have fish trade issues negotiated in the Agriculture Negotiating Group. The major advantage to this is that the U.S. agriculture position is to negotiate elimination (or reduction) of agriculture subsidies - a major problem also in fisheries. Tariff and nontariff barrier reductions would be done within this negotiating group.

Fisheries issues are currently included in the Natural Resource Based Product Negotiating Group with forestry products and non-ferrous minerals. NOAA would prefer not to have fisheries issues negotiated in this group. The European Community (EC) has been pressing its position this group to involve access to fish resources in the GATT negotiations. The U.S. position is that issues of access to fish resources are not in the jurisdiction of

the GATT, but have been negotiated under the Law of the Sea.

Priority Issues: 1989 & 1990

NOAA is particularly interested in:
-reduction of subsidies to fishing industry
-reduction of tariffs
-reduction of non-tariff barriers
-keep the control of fishing in the U.S. EEZ.

Key Meeting Dates

Negotiating groups meet frequently; sometimes as often as monthly.

Lead Agency

USTR, USDA.

Interagency Coordination

NOAAs position and inputs are provided to the negotiations through the U.S. International Trade Policy Interagency Coordination.

Responsible NOAA Office

NMFS Office of Trade and Industry Services

Key Support Staff

Prudence Fox, Chief, Division of Trade Services
Bruce Norman, Division of Trade Services
Jukka Kolhonen, Division of Trade Services

Statistory Authority/Congressional Oversight

Omnibus Trade and Competitiveness Act of 1987.

Convention/Treaty/Agreement/Program
Codex Alimentarius Commission, jointly sponsored by FAO and WHO

Status

Membership/HQ
Membership of the Codex Alimentarius Commission comprises those Member Nations and Associate Members of FAO and WHO which have notified the Director-General of FAO or of WHO of their wish to be considered as Members. As of February, 1986 one hundred and twenty-nine countries had become Members of the Commission. The Commission is headquartered in Rome.

General Description/Purpose
The Codex Alimentarius Commission was established to implement the Joint FAO/WHO Food Standards Programme. The purpose of the Programme is to protect the health of consumers and to ensure fair practices in the food trade; to promote coordination of all food standards work undertaken by international governmental and non-governmental organizations; to determine priorities and initiate and guide the preparation of draft standards through and with the aid of appropriate organizations; to finalize standards and after acceptance by goverments publish them in Codex Alimentarius either as regional or world-wide standards.

The Commission has twenty-eight subsidiary bodies, of which five deal with general policy and coordination, seven with subject matters relevant to the work of the commodity committees, and sixteen with specific groups of foods.

Nature and Purpose of US Involvement
The United States participates on each of the Committees and the Commission. U.S. delegations usually have interagency and private industry representation. NOAA leads the delegation to the Committee on Fish and Fish Products. The purpose of this involvement is to promote harmonization of technical food standards among nations as the basis for trade; and to assure that such harmonization is based on scientific evidence and industry capabilities.

Priority Issues: 1989 & 1990
Over this particular time frame, highest priority is to promote the US position in the Uruguay Round on harmonization of international food standards. The issues involved in this effort are: the nature of harmonization, the relationship of the Commission to GATT, the definition of elements to be harmonized, the status of existing standards, and the nature of national acceptance, now and in the future.

Key Meeting Dates: 1989 & 1990
May 1990: Meeting of the Committee on Fish and Fish Products.
July 1989: Meeting of the Codex Alimentarius Commission.
January 1989-December 1990: Meetings of the Agriculture Negotiating Group, GATT Uruguay Round, schedule variable.

Lead Agency/Department
Food Safety and Inspection Service/USDA

Interagency Coordinating Mechanism
Identified contacts in FDA, USDA, and EPA.

Responsible NOAA office
NMFS Office of Trade and Industry Services
Key Support Staff: James Brooker, Utilization Research and Services Division

Statutory Authority/Congressional Oversight
Omnibus Trade and Competitiveness Act of 1988.

Convention/Treaty/Agreement/Program

Committee for Fisheries in the Organization for Economic Cooperation and Development (OECD).

Status: OECD is a multilateral organization where member countries, through concensus, collect and analyze information to develop policies to promote economic growth, employment, and financial stability of member and non-member countries; and to promote the expansion of world trade on a multilateral, non-discriminatory basis in accordance with international obligations.

Membership: United States, each of the members of the European Economic Community, Iceland, Norway, Sweden, Denmark, Finland, Turkey, Australia, New Zealand, Canada, and Japan.

General Description/Purpose

Traditionally, the Committee for Fisheries has been an excellent source of information concerning fisheries policies and practices of OECD countries, particularly in the area of fisheries trade. However, the Committee is being encouraged by the OECD Secretariat, to get more involved in analyzing and quantifying impacts ofmember country fishery policies and practices. (These policies and practices have changed significantly since the extension of national jurisdictions to 200 miles.)

Nature and Purpose of U.S. Involvement

One of the chief goals of the United States is to encourage the Committee to continue analyzing fisheries trade issues. One of the chief problems of the U.S. fishing industry is that our industry competes with heavily subsidized foreign fishing industries. The United States has been pushing the Committee to follow the example of the OECD Agriculture Committee by quantifying the amount of direct and indirect support granted by member nations to their fishing industries. As the Agriculture Committee's analysis of government support has become a central basis for discussion in GATT, a similar analysis for fisheries would also be highly useful to our current Uruguay Round Trade Negotiations.

Areas of NOAA Participation

--To promote adoption of fishery management, trade, and development policies that are not disadvantageous to the interest of the U.S. fishing industry.

--To provide technical fisheries information needed by OECD and to review all technical and policy papers prepared for the OECD Fisheries Committee by member countries. Recently completed OECD Documents reflect areas of NOAA participation:

Annual Review of Fisheries in Member Countries
Problems in Trade in Fisheries Products
Bilateral Fisheries Arrangements
The Determination of Total Allowable Catch
Conditions of Access to Resources
Possibilities for Further Liberalization of Trade in Fishery Products

1989/90 Priority Issues

The OECD Fisheries Committee has adopted the following studies as priorities in 1989/90, all of which are supportive of the goal to liberalize trade in fishery products:

Economic Assistance to the Fishing Industry
Quantification and Analysis of Market Distortions
Health and Sanitary Regulations that may be Trade Distorting.

Key 1989/90 Meeting Dates: Traditionally, the OECD Fisheries Committee holds mid-winter and mid-summer meetings each year.

Lead Agency/Department and Interagency Coordinating Mechanism: Department of State has the lead and develops the proper coordinating mechanism depending on the issue. As needed, NOAA coordinates with ITA, USTR, Treasury, and State.

Responsibile NOAA Office: Office of Trade and Industry Services, National Marine Fisheries Service. Lead Official--Prudence Fox (427-2379).

Statutory Authority/Congressional Oversight: OECD Convention ratified in 1961/Senate Committee on Foreign Relations.

Convention/Treaty/Agreement/Program

Convention on International Trade in Endangered Species of Wild Fauna and Flora, TIAS 8249 and Endangered Species Act of 1973, 87 Stat., 884.16 U.S.C. 1531-43.

Status

EIF: 42 FR 10465 Feb. 22, 1977
Expire: N/A

Membership/HQ

HQ: Lausanne Switzerland, Secretariat
As of November 6, 1988 96 nations signatory

This convention known as CITES regulates international trade in fauna and flora, operates special trade monitoring units, organizes special study projects which assist host countries in assessing populations of species listed on Convention's Appendices and organizes biennial Conference of the Parties (next conference Lausanne, Switzerland October 9-20, 1989). The Secretariat communicates several circulars regarding implementation of the Convention, enforcement problems and proposals by the parties and agreed to resolutions.

CITES maintains a system of three lists known as Appendices, Appendix I listed species require a four way permit system to legally export and animals and plants their parts or products. The exporting issues both a Management Authority and Scientific Authority permit as does the importing country. Appendix II listed species required only a Management Authority export permit to meet the Convention's requirements. Appendix III listed species are so listed by a range state country whereas the Appendix I and II listed species are agreed to by a vote of the parties. The Secretariat monitors the volume of trade in the listed species and assists nations in validating the authenticity of export or reexport permits.

The CITES annual budget is approximately $ 1.5 million. The various national contributions are assessed according to United Nations schedule.

Nature and Purpose of U.S. Involvement (List Direct U.S. Benefits)

The implementing legislation the Endangered Species Act of 1973 directs that the Department of Interior, Fish and Wildlife Service is the lead agency with authority to develop and negotiate U.S. positions.

Areas of NOAA Participation

- NOAA Fisheries advises the U.S. Management and Scientific authorities on matters relating to marine species

- Develop and submit proposals for listing and delisting of marine species

- Participate in working groups on sea turtle ranching and other topics subject to available staff expertise

- Participate as part of U.S. delegation to the Conference of Parties

- Provide U.S. Management Authority with information on International Whaling Commission activities and other marine fishery related treaties and agreements as they may pertain to CITES.

Priority Issues: 1989 & 1990

- Participate in development of U.S. positions for seventh Conference of Parties, October 1989.

- Review with Fish and Wildlife Service proposals for species listing submitted by party nations.

- Work with Fish and Wildlife Service to implement Appendix changes and resolutions agreed to at COP-7.

Key Meeting Dates 1989 & 1990

October 1989, Seventh Conference of Parties 1988 & 1989, various meetings called by FWS

Lead Agency/Department

Department of the Interior, Fish and Wildlife Service

Interagency Coordinating Mechanism

FWS Coordination

Responsible NOAA Office

Lead Official Nancy Foster

Others: Michael F. Tillman
Thomas J. McIntyre

Statutory Authority/Congressional Oversight

Convention on International Trade in Endangered Species of Wild Fauna and Flora, TIAS 8249 and Endangered Species Act of 1973, 87. Stat. 16 U.S.C. 1531-43./ House - Merchant Marine and Fisheries Committee; Senate - Commerce, Science & Technology Committee.

II. E. Other Multilateral Organizations: Environment

1. London Dumping Convention (Convention on the Prevention of Marine Pollution by Dumping of Wastes and other Matter)
2. International Hydrographic Organization
3. International Council for the Exploration of the Sea

Convention/Treaty/Agreement/Program

Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London Dumping Convention)

Status

EIF: 8/30/75

Membership

65
HQ: London. IMO serves as secretariat

General Description/Purpose

To prevent pollution of the sea by the dumping of wastes and other matter that is liable to create hazards to human health, to harm living resources and marine life, to damage amenities or to interfere with other legitimate uses of the sea.

Annex I: list of materials for which dumping at sea is prohibited.

Annex II: materials requiring special permits for dumping

Annex III: criteria for dumping regulations

Nature and Purpose of U.S. Involvement

- To promote international cooperation on measures to prevent pollution of the sea by the dumping of wastes and other matter liable to create hazards to human health, resources or other ocean space uses

Priority Issues: 1989 & 1990

1. Radioactive Wastes: Voluntary moratorium of at sea disposal of low-level radioactive wastes has been in effect since LDC.21(9) was adopted by LDC 9 in September 1985. The moratorium is applicable pending the completion of further study on the social, political, legal, economic and scientific aspects of disposal. An ad hoc group of experts was convened in 1987 and 1988; completion of proposed studies is expected in 1993.

2. At sea incineration: In October, 1988 LDC 11 adopted a resolution calling for Contracting Parties to minimize or substantially reduce the practice of at sea incineration by 1991 and to end all such incineration by 1994, providing that acceptable alternatives are available.

3. LDC Scientific Group on Dumping: This group is reviewing the criteria for allocation of substances to Annexes I and II in relation to various substances, and is assessing alternatives to the present structure of the annexes. Ad Hoc Group will be meet

in January 16-21 1989; Scientific Group meeting April 1989.

Key Dates: 1989 & 1990

January 16-21, 1989: Ad Hoc Group on Annexes
April 1989: Scientific Group on Dumping
October 1989: Consultative Parties
April 1990: Scientific Group on Dumping
October 1990: Consultative Parties

Areas of NOAA Participation

NOS Ocean Assessments monitors the distribution of contaminants in U.S. coastal marine and estuarine environments, and researches the effects of wastes materials in the oceans. With EPA it prepares regulations to control adverse effects of such materials in U.S. waters. NOS represents NOAA/U.S. on LDC Scientific Group.

Deputy Administrator and staff represent NOAA at LDC Consultative Meetings and on all legal and policy issues.

Lead Agency/Department Involvement

EPA and State

Interagency Coordinating Mechanism

State periodically convenes an interagency group. EPA periodically convenes agencies on scientific issues.

Responsible NOAA Office

Lead Official: B. Kent Burton

Alternate: J.R. Spradley

Technical: Douglas Wolfe N/OMA3

Foreign Country Counterpart

Statutory Authority/Congressional Oversight

Convention/Treaty/Agreement/Program

Convention on the International Hydrographic Organization

Status

EIF: 9/22/70
EXPIRE:

Membership/HQ

57 Members Nations

General Description/Purpose

Cooperation in hydrography and charting. Major effort is to make navigation safer and easier worldwide through comprehensive standardization programs. It is also a consultative organization on related scientific and technological matters but does not include international policy questions. NOS (C&GS) and DMA are the primary points of contact and Dept. of State is involved in financial matters.

Nature and Purpose of U.S. Involvement

Promotes marine safety in U.S. waters and around the world. Coordinates the compatibility of nautical products and survey procedures. Supports the exchange of data/nautical products.

Areas of NOAA Participation

The Director, Office of Charting and Geodetic Services, co-represents the U.S. with the Director, Defense Mapping Agency, Hydrographic/Topographic Center.

Priority Issues: 1989 & 1990

1. Committee on Exchange of Digital Data (CEDD) - 15 member committee chaired by Adm. Austin Yeager to develop an exchange format.
2. Committee on Electronic Chart Display and Information System - 13 member committee to study the Electronic Chart.

Key Meeting Dates: 1989 & 1990

The IHO conducts work during 5 year intervals between meetings. Next meeting is in 1992.

Lead Agency/Department

Commerce/NOAA

Interagency Coordinating Mechanism

Informal as required. A NOS/DMA/NAVOCEANO meeting is conducted annually.

Responsible NOAA Office

Director, Charting and Geodetic Services

Lead Official: RADM Wesley V. Hull

Others: Capt. Christian Andreasen
Mr. William Monteith

Foreign Country Counterpart

The other 56 member nations

Statutory Authority/Congressional Oversight

Convention/Treaty/Agreement/Program

International Council for the Exploration of the Sea (ICES)

Status

EIF: 1902
EXPIRE:

Membership/HQ

18 Member Countries: Belgium, Canada, Denmark, German Democratic Republic, Federal Republic of Germany, Finland, France, Iceland, Ireland, Netherlands, Norway, Poland, Portugal, Spain Sweden, United Kingdom, United States, USSR.

ICES
Palaegade 204
1261 Copenhagen K,
Denmark

General Description/Purpose

ICES is the oldest intergovernmental organization in the world concerned with marine and fishery science. ICES is a scientific forum for the exchange of information and ideas on the seas and its living resources and for the promotion and coordination of research. ICES's coordinated research activites also address needs of regulatory commissions concerned with the efficient utilization of marine fish and shellfish resources in the North Atlantic including the North Sea and the Baltic Sea, and with the protection of the marine environment from the adverse effects of pollution.

These commissions include: North East Atlantic Fisheries Commission (NEADC), International Baltic Sea Fisheries Commission (IBSFC), North Atlantic Salmon Conservation Organization (NASCO), Oslo Commission for the Prevention of Marine Pollution by Dumping from Ships and Aircraft, Paris Commission for the Prevention of Marine Pollution from Land-Based Sources, Helsinki Commission for the Protection of the Marine Environment of the Baltic Sea Area.

Areas of oceanographic and marine biological research interest: physical and chemical properties of the sea as the environment which supports marine life, the biology, ecology, and population dynamics of exploited fish and shellfish stocks, the contamination and quality of the marine environment, fish capture techniques, marine mammal studies, and mariculture.

The U.S. is represented by 2 delegates on the Council and has two members on each of the 12 scientific committees and the Advisory Committee on Fisheries Management.

Annual Statutory Meetings of members. Semiannual meetings of Advisory Committee on Fishery Management.

Nature and Purpose of U.S. Involvement

Through ICES, the U.S. obtains current information on the status of stocks and the environment, management and research in the North Atlantic and the North and Baltic Seas. It also the U.S. an opportunity to contribute to the advice that ICES provides to Governments and various international commissions.

Areas of NOAA Participation

Through ICES, the NOAA/NMFS obtains current information on the status of stocks and the environment, management and research in the North Atlantic and the North and Baltic Seas.

Priority Issues: 1989 & 1990

1. Atlantic Salmon research for NASCO.
2. Stock recruitment research.
3. Multi-Species stock assessment procedures.
4. Development of general techniques of fisheries assessments.
5. Introduction and transfer of Atlantic Salmon and genetic effects of aquaculture of Atlantic salmon.
6. Biological effects of contaminants.
7. Larval fish ecology.

Key Meeting Dates: 1989 & 1990

March:	Workshop on Multivariate Analysis of Shellfish stocks
Feb.28-Mar.	Study Group on the North American Salmon Fishery
Mar. 15-22	North Atlantic Salmon Working Group
May 23-31/Oct, 31-Nov. 8:	Advisory Committee on Fishery Management
Oct. 3-13:	77th Statutory Meeting
June 7-16	Multispecies Assessment Working Group
Oct. 2-4 to Nov. 10-17	Multispecies Models Relevant Management of Living Resources Working Group on Methods of Fish Stock Assessments
1989	
June 5-13	Symposium on Case Histories of the Effects of Introductions and Transfers on Aquatic Resources and Ecosystems
Oct. 4-12:	78th Statutory Meeting

Lead Agency/Department

DOC/NOAA

Interagency Coordinating Mechanism

PIPICO

Responsible NOAA Office

Lead Official: Glenn Flittner
Others: Michael Tillman, Dr. Anthony, Jack Pearce

Foreign Country Counterpart

Statutory Authority/Congressional Oversight

II. F. Other Multilateral Fora: Space

1. Polar-Orbiting Meteorological Satellites

- COSPAS-SARSAT
- IPOMS: International Polar-Orbiting Meteorological Satellite Group

2. Geostationary Meteorological Satellites

- CGMS: Coordination on Geostationary Meteorological Satellites
- GOES Data Collection System

3. Landsat

- Landsat Ground Station Operations Working Group (LGSOWG)
- Landsat Technical Working Group (LTWG)
- LGSOWG Data Distribution and Marketing Working Group (LDDMWG)

4. CEOS: Committee on Earth Observation Satellites

5. Space Station
   - IFEOS: International Forum on Earth Observations Using Space Station Elements
   - ICWG: International Coordination Working Group of Space Station Partners on the Use of Polar Platforms for Earth Observations

Convention/Treaty/Agreement/Program

A. Polar-Orbiting Meteorological Satellites

1. Search and Rescue Satellite System (COSPAS/SARSAT)

(COSPAS = Russian abbreviation of "Space System for Search of Vessels in distress"; SARSAT = acronym for "Search and Rescue Satellite-Aided Tracking")

Status

An International COSPAS-SARSAT Program Agreement, which was signed by Canada, France, U.S. and U.S.S.R. on July 1, 1988, ensures the long-term continuity of a constellation of four search and rescue satellites into the indefinite future. The U.S. and U.S.S.R. each maintain two search and rescue equipped satellites. Canada and France provide the search and rescue processors and repeaters, respectively, for the U.S. spacecraft.

The United States Coast Guard has issued rules on August 17, 1988 to implement PUB. L. 99-640. Approximately 32,000 uninspected fishing, fish processing and fish tender vessels operating on the high seas will be required to carry satellite compatible, 406 Megahertz (MHz) frequency beacons. The Commercial Fishing Industry Vessel Safety Act of 1988 (PUB. L. 100-424, September 9, 1988) could require up to approximately 100,000 additional fishing vessels to carry beacons.

On November 9, 1988, the International Maritime Organization (IMO) adopted the implementation of the Global Maritime Distress and Safety System (GMDSS). As part of the provisions of this system, all vessels over 300 gross tons will be required to carry COSPAS-SARSAT beacons by August 1, 1993.

Membership/Headquarters

Canada, France, U.S. and U.S.S.R.

COSPAS-SARSAT partners established in 1987 a Secretariat at the International Maritime Satellite Organization (INMARSAT) Headquarters in London.

Other nations that participate, by either providing ground facilities or using the system, include: Brazil, India, Norway, United Kingdom, Venezuela, Bulgaria, Denmark, Sweden, Switzerland, Italy, Pakistan, Chile, and Japan.

The COSPAS-SARSAT partners maintain Liaison with IMO, INMARSAT, and the International Civil Aviation Organization (ICAO).

General Description/Purpose

The COSPAS-SARSAT program is an international cooperative effort

which uses satellites to detect and locate emergency beacons on downed aircraft and vessels in distress.

Ground Local User Terminals (LUTs) are operated by Brazil, Canada, France, Norway, the United Kingdom, the United States, and the U.S.S.R.

Nature and Purpose of U.S. Involvement

The COSPAS-SARSAT satellites have assisted in saving 1170 lives from September 9, 1982 to November 1, 1988.

Areas of NOAA Participation

NOAA manages the U.S. SARSAT system and represents the U.S. at international COSPAS-SARSAT meetings.

Priority Issues: 1989 & 1990

1989: Installation of a search and rescue processor and repeater on NOAA D spacecraft.

1990: NOAA to:
- assume responsibility for the U.S. Mission Control Center from the U.S. Air Force;
- provide complete 121.5/243 MHz coverage of the U.S. Search and Rescue Region; and
- replace aging ground system.

Key Meetings 1989 & 1990

Semi-annual meetings of the COSPAS-SARSAT Council and Operations/Technical working groups.

Lead Agency/Department

NOAA maintains the SARSAT program leadership in the U.S.

Interagency Coordination Mechanism

NOAA coordinates with NASA, the U.S. Air Force, and the U.S. Coast Guard.

Responsible NOAA Office: NESDIS

Lead Official: James T. Bailey

Others: Russell R. Vollmers
Arthur L. Booth
Jeffery F. Salmore

Responsible Foreign Counterparts

Canada: Mr. J.R.F. Hodgson, National SAR Secretariat

France: Dr. I. Revah, Directeur des Programmes
U.S.S.R: Mr. Y. Zurabov, V/O Morsviazsputnik, Morflot

Statutory Authority/Congressional Oversight

Not applicable/none.

Convention/Treaty/Agreement/Program

International Polar-Orbiting Meteorological Satellite Group (IPOMS)

Status

The 1984 Economic Summit endorsed the creation of IPOMS.

Membership

Australia, Canada, Federal Republic of Germany, France, Italy, Japan, United Kingdom, the European Space Agency, and the Working Group reviews the technical progress in polar instrumentation systems. An Administrative Working Group examines the institutional aspects of collaboration.

Nature and Purpose of U.S. Involvement

NOAA currently operates two polar-orbiting operational spacecraft. U.S. involvement in this group is to increase the international contribution to this system. To date, nine countries/agencies have sent letters concerning their intention to contribute spacecraft, instruments and funding for future systems.

Areas of NOAA Participation

NOAA as current provider of the polar-orbiters and as secretariat of the group attends all plenaries and working group meetings.

Priority Issues: 1989 & 1990

Memoranda of Understanding with the contributors to the system will be drafted during this period.

Key Meeting Dates: 1989 & 1990

May 1989 - Technical Working Group
September 1989 - IPOMS Plenary

Lead Agency/Department

NOAA

Interagency Coordinating Mechanism

Ad Hoc NOAA/NASA meetings.

Responsible Foreign Counterpart

All members.

Statutory Authority/Congressional Oversight

Not applicable/none.

Convention/Treaty/Agreement/Program

B. Geostationary Meteorological Satellites

1. Coordination on Geostationary Meteorological Satellites (CGMS)

Status

The first discussions directed toward coordination of nationally-operated remote sensing satellites began in September 1972, when representatives of the United States (NOAA), the European Space Research Organization (now the European Space Agency) and Japan (Japanese Meteorological Agency) met to consider complementarity and compatibility among these agencies' planned geostationary meteorological satellites. This initial meeting led to the establishment of the CGMS, an informal, technical group through which program/project managers of agencies pursuing plans for such missions are able to discuss common interests relating to the design, operation and use of their spacecraft. The U.S.S.R. and India also initiated development of geostationary meteorological satellites and joined CGMS in 1973 and 1978, respectively.

Membership

The CGMS is composed of the current and prospective geostationary meteorological satellite operators from the European Organizations for the Exploitation of Meteorological Satellites (EUMESAT), India, Japan, U.S.A., and U.S.S.R., as well as observers from the European Space Agency (ESA), Peoples' Republic of China and WMO (which participates in CGMS activities to promote development of a global meteorological observing system).

General Description/Purpose

The work of CGMS has been concerned with: (1) the operational aspects of the geostationary programs, especially data processing and dissemination matters such as compatible data formats, standard transmission frequencies, compatible data collection platform standards, and complementary orbits; and (2) the technical feasibility of implementing such operational aspects of commonality from the point of view of cost and scheduling.

CGMS was organized to develop technical recommendations which are not binding on satellite operators. CGMS has served as a forum through which national plans could be informally rationalized and harmonized to the point where participating agencies could, if they wished, pursue development of complementary and compatible space segments. As a result of CGMS, while the geostationary meteorological satellites remain independently designed and developed they also meet common meteorological mission objectives and have produced certain compatible data products for users

around the world.

Nature and Purpose of U.S. Involvement

Harmonization and coordination of geostationary meteorological satellite activities and products. One benefit to the U.S. has been CGMS member's support in case of U.S. meteorological satellite failure.

Areas of NOAA Participation

NESDIS represents the U.S.

Responsible NOAA Office: NESDIS

Lead Official: Thomas N. Pyke, Jr.

Other: E. Larry Heacock

Responsible Foreign Counterparts

All member countries/agencies.

Statutory Authority/Congressional Oversight

Not applicable/none.

2. GOES Data Collection System (DCS)

Two Geostationary Operational Environmental Satellites (GOES) observe the North and South American continents. The Data Collection System (DCS) on GOES monitors, collects, and retransmits environmental data from data collection platforms (DCPs) at remote earth locations. The information is used to provide storm and flood warnings and forecasts, and for water resource management and other environmental applications.

Twenty-eight users in twelve foreign countries operate DCPs. In addition, seven foreign direct readout stations are equipped to receive the DCP messages directly from the spacecraft.

Convention/Treaty/Agreement/Program

D. The Landsat System

Status of Program

The Landsat system was an experimental NASA program until 1983. At that time, the system was declared operational and its interim management turned over to NOAA as part of the U.S. Government efforts to transfer the program to the private sector. The Land Remote Sensing Commercialization Act of 1984 (P.L. 98-365; 15 U.S.C. 4201 et seq.) authorized a phased commercialization, the first step of which was the subsequent 1985 Department of Commerce contract award to the Earth Observation Satellite Company (EOSAT) for the day-to-day operation of the Landsat-4 and -5 systems. With the advent of the follow-on Landsat-6 program, new commercial agreements will be negotiated between EOSAT and participating foreign ground station agencies.

Status of Agreements with Foreign Ground Stations

Data from Landsat are transmitted directly to fourteen operational ground stations outside the United States. Landsat data are recorded, processed, archived, and distributed by these stations under terms of Memoranda of Understanding (MOUs) signed between the individual operating agencies and NOAA. Landsat program participation through an MOU requires that stations abide by the U.S. policy of public non-discriminatory availability of data, and that each station pay an annual system access fee of $600,000 and various data distribution fees.

General Description/Purpose

The Landsat-4 and -5 series of satellites provide sun-synchronous views of the Earth. Landsat data comes from two sensing instruments: the Multi-Spectral Scanner (MSS), capable of imaging at 80-meter resolution in four spectral bands; and the Thematic Mapper (TM), equipped to image at 30 meters resolution in seven spectral bands.

Nature and Purpose of U.S. Involvement

The United States has been responsible for the operation of the Landsat land remote sensing satellite program since 1972. U.S. Landsat satellites provide data on the Earth's land surface that are internationally available--on a commercial basis--on a public, non-discriminatory basis. Ongoing development of the Landsat program will maintain U.S. technological competitiveness, and continued growth of economic, social and scientific benefits arising from earth observations from space.

Areas of NOAA Participation

NOAA oversees and advises EOSAT on the international aspects of

the Landsat program, particularly in MOU relationships with foreign ground station operators. In turn, the foreign ground station operators look to NOAA for definitive information on U.S. land remote sensing program status and policy.

Landsat Working Groups:

1. The Landsat Ground Station Operations Working Group (LGSOWG)

LGSOWG was created in 1975 to serve as a forum for the exchange of ideas and information on land remote sensing activities. The Group is co-chaired by NOAA and EOSAT. Communication between the U.S. and the foreign station operators participating in the international Landsat program encourages the development of technical compatibility and complementarity, and promotes the diffusion of innovations in the use of Landsat data. LGSOWG meets once a year at different Landsat stations around the world.

Member countries and organizations include Argentina; Australia; Brazil; Canada; the European Space Agency (Canary Islands, Italy and Sweden); India; Japan; Pakistan; the People's Republic of China; Saudi Arabia; South Africa; and Thailand, and the U.S.. LGSOWG has two subcommittees: the Landsat Technical Working Group (LTWG)--meeting twice a year--and the Data Distribution and Marketing Working Group (LDDMWG), which convenes annually as part of the LGSOWG plenary.

Interagency Coordinating Mechanism:

USGS has provided technical expertise and has participated in LGSOWG meetings.

Priority Issues: 1989 & 1990

- Development and negotiation of Landsat-6 program commercial agreements with foreign ground stations.
- Decision on the future civil/commercial land remote sensing satellite program (beyond Landsat-6).

Key Meetings: 1989 & 1990

LGSOWG Plenary (Summer 1989 & 1990).

Responsible NOAA Office: NESDIS

Lead Official: Russell Koffler

Others: John Hussey
Brent Smith

2. The Landsat Technical Working Group (LTWG)

The LTWG subcommittee meets twice a year to analyze and advise on technical aspects of Landsat ground station reception and data processing operations.

Interagency Coordinating Mechanism:

USGS has provided technical expertise and has participated in LTWG meetings.

Priority Issues: 1989 & 1990

Development of Landsat-6 space and ground system segments.

Key Meetings: 1989 & 1990

To be arranged

Responsible NOAA Office: NESDIS

Lead Official: Russell Koffler

Others: John Hussey/Michael Mignogno
Brent Smith

3. The LGSOWG Data Distribution and Marketing Working Group (LDDMWG)

LDDMWG is the subcommittee of the LGSOWG which exchanges information on: data archiving, cataloguing and distribution; data sales statistics; marketing activities; and methods of better serving Landsat data users. It meets yearly as part of the LGSOWG Plenary.

Interagency Coordinating Mechanism:

USGS has provided technical expertise and data sales information, and has participated in LDDMWG meetings.

Priority Issues: 1989 & 1990

Development of viable commercial relationships with foreign ground stations and data users.

Key Meetings: 1989 & 1990

LGSOWG Plenary (Summer 1989 & 1990).

Responsible NOAA Office: NESDIS

Lead Official: Russell Koffler
Other: John Hussey
Brent Smith

Convention/Treaty/Agreement/Program

Committee on Earth Observations Satellites (CEOS)

Status

CEOS was formed in 1984 as an outgrowth of the international Economic Summit of Industrialized Nations which was examining cooperation in technology.

Membership

Membership of CEOS is made up of international space agencies with space-borne Earth observations missions in Phase B (definition) or beyond. It currently includes Brazil, Canada, Federal Republic of Germany, France, The European Space Agency, India, Italy, Japan, the United States (NOAA and NASA), and the United Kingdom.

FRG, Italy and the UK became members after the May 1986 Economic Summit meeting of Panel of Experts on Remote Sensing recommended that CEOS extend membership to include potential providers of major instruments for polar missions and other elements of Space Station.

General Description/Purpose

CEOS was created as a forum for the exchange of information among current and future international operators of remote sensing satellite systems in order to encourage program compatibility, thereby allowing users to benefit from different systems at minimum cost.

CEOS has established two working groups:

- Working Group on Data (WGD), chaired by NESDIS, and
- Working Group on Sensor Calibration and Performance Validation (Cal/Val), chaired by ESA.

WGD areas of activity are: common formats for user products; archiving strategies and practices; catalog content, format, and media; quality assessment; international networks for data exchange; and coordination with other international groups involved in data management cooperation.

Cal/Val is involved in coordinating validation campaigns and sensor calibration among the same member agencies, as well as relevant international groups.

Both working groups meet regularly and report to the CEOS Plenary at least once every two years.

CEOS member agencies are active at the national level in these areas; therefore, CEOS WGD provides a forum for exchange of

information on national activities and fosters cooperation in working toward and maintaining international standards for data archiving, cataloging and exchange. Findings and recommendations of CEOS are acted upon at the discretion of each member , but members are requested to support CEOS recommendations within their national framework.

Nature and Purpose of U.S. Involvement

Coordination and complementarity leading to minimum duplication of efforts by participants (U.S.) and cost benefits.

Areas of NOAA Participation

Leadership of WGD and subgroup plus participation in all groups of CEOS.

Priority Issues: 1989 & 1990

Sufficient budgets by all members to institute actions both in WGD and Cal/Val which would lead to optimum standardization.

Key Meeting Dates: 1989 & 1990

February 1989 - WGD Catalog Subgroup
April 1989 - Cal/Val
March 14-16, 1989 - WGD
September 1989 - CEOS Plenary

Lead Agency/Department

NOAA/NESDIS

Interagency Coordinating Mechanism

Interaction and meetings with relevant U.S. agencies: NASA, USN, JOI, USGS, and EOSAT.

Responsible Foreign Counterpart

Listed participating countries.

Statutory Authority/Congressional Oversight

Not applicable/none.

Convention/Treaty/Agreement/Program

International Forum on Earth Observations Using Space Station Elements (IFEOS)

Status

IFEOS resulted from discussions at the May 1986 meeting of the Economic Summit Panel of Experts on Remote Sensing from Space.

Membership

Members of IFEOS are Australia, Brazil, Canada, France, Federal Republic of Germany, India, Italy, Japan, New Zealand, United Kingdom, the European Space Agency (ESA), the European Organization for the Exploitation of Meteorological Satellites (EUMETSAT), and the United States (NASA and NOAA).

General Description/Purpose

This group was established as a forum for the representatives of users and providers of remote sensing payloads for the Space Station polar platforms to discuss with Space Station planners the utilization of the polar platform. Sensor requirements, interfaces between payloads and platform hardware, software and operations, and common standards for data systems will be discussed.

Nature and Purpose of U.S. Involvement

Provides NOAA an opportunity to present U.S. operational and research requirements to the Space Station Partners for their planning on uses of the polar platforms.

Areas of NOAA Participation

Discussion of operational sensor requirements, payloads and platform hardware interfaces, software development, and establishment of common data standards.

Priority Issues: 1989 & 1990

- Continuity of operational meteorological data to the user community.
- Achievement of suitable arrangements for the easy, timely and affordable exchange of data for research and operational purposes.

Key Meeting Dates: 1989 & 1990

April 3-7, 1989

Lead Agency/Department

NOAA/NESDIS

Interagency Coordinating Mechanism

Ad Hoc NOAA/NASA meetings.

Responsible Foreign Counterpart

All member countries/agencies.

Statutory Authority/Congressional Oversight

Not applicable/none.

Convention/Treaty/Agreement/Program

International Coordination Working Group (ICWG) of Space Station Partners on the Use of Polar Platforms for Earth Observations

Status/Membership

To prepare the future use of polar platforms for the polar Earth Observation mission, ICWG was formed in 1986 by the Space Station Partners (NASA, Japan, Canada, European Space Agency (ESA)), and includes the participation of the European Organization for the Exploitation of Meteorological Satellites (EUMETSAT), NOAA, plus Japanese and Canadian space- and meteorological-related agencies.

General Description/Purpose

Participants from these agencies have met regularly since then to discuss such items as:

- polar platform requirements;
- standardization of payload interfaces;
- sharing of instrument development and provisioning;
- coordination of Announcements of Opportunity (AOs);
- approaches to instrument calibration and data validation; and
- joint mission planning.

ICWG has met ten times since early 1986.

Nature and Purpose of U.S. Involvement

The United States expects flight opportunities on foreign spacecraft as well as foreign instruments, data and joint research programs associated with U.S. polar-orbiting environmental spacecraft.

Areas of NOAA Participation

NOAA participates in all meetings concerned with current or future operational use of instruments and data.

Priority Issues: 1989 & 1990

- ICWG is discussing possible payloads for five planned polar platforms (two NASA, two ESA, one Japanese) only two of which are tied to the Space Station program.

Key Meetings: 1989 & 1990

April 1989

Lead Agency/Department

NASA

Interagency Coordinating Mechanism

Ad Hoc NOAA/NASA meetings.

Responsible Foreign Counterparts

All space station partners.

Statutory Authority/Congressional Oversight

Not applicable/none.

II. G. Other Multilateral Activities

1. Direct Readout Services
2. World Data Centers
3. Very Long Base Line Interferometry
4. International Global Positioning System Network
5. TOGA

Convention/Treaty/Agreement/Program

C. Direct Readout Service

Status

There are no agreements. Operators of satellite direct readout receiving stations are under no legal, financial, or political obligation to any federal agency in the United States to report the purchase, construction or operation of a station to use environmental satellite direct readout services.

Membership (Users)

There are at least 5,000 environmental satellite direct readout stations of one type or another in operation in over 120 countries.

General Description

The direct readout services program enables government agencies, academic and scientific institutions, commercial firms, and private citizens all over the world to obtain and use data from NESDIS' environmental satellites without going through NOAA's own central data acquisition and processing facilities. These services include the APT (Automatic Picture Transmission), HRPT (High Resolution Picture Transmission), and DSB (Direct Sounder Broadcast) services, all from polar-orbiting NOAA satellites, and the WEFAX (Weather Facsimile) and VISSR (Visible-Infrared Spin Scan Radiometer) services from the geostationary GOES satellites.

The direct readout services are used for local and regional operational public, aviation, maritime, and agricultural weather forecasting, for sea and lake ice reconnaissance, snow-cover and snow-melt observations, ocean temperature and current studies, and many other purposes. They support, among other activities, locust control efforts in Africa, petroleum exploration in the Arctic, and river, lake, and ocean fishing activities around the world. In some developing countries, direct readout of environmental satellites provides the only opportunity for involvement in space activities; often a single readout station in such countries provides observations to several other government agencies within that country. In the United States and elsewhere, a single commercial firm receiving data via direct readout may provide tailored satellite products to hundreds of customers or to thousands of viewers through cable TV links. There are several value-added American firms which provide such services.

1. Automatic Picture Transmission (APT)

The APT services are provided by the polar orbiting NOAA satellites and are copied by well over 4,000 users worldwide. Two channels of data are sent continuously via VHF signals as the

satellites orbit the earth. The signals can be received on very low-cost equipment and displayed as an image, or converted into digital products showing cloud, ocean, or land temperature values.

Primary users are government meteorological agencies in developing countries, and ships or land stations in polar latitudes where geostationary satellite signals cannot be received. The fastest growing community of users, however, is the academic community, with nearly 2,000 stations in secondary (high school) classrooms and on college/university campuses.

2. High Resolution Picture Transmission (HRPT)

Like APT services, HRPT services are also provided continuously from polar-orbiting NOAA satellites. However, there are several differences between these services. Five, rather than two, channels are sent, and resolution of features is considerably higher. The data are also sent on a higher frequency, and much more expensive equipment is needed to receive and process the signals.

There are at least 130 HRPT stations in operation around the world, 33 operated by the U.S. government, and the rest in operation in other countries. Their primary application is to provide more sophisticated observations of meteorological and other geophysical phenomena than can be obtained with APT readout. The number of oceanographic/land use agencies and corporations receiving HRPT is rapidly increasing partly because of the availability of lower cost (under $50,000) equipment.

3. Direct Sounder Broadcasts (DSB)

Along with other types of observations, both the polar and geostationary satellites transmit real time digital data via direct readout that can be converted into atmospheric temperature and humidity profiles, or soundings, but only the data from the polar satellites are used operationally at this time (Geostationary soundings transmissions began in 1986). The instrument used to provide soundings from polar satellites is the TIROS Operational Vertical Sounder, or TOVS. The primary users are the national meteorological services of the United States and, at least, seven other countries.

Satellite atmospheric soundings, like their radiosonde counterparts, enable meteorologists to observe the major circulation patterns in the atmosphere. From these observations, stability of the atmosphere also can be determined; areas of instability, conducive to thunderstorm development, can be detected. Large-scale air masses can be identified and tracked, and many other meteorological phenomena can be observed and studied. Satellite sounder data collected via DBS fills a data gap between observing stations, and are especially important

input from remote ocean areas.

Signal reception from instruments that provide the Direct Sounder Broadcast services is a relatively easy task, but retrieval and processing of the data requires quite sophisticated software and a comprehensive understanding of the physical processes that affect data reduction. For this reason, there are currently less than two dozen countries utilizing Direct Sounder Broadcast services.

4. Visible-Infrared Spin Scan Radiometer (VISSR)

The VISSR instrument on the GOES spacecraft provides high resolution visible and infrared data approximately 20 minutes of each half hour. When these data are displayed in image form, atmospheric circulation patterns, as revealed by cloud forms, can

be observed and their motions predicted, wind vectors can be plotted, sea and lake ice and snow cover can be mapped. In digital formats, sea surface temperatures, ocean currents, cloud heights, and land surface temperatures (such as those important to citrus growers) can be displayed.

At present, there are 40 active VISSR stations; 23 in the United States and 17 in other countries. Of those in the U.S., 11 are operated by government agencies, five by academic institutions, and seven by commercial organizations. (Other military and commercial installations are planned in the near future). The 17 non-U.S. VISSR stations are located in seven countries, all operated by meteorological agencies in those countries.

5. Weather Facsimile (WEFAX)

WEFAX services are provided through communications transponders on each of the three geostationary GOES satellites. Data are sent on a scheduled basis, and include five different products: processed images acquired from the GOES VISSR system and from the low resolution global area coverage system on the NOAA satellites, selected National Weather Service weather charts, operational messages and orbital prediction information for predicting the position of the polar satellites.

There are approximately 400 stations in 48 countries including the U.S. receiving WEFAX broadcast from the GOES satellites. About 107 of these are amateur stations; the rest are operated by U.S. and foreign government agencies, commercial, scientific and academic organizations.

<u>Priority Issues for 1989 & 1990</u>

- Enhancing educational opportunities using direct readout services.
- Promoting export of U.S.-made direct readout related technology.

6. Local Area Coverage (LAC) Scheduling

In order to obtain high-resolution imagery outside U.S. direct readout signal reception range, high-resolution, five-channel, HRPT-type image data acquisition can be scheduled for storage on one of ten recorders on-board the NOAA-N series of polar-orbiting spacecraft. This is known as Local Area Coverage (LAC) data. hese data are then played back when the spacecraft is within range of one of the NESDIS-operated ground stations (Wallops Island, Virginia, or Fairbanks, Alaska). Each recorder can store 11.5 minutes of data, providing coverage of a swath approximately 2000 kilometers wide by 3500 kilometers long. Up to three LAC scenes may be recorded on each orbit.

Users in the national and international community may request scheduling of this data acquisition at no charge. These data, as well as HRPT data, are archived as photographic prints and/or digital data tapes, which are also available to the public for a fee. These data are also available over telephone lines to subscribers of NOAA's GOES-Tap electronic data distribution system, which is managed by NESDIS and NOAA's National Weather Service (NWS). Schedules of HRPT and LAC acquisitions are now available on the NESDIS electronic bulletin board (EBB).

U.S. strategic requirements occupy much of the available LAC resources. Other LAC data users include: other domestic government bodies, foreign governments, private industry (domestic and foreign), and universities. International usage of LAC services, both direct and indirect (through collaborative work), amounts to approximately fifteen percent of total LAC acquisitions.

LAC/HRPT data are used by commercial and research interests for monitoring oceanographic, hydrologic, and land-related phenomena. In oceanography, these data are used for planning ship courses, commercial fishing operations, fisheries research, search and rescue operations, lake freeze-up determinations, oil drilling operations, and whale-migration monitoring. In hydrology, such data are used to detect flood potential and to map flooding extent and snow cover. Specially enhanced images have been used to monitor water quality, and to help local and state governments better manage their water resources. In land sciences, the Federal Aviation Administration, NWS and NESDIS are interested in developing operational techniques for volcano eruption monitoring. The U.S. Forest Service and NESDIS are doing the same for forest fire detection. The U.S. Department of Agriculture is working with NESDIS to develop a regional and global vegetation monitoring capability using LAC data. Other land science applications include detection of the onset and extent of dust storms, detection of locust and game bird breeding grounds, monitoring of desertification, deforestation, and drought conditions.

V. . DATA AND INFORMATION COLLECTION AND EXCHANGE ACTIVITIES

A. The World Data Center System

The World Data Center system was established in 1957 to collect data from the numerous and widespread observational programs of the International Geophysical Year (IGY) and to make such data readily accessible to interested scientists and scholars. The International Council of Scientific Unions (ICSU) Panel on World Data Centers is responsible for the operation of all WDCs.

The WDC system consists of World Data Center A (WDC-A) located in the United States, WDC-B located in the U.S.S.R; and several WDC-Cs located in Western Europe and Japan. WDC-A is established under the auspices of the U.S. National Academy of Sciences, where the Coordination Office is located. WDC-A is divided into nine discipline subcenters, six of which are operated by NESDIS. The National Climatic Data Center (NCDC) in Asheville, North Carolina, operates the WDC-A for Meteorology. The National Oceanographic Data Center (NODC) in Washington, D.C., operates the WDC-A for Oceanography. The National Geophysical Data Center (NGDC) in Boulder, Colorado, operates the WDC-A for Solar-Terrestrial Physics, Solid-Earth Geophysics, Marine Geology and Geophysics, and Glaciology (Snow and Ice). The WDC-A for Glaciology is actually handled under a contract with the University of Colorado's Cooperative Institute for Research in Environmental Sciences, in Boulder.

The main task of the WDC-A is to exchange data in accordance with ICSU published guidelines. Each of the data centers provides data to other World Data Centers and to foreign scientists. Being coordinated by ICSU, the WDC system is a scientist-to-scientist arrangement and involves no intergovernmental agreements. Tables 6 through 10 list the major foreign agencies and institutions with which the NESDIS-operated WDC-A subcenters exchange data or from which they acquire data. Operations of the WDC System are described in ICSU's "Guide to the World Data Center System", "Part 1: the World Data Centers" (Nov. 1987).

Convention/Treaty/Agreement/Program

Operations Center for Very Long Baseline Interferometry (VLBI) and, jointly with the U.S. Naval Observatory, sub-bureau for Rapid Service and Predictions, International Earth Rotation Service (IERS).

Status

EIF: January 1, 1988
Expires: Indefinite

Membership/HQ

Jointly organized by the International Astronomical Union (IAU), and the International Union of Geodesy and Geophysics (IUGG). The IERS is also a member of the Federation of Astronomical and Geophysical Data Analysis Services (FAGS). NOAA submitted proposal, jointly with the U.S. Naval Observatory.

Other countries with representatives on the IERS Directing Board include: Soviet Union, France, Denmark, and Japan. Over 30 nations participate in the IERS observing program.

General Description/Purpose

VLBI provides the most accurate means to measure changes in global sea level which is critical to studies of global change.

The IERS is responsible for:

- defining and maintaining a conventional terrestrial reference system based on observing stations that use the high-precision techniques of space geodesy;

- defining and maintaining a conventional celestial reference system based on extragalactic radio sources, and relating it to other celestial references systems;

- determining the earth orientation parameters (the terrestrial and celestial coordinates of the pole and universal time) connecting these systems;

- organizing operational activities for observation and data analysis, collecting and archiving appropriate data and results, and disseminating the results to meet the needs of users.

Nature and Purpose of U.S. Involvement

Major U.S. benefits include:

1. Access to a global geodetic reference frame accurate to the centimeter level, for the relatively small cost of establishing and maintaining the U.S. stations.

2. Earth orientation time series of higher accuracy than could be achieved from a U.S. based monitoring system, at a fraction of the cost.

3. The global network of IERS observatories and the Earth orientation times series produced by the IERS make it possible for NOAA, in cooperation with several other nations (including the Federal Republic of Germany, Italy/working level, Sweden, Norway, and Japan, PRC) to develop an international network for tracking the satellites of the Global Positioning System (GPS). The data collected by this network enables NOAA to compute accurate satellite ephemerides for use by the entire civilian geodetic surveying community.

3. Fleet

Areas of NOAA Participation

NOAA: NOS, C&GS, National Geodetic Survey

NOAA scientist serves as Principal Coordinator for VLBI, and is a voting member of the seven member Directing Board.

Priority Issues: 1989 and 1990

1. Increasing the number and distribution of IERS observatories in the Southern hemisphere, and in the Soviet Union, to obtain improved global coverage.

2. Increasing the frequency of observations, which are currently at intervals of 3 to 5 days, to daily or subdaily sampling.

Key Meeting Dates: 1989 and 1990

The Directing Board holds an annual meeting each April at the IERS Central Bureau, Paris, France. In addition, open working meetings are held in conjunction with major international scientific conferences. The next such meeting is scheduled to be held in conjunctions with the International Association of Geodesy (IAG) General Assembly in Scotland, during August 1989.

Lead Department/Agency

Commerce/NOAA and DOD/U.S. Naval Observatory

Interagency Coordinating Mechanism

The jointly operated National Earth Orientation Service (NEOS) is headed by an interagency committee with the Chairperson and Co-chairperson alternating between agencies each 3 years.

Responsible NOAA Office

Lead Official: Dr. William E. Carter
Chief, Advanced Technology Section, N/CG114

Statutory Authority

Public Law 373 enacted August 6, 1947, with authorization extended by the Presidential Reorganization Plan No. 4 of 1970. The authorized activities include "observations for the determination of variations in latitude and longitude".

Convention/Treaty/Agreement/Program

Operations Center for the Cooperative International GPS Network (CIGNET).

Status

EIF: January 1, 1988
Expires: Indefinite

Membership/HQ

Jointly organized the National Geodetic Survey, C&GS, NOS, NOAA and the Geodetic Survey of Canada, Ottawa, Canada; the Institute for Applied Geodesy, Frankfurt, FRG; the Statens Kartwerk, Honnefoss, Norway; and the Geographical Survey Institute, Tsukuba, Japan. CIGNET also operates within the framework of the Global Positioning System (GPS) Subcommission of the International Coordination of Space Techniques for Geodesy and Geodynamics (CSTG) of the International Association of Geodesy (IAG) and the International Union of Geodesy and Geophysics (IUGG).

General Description/Purpose

CIGNET is responsible for:

* continuous tracking of GPS satellites from primary geodetic reference stations

* collection, reformatting, archiving and distribution of the GPS tracking data

* providing the basic data set for the computation of precise global GPS orbits for the civilian and geodetic research communities

Nature and Purpose of U.S. Involvement

Major U.S. Benefits include:

* access to a global geodetic reference network

* access to a global GPS tracking network for the relatively small cost of operating the U.S. stations

* data for the computation of GPS orbits to support NGS and U.S. survey activities

Areas of NOAA Participation

NOAA:NOS, C&GS, National Geodetic Survey (NGS)

NOAA scientist serves as the Principal Coordinator of CIGNET and as the President of the GPS Subcommission of CSTG.

Priority Issues: 1989 and 1990

Increasing the number and distribution of the CIGNET stations to the southern hemisphere to obtain improved global coverage.

Key Meeting Dates: 1989 and 1990

The CIGNET participants are in routine contact at the working level by virtue of the weekly exchange of data. The CIGNET directors meet at the GPS Subcommission meetings, the next of which will be held at Las Cruces, NM in March 1989, Edinburgh, Scotland in August 1989 and Ottawa, Canada in September 1990.

Lead Department/Agency

Commerce/NOAA

Interagency Coordinating Mechanism

Various agreements currently exist regarding the coordination of GPS and other geodetic activities between NOAA and the National Aeronautics and Space Administration (NASA), the Defense Mapping Agency (DMA), the U.S. Geological Survey (USGS), the U.S. Naval Observatory (USNO) and the Department of Transportation (DOT).

Responsible NOAA Office

Lead Official: Dr. Gerald L. Mader
N/CG114
Advanced Technology Section
National Geodetic Survey, C&GS, NOS, NOAA

Foreign Country Counterpart

Current CIGNET participants include Canada, Germany, Norway and Japan.

Statutory Authority

Public Law 373 enacted August 6, 1947, with authorization extended by the Presidential Reorganization Plan No. 4 of 1970. The authorized activities include "observations for the determination of variations in latitude and longitude".

Convention/Treaty/Agreement/Program

Tropical Ocean and Global Atmosphere research program

Status

Membership

There are numerous agreements of various types in support of this activity: maintenance of a moored meteorological buoy (Chile); joint research cruises (U.S.-PRC Cooperation in the Field of Marine & Fishery Science and Technology, France, Numea Orstom Laboratory.

General Description

The Tropical Ocean and Global Atmosphere (TOGA) research program, planned as part of the World Climate Research Program (WCRP), is designed to increase the understanding of events in the oceans and atmosphere that significantly influence the predictability of seasonal to interannual climatic variations over much of the globe.

Nature and Purpose of U.S. Involvement

- The U.S. seeks to develop the scientific background for designing an observing and data transmission system for operational prediction, if this capability is demonstrated by coupled atmosphere-ocean models.

- International scientific cooperation increases the cost-effectiveness of U.S. research by bringing important international expertise and financial resources to bear on a phenomenon of global importance.

Areas of NOAA Participation

Within the Climate Research MBO, tropical ocean climate research is directed toward understanding and improving the prediction of the large-scale air-sea interaction processes associated with interannual large-scale climate variation.

NOAA maintains the TOGA Sea Level Data Center at the University of Hawaii. Buoy Program: In support of TOGA Program objectives, the buoy provides, via the GOES, real-time data on sea surface temperature, air temperature, wind speed/ direction, wave characteristics and solar radiation.

Priority Issues: 1989 & 1990

Opportunities for new cooperation with Indonesia and Japan Intergovernmental Toga Board: Mid-term review. Determine new directions for the second half of the research decade. Address Atlantic and Indian Ocean issues.

Determine effort in proposed Coupled Ocean/Atmosphere Response

III. Bilateral Agreements and Activities

A. Marine and Atmospheric Science Cooperative Agreements

1. U.S.-France Cooperative Science Program in Oceanography
2. U.S.-U.S.S.R. Agreement on Cooperation in Studies of the World Ocean
3. U.S.-U.S.S.R. Agreement on Cooperation in the Field of Environmental Protection
4. U.S.-China Cooperation in the Field of Marine & Fishery Science Technology
5. U.S.-China-Cooperation in Atmospheric Science and Technology
6. Indo-U.S. Science and Technology Initiative on Monsoon Research
7. Indo-U.S. Science and Technology Subcommission
8. U.S.-Japan Cooperative Program in Natural Resources (UJNR)
9. U.S.-Brazil Science and Technology Initiative
10. U.S.-Mexico Agreement on Scientific and Technical Cooperation
11. U.S.-Canada Memorandum of Agreement on Climate
12. U.S.-Spain Cooperation in Science, Technology, Culture and Education

Convention/Treaty/Agreement/Program

U.S. - France Cooperation in Oceanography

Status

In March 1968, Dr. Edward Wenk, Executive Director of the Marine Council in the Executive office of the President, opened discussions on an agency-to-agency agreement with Mr. Yves LaPrairie, the head of the newly formed French oceans agency CNEXO. During the ensuing negotiations, the President's Science Advisor and the French Minister of Science agreed to a Program of U.S.-France Science and Technology Cooperation. Negotiations between Wenk and LaPrairie were completed by exchange of letters in February 1970. Planning of activities evolved into scientific exchanges and through the years activities have been recast to accommodate new priority areas of interest.

Membership

U.S. and France

General Description/Purpose

Activities under the cooperation occur primarily on a scientist to scientist level, and have included: joint experiments and studies, symposia, exchanges of scientists and information, and joint planning of future activities. Over the years, the areas of cooperation have changed, reflecting shifts in research priorities within both countries. Currently, activities are organized around ten areas of cooperation, and one multidisciplinary initiative concerning the Mid-Atlantic Ridge. (NB: at the last joint session it was agreed that the areas of cooperation would be reduced to seven during the next intersessional review. Each area has both a U.S. and a French project leader who is responsible for development of cooperative activities.)

Joint sessions, typically chaired by the Administrator of NOAA and the Director General of IFREMER, are held every two years. Intersessional review is handled by the two bilateral coordinators, who usually meet once a year.

Nature and Purpose of U.S. Involvement (U.S. Benefits)

The long-term objectives are to: 1) advance the study and effective utilization of the sea; 2) foster acceleration of national programs in each country by building on the research and experiences of each side; and 3) contribute to the pursuit of national goals set to accomplish elements of major multinational programs (e.g. the World Climate Research Program).

The short-term objectives are to: 1) encourage direct scientific

exchanges on all marine science topics without undue administrative superstructure; 2) maintain a central point of coordination in each country for collection and mutual exchange of technical papers and research plans; and 3) make results more readily available to the scientific community.

At the last joint session (November, 1986), participants emphasized the importance of initiating a multidisciplinary joint project that brings focus and visibility to work done cooperatively under the bilateral. Planning was initiated for a joint project to study the geological, chemical and biological processes of the mid-Atlantic ridge system, with a field project to take place in the period 1990-1992. A small working group, led by Steve Hammond (NOAA), is tasked with the development of an action plan to address the steps necessary to implement such a joint project.

Areas of NOAA Participation

NOAA participation in activities under this bilateral consists of integrating elements of funded domestic programs into identified cooperative activities when feasible. NOAA's specific interests include climate and the ocean, marine environmental research, data processing and exchange, submersibles, hyperbaric diving research, marine technology, marine geology and geophysics, and living resources and aquaculture.

Priority Issues: 1989 & 1990

1989-1990: Planning for a joint field study of the mid-Atlantic Ridge system

Key Meeting Dates: 1898 & 1990

Late spring 1989: Biennial Joint Session

Lead Agency/Department

In June 1971, the Secretary of State designated NOAA as the responsible agency for the U.S.-France Cooperation in Oceanography.

Interagency Coordinating Mechanism

On the U.S. side, the activities have involved scientists from NOAA, NSF, USCG, USGS, and US Navy, as well as scientists from various universities. (Coordinated by OAR)

Responsible NOAA Office

Lead Official NOAA Under Secretary

Others: Alan Thomas OAR and OAR International Office

Existing areas and U.S. leaders are:

- Climate and the Ocean (J. Michael Hall, OAR)
- Marine Pollution Control (David Pascoe, USCG)
- Marine Environmental Research (Andrew Robertson, NOAA)
- Marine Data Processing and Exchange (Kent Hughes, NOAA)
- Man in the Sea: Submersibles (Dwaine Griffith, US Navy)
- Man in the Sea: Hyperbaric Diving Research (Peter Kent, US Navy)
- Marine Technology (Joe Vadus, NOAA)
- Marine Geology and Geophysics (Don Heinrichs, NSF)
- Ship time Exchange (NSF)
- Living Resources and Aquaculture (Bob Wildman and Glenn Flittner NOAA)

Responsible Foreign Counterpart

Eric Isphording is the French bilateral coordinator. In June 1984 CNEXO merged with the French fisheries agency (ISTPM) to create IFREMER, which is now the lead French Agency for the Cooperation.

Statutory Authority/Congressional Oversight

Convention/Treaty/Agreement/Program

U.S. - U.S.S.R. Agreement on Cooperation in Studies of the World Ocean

Status

The Agreement on Cooperation in Studies of the World Ocean (more briefly, the World Ocean Agreement) was signed by the U.S. Secretary of State and the Soviet Foreign Minister on June 19, 1973. It was extended in 1978, 1981 and 1984. In late 1987 it was renewed until December 1988, to allow the two sides "to examine cooperation (and to reinvigorate) those activities of mutual interest". The U.S. proposed a three month extension of the agreement, which expired on December 13, 1988, in order to allow time for renegotiation of the agreement.

Membership

U.S. and U.S.S.R.

General Description

The Agreement has been essentially dormant since the 1979 Soviet invasion of Afghanistan. Following the recent renewal of the Agreement, NOAA hosted a meeting of U.S. and Soviet representatives on March 2-3, 1988, in Washington, D.C.. The Soviet delegation was led by the Head of the Oceanographic Committee of the State Committee for Science and Technology. The U.S. delegation was headed by Ned Ostenso (NOAA).

Prior to the meeting, lists of proposed research topics were exchanged. The Soviet list consisted of broad, long-term programs that emphasized marine geology and geophysics. The U.S. list consisted of smaller, less extensive programs drawn from a wider realm of oceanographic disciplines, including biological oceanography. Soviet and U.S. participants recognized sufficient interest in cooperative research existed to recommend 1) that there be a meeting of the Joint Committee; and 2) that proposals for review by the Joint Committee should be prepared for as many as nine research topics.

The Joint Committee on Cooperation in World Ocean Studies met for the first time in 9 years, October 3-5, 1988, in Washington, DC. Under Secretary of Commerce William Evans led the U.S. delegation and chaired this fifth meeting of the Joint Committee. The Soviet delegation was led by Academician Leonid Brekhovskih, a member of the Presidium of the Soviet Academy of Sciences.

The Joint Committee approved continuation of a research project on Southern ocean dynamics, and the initiation of projects on mid-Atlantic ridge crest processes and geochemistry of north Pacific sediments. The Committee reviewed progress in developing research proposals in several other oceanic research areas of mutual

interest, and the Soviet delegation put forth a number of additional research topics for future consideration.

Past cooperation under the Agreement has included research in the following areas: air-sea interaction, biological productivity and biochemistry, ocean dynamics, intercalibration and standardization of oceanographic instruments and methods, data exchange, deep sea drilling, and marine geology and geophysics.

Nature and Purpose of U.S. Involvement (List Direct U.S. Benefits)

U.S. objectives for the Agreement are:

(1) to promote diplomatic relations between the two parties;
(2) to promote the U.S. national marine research program;
(3) to gain access for research in Soviet controlled waters;
(4) to improve knowledge and understanding of selected topics in marine science; and
(5) to reduce the cost of marine scientific research through international collaboration.

Areas of NOAA Participation

It is NOAA's policy to manage the Agreement so as to facilitate marine scientific research undertaken by U.S. agencies, laboratories and academic institutions.

The Agreement is administered by a U.S.-U.S.S.R. Joint Committee.

Priority Issues: 1989 & 1990

As manifested at the Joint Committee meeting, October 3-5, 1988, an environment now exists for closer marine scientific cooperation with Soviet institutions. The immediate policy issue is extension and/or modification of the World Ocean Agreement before its termination date of December 14, 1988. Once the Agreement is extended, presumably for a three year period, issues will include initiation of the projects approved at the recent Joint Committee meeting and further development of other projects that were discussed at that meeting.

Key Meeting Dates: 1989 & 1990

The sixth meeting of the Joint Committee is scheduled for 1989, to be held in the Soviet Union.

Lead Agency/Department

NOAA is the lead agency for management on the U.S. side, with participation and support from NSF, Navy and USGS. Policy guidance is provided by the Department of State.

Responsible NOAA Office

Lead Official: Dr. William Evans, Co-Chair of Joint Committee, NOAA Administrator

Other: Dr. Ned Ostenso, Executive Secretary

Foreign Country Counterpart

The State Committee for Science and Technology is the lead agency for management on the Soviet side.

Statutory Authority/Congressional Oversight

Convention/Treaty/Agreement/Program

U.S.-U.S.S.R. Agreement on Cooperation in the Field of Environmental Protection, Working Group VIII - The Influence of Environmental Changes on Climate

Status

EIF: 5/23/72
Expire:

Membership/HQ

U.S. and U.S.S.R.

General Description/Purpose

Working Group VIII is concerned primarily with the problem of global climate change due to the greenhouse effect and stratospheric ozone depletion and deals with three main areas of cooperation: climate modeling, the climatic effects of aerosols and trace gases, and solar-terrestrial relationships. In addition, the Working Group has active subgroups in the areas of paleoclimatology and climate data exchange. Working Group VIII holds annual meetings, alternating between the U.S. and U.S.S.R. Each major area conducts scientific exchange visits, holds symposia and publishes joint papers and monographs based on the yearly protocol.

Current activities include: (a) measurement of trace gases (including CFC's) in Lake Baikal; (b) preparation of the "special report on Future Climate"; (c) Measurement of and data exchange on ozone depletion including the use of NOAA instruments at the Soviet Antarctic station and measurements of stratospheric ozone and aerosols at a Soviet station in the Arctic Ocean; (d) preparations for a 1989 symposium on "Aerosols and their Impact on Climate" plus the exchange of proposals for a joint project to measure the outgassing of methane from Arctic tundra and perma-frost.

Nature and Purpose of U.S. Involvement (List Direct U.S. Benefits)

The U.S., through Working Group VIII, (a) has access to climate data sets from the USSR not available through other means; (b) has direct knowledge of Soviet capabilities in modeling and in computer and satellite usage; (c) exchanges scientific ideas in areas of concern to both countries including carbon dioxide, release of chloroflourocarbons, arctic haze, etc.; and (d) has access to Soviet stations, e.g., Heiss Island, and Soviet research ships, e.g., R/V Akademik Korolev for field experiments.

Areas of NOAA Participation

NOAA is a major participant in this bilateral cooperation due to its missions in the fields of global climate change and stratospheric ozone depletion. NOAA's National Climate Program Office coordinates U.S. activities on Working Group VIII.

Priority Issues: 1989 & 1990

1989: Symposium on Aerosols and their Impact on Climate
1989: Heiss Island (Arctic Ozone) experiment
1990: Cruise aboard the Soviet Research ship "Akademik Korolev: (SAGA-3) - 2 previous joint cruises occurred in 1983 and 1987.

Key Meeting Dates: 1989 & 1990

October/November 1989: Working Group VIII

Lead Agency/Department

NOAA/NCPO leads U.S. participation in Working Group VIII. (EPA's Administrator heads the U.S. in the overall agreement.)

Interagency Coordinating Mechanism

National Climate Program Office

Responsible NOAA Office

Lead Official: Dr. Alan Hecht

Others: Dr. Robert Etkins CP
Dr. John Miller R/E/AR
Kenneth Hadeen E/CC

Foreign Country Counterpart

State Committee on Hydrometeorology and Control of the Natural Environment (GOSKOMGIDROMET)

Statutory Authority/Congressional Oversight

Convention/Treaty/Agreement/Program

U.S. - PRC Marine and Fishery Science & Technology Cooperation Protocol

Status

The basic U.S.-PRC Agreement on Cooperation in S&T was signed in Washington, D.C. on January 31, 1979. The Marine and Fishery S&T Protocol became part of the basic agreement on May 8, 1979, to remain effective for 5 years. A 5-year renewal, extending to May 8, 1989, was signed through correspondence between NOAA and the State Oceanic Administration (SOA), PRC.

Expires: May 8, 1989. Umbrella S&T agreement has been extended until 10/31/89 for renegotiation of intellectual property issues

Membership

U.S. and PRC

General Description/Purpose

In a letter dated May 17, 1985, Dr. George A. Keyworth, Science Advisor to the President, informed Commerce Secretary Malcolm Baldrige, of the White House views on existing international S&T programs. The letter stated that highest priority should be given to two programs: those arising under the U.S-PRC Joint S&T Commission and the U.S.-India Presidential S&T Initiative. Recognizing the priority status of these programs, NOAA, which is not funded directly for its international programs, provides money for the China program from its Administrator's Distribution Fund (ADF). In FY87, $108K from the ADF was used to help meet the expenses for the cooperative activities under the U.S.-PRC bilateral.

The activities under the protocol are many and varied, they included: (1) Ocean heat transport and climate study (2) An international symposium on sedimentation dynamics was held in Hangzhou on April 12-16, 1983 (95 papers were presented in physical, chemical, biological, and geological oceanography; the U.S. participants included NOAA, WHOI, and representatives from seven universities); and (3) A joint study of sedimentation dynamics and related processes in the East China Sea from the outflow of the Yangtse River held during 1980-82 (John Milliman of the WHOI served as Principal Investigator).

Nature and Purpose of U.S. Involvement (List Direct U.S. Benefits)

The agreement has the following principal objectives:
(1) to promote a beneficial diplomatic relationship;
(2) to gain access to PRC-controlled waters for research;

(3) to reduce the cost of marine research through collaboration;
(4) to exchange spatial and historical data and information unique to the two countries; and
(5) to assist the PRC in becoming a contributing oceanographic power.

The cooperative activities under the protocol are managed by a Joint Working Group (JWG), which consists of a co-chairman and an executive secretary on each side.

Areas of NOAA Participation

(1) Ocean heat transport and climate study (A four-year joint research program (1985-89) with eight research cruises was agreed to under the U.S.-PRC TOGA Program;
(2) Marine environmental services (cooperation in the ship of opportunity and XBT program, provision of field units of the next-generation water level measurement system, and a cooperative ocean dumping experiment);
(3) Marine environmental quality research and monitoring;
(4) Technical exchange and cooperation in vessel management;

Priority Issues: 1989 & 1990

The 8th meeting of the Joint Working group was held in Xiamen, China, April 26-May 7, 1988, at which Annex VIII of the Protocol was produced. Commitments were made in Annex VIII to support activities in FY88. These will include: (1) one TOGA cruise; (2) data exchange; (3) reciprocal visits; (4) training PRC scientists; (5) lectures in China by U.S. scientists; and (6) international symposium on air-sea interactions (November 15-17, 1988).

Cooperative activiites for the future under Annex VIII include: (1) Training of technicians in the operation and maintenance of SEAS equipment to improve the reception/quality of data currently received; (2) Ocean dumping experiment is planned for Spring 1989; and (3) Vessel management training and possible joint coastal management project (Hainan Island marine protected area management).

Key Meeting Dates: 1989 & 1990

Autumn 1989: 10th anniversary of the signing of the U.S.-PRC S&T Agreement. The 9th Joint Working Group Meeting will be held in the United States sometime between September and December, 1989.

Lead Agency/Department

NOAA is the lead agency with the Chinese counterpart being the SOA. For the U.S. side, NSF has equal partnership status; for the PRC, the Ministry of Agriculture, Animal Husbandry and Fisheries and Academia Sinica have partnerships.

Interagency Coordinating Mechanism

Responible NOAA Office

Lead Official: Dr. Ned A. Ostenso (R/SE) is Co-Chairman
Mrs. Barbara Moore (R/IA) is the Executive Secretary

Others: Yu-Jean Liang (R/IA), Mary Leach (N/IA), Henry Beasley (F/IA), Betty Howard (E/PO3)

Foreign Country Counterpart: SOA, Chinese Academia Sinica, and MAAHF.

Statutory Authority/Congressional Oversight

Convention/Treaty/Agreement/Program

Cooperation in the Field of Atmospheric Science & Technology
(Protocol signed by NOAA Administrator Richard Frank, 5/8/79)
Umbrella Agreement: US-PRC Agreement on Cooperation in S&T (EIF: 1/31/79) and renewed for 5 years in 1984. Umbrella agreement extended until 10/31/89 for renegotiation of intellectual property issues.

Status

EIF: 5/8/79 (Renewed for 5 years by exchange of letters between US (Dr. Hallgren) and PRC Co-Chairpersons 5/8/84
Expires: Protocol expires May 8, 1989

Membership/HO

U.S. and People's Republic of China

General Description/Purpose

Cooperation under this Protocol is carried out through joint field studies, workshops; short and long-term visits of research scientists and operational meteorologists, and the exchange of data and samples for the purpose of better understanding weather processes and climate.

Cooperative activities are conducted in the following fields: comparative studies of climates and agriculture of the North China Plain and the North American Great Plains; monsoon research; mountain meteorology; climate studies; mesoscale meteorology; satellite data impact; atmospheric chemistry; data exchange; and a training and participation program for Chinese meteorologists.

Nature and Purpose of U.S. Involvement (Direct Benefits to U.S.)

US scientists have access to climate records of China including proxy data which will expand the US climate data base. US scientists have had access to special geographic areas such as the Tibetan Plateau and the North China Plain, and have had the opportunity to study mountain meteorology and its effects on the monsoons. US institutions have had capable Chinese scientists conducting research in areas of mutual interest using US and Chinese Data. US and Chinese operational meteorologists have exchanged information on their respective systems for forecasting torrential rains in the southern portions of both countries. US satellite experts are learning about the impact of satellite data on Chinese numerical weather prediction. US scientists will benefit from the information collected in dense networks of Chinese weather stations to be used in several mesoscale experiments. As the Chinese become an operator of weather satellites, the US will benefit from access to the additional satellite data collected.

Areas of NOAA Participation

NOAA meteorologists from NWS, NESDIS, and OAR participate in almost all areas of the cooperation.

Priority Issues: 1989 & 1990

Renewal of the Protocol: There is no question about the interest of the participants on both sides of the Protocol that it should be renewed for another 5-year term. However, it is doubtful that the protocol could be renewed if the parent S&T Agreement is not renewed for years when it expires in January 1989. At this time (October 1988) negotiations are underway to add Intellectual Property Rights (IPR) and Security language by January 1989, then perhaps the Agreement may only be extended to provide more time for negotiation.

Key Meeting Dates: 1989 & 1990

April-May 1989: 8th Session US-PRC Joint Working Group (JWG) on Atmospheric Science & Technology -- Beijing

May 8, 1989: Renewal of Protocol

Lead Agency/Department

DOC/NOAA

Interagency Coordinating Mechanism

US members of the JWG -- Dr. E. Friday, NWS, (Chairman), Dr. E. Bierly, NSF, and Dr. S. Tilford, NASA, meet with staff and representatives of other groups to coordinate US participation.

Responsible NOAA Office

Lead Official: Dr. Elbert W. Friday, Jr.

Staff Focal Point: Howard L. April, NWS

Participating NOAA Components: NWS, NESDIS, OAR/ERL, CS

Responsible PRC Counterpart

Mr. Zou Jingmeng
PRC Co-Chairperson
Administrator, State Meteorological Administration

Convention/Treaty/Agreement/Program

Convention/Treaty/Agreement/Program

INDO - U.S. Science and Technology Initiative

Status

President Reagan and Prime Minister Indira Gandhi launched the Indo-U.S. Science and Technology Initiative (STI) on July 29, 1982. Emphasis was to be on joint research programs in health, agriculture, solid state science and engineering, and monsoon research. An implementing agreement of the monsoon research program was signed in March 1984.

In 1985 the STI was extended for an additional three years. On October 20, 1987, President Reagan and Prime Minister Rajiv Gandhi met at the White House and agreed that STI should be extended for an additional three years from 1988 to 1991. The extension was signed in New Delhi in October 1988.

General Description/Purpose

The U.S.-India S&T Initiative has five areas of cooperation, of which is Monsoon Research. The National Science Foundation is the U.S. lead agency for monsoon research.

The monsoon research program has two parts: Program I on numerical prediction of monsoon time, extent, and intensity for periods up to ten days; and Program II to improve understanding of the causes of long term monsoon variability. Program I has been completed and a third program on Drought has been added to the extension of the agreement.

Nature and Purpose of U.S. Involvement

The President has given a high priority to cooperation with India.

Areas of NOAA Participation

It is NOAA's policy to enable its researchers to participate in the monsoon research program where mutual benefit can be derived. NOAA has also provided a microfilm reader/printer and a collection of historical climate data (Maury data) which Indian agencies agreed to reproduce in a form appropriate for computer analysis. NOAA's commitment of resources to future cooperation is less than $5k per year.

Some NOAA participants in the monsoon program are Phil Arkin (NMC), Fred Finger (NMC), Chris Hayden (NESDIS), Abraham Oort (GFDL), and Henry Diaz (ERL).

Priority Issues: 1989 & 1990

A recent NAS review of the monsoon program concluded that the program has the potential to be among the most significant STI research efforts . The program, however, has lagged because of difficulties in reaching agreement on the issue of access to INSAT data. The long delay in carrying out those projects that require such data has tested the patience of U.S. cooperating scientists and their sponsoring agencies. The recent Reagan-Gandhi meeting addressed this issue. A recent letter from Vasant Gowariker, Secretary of the Indian Department of Science and Technology, promised to supply INSAT-I data (22 km. resolution, both visible and infrared, at 3 hour intervals) beginning in April 1988. The first data tape of INSAT data arrived in the U.S. in August 1988. The arrangement will be reviewed by the Indian government after one year. Data tapes will be delivered to the U.S. embassy in New Delhi.

Radiosonde data: NOAA's near-term goals are to improve the quality of Indian radiosonde data processing and their analysis of cloud winds both of which are transmitted worldwide. However, these projects have been difficult to coordinate with the Indian Meteorology Department because of interference by the Indian Department of Science and Technology.

Key Meeting Dates: 1989-1990

None scheduled to date.

Lead Agency/Department

The monsoon research program is managed in the U.S. by the Division of Atmospheric Sciences, in the Geosciences Directorate of the NSF.

Interagency Coordinating Mechanism

National Science Foundation International Office

Responsible NOAA Office

Lead Official: Dr. Martin Yerg, W/OM31

Others: NOAA International Affairs Offices.

Foreign Country Counterpart

Management of monsoon research program is managed in India by the Department of Science and Technology, with active participation by the Meteorological Department and other agencies.

Statutory Authority/Congressional Oversight

Convention/Treaty/Agreement/Program

Indo - U.S. Science and Technology Subcommission

Status

The Indo-U.S. Joint Commission on Economic, Commercial, Scientific, Technological, Educational and Cultural Cooperation was set up in 1974.

Membership

U.S. and India

General Description/Purpose

The objective of the Subcommission is to promote joint Indo-U.S. research in all the fields represented by its working groups.

The Science and Technology Subcommission was established within the Commission in 1975. The Subcommission has working groups on health, physical sciences, earth sciences, atmospheric and marine sciences, energy, environment, ecology and information sciences. The last meeting of the Subcommission was November 3-5, 1987, in New Delhi.

Federal agencies are often able to acquire money from the U.S.-India Fund to support joint projects that are carried out inside India. The Fund is scheduled to come to an end in 1997.

OAR manages money received from U.S. India Fund for all NOAA/Line Organizations.

Nature and Purpose of U.S. Involvement

U.S. objectives for research cooperation are:

(1) Promote relations between the two parties;
(2) Gain access for research in India and the Indian EEZ;
(3) Improve knowledge in the fields under the S&T Subcommission;
(4) Gain data that would otherwise not be available; and
(5) Reduce the cost of scientiric research through international collaboration.

Areas of NOAA Participation

NOAA policy is to promote joint Indo-U.S. atmospheric and marine sciences projects (including solar-terrestrial physics) by researchers in American agencies, laboratories and academic institutions.

There are ongoing research projects in the following atmospheric and marine fields:

(1) Bioactive substances (1 ONR project)
(2) Solar-terrestrial physics (2 OAR projects).

In the past two years NOAA has received over 10,000,000 rupees from the U.S.-India Fund to support atmospheric and marine science research projects and to develop future projects. At the current exchange rate this amounts to about $800,000.

As lead agency for the working group on atmospheric and marine sciences, NOAA is obligated to support management for the affairs of that working group. This includes the cost of staff work as well as supporting occasional international meetings. To date, all expenses within India have been met out of NOAA's allocation from the U.S.-India Fund.

Four new projects in the climate research program have been approved in FY 1988.

Priority Issues: 1989 & 1990

U.S. agencies are trying to secure Indian agency cooperation and approval for the following projects:

(1) Climate research (1 OAR project)
(2) Marine biodeterioration (10 ONR projects)
(3) Marine fisheries (1 NMFS project)
(4) Marine pharmaceuticals (1 OAR project)

It would be foolhardy to guess when approval will be received for the projects listed above. Indian scientists appear eager to work with American colleagues; but Indian government agencies are very hard to deal with and they make the approval process much more protracted and convoluted than it could be.

Key Meeting Dates: 1989 & 1990

The Science and Technology Subcommission has meetings scheduled for Spring, 1989, in Washington D.C.

Lead Agency/Department

NOAA (working groups on atmospheric and marine sciences)

Interagency Coordinating Mechanism

NSF and ONR also involved.

Responsible NOAA Office

Lead Official: Dr. Joseph Fletcher (marine and atmospheric sciences)

Others: Thomas E. Murray, R/IA

Foreign Country Counterpart

The Department of Science and Technology is the Indian lead agency for the working group on atmospheric and marine sciences. The Indian Meteorological Department, the Institute of Tropical Meteorology, the Department of Ocean Development and the National Institute of Oceanography, are also involved in the working group.

Convention/Treaty/Agreement/Program

U.S. Japan Cooperative Program in Natural Resources (UJNR)

Status

The UJNR was initiated on January 29, 1964, in Washington, D.C., by the bilateral Committee on Trade and Economic Affairs, headed by Secretary of State Dean Rusk and Japanese Foreign Minister Masdayoshi Ohira.

Membership

U.S. and Japan

General Description/Purpose

During the past 24 years the focus of UJNR has been modified several times. Ten non-marine panels and seven marine panels now make up the UJNR. The marine panels include: (1) Aquaculture; (2) Diving physiology and Technology; (3) Marine Instrumentation and Communications; (4) Marine Facilities; (5) Marine Geology; (6) Marine Mining; and (7) Seabottom Surveys.

The principal aims of UJNR are:

(1) to cooperatively develop and conserve natural resources;
(2) to share information and results of cooperative research activities; and
(3) to provide a continuing forum for applied S&T cooperation.

The seven marine panels of UJNR are coordinated by the Marine Resource and Engineering Coordination Committee (MRECC), which consists of a co-chairman and an executive secretary on each side. Dr. Robert Wildman (R/SE) is the U.S. Co-Chairman for the UJNR/MRECC. Each marine panel has a co-chairman on each side. The U.S. panel co-chairmen include Conrad V. W. Mahnken (aquaculture;F/NWR); William S. Busch (diving physiology and technology;R/SE2); Charles D. Kearse (marine instrumentation and communications;N/MO13); Joseph R. Vadus (marine facilities; N/OMA); Parke D. Snavely, Jr. (marine geology;USGS); John W. Padan (marine mining;N/ORM1); and Christian Andreasen (seabottom surveys;N/CG2).

The panel activities of the UJNR include holding joint annual meetings to plan future activities and assess achievements; conducting joint research activities; exchanging experts, research results, equipment, and experimental material; disseminating information to the public (journals, proceedings, press, and speeches).

Nature and Purpose of U.S. Involvement

- to expand cooperative links between scientists and information exchange
- to advance U.S. science through cooperation
- stimulation of new ideas

For example, the Aquaculture panel continues to utilize emerging biotechnology to enhance fish culture. For instance, the use of hormones to induce spawning of captive broodstock salmon in either fresh water or sea water facilitates broodstock husbandry. Another notable example is a joint U.S.-Japan hydrothermal vent investigation off Galapagos aboard the submersible ALVIN in October 1985 to examine the processes governing vent dynamics. As a result of the recent Marine Facilities Panel meeting, a cooperative project on magneto hydrodynamic (MHD) propulsion is currently being discussed.

Areas of NOAA Participation

See list of NOAA participants in marine panels above.

Priority Issues: 1989 & 1990

Key Meeting Dates: 1989 & 1990

March 14-15 UJNR Plenary meeting
Spring 1989: Marine Instrumentation Panel
Fall 1989: Sea-Bottom Surveys Panel
Sept. 1989: Marine Facilities Panel
October 1989: Marine Mining Panel

Interagency Coordinating Mechanism

U.S. MRECC committee

Responsible NOAA Office

Lead Official: Dr. Robert Wildman (R/SE)is the U.S. Co-Chairman for the UJNR/MRECC.

Others: See list of U.S. co-chairs of marine panels above. OAR and NOS International Affairs Offices play coordinating roles within their LOs.

Foreign Country Counterpart

Science and Technology Agency; Ministry of Foreign Affairs; Environmental Agency; Ministry of Health and Welfare; Ministry of Agriculture, Forestry and Fisheries; Ministry of Transport; Ministry of Posts and Telecommunications; Ministry of Labor; Ministry of Trade and Industry.

Statutory Authority/Congressional Oversight

Convention/Treaty/Agreement/Program

U.S.-Brazil Science and Technology Initiative

Status

In September 1986 President Reagan and Brazilian President Sarney met in Washington, D.C. As a result, a Presidential Committee on Science and Technology was established by the Office of Science and Technology Policy (OSTP). The Committee, chaired by Allan Bromley of Yale, met with Brazilian counterparts during 1987 to establish priority areas for cooperation under the new program. The Committee Report, released in November, 1987, recommended six program areas for initial cooperation.

Membership

U.S. and Brazil

General Description/Purpose

The stated OSTP objective is "to promote cooperation in science and technology, focusing on selected priority areas of mutual strength and benefit", and "to provide a strong base for long-term bilateral cooperation, and to establish links and communication channels that will bring our two peoples closer in the years ahead". Within the area of Oceanography/Meteorology, the objectives include: a) the advancement of weather and climate observation and prediction capabilities in Brazil through the establishment of a Brazilian Numerical Weather Forecasting Center, and b) improved interannual, and interdecadal forecast capabilities for the U.S. and Brazil as well as the rest of the world, by better understanding the influence of the tropical Atlantic on regional and global climate.

A small amount of seed money will be available from DOS for distribution by each lead agency to initiate the activities established as priorities by the Presidential Committee. These seed funds will be no-year money strictly limited to beginning bilateral activities which would be continued using Agency program funds.

Activities under the STI will be overseen by a U.S.-Brazil Joint Commission.

Nature and Purpose of U.S. Involvement (List Direct U.S. Benefits)

- increased cooperation among scientists and information exchange
- opportunity to further draw Brazil into the soon to begun Atlantic portion of WCRP's Tropical Ocean Global Atmosphere activities
- strengthening of Brazilian meteorological services will enhance U.S. access to meteorological data

Areas of NOAA Participation

NOAA has been designated by DOS as the U.S. lead agency for the area of Oceanography/Meteorology.

Priority Issues: 1989 & 1990

1989: Preparation of Cooperative Project Proposals: NOAA has prepared a workplan defining the projects to be considered for inclusion under the two specified programs. Priorities cannot be established on the program until both sides meet to discuss their interests over the next few years.

Key Meeting Dates: 1989 & 1990

Spring 1989: Proposed U.S.-Brazil Meeting of the Working Group on Oceanography and Meteorology to discuss the workplan.

Lead Agency/Department

The Department of State (DOS) is the Executive Agency for this agreement; accordingly, the Assistant Secretary for DOS/OES chairs the U.S. side of a policy level Joint Commission.

Interagency Coordinating Mechanism

NSF has been contracted by DOS to administer the overall S&T initiative. Roger Doyon of the NSF International Programs Division chairs an interagency working group which will carry out the day to day execution of the initiative. This group consists of a staff focal point from each of the lead agencies, with Marty Yerg (NWS/IA) as the NOAA representative.

Responsible NOAA Office

Lead Official: Dr. Elbert W. Friday Jr. is the NOAA lead. Dr. J. Fletcher is the alternate

Other: Dr. Martin Yerg W/OM31

William Bonner (NWS/NMC)-U.S. Head of Project for the advancement of weather prediction.

Michael Hall (OAR/OCAR)-U.S. Head of Project for effect of the Atlantic on Regional and Global Climate

Foreign Country Counterpart

The Brazilian counter-leader for meteorological and oceanographic activities is likely to be Dr. A.D. Moura, INPE.

Statutory Authority/Congressional Oversight

NOAA's legal authority to conduct this research falls under, inter alia, the National Climate Program, 15 U.S.C. s2901 et seq which requires the Secretary of Commerce to conduct a program consisting of: conducting basic and applied research in climate processes, collecting and disseminating of global climate data, and developing means to increase international cooperation in climate research and data sharing.

Convention/Treaty/Agreement/Program

U.S.-Mexico Cooperation

Status

The U.S.-Mexico Mixed Commission for Scientific and Technical Cooperation was established by the June 15, 1972 Agreement on Scientific and Technical Cooperation between the U.S. and Mexican Governments.

Membership

U.S. and Mexico

General Description/Purpose

Current OAR activities with Mexico include operation of an XBT line between Manzanillo and Isla Clarion, Mexico; operation of a GOES-reporting tide station on Socorro Island; application of a computer model using Mexican data to track dispersion of air pollutants in Mexico City.

Achievements include the success of a joint atmospheric research cruise (aboard a Mexican naval research vessel) in the Gulf of Mexico July 14-August 16, 1986; and the completion of the NOAA report entitled Caribbean Marine Resources: Opportunities for Economic Development and Management which used data supplied, in part, by Mexican Scientists. The TOGA Project Office also hosted a Mexican PhD student as a 1987-88 Sea Grant Fellow.

Since the signing of the 1972 Agreement, the Commission has met approximately every two years, alternating between Washington, D.C. and Mexico, D.F., to initiate and direct activities undertaken under the Agreement. At the fifth Mixed Commission meeting, convened in Washington, D.C. December 13-14, 1983 it was determined that the existing mechanism for initiating and implementing projects was too centralized and bureaucratic. Consequently, it was decided that procedures were needed to allow projects to be initiated by the cooperating scientists, rather than waiting for implementation of all Commission-approved projects by the Commission itself.

The sixth Meeting of the Mixed Commission was held in Mexico City on June 6 and 7, 1988. The purpose of the meeting was to invigorate cooperative activities within the scope of the Mixed Commission. Scientific and technical cooperation in the areas of agriculture, energy and mining, urban development and ecology, marine and atmospheric sciences, health, and basic sciences, statistics and computer science were discussed.

The delegations agreed to the following points regarding implementation of cooperative research projects under the aegis of the Mixed Commission:

* The Executive bodies for the agreements should be the U.S. Department of State and the Mexican Secretariat of Foreign Relations.
* The Commission should henceforth deal only with general policy and coordination issues. Personnel of individual agencies and institutions with international programs will select, design and execute cooperative scientific and technical programs, consistent with the policy guidelines established by the Mixed Commission.
* All financial and technical aspects of those projects agreed to by the executing institutions of each country shall be the responsibility of the institutions themselves.
* A register of ongoing activities should be maintained on a current basis to provide a mechanism for reviewing the overall program.
* Both sides should strive for an overall balance between the parties in contributions and benefits of the program.

Nature and Purpose of U.S. Involvement (List Direct U.S. Benefits)

The objective of the Agreement was "to establish a broad program of scientific and technical cooperation for peaceful purposes in areas of mutual interest". Currently, working groups exist in the areas of: Agriculture; Energy; Health, Housing & Urban Development; Basic Sciences; and Ocean, Earth, Atmospheric and Space Sciences.

It is hoped that the requirements for granting clearance for U.S. scientists to conduct research within Mexican territorial jurisdiction will be simplified by action of Mexican Representatives to the Mixed Commission.

Areas of NOAA Involvement

The ongoing and proposed OAR activities with Mexico fall under the Climate Research, Air Quality Research, and Marine Observation and prediction MBO's. The cooperative activities support OAR's TOGA, EPOCS, and THRUST Programs, as well as the OAR/ERL acid rain studies.

Current Status/Achievements

The June, 1988 meeting of the Mixed Commission confirmed the importance of the Mixed Commission to both sides. It is hoped that scientific cooperation between the Governments of the United States and Mexico will increase in the future.

Priority Issues: 1989 & 1990

It is hoped that the Mixed Commission can meet in the United States sometime during 1989 to discuss substantive areas of cooperation.

Key Meeting Dates: 1989 & 1990

1989: Mixed Commission to meet.

Lead Agency/Department

DOS

Interagency Coordinating Mechanism

NOAA has been represented at past meetings of the Mixed Commission.

Responsible NOAA Office

Lead Official Barbara Moore

Others

Foreign Country Counterpart

CONACYT
Admiral Gilberto Lopez Lira of the Mexican Navy is NOAA's counterpart co-chair of the Ocean, Earth, Atmospheric and Space Sciences Working Group.

Statutory Authority/Congressional Oversight

Convention/Treaty/Agreement/Program

Memorandum of Understanding between U.S. and Canada on cooperation in the field of Climate-Related Programs

Status

EIF: June 28, 1985
Expire: June 27, 1990

Membership/HQ

United States and Canada

General Description/Purpose

The purpose of the MOU is to document arrangements and understandings, and to improve the cooperation and coordination of climate-related programs and activities undertaken by the United States and Canada.

Currently, the two countries are preparing the publication of a report reflecting the discussions and recommendations from the recently held First United States - Canada Symposium on Impacts of Climate Change on the Great Lakes Basin. This report will include recommendations for future action between the United States and Canada with respect to the Great Lakes Basin region.

Nature and Purpose of U.S. Involvement

In general, the MOU will assist each country in planning climate-related programs, assist each other in program operation to the extent practical and mutually desirable, and to assist each other in communicating and sharing climate-related information.

The improved cooperation is desirable (1) to enhance and maximize program capabilities in the climate field in both countries ; (2) to encourage joint efforts to resolve common problems; (3) to avoid unplanned duplication of effort; (4) to help insure that the collection, analysis, archival, and dissemination of data are compatible so that results can be compared and pooled, when desired.

Priority Issues: 1988 & 1989

1988: Publication of report on First U.S.-Canada Symposium on Climate Impacts on the Great Lakes Region

1989: Begin implementation of the key recommendations of the report with a series of planning meetings - the first in late January, 1989.

Key Meeting Dates: 1989 & 1990

January - February 1989: first of a series of planning meetings to consider implementation of the key recommendations of the Great Lakes symposium.

Lead Agency/Department

NOAA/National Climate Program Office leads U.S. participation in the climate MOU with Canada.

Interagency Coordinating Mechanism

National Climate Program Office

Responsible NOAA Office

Lead Official: Dr. Alan Hecht
Others: Bill Bolhofer

Foreign Country Counterpart

Mr. Al Malinauskas, Canadian Climate Program Office of the Atmospheric Environment Service for Environment Canada

Convention/Treaty/Agreement/Program

Agreement Between the Government of the United States of American and the Government of Spain on Cooperation in Science, Technology, Culture and Education

(Complementary Agreement Seven to the Agreement on Friendship, Defense and Cooperation Between the U.S. and Spain)

Status

Although this Agreement was scheduled to expire May 13, 1988, the rights and obligations continue for up to one year in the absence of a new agreement. (Current S&T projects will run their course.)

Membership/HQ

U.S. and Spain

General Description/Purpose

The purpose is to strengthen the traditional and understanding between the peoples of the U.S. and Spain. Unlike the previous security agreement, scientific and technical cooperation (as well as cultural and education) will be separated from the new security agreement.

Two Joint Committees will be continued to administer the activities under the agreement but, unlike the old agreement, there will be no Executive Secretariat since there will be no central fund to be managed.

Activities under the propose Agreement are subject to the availability of appropriated funds. Unless the parties agree on other arrangements, each side will bear the costs of its participation in cooperative activities.

Nature and Purpose of U.S. Involvement

- To strengthen cooperation between the U.S. and Spain

Areas of NOAA Participation

There has been an increase in monies allocated marine science over the past three years. Under the previous Agreement, NOAA/NMFS has been involved in a cooperative SARP (Sardine Anchovie Recruitment Project) project. NMFS Southwest Region and the Spanish Institute of Oceanography have studied biological and oceanographic factors influencing the abundance, distribution, and stock structure of large pelagic fish in the Atlantic Ocean. This project was important to NOAA's Intergovernmental Oceanographic Commission interests in SARP/Ocean Sciences and Living Resources.

Three agencies, NSF, Office of Naval Research and NOAA ($20,000)

contributed monies 1986 to mitigate the effects of funding cutbacks on current research.

Priority Issues: 1989 & 1990

- Renegotiation of the agreement on cooperation; the U.S. is giving special attention to intellectual property issues.

- Determination of whether any additional funds will be available for future cooperative work.

Key Meeting Dates: 1989 & 1990

- Negotiations to complete agreement

Lead Agency/Department

State Department

Interagency Coordinating Mechanism

State Department chairs a Marine Interagency Panel to review proposals.

Responsible NOAA Office:

Lead Official: Arthur Paterson

Others: Fred Beaudry, Richard Podgorny, Barbara Moore

Statutory Authority/Congressional Oversight

III. B. Bilateral Fisheries Agreements

1. Treaty between the Government of the United States and the Government of Canada regarding Pacific salmon
2. Governing International Fisheries Agreements

PACIFIC SALMON COMMISSION
(PSC)

Basic Instrument

Treaty Between the Government of the United States of America and the Government of Canada Concerning Pacific Salmon, 1985

Implementing Legislation

Pacific Salmon Treaty Act of 1985 (16 U.S.C. 3631)

Member States

Canada and the United States

Commission Headquarters

Pacific Salmon Commission
1155 Robson Street, Suite 600
Vancouver, B.C.
Canada V6E 1B9
Executive Secretary: Mr. Ian Todd
Telephone: (604) 684-8081

Budget

The Commission budget for FY 1988-89 is $1,430,000 (Canadian). The U.S. contribution is $715,000 (Canadian).

U.S. Representation (expiration dates parentheses)

A. Appointment Process:

The appointment process for U.S. members of the PSC includes several unique features. As outlined in the legislation implementing the treaty, "The United States shall be represented on the Commission by four Commissioners who are knowledgeable or experienced concerning Pacific salmon, to be appointed by and serve at the pleasure of the President. Of these, one shall be an official of the U.S. Government who shall be a non-voting member of the U.S. Section; one shall be a resident of the State of Alaska and shall be appointed from a list of at least six qualified individuals nominated by the treaty Indian Tribes of the States of Idaho, Oregon, or Washington. Two of the initial appointments shall be for 2-year terms; all other appointments shall be for 4-year terms."

B. COMMISSIONERS

Mr. Don W. Collinsworth
(Jan. 1990)
Commissioner, Alaska
Department of Fish and Game
P.O. Box 3-2000
Juneau, AK 99802

Mr. David Colson (Jan. 1990)
U.S. Commissioner
Assistant Legal Advisor
Inter-American Affairs
and Scientific Affairs
Department of State, Room 5423
Washington, D.C. 20520

Dr. John R. Donaldson
Acting U.S. Commissioner
Columbia Basin Fish & Wildlife
Authority
Suite 170-2000 S.W. 1st Ave.
Portland, OR 97201

Mr. Timothy Wapato (Jan. 1992)
U.S. Commissioner
Executive Director, Columbia
River Inter-Tribal Fish Comm.
975 S.E. Sandy Boulevard
Portland, OR 97214

ALTERNATE COMMISSIONERS

Mr. Gary Slaven
Alternate Commissioner
P.O. Box 205
Petersburg, AK 99833

Mr. Henry R. Beasley
Alternate Commissioner
Director, Office of
International Affairs
NMFS/NOAA/Commerce
Silver Spring, MD
20910

Mr. Joseph Blum
Acting Alternate
Commissioner
Director, Washington
Department of Fisheries
115 - General Admin. Bldg.
Olympia, WA 98504

Mr. Guy McMinds
Alternate Commissioner
Fisheries Director
Quinault Indian Nation
Dept. of Nat. Resources
P.O. Box 189
Taholah, WA 98587

C. Advisory Structure

No formal advisory group currently exists.

Description

A. Mission/Purpose:

The PSC's mission is to serve as a forum for cooperation between the United States and Canada in the rational management of Pacific salmon stocks to "prevent overfishing and provide for optimum production; and provide for each Party to receive benefits equivalent to the production of salmon originating in its waters."

B. Organizational Structure:

The Commission has a complex organizational structure which includes three regional panels (Northern, Fraser, and Southern), consisting of 16 U.S. panel members (nine of whom are appointed by the Secretary of Commerce), responsible for providing advice on the management regimes for the intercepting salmon fisheries; i.e., those in which one or both countries intercept salmon spawned in the other country.

C. Programs:

Since it was established in 1985, the PSC, through its recommendations to the Governments of Canada and the United States, has maintained an extensive management program for intercepting salmon fisheries. A significant number of such fisheries controls implemented pursuant to PSC recommendations expired in 1988 and will need to be renegotiated at the 1989 Annual Meeting of the Commission. These include catch limits for (1) chinook salmon off southeastern Alaska and British Columbia; (2) coho salmon off the west coast of Vancouver Island; (3) chum salmon off southern British Columbia and Washington; (4) pink salmon troll fisheries off northern British Columbia; and (5) sockeye salmon in seine fisheries in District 4 off southeastern Alaska.

Staff Contacts

NOAA Fisheries Headquarters:

George Herrfurth, F/IA1
Room 7314 SSMC1
1335 East-West Highway
Silver Spring, MD 20910
(301) 427-2276

NOAA Fisheries Northwest Region:

Charles K. Walters
Pacific Salmon Treaty Coordinator
7600 Sand Point Way, N.E.
Seattle, Washington 98115-0070
(206) 526-6150

DOS:

Elizabeth Montagne
OES/OFA, DOS
Room 5806
Washington, D.C. 20520
(202) 647-2883

GOVERNING INTERNATIONAL FISHERY AGREEMENTS

Pursuant to the Magnuson Fishery Conservation and Management Act (the Magnuson Act), foreign fishing within the U.S. 200-mile Exclusive Economic Zone may only be conducted under governing international fishery agreements (GIFAs). Below is a list of GIFAs that have been concluded since the enactment of the Magnuson Act, including their current status as of January 1989.

Entity	Date Signed	Entered Into Force	Expiration Date	Extension Status
Bulgaria				
original	12/17/76	2/28/77	7/01/83	
renegotiated	9/22/83	4/12/84	7/01/88	Expired
Cuba				
original	4/27/77	9/26/77	9/26/82	Expired
European Economic Community				
original	2/15/77	6/09/77	7/01/84	
renegotiated	10/01/84	11/18/84	7/01/89	
Denmark/Faroe Islands				
original	9/05/79	1/18/80	7/01/84	
renegotiated	6/11/84	11/20/84	7/01/89	
German Democratic Republic				
original	10/05/76	3/04/77	7/01/83	
renegotiated	4/13/83	7/20/83	7/01/88	7/01/90
Iceland				
original	9/21/84	11/16/84	7/01/89	
Japan				
original	3/18/77	11/29/77	12/31/82	
1st renegot.	9/10/82	1/01/83	12/31/87	
2nd renegot.	11/12/87	12/31/87	12/31/89	

Entity	Date Signed	Entered Into Force	Expiration Date	Extension Status
Republic of Korea				
original	1/04/77	3/04/77	7/01/82	
1st renegot.	7/26/82	4/28/83	7/01/87	
2nd renegot.		7/01/87	7/01/89	
Mexico				
original	8/26/77	12/29/77	7/01/82	Expired
Norway				
original	1/26/81	5/15/81	7/01/85	Expired
People's Republic of China				
original	7/23/85	11/19/85	7/01/90	
Poland				
original	8/02/76	2/28/77	12/31/85	
renegotiated		1/01/86	7/01/91	
Portugal				
original	10/16/80	3/04/81	3/04/86	See footnote
Romania				
original	11/23/76	1/18/78	7/01/82	
renegotiated			12/31/88	Expired
Spain				
original	2/16/77	3/10/77	7/01/82	
renegotiated	7/29/82	1/17/83	7/01/87	See footnote
Taiwan				
original	9/15/76	2/28/77	7/01/82	
renegotiated	6/07/82	7/01/82	7/01/87	Expired
U.S.S.R.				
original	11/26/76	2/28/77	7/01/84	
1st renegot.	12/31/86	12/31/86	12/31/87	
2nd renegot.	12/08/87	12/08/87	12/31/88	
U.S.-U.S.S.R. Comprehensive Fisheries Agreement	5/31/88	10/25/88	5/31/93	

Footnote--Portugal and Spain were incorporated into the U.S.-European Economic Community (EEC) Governing International Fishery Agreement upon their accession into the EEC in 1986.

III. C. Bilateral Fishery Trade Activities

1. Canada
   - Free Trade Agreement
   - U.S./Canada 301 Herring Salmon Case
2. European Economic Community
3. Japan
4. Republic of Korea
5. Taiwan

Negotiations: Fishery Trade

Other Country or Countries: Canada

Forum or Fora of Negotiations: Bilateral, issue-oriented working groups; special request discussions in capitols.

Agreements Already Concluded During Negotiations: Free Trade Agreement, signed January 2, 1988, enacted by United States on September 28, 1988.

Description of General Problem:
The Free Trade Agreement left important details to be negotiated subsequent to approval by the legislatures of the two countries.

Nature and Purpose of U.S. Involvement:
The United States Government seeks fair trade and minimum trade barriers between the United States and Canada.

Priority Issues: 1989 & 1990:
1. The United States and Canada pledged under the Free Trade Agreement (FTA) to spend the next five years seeking to resolve the question of subsidies. An additional two year period is allowed to reach agreement after which, either side can abrogate the agreement. If the FTA is approved by Canada, this area is our top priority.

2. Fishery standards can be used as trade barriers, or can inhibit trade. The U.S. and Canada have agreed to harmonize health and safety standards under the FTA.

Key Meeting Dates: 1989 & 1990:
Unknown until after the Canadian elections.
Lead Agency: USTR

Interagency Coordinating Mechanism: Trade policy process: intradepartmental and interagency working groups, Trade Policy Staff Committee (TPSC), Trade Policy Review Group (TPRG), Economic Policy Council (EPC).

Responsible NOAA Office: NMFS Office of Trade and Industry Services.

Key Support Staff: Prudence I. Fox, Chief, Trade Services Division,
Robert D. Nordstrom, Trade Operations Branch.

Statutory Authority/Congressional Oversight: Trade Act of 1974; FTA Implementation Act of 1988; Omnibus Trade and Competitiveness Act of 1988.

Negotiations

United States - Canada 301 Herring Salmon Case, Southeastern Alaska and Washington State

Other Country

Canada

Forum of Negotiations

Bilateral and GATT

Agreements Already Concluded During Negotiations

None

Description of General Problem

Canada prohibits the export of unprocessed herring and two species of salmon. The United States has no such restrictions. As a result, Canadian processors bid for U.S.-caught fish, but U.S. processors cannot bid for the Canadian fish. The harm to U.S. processors is estimated to be approximately $11 million annually.

Southeast Alaska processors petitioned the U.S. government to initiate a 301 case with the objective of eliminating the export restrictions. The U.S. government accepted the case and met with the Canadians about their dropping the restrictions. The Canadians refused on the grounds that the requirement was for conservation and quality control/inspection reasons. Their argument was that to properly manage fish, they needed to tally the fish caught by landing and counting them.

The United States took the issue to a GATT dispute settlement panel; the panel's report was favorable to the U.S.. Canada announced their intention to drop the export restriction but institute in its place a set of landing requirements no later than 1 January 1989.

The exact nature of the landing requirements is important because they could make purchase by U.S. processors infeasible due to time and expense resulting from the landing and subsequent shipment. Furthermore, the Canadians have made statements which suggest that they intend to apply the landing requirement to many more species of fish on both the East and West Coasts.

Nature and Purpose of U.S. Involvement

To effect the elimination of the Canadian trade restrictions -- existing and threatened.

Priority Issues 1989

Satisfactory solution is the goal. The U.S.We would like a solution by the beginning of the herring season early in 1989.

Key Meeting Dates

No meetings are scheduled. We are waiting to see what landing requirements the Canadians impose. The United States requested consultations with the Canadians prior to their announcing the new requirements, but those meetings have not taken place.

Lead Agency

Office of the U.S. Trade Representative

Interagency Coordinating Mechanism

U.S. International Trade Policy Interagency Coordination

Responsible NOAA Office

Office of Trade and Industry Services, NMFS

Key Support Staff

Prudence I. Fox, Chief, Trade Services Division
Jukka A. Kolhonen, Chief, Trade Analysis Branch
Bruce Norman, Chief, Trade Operations Branch

Statutory Authority

Section 301, Trade Act of 1974 as amended by Section 901 of the Trade Agreements Act of 1979.

Negotiations: Fishery Trade

Other Country or Countries: The European Economic Community (EC).

Forum or Fora of Negotiations: GATT Uruguay Round, OECD, Ad Hoc.

Agreements Already Concluded During Negotiations: None.

Description of General Problem: The only fishery agreement between the two entities is the Governing International Fishery Agreement (GIFA). The EC seeks allocations of U.S. fishery resources under the GIFA. The U.S. seeks market opening measures in the EC. The EC is attempting to link allocations and trade in several fora, including the Uruguay Round. The U.S. does not recognize allocations as a trade issue.

Nature and Purpose of U.S. Involvement: Participation in bilateral and multilateral efforts to promote fair trade and remove trade barriers to U.S. exports.

Priority Issues: 1989 & 1990: Elimination of the reference price system, subsidies, and preferential agreements through the Uruguay Round.

Key Meeting Dates: Uruguay Round negotiating group meetings as scheduled; GIFA renewal talks as scheduled between now and July 1, 1989; OECD Committee for Fisheries, as scheduled; and the FAO Subcommittee on Fishery Trade, as scheduled.

Lead agency: USTR (GATT)
USDOS (GIFA negotiations, OECD, FAO)

Interagency Coordinating Mechanism: Routine staff clearances in ITA, USTR, and State; trade policy process.

Responsible NOAA Office: NMFS Office of Trade and Industry Services.

Key Support Staff: Prudence I. Fox, Chief, Trade Services Division,
Robert D. Nordstrom, Trade Operations Branch.

Statutory Authority/ Congressional Oversight: Trade Act of 1974 and Omnibus Trade and Competitiveness Act of 1988.

Negotiations: Fishery Trade

Other Country or Countries: Japan

Forum or Fora of Negotiations: Special request discussions in capitols; possible formal GATT procedures.

Agreements Already Concluded During Negotiations: Japanese unilateral measures of March 1987 announced during GATT consultations on pollock and herring import quotas.

Description of General Problem: Japan maintains import quotas (IQS) on fish products which hinder to their market.

Nature and Purpose of U.S. Involvement: NOAA's goal is to eliminate Japanese fishery IQs or to remove their market-distorting effects through fishery agency-to-fishery agency consultations or, if this is unsuccessful, through negotiations conducted by USTR.

Priority Issues: 1989 and 1990: Continue successful implementation of Japanese undertakings with respect to pollock and herring; negotiate comparable, long-term arrangements for cod, mackerel and squid.

Key Meeting Dates: Annual consultations on herring and pollock import quotas, usually in January. Other consultations as agreed.

Lead Agency: USTR/NOAA

Interagency Coordinating Mechanism: Informal coordination with desk officers in ITA, USTR, and State; trade policy process.

Responsible NOAA Office: NMFS Office of Trade and Industry Services

Key Support Staff: Prudence I. Fox, Chief, Trade Services Division; Matteo J. Milazzo, Trade Operations Branch.

Statutory Authority/Congressional Oversight: Trade Act of 1974; Trade Agreements Act of 1979; Omnibus Trade and Competitiveness Act of 1988; General Agreement on Tariffs and Trade/House Committee on Merchant Marine and Fisheries; Senate Committee on Commerce, Science, and Technology.

Negotiations: Fishery Trade

Other Country or Countries: Republic of Korea (ROK)

Forum or Fora of Negotiations: Special request discussions in capitols; U.S.-ROK Trade Sub-Group meetings.

Agreements Already Concluded During Negotiations: None

Description of General Problem: The ROK's system of import licenses restricts imports of U.S.-processed fish products.

Nature and Purpose of U.S. Involvement: Fishery agency-to-fishery agency discussions or USTR trade missions to liberalize import license requirement on selected fish species/products of interest to the U.S. industry.

Priority Issues: 1989 and 1990: Move a number of U.S.-processed Alaska bottomfish items to the list of items approved for licenses automatically.

Key Meeting Dates: 1989 and 1990: To be determined.

Lead Agency: USTR

Interagency Coordinating Mechanism: Informal coordination with desk officers in ITA, USTR, and State; trade policy process.

Responsible NOAA Office: NMFS Office of Trade and Industry Services

Key Support Staff: Prudence I. Fox, Chief, Trade Services Division; Matteo J. Milazzo, Trade Operations Branch

Statutory Authority/Congressional Oversight: Trade Act of 1974; Trade Agreements Act of 1979; Omnibus Trade and Competitveness Act of 1988; General Agreement on Tariffs and Trade/ House Committee on Merchant Marine and Fisheries; Senate Committee on Commerce, Science, and Technology.

Negotiations: Fishery Trade

Other Country or Countries: Taiwan

Forum or Fora of Negotiations: Special request discussions in capitols; USTR missions.

Agreements Already Concluded During Negotiations: None

Description of General Problem: Taiwan's high duties on fish imports restrict trade with U.S. seafood producers.

Nature and Purpose of U.S. Involvement: Inclusion of fishery items on agenda of trade discussions with Taiwan to achieve reductions in duties on fish and shellfish items.

Priority Issues: 1989 and 1990: Reduction in duties on processed bottomfish products.

Key Meeting Dates: To be determined.

Lead Agency: USTR

Interagency Coordinating Mechanism: Informal coordination with desk officers in ITA, USTR and State; trade policy process.

Responsible NOAA Office: NMFS Office of Industry and Trade Services

Key Support Staff: Prudence I. Fox, Chief, Trade Services Division; Matteo J. Milazzo, Trade Operations Branch

Statutory Authority/Congressional Oversight: Trade Act of 1974; Trade Agreements Act of 1979; Omnibus Trade and Competitveness Act of 1988/ House Committee on Merchant Marine and Fisheries; Senate Committee on Commerce, Science, and Technology.

III. D. Bilateral Environmental Agreements

1. Common North American Vertical Datum (NAVD 88)
2. U.S.-Canada Hydrographic Commission (USCHC)
3. International Joint Commission (U.S.-Canada)
4. U.S.-Canada Joint Ice Working Group
5. U.S. Canada Military Cooperation Committee (NATO)
6. Meteorological Agreements

Convention/Treaty/Agreement/Program

North American Vertical (Leveling) Geodetic Control Network - Geodetic Cooperation/Canada

Status

EIF: 2/26/82

EXPIRE: At completion of the redefinition and new adjustment of the North American Vertical Datum, scheduled for completion in 1991.

Membership/HQ

U.S. - Canada; Bilateral Agreement (Memorandum of Understanding)

General Description/Purpose

Redefinition and readjustment of the vertical control portion of the National Geodetic Reference System. The National Geodetic Survey Division, Office of Charting and Geodetic Services, NOS, NOAA, enters into an agreement with the Surveys and Mapping Branch, Canadian Centre for Surveying, to coordinate the readjustment of the North American Vertical Geodetic Control Network. (Last general adjustment of the U.S. network of 585,000 monumented brass markers (bench marks), for which extremely accurate geodetic heights (elevations) have been determined, was completed in 1929.)

With the completion of the new adjustment, the project will provide improved, contemporary height values for the 585,000 bench marks. Each country will also have an automated data base of verified geodetic leveling observations for future applications.

The agreement includes annual technical exchange meetings of subject-matter experts to discuss common data analysis procedures, exchange leveling data, and coordinate and share research and development related to the project.

Nature and Purpose of U.S. Involvement (List Direct U.S. Benefits)

Major U.S. benefits include:

(1) Basis for U.S. Geological Survey (USGS) mapping, Federal Emergency Management Administration (FEMA) Flood Insurance Program, and other major Federal, state, and local surveying and mapping activities.

(2) Used in infrastructure and land usage planning in areas of significant ground sinking (subsidence), e.g., in Houston, New Orleans.

(3) Essential to monitoring fault zones for the USGS Earthquake Hazards Reduction Program.

(4) Used to evaluate crustal stability for applications such as determining suitable sites for disposal of energy waste by-products (e.g., nuclear wastes, open-pit mine overburden and gangue, and geothermal brines) and siting of electric generating facilities, dams, etc.

Areas of NOAA Participation

NOAA: NOS, C&GS, National Geodetic Survey

(DMA seat on Inter American Geodetic Survey)

Canada: Surveys, Mapping and Remote Sensing Sector (formerly Surveys and Mapping Branch), Canadian Centre for Surveying.

Priority Issues: 1989 & 1990

Coordination with Canadian counterparts to ensure technical compatibility of least-squares adjustment techniques (Helmert blocking), vertical datum definition, new adjustment of the International Great Lakes Datum of 1980 (IGLD 80), crustal motion, a priori standard error estimates, and sea surface topography effects.

Key Meeting Dates: 1989 & 1990

A minimum of one technical exchange meeting each year. Specific dates for 1989 and 1990 not yet determined.

Lead Agency/Department

Commerce/NOAA

Interagency Coordinating Mechanism

Federal Geodetic Control Committee - 12 members chaired by RADM Wesley V. Hull, Director, C&GS, FGCC Secretariat: Gilbert J. Mitchell, NGS

Responsible NOAA Office

Lead Official: RADM Wesley V. Hull, N/CG

Others: Capt. Max M. Ethridge, Chief, NGS, N/CG1
David B. Zilkoski, Project Manager, NAVD 88, N/CG13

Foreign Country Counterpart

Surveys, Mapping, and Remote Sensing Sector; Canada Centre for Surveying

Statutory Authority/Congressional Oversight

Public Law 80-373 as amended
Bureau of the Budget Circular No. A-16, revised May 6, 1967

Convention/Treaty/Agreement/Program

U.S.-Canada Hydrographic Commission

Status

EIF: 9/22/70
EXPIRE:

Membership/HQ

United States, Canada
Charting & Geodetic Services/NOS - Canadian Hydrographic Service

General Description/Purpose

Coordinate hydrographic and cartographic operations of the U.S. (NOS) and Canada (CHS). Achieve maximum capability, uniformity among charts and related publications. Provide free exchange of unclassified charts, publications and related information.

Nature and Purpose of U.S. Involvement

Compatibility of nautical products permits the exchange of repromats with resulting savings in production casts and consistency in portrayal of information in the areas of common interest. Exchange of data results in cost savings in data collection. The personnel exchange results in a better understanding of cartographic procedures used by each agency.

Areas of NOAA Participation

National Ocean Service: Office of Charting and Geodetic Services (C&GS)

Priority Issues: 1989 & 1990

Production of nautical charts in the broader area of U.S./Canada

Key Meeting Dates: 1989 & 1990

USCHC meets annually; 1989 in Vancouver, B.C., Canada
1990 in Norfolk, Va.

Lead Agency/Department

Commerce/NOAA

Interagency Coordinating Mechanism

U.S. interests in boundary waters, coordinated annually in meetings of NOS/DMA/NAVOCEANO personnel and as may be needed.

Responsible NOAA Office

Director, Charting and Geodetic Services

Lead Official: RAdm Wesley V. Hull

Others: Capt. Christian Andreasen
Mr. William Monteith

Foreign Country Counterpart

Mr. G. R. Douglass

Statutory Authority/Congressional Oversight

Convention/Treaty/Agreement/Program

International Joint Commission: established under treaty relating to boundary waters and questions arising along the boundary between the U.S. and Canada, signed 1909.

Additional responsibilities added by Great Lakes Water Quality Agreement, 1972, revised 1978; protocol amending agreement signed on November 18, 1987.

Status

EIF: 5/5/10 (1910)
Expire: N/A

Membership

U.S. & Canada
HQ: IJC, Washington, D.C. 20440 (also in Ottawa)
Regional Office: Windsor, Ontario

General Description/Purpose

The IJC was designed to help prevent and settle disputes regarding the use of boundary waters and certain air quality matters.

(1) Exercise of quasi-judicial powers in approving or withholding approval of applications for the use, obstruction or diversion of boundary waters on either side of the line that would affect the natural level on the other side.
(2) Investigation/study when requested by either or both governments, known as a Reference (implications of findings is not mandatory).
(3) It may be asked for a diction rather than recommendations (power never used).

Great Lakes Water Quality Agreement: resolved to restore and enhance water quality of this the largest freshwater system in the world. Active monitoring and surveillance of Great Lakes water quality; annual reports to governments.

The Agreement reflects a Great Lakes Basin ecosystem approach, including the realization that it is not possible to deal with water quality without addressing socio-economic problems, land use, atmospheric transport, etc.

Under the Agreement, waters of the Great Lakes should be free of: (a) substances that enter as a result of human activity; (b) floating material (debris, oil); (c) material and heat which cause color, odor, taste problems; (d) material and heat which produce conditions toxic or harmful to human, animal or aquatic life; and (e) nutrients resulting from human activity that would interfere with beneficial use.
The Agreement specifically addresses: pollution from municipal and

industrial sources, inventory of pollution abatement requirements, eutrophication, pollution from agriculture, forestry and other land use activities, pollution from shipping activities, pollution from dredging and from onshore and offshore facilities, contingency plans, hazardous polluting substances, persistent toxic substances, airborne toxic substances, surveillance and monitoring, remedial action plans, lakewide management plans, pollution from contaminated sediments, and pollution from contaminated ground water and subsurface sources.

The Protocol to the Agreement emphasizes persistent toxic substances and sources (air, ground water, infiltration, sediments, runoff of non-point sources) and management processes for achieving Agreement objectives.

Regarding the Agreement, the International Joint Commission is involved in or consults on establishment of specific objectives and control of pollutant loading rates.

Canada and the U.S. each have three commissioners on the IJC. U.S. Commissioners: Robert McEwen (NY), L. Keith Bulen (Ind.) Donald L. Totten (Ill.) Commission has approximately 24 boards including control, investigative and advisory boards.

Nature and Purpose of U.S. Involvement

1. Allows U.S. to meet obligations under international treaty
2. Makes possible resolution of issues defying bilateral resolution
3. Makes possible the orderly consideration of applications for use of boundary waters which would have international implications
4. Facilitates joint research on a broad spectrum of issues affecting the Great Lakes Basin ecosystem.

Areas of NOAA Participation

NOS and OAR. The Agreement specifically addresses 17 areas of interest including pollution from land use, shipping, dredging, industry, sediments, air borne substances, hazardous wastes and persistent toxic substances. Much of the research conducted by the Great Lakes Environmental Research Laboratory/OAR relates to that called for in the Agreement. Dr. Alfred Beeton is the U.S. co-chair of the Science Advisory Board. Dr. Machta/OAR is the U.S. co-chairman of the IJC International Air Quality Advisory Board. Dr. Frank Quinn is a member of the Great Lakes Technical Information Board and served on Task Force on Emergency Measures (lake level study).

Priority Issues: 1989 & 1990

- Water Levels Reference Study (related to 1909 Treaty and a specific IJC special reference)

- The parties are now setting up mechanisms to carry out the programs for the new annexes agreed to in November 1987:

atmospheric deposition of toxic compounds, contaminated sediments pollution from non-point sources, research and development and pollution from contaminated groundwater.

Key Meeting Dates: 1989 & 1990

December 14: Executive meeting (six times a year)

October 11-14, 1989: Biennial meeting on the Great Lakes, Hamilton, Ontario

Interagency Coordinating Mechanism

Responsible NOAA Office

Lead Officials: Dr. Alfred Beeton OAR
As U.S. co-chair of the Science Advisory Board, Dr. Beeton is a member of the Coordinating Management Committee, which makes the Agreement's management decisions.

Others: Candyce Clark, R/IA. Philip C. Morris N/OMA121, and Harry A. Lippincott : Water Level Reference Study

Foreign Country Counterpart

Canada: Department of Energy, Department of Fisheries & Oceans and Department of Environment

Statutory Authority/Congressional Oversight

Convention/Treaty/Agreement/Program

U.S.-Canada Joint Ice Working Group (JWG)

Status

The JWG was established in 1986 when it was determined that there was a need for close coordination of work on a regular basis between U.S. and Canadian government agencies with ice interests.

Membership/HQ

U.S. and Canada

General Description/Purpose

The Working Group's objectives are to:

- Create an open forum for U.S./Canada ice information exchanges at the informal working group level.

- Communicate periodically routine information concerning ice character, measurement and forecasting.

- Offer nonbinding recommendations to U.S. and Canadian senior managements

Participants in the JWG include U.S. representatives from NOAA, Navy, the Joint Ice Center, Coast Guard, Office of Naval Research, NASA, Dept. of Interior with Canadian representation from the Atmospheric Environmental Services/Environment Canada.

There are seven standing committees and three ad hoc task groups that address issues concerning terminology and map standards, operations/Center cooperations, training and personnel exchanges, Great Lakes, data archival problems, icebergs, telecommunications, digital communications protocols, research and technology, and applications software and products. Each committee/task group has a task leader and members from both countries.

Nature and Purpose of U.S. Involvement:

This JWG brings together the research and operational ice communities to fulfill the needs and better coordinate ice information and data exchange in both of these communities/ countries. It provides better coordination of U.S. ice-related activities among government agencies and eliminates duplicative efforts by countries' ice centers and other ice activities performed by different agencies.

Areas of NOAA Participation

NOAA is a major participant in this Working Group with all five lines offices of NOAA being represented. The National Ocean Service has the overall management responsibility with the U.S. Chairmanship residing in NOS.

Priority Issues: 1989 & 1990

Three of several major issues the Working Group is currently addressing are completing on-line data communications link to exchange ice data and products between the two centers; developing backup capabilities by each country's ice center in case of natural or man-made disasters; and preparing for the onslaught of satellite-derived ice data from satellites to be launched in early 1990's.

Key Meeting Dates: 1989 & 1990

The Working Group meets on an annual basis with Standing Committees/Ad Hoc Task Groups meeting on a "when necessary" schedule. The next meeting will be Spring 1989 with Canada hosting the meeting in Ottawa.

Lead Agency/Department

NOAA

Responsible NOAA Office

NOS

Lead Official: John Carey, Deputy Assistant Administrator, NOS

Others: Frank Kniskern, JIC
Mary Leach, N/IA

Foreign Country Counterpart

Atmospheric Environment Services/Environment Canada

Convention/Treaty/Agreement/Program

North Atlantic Treaty Organization (NATO)/Canada-United States Military Cooperation Committee (MCC)

Status

NATO was established as a military alliance in 1949 to provide mutual protection for its 15-member governments. The already established MCC was incorporated under NATO, organized to allow for the exchange of free and comprehensive information between Canada and the U.S.

Membership/HQ

U.S. and Canada

General Description/Purpose

The MCC organization is primarily concerned with problems and recommendations regarding military policy and planning for the defense of North America and other defense related matters.

Three important Subcommittees of the MCC are:

1. Oceanography Subcommittee:

   This Subcommittee supports the Basic Security Plan in oceanographic matters, dealing with issues that are of mutual interest of the two countries in the defense of the U.S. and Canada. In addition, it is responsible for providing quality military oceanographic services to its own military forces as well as providing support to one another if necessary.

2. Meteorology Subcommittee:

   This Subcommittee attends to military meteorology matters of concern to Canada and the US. As above, it is responsible for providing services to its own military forces as well as providing backup and cooperative services.

3. Mapping, Charting and Geodesy Subcommittee:

   Technical support in mapping,charting and geodesy matters is provided to both countries in the same framework as described above.

Nature and Purpose of U.S. Involvement

U.S. military receives optimum scientific support while operating under the Canada-United States Basic Security Plan

enabling defense forces to maintain the security of North America against foreign invasion.

Areas of NOAA Participation

NOAA provides members to the MCC Oceanography and Meteorology Subcommittees, providing civilian scientific coordination and assistance in issues as they relate to NOAA and its support of the Basic Security Plan's objectives.

Priority Issues: 1989 & 1990

Classified information

Key Meeting Dates: 1989 & 1990

Oceanography Subcommittee: meets on an annual basis - next meeting Spring of 1989

Meteorology Subcommittee: meets twice a year

Mapping, Charting, Geodesy Subcommittee: meets on an annual basis - next meeting 8/89

Lead Agency/Department

Joint Chiefs of Staff/Department of Defense

Responsible NOAA Office

Lead Official:

Others:
Oceanography Subcommittee: Richard Podgorny, N/IA

Meteorology Subcommittee: Richard Wagoner, W/OM1

Mapping, Charting, Geodesy Subcommittee:
Max Ethridge, N/CG1
Christian Andreason, NC/G2
Frank Maloney, N/CG3

Foreign Country Counterpart

Chief of the Defence Staff, Ottawa, Canada

Bilateral Agreements for Weather Stations and Meteorological Observations

Country	EIF	Citation	EIF/Ammendments
Bahamas (cont. of coop. met.)	8/25/83		
Barbados (rawinsonde station)	10/13/75	26 UST 2557; TIAS 8174	
Belize (rawinsonde station)	8/26/81		TIAS 10253
Chile (coop. met. observation)	2/15/78	29 UST 1969; TIAS 8912	
Columbia (rawinsonde station)	9/8/81	(exchange of letters)	
Costa Rica (rawinsonde station)	6/8/76	28 UST 6075; TIAS 8669	
Dominican Republic (coop program for met. observation)	4/11/69	20 UST 647; TIAS 6670; 707 UNTS 243	
Grand Cayman (with U.K.- coop. prog. met. observation)	4/13/76	27 UST 1867	
Haiti (hurricane warning)	12/22/81	(exchange of notes-MOA)	
Israel (coop. met. prog-rawinsonde)	1/1/68	19 UST 5180; TIAS 6510; 653 UNTS 143	
Jamaica (coop. met. program)	11/3/64	15 UST 2023; TIAS 5681; 521 UNTS 181	
Mexico (coop. met. program - with MOU)	8/1/70	21 UST 1978; TIAS 6941; 756 UNTS 117	9/3/74, 25 UST 2450; TIAS 7927 7/14 & 15/83 TIAS 10745
Netherlands Antilles (coop. met. observation)	12/11/70	21 UST 2643; TIAS 7005; 772 UNTS 147	
Panama (Port Meteorological Office)	10/1/79	TIAS 10599	

Country	EIF	Citation	EIF/Ammendments
Peru (cont. coop. met program)	7/7/64	15 UST 1523; TIAS 5634; 530 UNTS 113	
Saudi Arabia			
Trinidad & Tobago	10/7/70	21 UST 2495; TIAS 6991; 722 UNTS 163	

Negotiation

I. Agreement with Mexico will be modified in 1989.

II. Agreement with Jamaica is being updated.

III. Agreement with Cayman Islands is being updated.

III. E. Bilateral Agreements: Space

1. Cooperation on instrumentation

(a) Argos (France)
(b) Stratospheric Sounding Unit (United Kingdom)
(c) Advance Microwave Sounding Unit (United Kingdom)

Convention/Treaty/Agreement/Program

A. Polar-Orbiting Meteorological Satellites

2. ARGOS Data Collection and Platform Location System (DCPLS)

Status

CNES and NOAA are bound by a Memorandum of Understanding (MOU), signed in March 1986, which superseded the original MOU signed in 1974. The new MOU covers:

- the forthcoming NOAA K, L, M spacecraft each equipped with a larger capacity ARGOS onboard equipment (ARGOS 2);
- the establishment of an ARGOS processing center in the U.S.; and
- an ARGOS Operations Committee, co-chaired by CNES and NOAA, to manage the operation of the ARGOS system.

General Description

The ARGOS Data Collection and Platform Location System (DCPLS) or ARGOS DCS is a cooperative project between the Centre National d'Etudes Spatiales (CNES) of France and NOAA. The system provides a means to locate and collect environmental data from moving and fixed platforms located anywhere on the earth's surface.

The ARGOS system consists of:
- approximately 1,300 active fixed and moving platforms deployed by more than 24 countries, each equipped with sensors and a platform transmitter terminal;
- two NOAA polar-orbiting environmental satellites, each equipped with an onboard data collection system (DCS) ensuring platform message reception, processing, and retransmissions; and
- the ground data processing centers.

CNES provides the DCS equipment flown on the NESDIS satellites at no charge to the United States. These satellites receive messages as they pass over the platforms and record them for playback to the three telemetry ground stations located at Gillmore Creek, Alaska, and Wallops Island, Virginia, (NOAA); and Lannion, France (CNES). The data are then transmitted to the NESDIS Center in Suitland, Maryland, and relayed to the CNES Toulouse Space Center in France, and a new processing center located in Landover, Maryland, near Washington, D.C. Both centers, operated by Service ARGOS for CNES, are independent with full internal redundancy and each has the capacity to handle the full global operational workload. The processing consists mainly of formatting the data and computing the locations of the data collection platforms.

The ARGOS Data Collection System became operational shortly after the on-board instrument was launched on the TIROS-N satellite in 1978. During its nine years of operation, the ARGOS Data Collection System has collected and located data used by biologists, hydrologists, meteorologists, oceanographers, physicists and others.

The following products and services are provided through the use of the ARGOS DCS:

- the relay of in-situ observations of surface and upper level ocean conditions and surface weather conditions; (The location of moving platforms provides information on surface currents for buoys, or middle or upper level winds for balloons.)
- the capability to track the movement of oceanic research ships, aircraft, land and marine animals in research programs;
- the relay of in-situ environmental data from those platforms in the Arctic and Antarctic that are not observable from the data collections system on the geostationary GOES satellites; (These data provide vital inputs to analyses of weather patterns transiting the polar regions.) and
- the deployment of ARGOS-equipped buoys in regions where ocean currents are expected to carry icebergs into shipping lanes. (Buoys are attached to already-drifting icebergs, to verify berg-drift forecasts based on ocean current rates.)

Nature and Purpose of U.S. Involvement

Cooperative satellite data collection is the most cost effective means to collect oceanographic and surface weather observations that are essential to timely weather forecasts.

Areas of NOAA Participation

NOAA's POES are equipped with an onboard data collection system.

Priority Issues: 1989 & 1990

- Adoption of measures for more efficient system use.
- Planning for sufficient system capacity by the end of NOAA-K, -L, -M (1993-1995).

Key Meetings 1989 & 1990

ARGOS Operations Committee Meeting - June 1989

Lead Agency/Department

NOAA/NESDIS

Interagency Coordinating Mechanism

Joint NOAA/NASA team

Responsible NOAA Office: NESDIS

Lead Official: Helen Wood

Responsible Foreign Counterpart: CNES

Lead Official: George Delmas

Statutory Authority/Congressional Oversight

Not applicable/none.

Other Aspects of ARGOS System

(1) United States Participation in the ARGOS Joint Tariff Agreement

Since 1980, the United States has negotiated a reduced tariff rate for location and data processing services provided by Service ARGOS. The WMO and IOC jointly host these meetings as a means to promote the low-cost use of the system by users worldwide. In 1982, all countries were invited to participate in a Joint Tariff Agreement (JTA). Coverage under the JTA is limited to those users which are funded by national government agencies and some non-profit making organizations. The sponsors of these programs are the National Oceanic and Atmospheric Administration, the Coast Guard, the Navy, the Army, the National Science Foundation, the Department of Interior, the Department of Energy, and state institutions.

(2) WMO Activities Relating to ARGOS

Members of the WMO continue to use Service ARGOS extensively for observing programs requiring collection and location of environmental data gathered through NOAA's polar orbiting satellites. Noteworthy is that the list of participating countries continues to grow. In general, most observing platforms have been implemented on the initiative of countries acting individually. In June 1985, the WMO Executive Council agreed to the establishment of a Drifting Buoy Cooperation Panel (DBCP), which has resulted in increased international cooperative action for the implementation of meteorological and oceanographic drifting buoy programs. ARGOS data are also put on to the WMO Global Telecommunications System (GTS).

Convention/Treaty/Agreement/Program

A. Polar-Orbiting Meteorological Satellites

3. United Kingdom Stratospheric Sounding Unit (SSU)

Under an MOU signed in September 1974, the United Kingdom Meteorological Office provides a Stratospheric Sounding Unit (SSU) which NOAA flies on its NOAA polar-orbiting satellites, as part of the TIROS Operational Vertical Sounder (TOVS). In exchange, NOAA transmits raw and processed TOVS data to the United Kingdom. The SSU is a three-channel instrument with 147 km resolution, which measures temperatures in the stratosphere. Together with the other elements of TOVS, vertical temperature profiles are derived, and used for global numerical modeling of the atmosphere.

Responsible NOAA Office: NESDIS

4. United Kingdom Advanced Microwave Sounding Unit (AMSU)

This program provides for the development and operation of an instrument to be incorporated in the next series of NOAA Polar-orbiting Operational Environmental Satellites (POES) beginning with, and including at least, NOAA-K, -L, and -M. The AMSU instrument will be designed primarily to sense the temperature and humidity of the atmosphere on a global scale and to provide reliable data in the presence of cloud cover. AMSU will replace the SSU and the Microwave Sounding Unit (MSU), two of the three components of TOVS on the current series of POES. Improvements over the SSU and MSU components of TOVS to be implemented in the AMSU systems are expected to improve the accuracy of temperature data, increase horizontal and vertical resolution, provide more information concerning water as vapor and/or liquid in clouds or rain, and address some specific requirements for precipitation information, stratospheric data, and sea-ice monitoring.

AMSU will consist of two independent systems. One system, AMSU-A, will provide the predominant data for temperature sounding. AMSU-A will be provided by NOAA. The second system, AMSU-B will provide the data for tropospheric humidity profiles, delineation of sea-ice and open water, and precipitation information. AMSU-B, qualified and ready for flight, together with various associated supporting services, will be provided by the U.K. Meteorological Office. NOAA will be responsible for the functional suitability of AMSU as a total system. NOAA will also fund the procurement, integration, and launch of the spacecraft equipped with AMSU instruments, operate the satellites in orbit and disseminate the data so gained.

Responsible NOAA Office: NESDIS

IV. NOAA Participation in Non-Governmental Organizations

1. IUCN
2. ICSU

Convention/Treaty/Agreement/Program

International Union for the Conservation of Nature and Natural Resources (IUCN)

Status

IUCN was created in 1948.

Membership/HQ

57 States, 122 government agencies, 318 NGOs, 5 non-voting affiliates

IUCN, World Conservation Centre
Avenue du Mont-Blanc
CH-1196 Gland Switzerland

General Description/Purpose

IUCN is an independent organization set up to bring sovereign States, government agencies, and NGOs together that work in the field of sustainable use and conservation of natural resources. Largely oriented toward living resources, both marine and terrestrial, IUCN is also interested in protection of soils from erosion, acid rain, coastal wetlands and coastal zone management.

IUCN fosters scientifically-based protection and management of renewable resources through identification, establishment and management protected areas and threatened species. To accomplish this, IUCN has established a global network of over 3,000 scientists and other technical experts from all phases of science who participate in IUCN Commissions (below) and projects. Its goals achieved through monitoring conservation developments (e.g. publishes Red Data Book series cataloguing threatened species of plants and animals), planning conservation action at national and regional levels, promotes conservation action by members and others and provides scientific assistance and advice.

IUCN established the World Conservation Strategy; established the Conservation for Development Centre, Conservation Monitoring Centre; it administers CITES and Ramsar Conventions.

IUCN has six Commissions: Environmental Planning; Environmental Policy, Law and Administration; Education; Ecology; National Parks and Protected Areas; Species Survival.

Nature and Purpose of U.S. Involvement

IUCN plays an active role in numerous environmental issues in which the U.S. has an important interest: global warming, polar issues, biological diversity, living resources management and ocean and coastal affairs. As an organization of governments, scientists and

NGOs, IUCN presents the U.S. with a unique opportunity to work at both a technical and policy level to promote U.S. environmental interests on an international scale.

- IUCN is an avenue of access to the global scientific research community as well as experience on ecology and conservation;

- IUCN promotes a generally responsible and constructive international environmental organization which is useful in dealing with issues of interest to NOAA;

- IUCN promotes familiarity with a global perspective on ecosystem research and management problems;

- IUCN provides a relatively neutral forum for the dissemination of information on environmental management and as such, can supplement U.S./NOAA substantive goals in international fora;

Although U.S. government agencies are members of IUCN, the U.S. government is not a member. Agencies pursue their national missions through participation in IUCN meetings.

Priority Issues: 1989 & 1990

IUCN members agreed to establish some 15 regional task forces to determine the obstacles to coastal and marine conservation and to specify the actions required to overcome these obstacles (Feb 88 Triennial Meeting in Costa Rica)

IUCN is developing an Antarctic Conservation Strategy of interest to NOAA.

IUCN has prepared a draft Biodiversity Convention which includes a Trust Fund

Membership dues may change over the next two years. In addition, the Department of State may join as a governmental member, which may have implications for agency membership.

Key Dates: 1989 & 1990

1990: IUCN conference on coastal and marine conservation

Areas of NOAA Participation

NOAA and IUCN have a cooperative agreement to cooperate in the protection of marine and estuarine sanctuaries and the conservation of fish and shellfish habitats and marine mammals and protected species.

IUCN includes major areas of substantive overlap with NOAA such as coastal ecology, coral reefs, ocean ecology, biodiversity, mangroves, acid rain, transboundary air pollution and polar regions.

Lead Agency/Department

U.S. agency members participate directly.

Interagency Coordinating Mechanism

Informal meetings of agency members

Responsible NOAA Office

Lead Official: Thomas L. Laughlin LA4

Others: NMFS: Nancy Foster, Michael Tillman

Statutory Authority/Congressional Oversight

International Council of Scientific Unions

The International Council of Scientific Unions (ICSU) was established in 1919. ICSU facilitates and coordinates activities of the international scientific unions.

NOAA has particular interest in three ISCU bodies: SCAR, SCOR and the IGBP Committee.

Scientific Committee on Antarctic Research: SCAR

Founded in 1958, SCAR is responsible for coordinating scientific activity in the Antarctic and includes a working group on oceanography. It sponsors the Antarctic Research Program (ARP) which includes programs relating to oceanography and marine biology.

Scientific Committee on Oceanic Research: SCOR

Founded in 1957 to further all disciplines of research in the oceans, SCOR is a scientific advisory body to the Intergovernmental Oceanographic Commission. It facilitates and furthers international research in the oceans.

International Geosphere/Biosphere: IGBP

ICSU coordinates some twenty national IGBP national Committees on an international level. The U.S. IGBP Committee is "The U.S. Committee on Global Change" of the National Academy of Sciences.

V. Emerging Developments/Issues in NOAA's International Activities

A. UNEP Regional Seas Programs
   - South Pacific Regional Environment Program
   - Caribbean Environment Program

B. OECD Environment Committee
C. Antarctic Non-Living Resources
D. International Arctic Science Cooperation
E. Stratospheric Ozone Depletion
F. Global Change
G. Acid Rain
H. NOX Protocol
I. PICES
J. Trade and Fishery Management
K. Implementation of Marine Mammal Protection Act Ammendments
L. Bering Sea "Donut Hole" Pollock Fisheries
M. International Whaling
N. Japanese Salmon Driftnet Fishery
O. Landsat
P. Pacific Island Network
Q. Law of the Sea
   - Research Ship Access to EEZs
   - Deep Seabed Hard Mineral Negotiations

Negotiations

The organization and participation of the U.S. and NOAA in the United Nations Environment Program's Regional Seas Programs in the Caribbean

Other Country or Countries

Wider Caribbean Basin countries

Forum or Fora of Negotiations

The Intergovernmental Meeting on the Action Plan of the Caribbean Environment Program (U.S. member); the Monitoring Committee (U.S. observer); the Meetings of the Parties to the Cartagena Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region (U.S. has ratified convention and is a member of the Bureau)

Agreements already concluded during negotiations

Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region. Protocols: Protocol concerning Cooperation in Combating Oil Spills in the Wider Caribbean Region. Biennial work plans including cooperative projects under the Action Plan.

Description of General Problem

The UNEP Governing Council designated "Oceans" among the priority areas in which activities are to be developed. The early meetings of the Governing Council endorsed a regional approach to the control of marine pollution and management of marine and coastal resources.

Each regional seas initiative is launched by an Action Plan (operational cooperative projects) and an umbrella agreement under which specific protocols are negotiated.

The Caribbean region seeks cooperative activities to: (a) provide basis for sustainable development; (b) protect the marine environment; (c) learn from experience in the region; and (d) cooperate on common problems.

The Caribbean Action Plan was adopted in 1981. The Cartagena Convention was negotiated in 1983 and entered into force in 1986. The main areas of activity are: coastal zone management, assessment and control of marine pollution (in the recent past, esp. hydrocarbons); training, education and public awareness.

Nature and Purpose of U.S. Involvement

The U.S., as a member of the region, can contribute its expertise toward solving common problems. Moreover, the U.S. continent, territories and commonwealths are affected by pollution in the region. For example, circulation patterns in the Caribbean and Gulf of Mexico wash marine debris onto U.S. shores, having a significant impact on U.S. tourism.

The U.S. does not contribute to the Caribbean Trust Fund (for cooperative projects) nor does it yet contribute money to support activities under the convention. It made some contributions to common costs through secondments to the regional secretariat. NOAA, Coast Guard, FWS and AID have made limited contributions to projects in the past.

Areas of NOAA Participation

In 1987, the U.S./NOAA contributed $20,000 toward the hire of a marine specialist to the UNEP Regional Coordinating Unit (RCU). In 1988, the NOAA seconded a professional to the RCU for two years. NMFS and FWS/DOI contributed $30,000 each toward a turtle recovery project to be completed in 1989 (WIDECAST). The U.S. hosted the first negotiating session for a protocol on specially protected areas and wildlife, October 24-26, 1988; NOAA contributed $5,000 (evenly divided by NOS and NMFS). NOAA/OAR/AOML (Don Atwood) is a leader in the UNEP/CARIPOL work on hydrocarbon pollution monitoring. NOAA/OAR/AOML (George Maul) is a leader in the UNEP regional study on the impacts of climate change on the region.

Priority Issues: 1989-1990

- Completion of negotiations on the protocol on specially protected areas and wildlife
- Completion of proposed changes to the Protocol concerning Cooperation in Combating Oil Spills in the Wider Caribbean Region that would expand it to include hazardous materials.
- Exchange of information on the problem of marine debris in the region.
- U.S. non-contribution to the voluntary Trust Fund, which supports all projects and common costs, severely limits U.S. influence in the program and is a constant source of criticism of the U.S. The U.S., in particular the State Department, must review this position of non-contribution to the Trust Fund.
- Preparation of project proposals that may involve U.S. agencies in projects endorsed by the Caribbean Action Plan (marine debris, pesticides, marine pollution, protected areas and wildlife, climate change)
- Agreement on the rules of procedures and financial arrangements of the Convention (U.S. currently wants to keep these arrangements distinct from the Trust Fund while other governments and parties to the Convention wish to meld everything together, even though not all governments in the region are parties to the Convention).
- Review and approval of next biennium budget.

Key Meeting Dates: 1989-1990

April 3-5: Monitoring Committee and Bureau of Cartagena Parties
April: Further negotiations on draft protocol on protected areas and wildlife
October: Intergovernmental Meeting and Meeting of Parties

Lead Agency/Department

The State Department (Nick McNeil) is the designated focal point for the UNEP regional seas program (now called UNEP Oceans and Coastal Affairs).

Interagency Coordinating Mechanism

State Department convenes interagency meetings

Chief U.S. Scientists/Representatives

Representatives: DOS: Nick McNeil
EPA: Scott Hajoost
NOAA: Arthur Paterson

Responsible NOAA Office

LA4 coordinates NOAA participation in the both regional seas programs.

Lead Official: Arthur Paterson, Coordinator

Others: SPAW: Nancy Foster, F/PR, Joseph Uravitch N/OCRM
Hal Creel, GC/F

Statutory Authority/Congressional Oversight

Negotiations

The organization and participation of the U.S. and NOAA in the United Nations Environment Program's Regional Seas Programs in the South Pacific

Other Country or Countries

South Pacific Basin countries

Forum or Fora of Negotiations

Intergovernmental Meeting on the South Pacific Regional Environment Program (SPREP) Action Plan; SPREP Convention: Convention for the Protection of the Natural Resources and Environment of the South Pacific (U.S. ratified convention); Coordinating Group; South Pacific Commission.

Agreements already concluded during negotiations

Convention for the Protection of the Natural Resources and Environment of the South Pacific. Protocols: Protocol concerning Cooperation in Combatting Pollution Emergencies in the South Pacific; Protocol for the Prevention of Pollution of the South Pacific Region by Dumping. Biennial work plans including cooperative projects under the Action Plan.

Description of General Problem

The UNEP Governing Council designated "Oceans" among the priority areas in which activities are to be developed. The early meetings of the Governing Council endorsed a regional approach to the control of marine pollution and management of marine and coastal resources.

Each regional seas initiative is launched by an Action Plan (operational cooperative projects) and an umbrella agreement under which specific protocols are negotiated.

The South Pacific regions seeks cooperative activities to: (a) provide basis for sustainable development; (b) protect the marine environment; (c) learn for experience in the region; and (d) cooperate on common problems.

The SPREP Action Plan was adopted in 1982. The SPREP Convention was negotiated in 1986 and entered into force in 1987. The main areas of activity are: coastal zone management; training, education and public awareness; mining and pollution; protected areas management.

Nature and Purpose of U.S. Involvement

The U.S., as a member of the South Pacific region, can contribute its expertise toward solving common problems. Moreover, the U.S. territories and commonwealths are affected by pollution in the region.

USAID mission at Suva has made voluntary block grants to the SPREP account at the South Pacific Commission (which hosts the SPREP secretariat) in the past. USAID will begin to target money to specific projects in the future.

Areas of NOAA Participation

Although the U.S. has not participated in SPREP to date, there are a number of areas, such as fisheries development, coastal zone management and climate change, which could involve NOAA in the future.

Priority Issues: 1989-1990

- Institutional Issues: Need to define the relationship of the diverse organizations now involved in SPREP: South Pacific Economic Commission, Economic and Social Commission for Asia and the Pacific, UNEP and South Pacific Commission program. SPREP countries must decide which organization has the primary organizational authority for SPREP activities.

- The Secretariat will pursue establishing a dedicated account for SPREP.

Key Meeting Dates: 1989-1990

South Pacific:

Lead Agency/Department

The State Department (Nick McNeil) is the designated focal point for the UNEP regional seas program (now called UNEP Oceans and Coastal Affairs).

Interagency Coordinating Mechanism

State Department convenes interagency meetings

Chief U.S. Scientists/Representatives

Representatives: DOS: Nick McNeil, EPA: Scott Hajoost, NOAA: Thomas Laughlin

Responsible NOAA Office

LA4 coordinates NOAA participation in the both regional seas programs.

Lead Official: Thomas Laughlin (SPREP)

Statutory Authority/Congressional Oversight

Negotiations

Improved NOAA participation in the OECD (Organization for Economic Cooperation and Development) and U.S. interagency process on such issues as coastal zone management including wetlands and estuaries, climate change, U.S. policy on export of hazardous wastes, accidents involving hazardous substances.

(NOAA is already a participant in the OECD Committee on Fisheries: Prudence Fox)

Other Countries

OECD membership: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Federal Republic of Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom, United States

Forum of Negotiations/Activity

OECD's Environment Committee: Group on Natural Resources (CZM), Waste Management Policy Group (transfrontier movement of hazardous wastes), Energy and Environment Group (climate change)
Experts forum on accidents involving hazardous substances

Other Committees of possible NOAA interest: Air Management Policy Group, Group on the State of the Environment

Agreements already concluded during negotiations

Coastal Zone Management: The OECD Environment Committee agreed in May 1988 that this was an important project. Denmark may contribute some money for the study. The U.S. accords this project a high priority.

Transfrontier Movements of Hazardous Wastes: Both OECD and UNEP are developing international agreements on this issue. These conventions would require transportation and treatment or disposition of hazardous wastes in an "environmentally sound manner". Both draft agreements call for advance notification and consent for exports of hazardous wastes (similar to RCRA). They also provide for prohibition of exports to both signatory and non-signatory countries if the exporting country has "reason to believe" the wastes will not be managed in an "environmentally sound" manner, even if the receiving country has consented to the import.

Accidents involving Hazardous Substances: A high level meeting on hazardous accidents, sponsored by France in Feb. 9-10, agreed that a forum of experts should be established to actively exchange information (1) assist in the implementation of the draft Council Acts; (2) develop or improve policies or guidance for accident prevention, preparedness and response; and (3) address a variety

of specific issues of mutual concern.

Climate Change: One study will be conducted to review climate change projects through the year 2005 (and perhaps beyond). Another study on the socio-economic impacts of climate change will be conducted by the Group of Economic Experts.

Description of Study/Problem

NOAA is not now an effective participant in the U.S. interagency process (clearing and preparing position papers) on many of these issues.

Nature and Purpose of U.S. Involvement

The OECD provides for joint economic analysis and for efforts to harmonize international economic practices and improve assistance to developing countries.

The Environment Committee addresses a wide range of environmental issues largely from a policy perspective.

Areas of NOAA Participation

NOAA is not now an effective participant in the U.S. interagency process (clearing and preparing position papers) on these issues. NCPO is occasionally consulted by EPA and DOE. (Climate change/OECD issues may be discussed on occasion at the National Climate Board.) J.R. Spradley participates in the Domestic Policy Council's working group.

Priority Issues: 1989-1990

To improve NOAA participation in the interagency process on issues relevant to NOAA

Key Meeting Dates: 1989-1990

7-9 December: Environment Committee
14-16 December: AD HOC Group of Experts on Accidents
April: Waste Management Policy Group
18-20 April: Environment Committee
June: Group on Energy and the Environment

Lead Agency/Department

EPA and DOS

Interagency Coordinating Mechanism

Interagency Committee

Chief U.S. Scientists/Representatives

EPA Administrator

Responsible NOAA Office

Lead Official:

Others:

Statutory Authority/Congressional Oversight

Negotiations

Convention on the Regulation of Antarctic Mineral Resources Activities

Other Country or Countries

22 Antarctic Treaty Consultative Parties

Forum or Fora of Negotiations

4th Special Antarctic Treaty Consultative Meeting

Agreements already concluded during negotiations

The U.S. signed the recently concluded Minerals convention.

Description of General Problem

To develop and implement a Convention to govern Antarctic mineral activities

Nature and Purpose of U.S. Involvement

A stable investment climate with environmental standards as strong as U.S. Law

Areas of NOAA Participation

Scientific research, data collection and resource management

Priority Issues: 1989 & 1990

1989: To obtain Senate ratification and pass implementing legislation

Key Meeting Dates: 1989 & 1990

none

Lead Agency/Department

Department of State

Interagency Coordinating Mechanism

Antarctic Policy Group

Chief U.S. Scientists/Representatives

Tucker Scully, DOS

Responsible NOAA Office

Lead Official: Thomas Laughlin, LA4 (treaty negotiation)

Others

Statutory Authority/Congressional Oversight

Several Congressional Committees will be involved in the ratification and implementing legislation process.

Negotiations

To form a multilateral "non-governmental" organization to foster cooperation in Arctic research

Other Country or Countries

USSR, Norway, Canada, Sweden, Finland, Iceland, Denmark

Forum or Fora of Negotiations

Periodic meetings of representatives of science organizations

Agreements already concluded during negotiations

Description of General Problem

For years, there has been interest in an organization which could promote international cooperation in Arctic research. Until 1986, this was blocked by the Soviets.

Nature and Purpose of U.S. Involvement

The U.S. could benefit directly from cooperative programs in oceanographic and atmospheric research, through access to Soviet territory, data exchange, logistic support and cost sharing.

Areas of NOAA Participation

Preparation of U.S. representatives

Priority Issues: 1989 & 1990

Determination of nature of the organization - whether membership is limited or open and how decisions are made.

Key Meeting Dates: 1989 & 1990

December, Leningrad
Spring, Svalbard

Lead Agency/Department

State/NSF

Interagency Coordinating Mechanism

Interagency Arctic Policy Committee

Chief U.S. Scientists/Representatives

Bob Corell, NSF; Ray Arnaudo, State/OES

Responsible NOAA Office

Lead Official - Dr. Joseph Fletcher, OAR

Others: - Thomas Laughlin/LA4

Statutory Authority/Congressional Oversight

Arctic Research and Policy Act of 1984

Negotiations

Stratospheric Ozone Depletion

Other Country or Countries

UNEP-wide: As of January 1 1989, those countries that ratified the Convention were: OECD-U.S., Canada, Japan, New Zealand, Norway, Sweden, EC and all EC members (Belgium and France are expected to overcome procedural delays; East Europe- USSR, Ukrainian SSR and Byelorussian SSR; LDC's-Egypt, Kenya Mexico, Nigeria and Uganda.

Forum or Fora of Negotiations

UNEP-convened meetings of the Montreal Protocol on Substances that Deplete the Ozone Layer

Agreements already concluded during negotiations

Vienna Convention for the Protection of the Ozone Layer: EIF September 22, 1988

Montreal Protocol on Substances that Deplete the Ozone Layer: Protocol should enter into force on 1 January 1989: at least eleven instruments of ratification, acceptance, approval of the protocol or accession thereto have been deposited by states or regional economic integration organizations representing at least two thirds of 1986 estimated global consumption of the controlled substances.

Description of General Problem

Stratospheric ozone is critical to life on Earth because it absorbs biologically damaging solar ultraviolet radiation. Depletion of stratospheric ozone increases the amount of ultraviolet radiation received at the Earth's surface, which would likely increase the incidence of cancer and melanoma, a well as possibly impairing the human immune system. Damage to terrestrial and aquatic ecosystems may also occur.

There is now compelling observational evidence that the chemical composition of the atmosphere is changing at a rapid rate on a global scale. The atmospheric concentrations of CO_2, CH_4, N_2O and CFCs 11 & 12 are currently increasing at rates ranging from 0.2 to 5.0% per year. The concentrations of other gases, including CFC 113 and Halons 1211 and 1301, important in the ozone and global warming issues are also increasing, some at an even faster rate. These changes in atmospheric composition reflect in part the metabolism of the biosphere and in part a broad range of human activities, including agricultural and combustion practices. It should be noted that the only known source of CFCs and Halons is industrial production. They are used for a variety of uses, including aerosol propellants, refrigerants, foam blowing agents,

solvents, and fire retardants.

The ozone issue and the greenhouse warming issue are strongly coupled because ozone itself is a greenhouse gas, and because the same gases which are predicted to modify ozone are also predicted to produce a climate warming. Because the lifetimes of some of these gases, N_2O, $CFCl_3$ and CF_2Cl_2 are long, it may take the atmospheric system tens to hundreds of years to recover after the emission of these gases into the atmosphere is terminated.

Significant Changes in Scientific Understanding Since 1987

1. The weight of scientific evidence strongly indicates that man-made chlorine species are primarily responsible for the observed decrease in spring-time Antarctic ozone within the polar vortex.

2. Analysis of data from ground-based Dobson instruments, after allowing for effect of natural geophysical variability, show measurable decreases from 1969-1986. The model calculations are broadly consistent with the observed changes in column ozone, except that the mean values of the observed decreases at mid and high latitudes in winter are larger than the mean values of the predicted decreases. The observed changes may be due wholly, or in part, to the increased atmospheric abundance of trace gases, primarily chlorofluorocarbons (CFCs).

3. While there is no clear evidence as yet for an Arctic ozone hole, an airborne expedition in early 1989 will clarify the Arctic ozone hole issue. Polar Stratospheric Clouds have been observed in the Arctic and the Ozone Trends Panel results do show an unexpected, but smaller, downward trend in O_3 over the Arctic.

Nature and Purpose of U.S. Involvement

The U.S. was the primary international catalyst in pushing for both the Convention and the Montreal Protocol. Without an international framework in which its national control measures on substances which deplete stratospheric ozone will have maximum effect, U.S. national control measures would likely be met by increased international production of these same chemicals.

EPA's new domestic regulations limiting the production and consumption of CFCs and Halons in accordance with the protocol go into effect following the protocol's entry into force.

Areas of NOAA Participation

The current theory for the destruction of O_3 was developed by NOAA. NOAA has been a major contributor in the national level debate on stratospheric O_3 depletion, providing the chief scientist for the U.S. delegation to the Montreal Protocol (Albritton). NOAA provided the chief scientists for three expeditions and a large fraction of the scientific observations which led to the current understanding of the Antarctic ozone hole. NOAA was also a major

participant in the Ozone Trends Panel. NOAA's Aeronomy Laboratory, which conducts studies to better define the chlorine chemistry which destroys O_3, has been the core element in the past Antarctic research campaigns and will lead an expedition in early 1989 to Norway to further investigate the Arctic stratosphere. The Aeronomy and Geophysical Fluid Dynamics Laboratories cooperate on theoretical models to understand and predict the interaction of meteorology and chemistry. The Geophysical Monitoring for Climate Change (GMCC) program oversees a ground-based network of instruments to monitor stratospheric ozone, including stations at Barrow, Alaska and the South Pole. NESDIS monitors stratospheric ozone with various satellite instruments. The satellite measurements depend on the GMCC data for calibration.

Priority Issues: 1989-1990

1. Completion of the scientific assessment by August 1989.

2. Theoretical models which were used as the basis of the Montreal Protocol might be underestimating the adverse impact of the CFCs on ozone, especially at high latitude in winter. This will be examined through a comprehensive scientific campaign utilizing ground, aircraft, and satellite data to be conducted during January and February of 1989.

3. The scientific assessment may provide the scientific basis on which to suggest that the Montreal Protocol's schedule for controls needs to be advanced and may necessitate a reduction of greater than 85% (close to a complete phase-out) of the present emission rates of the fully halogenated CFCs and close consideration of what emission rates of the non-fully halogenated chlorine containing chemicals, such as CH_3CCl_3 are acceptable.

Even with a complete cessation in the emissions of the fully halogenated CFCs, and a cut-back in other gases such as CH_3CCl_3, it would take many decades for the atmospheric abundance of chlorine to decrease to 2ppbv, levels of the late 1960's or early 1970's.

4. Promotion of ratification/accession to the Montreal protocol.

Key Meeting Dates: 1989-1990

October 1988: UNEP experts finalize outline of scientific assessment report
Jan-Feb. 1989: Study of Arctic stratosphere
March: UK to host and international conference on the ozone layer

April 26-May 5: First Meeting of the Conference of Parties to the Vienna Convention
First Meeting of the Montreal Protocol Parties to review provisions on controls of emissions of ozone depleting substances

August 1989: UNEP completes scientific assessment report

Lead Agency/Department

State Department

Inter-Agency Coordinating Mechanism

Domestic Policy Council

Chief U.S. Scientists/Representatives

Robert Watson, NASA
Daniel Albritton, NOAA

Responsible NOAA Office
Lead Official: Daniel Albritton, OAR (science)
Others: J.R. Spradley, A (policy coordination)

Statutory Authority/Congressional Oversight

Negotiations

Global Change

Other Country or Countries

Varies by fora

Forum or Fora of Negotiations

Multilateral

1. Intergovernmental Panel on Climate Change: This WMO/UNEP panel, which first met in November 1989, set the stage for an international scientific assessment. The U.S. representative to IPCC is Dr. Frederick M. Bernthal, Assistant Secretary of State for Oceans, Environment and Science.

- UK chairs science working group
- USSR chairs impacts working group
- US chairs response strategies working group

2. World Meteorological Organization: WMO's Executive Council established the IPCC in June 1988 (now co-sponsored by UNEP). WMO's international scientific agenda links many elements of global change through climate change studies such as the World Climate Research Program activities such as TOGA, WOCE and GEWEX.

3. United Nations Environment Program: WMO and UNEP co-sponsor the Intergovernmental Panel on Climate Change. UNEP has sponsored studies on the regional implications of climate change as part of its regional seas programs.

4. Intergovernmental Oceanographic Commission: IOC's international agenda involves key aspects of data collection integral to global change studies, such as IGOSS (Integrated Global Ocean Station System), GLOSS (Global Sea Level Observing System), IODE (International Oceanographic Data Exchange), TOGA (Tropical Ocean/Global Atmosphere Experiment).

5. Organization for Economic Cooperation and Development (OECD): The OECD conducts studies on the socio-economic impact of climate change.

6. International Energy Agency: IEA conducts studies on energy use.

Bilateral

1. U.S.-Canada: These countries sponsored a major symposium on "Global Change and the Great Lakes", October 27-29, 1988. Canada is also very active in multilateral fora, including advocating a new international law of the air.

2. U.S.-U.S.S.R: The second Reagan-Gorbachev summit encouraged bilateral and multilateral cooperation to promote "more active use of...the space programs...to conduct global monitoring of the environment and ecology of the Earth's land, oceans and atmosphere." It noted expanding bilateral cooperation on global climate and environmental change including conservation of stratospheric ozone and a possible global warming trend. Much of this work is conducted under the U.S.-U.S.S.R. Agreement for Cooperation in the Field of Environmental Protection.

3. U.S.-PRC: Under the S&T Protocol on Marine Science and Fishery Technology, the U.S. and PRC set up a 5 year program of joint cruises related to the international TOGA program. These cruises have emphasized studies of the tropical ocean and global atmosphere in the Pacific ocean.

Non-governmental

1. International Council of Scientific Unions (ICSU): ICSU coordinates the activities of international scientific unions. It is non-governmental. The principal global change-related ICSU effort is the International Geosphere-Biosphere Programme (IGBP). IGBP sets the international intellectual context in which a U.S. Global Change Program will operate. Some twenty countries have formed IGBP Committees (like the U.S. Committee on Global Change of the National Academy of Sciences) and have prepared reports recommending initial research priorities for IGBP. These reports were discussed at a meeting of the IGBP Scientific Adivisory Committee in Stockholm in October 1988. (Note: James McCarthy, Harvard University, is chairman of the IGBP Scientific Committee.)

Agreements already concluded during negotiations

Establishment of IPCC (see above).

Description of General Problem

There is increasing evidence of changes in the global environment which have potentially major effects on the climate system. Observations have indicated a global rise carbon dioxide and seasonal depletion in Antarctic ozone. Human activities are likely to have contributed to these changes.

These developments have led to speculations on a range of potential impacts of global warming and ozone depletion including:

- increases in the rate of sea level rise due to ice melting and thermal expansion of the ocean waters;

- shifts in geographic distribution of major agricultural areas and deserts;

- changes in frequency and intensity of coastal storms; and

- appearance of ozone depletion outside of Antarctica, with possible public health and agricultural effects.

There are very large uncertainties associated with these scenarios, and a number of feedback mechanisms have been proposed which could retard or even reverse climate change. These interactions can only be sorted out by viewing the earth as a system, and by quantifying the interactions between the atmosphere, the oceans, the land surface and ice cover.

Human activities, coupled with the natural variability in the global system will have profound implications for the future. For example, potential effects of long-term global climate changes (warming, desertification) have major implications for industry, agriculture and fisheries.

Federal agencies and the Executive Office of the President (OSTP and OMB) have recognized the need for an effective, well-coordinated U.S. Global Change Program to establish the scientific basis for national and international global change policy decisions. The focus of this interagency effort is the development of a predictive capability which will allow the U.S. (and the international community) to anticipate and respond to changes in the global environment. The FY 1990 Budget will identify a Presidential Initiative for a U.S. Global Change Program which will mark the formal start of this integrated, interagency effort.

Nature and Purpose of U.S. Involvement

The U.S. is and should continue to be a leader in the definition and implementation of an effective global change research program. The problems presented by changes in the global environment are real and a national response is essential to our economic well-being, the health and safety of our people, and the quality of the environment. The global nature of the anticipated changes and the need for study of the integrated earth system requires international cooperation in the conduct of the science and the development of response strategies. Specific benefits of a strong U.S. Global Change Program include:

- providing the improved information base to support policy decisions.

- demonstrating a Federal commitment to address the scientific, technological and public policy problems associated with a changing global environment; such a commitment can forestall enactment of potentially unnecessary or economically-destructive legislation or regulation and provide a strong, scientific foundation for future regulatory actions (nationally or internationally).

- enhancing our domestic economy and strengthening the competitive position of the U.S. in world markets by improving the effectiveness of economic decisions in areas such as agriculture

and energy.

- regaining a competitive edge in science and technology by providing a focus for investments which will contribute to U.S. leadership in the international scientific community, provide an incentive for U.S. industry to invest in state-of-the-art technologies, encourage innovation, and strengthen the U.S. scientific and technological infrastructure.

Areas of NOAA Participation

As a key player in the U.S. Global Change Program, NOAA is relied upon as the principal operational observation, prediction and information management agency. NOAA's unique role derives from its statutory responsibility to predict climate change and to provide related data, information, and services to the public, private sector, research community, and other Federal agencies.

The NOAA goal to establish a national information service based on the achievement of reliable assessments and quantitative predictions of changing global climate is central to the national Program's goal of providing a sound scientific basis for national and international decision-making on global change issues.

Interagency deliberations through the Committee on Earth Sciences call for NOAA to maintain: a balanced program of observations, analytical studies, climate prediction and information management activities in the National Global Change Program. NOAA will be responsible for: operational in-situ and satellite observations and monitoring programs; mission-directed research on physical and biogeochemical processes in the climate system; development, testing and application of models for predicting natural and human-induced climatic changes; and the acquisition, maintenance, and distribution of long-term data bases and related climate information.

Priority Issues: 1989 & 1990

1. Develop and implement the coordinated interagency U.S. Global Change Program including a strong NOAA role as identified above. The Program's goal and objectives are spelled out in a Presidential Initiative which will accompany the FY1990 Budget.

2. Encourage the establishment of the national and international scientific and resource management infrastructure required to guide, coordinate and implement the U.S. Global Change Program and IGBP.

3. Develop a U.S. strategy to attract financial and programmatic support of governments (not just science communities) for global change research.

4. Maintain efforts to conclude the IPCC scientific assessment of

global climatic change (currently being developed under the leadership of NOAA and NASA scientists).

5. Expand support for coordinated international data collection and access to data.

6. Set guidelines under which cooperation with states such as the USSR can be undertaken so as to avoid transfer of technology problems.

7. Monitor proposals on a framework for a possible international climate convention.

Key Meeting Dates: 1989 & 1990

Meetings of the above noted committees.

Interagency/Department

Committee on Earth Sciences

Interagency & National Coordinating Mechanisms/Committees

Interagency

1. Domestic Policy Council

2. Committee on Earth Sciences of FCCSET: The Committee on Earth Sciences is the primary interagency coordinating mechanism on earth systems science and global change issues. CES coordinates the Federal research efforts on earth sciences, identifies policy and international issues and provides Committee recommendations to the Director of OSTP. CES is chaired by Dallas Peck, USGS.
CES is the focal point for development, coordination and interagency development of the U.S. Global Change Program. NOAA serves as the vice-chair of the newly formed CES Working Group on Global Change.

3. International Data Exchange Panel of the Interagency Working Group on Data Management for Global Change. This panel is comprised of representatives of NASA, NOAA, NSF, USGS, US Navy, USDA, Energy Department and Department of state. The purpose of this panel is to collect, classify, and evaluate all current formal and informal international arrangements now used to exchange environmental data and information and to assess their potential for furthering the objectives of global change research. NOAA/NESDIS Thomas Pyke is the chairman.

4. National Climate Program Office

National

1. U.S. Committee on Global Change (CGC), a Committee of the National Academy of Sciences. CGC is chaired by Dr. Harold Mooney

from Stanford University and he serves as the U.S. link to the IGBP. The CGC is the principal National Academy Committee to which the federal agencies will look for scientific guidance in the U.S. Global Change Program and the IGBP.

Chief U.S. Scientists/Representatives

Responsible NOAA Office

Lead Official: J. Michael Hall, OAR/OCAR

Others: Alan Hecht, NCPO, Dr. Joseph Friday (WMO-related activities), J.R. Spradley

Statutory Authority/Congressional Oversight

NOAA authorities for climate research
National Climate Program Act
Global Climate Protection Act of 1987, P.L.100-204

Congressional Oversight

Senate Committee on Commerce, Science and Transportation
House Committee on Science and Technology
House Merchant Marine and Fisheries Committee
Senate Committee on Energy and Natural Resources
Senate Committee on Environment and Public Works
Senate Committee on Foreign Relations
House Committee on Energy and Commerce
House Committee on Foreign Affairs
House Committee on Interior and Insular Affairs

Negotiations

Acid Rain

Other Countries

Bilateral relationship with Canada and Federal Republic of Germany (FRG); Multilateral relationship with East & West Europe through UN Economic Commission of Europe Convention on Long-range Transboundary Air Pollution

Forum of Negotiations/Activity

1. U.N. Economic Commission for Europe (UN/ECE), Convention on Long-Range Transport of Air Pollutants. (also has Senior Advisors to ECE Governments on Environmental Problems-SAEP). US is member of ECE Convention on Long-range Transboundary Air Pollution, Executive Body meets annually. EIF: 3/16/83

2. Annual Joint Meeting of U.S. National Acid precipitation Assessment Program (NAPAP) and Canadian Research and Monitoring Coordinating Committee (RMCC).

Agreements already concluded during negotiations

1. Annual joint meetings of U.S. and Canadian research managers; approximately 20 ongoing projects with close scientific collaboration and/or joint oversight/funding.

2. Mutual interest between U.S. and FRG in cooperative research on atmospheric processes and forest effects. Periodic short-term scientific personnel exchanges.

3. U.S. funds UN ECE atmospheric monitoring program, EMEP (Cooperative Program for Monitoring and Evaluation of the Long-Range Transport of Air Pollutants in Europe). $10K/year.

4. UN/ECE: SO_2 emissions reduction protocol signed in July 1985, in Helsinki. Signatories (does not include US) pledge to reduce SO_2 emissions by specific percentages (30 percent or more) by 1993-95. Entered into force in 1987.

Description of Study/Problem

Acid deposition is a comprehensive term incorporating precipitation of acids in rain and snow, as well as contact of acidic clouds, dew, and fog with the surface and dry deposition of gaseous and solid acid precursors. The major acids involved in acid deposition are sulfuric acid (H_2SO_4) and nitric acid (HNO_3); however, neither of these is emitted directly into the air in significant quantities. Rather, they are formed in the atmosphere via the exudation of sulfur dioxide, nitrogen oxides, and a variety of

volatile organic compounds, as well as by a number of atmospheric oxidants.

Environmental evidence indicates that acid rain is a serious problem in the industrialized regions of the world. The principal antecedents of acid rain come from the fossil fuel based activities of humans. The most common of these fossil fuel by-products are sulfur and nitrogen compounds (SO_x and NO_x). They are produced by electric power generation, industrial processes, cars, trucks, and space heaters. While there are also natural sources of SO_x and NO_x, including forest fires, organic decay, and lightning, it has been found that anthropogenic sources are much more significant in the formation of acid rain. Once in the atmosphere, these compounds react to form sulfuric and nitric acids through photochemical reactions (with sunlight) or by chemical processes in clouds.

Two major processes remove acidic particles and gases from the atmosphere. Wet deposition involves particles, which are physically and chemically incorporated in rain and snow, falling to the ground in precipitation. Dry deposition consists of two processes: atmospheric particles gradually settling to the ground in response to gravity; and acidic particles and gases carried by winds, remaining on the surfaces of buildings, trees and other obstructions which they might impact.

Issues:

Regional Distribution: The majority of acid rain in North America falls east of the Mississippi River, the most acidic falling in the northeastern United States and Eastern Canada. The western United States receives very little acid precipitation. The concentration of heavy industry in the eastern and mid-western United States, a region with a west to east prevailing wind pattern, causes the observed pattern of acid rain.

Environmental Effects: Acid rain has a profound impact on lakes and vegetation. Many lakes are extremely sensitive to acid rain because they cannot neutralize it. Sensitive lakes systems (i.e. lakes and the drainage basins feeding them), are either closed systems with no mechanisms for flushing out the acids, or are located on relatively inert bedrock which cannot supply buffers that can chemically neutralize acids.

Nature and Purpose of U.S. Involvement

Scientific: U.S. interagency research program (NAPAP) collaborates with other countries performing similar relevant research on a number of air-pollution related topics.

Areas of NOAA Participation

NOAA is a major participant in the National Acid Precipitation Assessment Program (NAPAP). Research within sources of acid forming compounds, such as sulfur, nitrogen, and hydrocarbons and to develop, implement, and evaluate a dry deposition network to measure atmospheric chemistry and related meteorological parameters. NOAA is studying long range transport of pollutants in a series of field experiments, such as the Western Atlantic Ocean Experiment (WATOX). The NAPAP numerical models use data collected by NOAA aircraft as input. NOAA is part of the Global Trends Network which determines the global background levels of precipitation acidity in remote areas of the world and also monitors deposition in the United States as a member of the National Trends Network. NOAA measurements led to the discovery of the role of natural hydrocarbons in contributing to high levels of ozone in rural areas and is currently investigating their sources and the processes involved in the formation of rural ozone.

Priority Issues: 1989-1990

Completion of NAPAP research program and reporting of final scientific assessments of the acid deposition problem in the U.S.

Key Meeting Dates: 1989-1990

Signing of U.N. ECE NO_x reduction protocol, October 1988, Sofia, Bulgaria.

U.S. NAPAP International Conference (State-of-Science Review): February, 1990.

Lead Agency/Department

EPA: Joint Chairs - NOAA, USDA, DOI, CEQ, DOE

Interagency Coordinating Mechanism

NAPAP's Director, Dr. James R. Mahoney, coordinates agency activity. There are two interagency committees: Interagency Science Committee and Interagency Policy Committee.

DOS leads International Activity Group

DOS coordinates. other Ad Hoc meetings as with Canadian MOI.
State: Tom Wilson

Chief U.S. Scientists/Representatives

NAPAP Director John Mahoney

Responsible NOAA Office

Lead Official: NOAA Chief Scientist is 1 of 5 Joint Chairs

Others: Dr. Lester Machta, R/E/AR, serves on NAPAP Interagency Science Committee, J.R. Spradley, A, serves on NAPAP Interagency Policy Committee, Bruce Hicks, chairs NAPAP Task Group on Atmospheric Chemistry, Dr. Robin L. Dennis, chairs NAPAP Task Group on Atmospheric Transport

Statutory Authority/Congressional Oversight

NAPAP program created by Acid Precipitation Act of 1980, Pub. L. 96-294.

Negotiations

Protocol on Nitrogen Oxide to the 1977 Convention on Long Range Transboundary Air Pollution

Other Countries

The Nitrogen Oxide (NOX) Protocol was signed by 26 nations on October 31, 1988 in Sofia, Bulgaria.

Forum of Negotiations/Activity

United Nations Economic Commission for Europe

Agreements already concluded during negotiations

Protocol on SOX: The U.S. did not sign because it was not given credit for past reduction of SOX emissions

Protocol on NOX: The U.S. did sign because it was given credit for past reductions of NOX emissions.

Description of Study/Problem

Acid deposition is a comprehensive term incorporating precipitation of acids in rain and snow, as well as contact of acidic clouds, dew, and fog with the surface and dry deposition of gaseous and solid acid precursors. The major acids involved in acid deposition are sulfuric acid (H_2SO_4) and nitric acid (HNO_3); however, neither of these is emitted directly into the air in significant quantities. Rather, they are formed in the atmosphere via the exudation of sulfur dioxide, nitrogen oxides, and a variety of volatile organic compounds, as well as by a number of atmospheric oxidants.

Environmental evidence indicates that acid rain is a serious problem in the industrialized regions of the world. The principal antecedents of acid rain come from the fossil fuel based activities of humans. The most common of these fossil fuel by-products are sulfur and nitrogen compounds (SO_x and NO_x). They are produced by electric power generation, industrial processes, cars, trucks, and space heaters. While there are also natural sources of SO_x and NO_x, including forest fires, organic decay, and lightning, it has been found that anthropogenic sources are much more significant in the formation of acid rain. Once in the atmosphere, these compounds react to form sulfuric and nitric acids through photochemical reactions (with sunlight) or by chemical processes in clouds.

Nature and Purpose of U.S. Involvement

The Protocol calls for a freeze on nitrogen oxide emissions at 1978 levels in the U.S. case, and would enter into force by the end of 1994 at the latest.

Areas of NOAA Participation

NOAA participated in the negotiation of the Protocol and NOAA is a major participant in the National Acid Preciptation and Assessment Program.

Priority Issues: 1989-1990

Implementing legislation for the Convention.

Key Meeting Dates: 1989-1990

Lead Agency/Department

EPA and DOS

Interagency Coordinating Mechanism

Chief U.S. Scientists/Representatives

Responsible NOAA Office

Lead Official: J.R. Spradley

Others: John Miller OAR/ARL

Statutory Authority/Congressional Oversight

Negotiations

North Pacific Scientific Research Organization, also known as PICES.

Other Country or Countries

U.S., Canada, Japan, USSR, and Peoples Republic of China (PRC) have participated in negotiations. The Republic of Korea (ROK), Poland and Taiwan are potential members.

Forum or Fora of Negotiations

Meetings have been hosted by Canada in past.

Agreements already concluded during negotiations

The general terms of the new organization's objectives were agreed at an exploratory meeting hosted by Canada, December 8-9, 1987.

- promote the cooperative investigation of marine biology and oceanography in the North Pacific Ocean and Bering Sea and foster the development of multinational research programs;

- promote the collection and exchange of both biological and oceanographic information; and

- facilitate special symposia and scientific events.

Specific wording of the potential agreement was proposed at a November 14-15, 1988, meeting. The document is being circulated and is subject to further negotiation.

Description of General Problem

Currently, scientific research in the North Pacific is conducted on an ad hoc basis with little coordination among countries or scientific disciplines. Several bilateral agreements exist, but no multinational, interdisciplinary agreements exist for the North Pacific.

The proposed organization has the potential to provide an international forum for an ecosystem approach to research for the North Pacific, offering unique opportunities for biological scientists to work with physical scientists on related problems. The overall goal of this organization would be to promote the understanding of the North Pacific environment and its living resources, as well as the increased knowledge of the role of the North Pacific in the global environment. The efficiency and effectiveness of the organization will depend on how the organization is structured and maintained.

The new organization should provide for new opportunities to

coordinate international research as well as play a liaison role with existing international organizations, for example the International North Pacific Fisheries Convention.

Membership dues, paid by the State Department, are expected to amount to about $50,000 per year.

Nature and Purpose of U.S. Involvement

- Proper cooperation and coordination of research programs could reduce both duplication of effort and strengthen existing programs. New data provided by other countries could save time and money in that U.S. resources would not have to be utilized to obtain the information.

- The U.S. could realize significant savings in time and travel dollars, especially if the organization can provide a forum in which bilateral discussions can be accommodated. NOAA has particular interest in obtaining data from ROK and Taiwan which relate to their high seas fisheries.

- The U.S. can advance its own national and the international research on large marine ecosystems.

Areas of NOAA Participation

The international cooperation in the collection of physical and biological data will involve all elements of NOAA. This current PICES approach is consistent with ongoing NOAA initiatives regarding an ecosystems approach to problems.

For example, as has been learned from NOAA's fisheries oceanography studies, solution of the problem of variability in marine living resources depends on understanding how that variability relates to changes in ocean circulation and mixing driven by winds. Successful predictions of fish abundance on the interannual and longer time scales will depend not only on improved understanding but also on adequate monitoring of physical-chemical and biological elements of the system. At the same time, large scale studies of the ocean and atmosphere can benefit from the activities of fishery research.

Priority Issues: 1989 & 1990

- Continue informal discussions. Commence negotiations.

- Ensure that countries that have not participated to date (ROK, Poland and Taiwan) all become participants in the organization.

- Ensure that PICES would become a mechanism for meaningful cooperation on biological, oceanographic and climatic data in the region.

Key Meeting Dates: 1989 & 1990

July 1989: Second Drafting Committee
Autumn 1989/Winter 1990: Plenary meeting to discuss the new convention.

Lead Agency/Department

Department of State (during negotiations)

Interagency Coordinating Mechanism

State Department coordinates negotiation of treaty; NOAA leads technical agency involvement.

Chief U.S. Scientists/Representatives

Deputy Assistant Secretary of State for Oceans and Fisheries Affairs Edward E. Wolfe

NOAA Chief Scientist, Dr. Melvin N.A. Peterson

Responsible NOAA Office

Lead Official: Dr. Peterson

Others: Chris Terpak-Malm, F/IA

Statutory Authority/Congressional Oversight

TRADE AND FISHERY MANAGEMENT

ISSUE: Fishery management measures developed under the authority of eight Regional Fishery Management Councils can have implications for international trade. So far, trade has been a factor in decisions regarding scallops, lobsters, groundfish, and billfish. The Councils need to understand U.S. obligations under the General Agreement on Tariffs and Trade (GATT), but may resent such obligations as a constraint on their authority.

ISSUE: Fishery management activities may be identified as government support of industry in the Uruguay Round agriculture negotiations in connection with the calculation of an aggregate measure of support. U.S. rejection of fishery management in these calculations may adversely affect our negotiating position; acceptance may be controversial among fishery managers.

ISSUE: The Fishing Industry Vessel Anti-Reflagging Act of 1988 limits foreign investment in fishing, processing and tender vessels to 49%. This is in apparent conflict with our obligations under the Capital Movements Code of the OECD. The United States is in the process of defending itself in the OECD committees which administer the Code and the associated National Treatment Instrument.

IMPLEMENTATION OF MARINE MAMMAL PROTECTION ACT AMENDMENTS

ISSUE:

Congress recently passed significant amendments to the Marine Mammal Protection Act (MMPA) which contain new requirements that will require additional funding to implement.

SIGNIFICANCE:

Based on the rigid construction of the MMPA adopted by the Court of Appeals for the District of Columbia Circuit in Kokechik Fishermen's Association v. Secretary of Commerce, 839 F. 2d 795 (February 16, 1988), NOAA's authority to authorize takes of marine mammals incidental to commercial fishing operations has been curtailed. We cannot issue incidental take permits for any species if there is a possibility that depleted species or species of unknown status can be taken during the fishing activity. This is true even if the taking would not significantly affect those species. Therefore, without an amendment, NOAA would not be able to allow incidental taking of marine mammals in most commercial fishing operations and many domestic and foreign fishermen would be forced to forego fishing altogether or risk substantial civil penalties for the incidental taking of marine mammals.

BACKGROUND:

The amendments to the MMPA passed by Congress provide a 5-year exemption from the prohibitions on the taking of marine mammals for domestic commercial fisheries and for foreign fisheries with fishing permits issued under the Magnuson Fisheries Conservation and Management Act. To receive an exemption, fishermen would have to register and report incidental takes. NOAA would have to establish observer programs for certain fisheries and alternative programs for other fisheries to document the nature and extent of incidental taking.

The amendments would also change certain provisions concerning the taking of porpoise in the purse-seine tuna fishery, require the development of conservation plans for depleted species, allow permits to be issued for enhancing the survival or recovery of species, and modify the criteria for issuing public display and scientific research permits.

STATUS AND OUTLOOK:

Although supporting some exemption for commercial fishing, NOAA has several major concerns with the provisions of the bill passed by Congress. First, the exemption is unfairly discriminatory because it does not apply to treaty fisheries, particularly the Japanese high seas salmon gillnet fishery. The exclusion of treaty fisheries from the exemption is unfounded from a conservation standpoint and will exacerbate already troubled fishing and trade relations with Japan. Canada has also expressed concern that this amendment could lead Japan to withdraw from the International Convention for the High Seas Fisheries of the North Pacific Ocean, and would prove detrimental to Canada's interest in reducing interceptions of Canadian-origin salmon.

The cost of implementing the amendments would be high. Approximately $3-$4 million would be required to begin implementation of the amendments in FY 1989. In addition, approximately $12 million in FY 1990 and beyond would be needed ($8 million per year for the required observer program and an additional $4 million for implementing other measures) to fully carry-out the provisions contained in the amendments. The amendments do allow, however, for a scaled down observer program if the Secretary cannot assign the required number of observers for reasons beyond his control. We also believe that registration and reporting requirements called for in the amendments are an unnecessary administrative burden for both the government and the fishermen and would not contribute to the protection of marine mammals.

TIMETABLE:

- Develop strategy for implementing the amendments, regulations to implement the interim commercial fishery exemption and an observer program plan. (November-February)

- Seek resolution of funding issues through FY 1990 budget process. (November-December)

BERING SEA "DONUT HOLE" POLLOCK FISHERIES

ISSUE:

Intensified fishing for pollock in the central Bering Sea area beyond national 200-mile jurisdictions is currently unregulated and threatens conservation of the fish stock.

SIGNIFICANCE:

The development of an extensive pollock fishery in the Aleutian Basin of the central Bering Sea (the so-called "donut" area), beyond the U.S. and Soviet 200-mile zones, is of great concern to U.S. interests. There is heightened anxiety that this unregulated fishery, which is being harvested mostly by distant-water fishing nations, is having an adverse impact upon adjacent U.S. and/or Soviet pollock stocks. There is also apprehension about the lack of scientific data on whether the pollock resource in the area warrants the magnitude of the present annual fishery.

The donut area fishery is being conducted by vessels from Japan, the Republic of Korea, Poland, the People's Republic of China, and the Soviet Union. Catch data submitted by these countries indicate that harvests in the donut area have been in excess of 1.0 million metric tons in 1986 and 1987. The rapid build-up of this fishery can be linked to the phaseout of directed foreign fishing within the U.S. and, to a lesser degree, Soviet 200-mile zones.

BACKGROUND:

Alaska fishing interests believe that foreign vessels are using international waters of the donut hole as a staging area for illegal fishing incursions into the U.S. 200-mile zone. In January 1988, a private jet flight sponsored by Alaskan trawlers found eight Japanese vessels fishing illegally in the U.S. 200-mile zone. With the cooperation of the Japanese government, the vessels were identified. Each vessel was assessed, and subsequently paid, the maximum penalty ($25,000) permitted under the Magnuson Act for each violation documented. The companies that own the vessels will be denied permits to fish in the U.S. 200-mile zone for three to five years.

In August 1988, two Japanese stern trawlers were determined to have harvested groundfish in either the Soviet or U.S. zone on their way back to port from the donut hole. Japan confined the vessels to port for 100 and 200 days. At a meeting of U.S. and Japanese enforcement officials in Tokyo in October 1988, the Japanese officials offered information about the violations but were cool to proposals for cooperative enforcement efforts. In September and October 1988, a NOAA Fisheries Special Agent spent four weeks aboard a Japanese enforcement vessel as part of a cooperative enforcement arrangement.

U.S. and Soviet representatives met in Washington, D.C., in April 1988 to discuss conservation aspects of Bering Sea donut fisheries and agreed that most of the commercially fished species in the area are common to the 200-mile zones of both nations.

U.S. and Soviet scientists met October 10-14 in Leningrad to review recently available information and agreed that pollock in the donut area are not a stock separate from pollock in the U.S. and Soviet 200-mile zones and fisheries in the donut area are having adverse effects on the pollock found in the two 200-mile zones. Representatives of the two Governments were unable to agree on steps to achieve regulation of the fisheries.

STATUS AND OUTLOOK:

The distant water nations conducting fisheries in the donut area are concerned about unilateral or bilateral measures that the United States and the Soviet Union may contemplate to limit fishing in the area. The Japanese have requested that any discussions that are held on this issue be conducted in a multilateral forum, and that distant water fishing interests (i.e., those of Japan, Poland, the People's Republic of China, and the Republic of Korea) be held in equal regard to those of the coastal state interests (i.e., those of the United States and the Soviet Union).

At the same time, there is intense concern within the Congress and west coast fisheries constituents that foregone fishing opportunities by U.S. fishermen within our 200-mile zone due to domestic regulation are ultimately redounding to the benefit of foreign fishermen. The Soviet Union, which harvests far less pollock in its zone in the Bering Sea than does the United States, apparently does not feel the need to take urgent action. It is clear that the best and perhaps only effective way to address the problem is in concert with the Soviet Union.

TIMETABLE:

- The next tentatively scheduled consultations with the Soviet Union are planned to occur in Leningrad during. (January)

International Whaling

ISSUE:

To uphold the International Whaling Commission (IWC) moratorium on commercial whaling, adopted in 1982, and ensure that commercial whaling does not continue under the guise of scientific or other kinds of whaling.

SIGNIFICANCE:

Protection of whales remains one of the most sensitive constituent concerns facing the Secretary of Commerce. The Secretary, through the National Oceanic and Atmospheric Administration, monitors whaling by foreign nationals and certifies to the President when trade or taking diminishes the effectiveness of the IWC conservation program (under the authority of the Pelly Amendment to the Fishermen's Protective Act and the Packwood-Magnuson Amendment to the Magnuson Fishery Conservation and Management act).

In consultation with the Secretary of State, the Secretary of Commerce decides by what amount (between 50 and 100 percent) to reduce the fish allocations of any country certified under the Packwood-Magnuson Amendment. As a matter of past practice the Secretary of Commerce provides a recommendation to the President as to a complete, partial, or no embargo of fishery product imports from any country certified under the Pelly Amendment.

In the case of Japan, the Secretary must report, in consultation with the Secretary of State, to the President by December 1, 1988 on the status of Japanese whaling for scientific purposes. A second report considering further action needed such as Pelly Amendment sanctions will be sent to the President at a later date.

BACKGROUND:

The United States has used its statutory authority to both encourage adherence to the IWC conservation program, including the moratorium on commercial whaling, and to take actions against those countries that are determined to be diminishing the effectiveness of the IWC conservation program.

During the moratorium, United States' interest has focused on areas of continued whaling activity such as whaling for "scientific purposes." The IWC's unsuccessful efforts to control such whaling led the United States to develop, in consultation with other IWC members, a new resolution that was adopted at the 1987 Annual Meeting. This resolution establishes additional criteria to evaluate research involving the taking of whales and provides a mechanism by which the IWC can recommend that a research program not be conducted. As a result, three resolutions were passed at the 1987 Annual Meeting recommending that Japan, Iceland, and Korea not conduct their proposed research programs until the uncertainties raised during the Scientific Committee meeting were resolved. Only Korea decided not to proceed with its research program.

At the 1988 Annual IWC Meeting, the Commission recommended that Iceland and Norway not proceed with their research programs which were found not to meet all existing criteria for research involving the taking of whales. Based upon Iceland's commitment to address questions aimed at improving the scientific content of the research program, reducing the number of whales taken, and staying involved in the IWC process, the United States determined that Iceland's 1988 whale research program was acceptable. A similar determination was made for Norway.

Japan announced plans to resume its scientific whaling in late 1988. Japan submitted a proposal at the 1988 Annual IWC Meeting to establish an ad hoc working group to examine the situation of small-type whaling operations and requested an emergency interim allocation of 210 minke whales for its coastal small-type whalers. The Commission agreed to establish the ad hoc working group, but did not support the emergency interim allocation. Most IWC members see the small-type whaling initiative to be seeking a whaling category that would be exempt from the moratorium.

STATUS AND OUTLOOK:

Bipartisan support for a moratorium on commercial whaling has been unbroken since 1971. And while overt commercial whaling has ended by all countries that had practiced it, some of these same countries have increased or initiated whaling programs for scientific purposes. This practice of whaling for scientific purposes using the same equipment and resulting in products for the same commercial markets is subject to intense skepticism by Congress as well as domestic and foreign conservation groups who view such whaling as a guise for commercial whaling. Countries engaged in whaling for scientific purposes are important allies and trading partners of the United States. The Secretary of Commerce has exercised considerable discretion in withholding sanctions from countries engaging in scientific whaling programs by not requiring a termination of such programs but rather a commitment to revise their research programs in a manner responsive to IWC concerns. As a result, environmental groups have sued the Secretary for not certifying Iceland for its 1988 whale research program. To date, all activities in the case have been of a procedural nature.

TIMETABLE:

- Report of the Secretary of Commerce to the President on the status of Japanese whaling for scientific purposes (December 1, 1988), to be followed by a later report which will include recommendations for further action needed such as Pelly Amendment sanctions.

- U.S. policy positions must be completed for the IWC meeting in San Diego, including one for small-type whaling. (May 1989)

- The United States will probably consider whether to pursue further bilateral arrangements with Iceland and Norway on scientific whaling, in view of possible further IWC actions to discourage these programs. (May-July 1989)

- Hearing to address the merits of the case against the Secretary in Federal District Court, Washington, D.C. (December - January)

JAPANESE SALMON DRIFTNET FISHERY

ISSUE:

The United States faces tensions with Japan pertaining to Japan's mothership salmon driftnet fishery governed in part by the International North Pacific Fisheries Commission (INPFC) and the negotiation of monitoring and enforcement agreements for North Pacific driftnet fisheries pursuant to the "Driftnet Impact Monitoring, Assessment, and Control Act of 1987."

SIGNIFICANCE:

Japanese nationals have been allowed to operate in the U.S. Exclusive Economic Zone (EEZ) to fish mainly for migrating Asian-origin salmon under the terms of the International Convention for the High Seas Fisheries of the North Pacific Ocean, of which the United States, Japan, Canada are signatories. This Convention is the charter for the INPFC which serves as the forum for regulating North Pacific high sea fisheries.

The INPFC Convention was originally signed in 1952 and renegotiated in 1977-78 and again in 1986. Its purpose is to govern Japanese high seas salmon fishing activities through time and area restrictions designed to protect North American-origin salmon stocks. If such restrictions were not in place, U.S. scientists believe that significant numbers of North American salmon could be taken by Japanese fishermen.

On June 9, 1988, the Supreme Court voted to deny the Administration's request for a stay of a U.S. District Court order, Kokechik Fishermen's Association, et al. v. the Secretary of Commerce. This decision enjoined the Department of Commerce from issuing marine mammal incidental take permits to Japanese mothership salmon fishermen scheduled to operate briefly during June and July within the U.S. EEZ pursuant to the Annex to the INPFC Convention. Because the INPFC requires Japan to obtain an incidental take permit before fishing in the U.S. EEZ, this decision forced Japan to abandon its salmon fishing in the EEZ. The impact of this decision has potentially disruptive consequences that would place major stress on not only U.S.-Japan fisheries relations, but overall bilateral relations.

BACKGROUND:

The Japanese requested that the Administration petition the Supreme Court for a writ of certiorari to appeal the Kokechik decision, and also ask the Congress to rectify the situation through the reauthorization of the Marine Mammal Protection Act (MMPA). Neither the Courts nor the Congress were in a position to address the INPFC concerns of the Japanese for the 1988 salmon fishing season (which commenced on June 10 and ended on July 21). Subsequently, Congress, contrary to Administration requests, did not accommodate Japan's mothership salmon fishermen when it voted to reauthorize an amended MMPA on October 21, 1988.

The Japanese have also sought U.S. support to establish substitute INPFC salmon fishing areas for Japanese fishermen beyond the U.S. EEZ. In addition, they requested that the United States compensate Japanese mothership salmon fishermen for the losses sustained during the 1988 fishing season, due to the lost fishing opportunities in the U.S. EEZ.

The Japanese view the unavailability of a U.S. marine mammal permit for the salmon mothership fleet as a serious blow to the 37-year-old INPFC treaty regime. The exclusion of an exemption available to other fishermen is unfounded from a conservation standpoint and subjects the United States to charges of discrimination that may result in serious foreign policy implications with Japan. It has raised serious questions within the Japanese Government about the fairness and reliability of the United States as a partner in cooperative undertakings. This in turn may adversely affect bilateral and multilateral cooperation on other issues that the two sides are seeking to address. It may make it difficult for the Administration to elicit cooperation on a broad spectrum of other issues ranging from the conservation of whales to fisheries enforcement and management regimes in the North Pacific and Bering Sea. In addition, the potential for conflict over fisheries trade and economic cooperation in other areas may be greatly exacerbated, as noted below.

There is also concern that the Japanese could withdraw from the INPFC and conduct unregulated high seas salmon fisheries in the eastern North Pacific Ocean and the central Bering Sea. This would likely result in significant interceptions of North American origin salmon and adversely affect gains made by the United States and Canada in the INPFC.

In the meantime, as INPFC-related issues remain at the forefront of U.S.-Japan fishery relations, the Administration is trying to get Japan, the Republic of Korea, and Taiwan to enter in negotiations of high seas driftnet fishery matters, pursuant to the Driftnet Impact Monitoring, Assessment, and Control Act of 1987. This Act calls for negotiations to conclude adequate driftnet fishery observer and enforcement arrangements between the United States and those countries (namely, Japan, Korea, and Taiwan) conducting high seas squid driftnet fisheries that take marine resources (particularly salmonids) of the United States in the North Pacific Ocean.

STATUS AND OUTLOOK:

U.S. and Japanese representatives met in Tokyo, October 19-21, to discuss: (1) North Pacific and Bering Sea enforcement issues of mutual concern, and (2) the Driftnet Act. The U.S. delegation provided the Japanese side with proposed elements of pilot observer and enforcement programs for 1989, pursuant to the driftnet legislation. The Japanese specifically linked any cooperative monitoring and enforcement program in the high seas squid driftnet fishery to Japan's regaining access to salmon fishing in the U.S. EEZ pursuant to the INPFC regime. In addition, while they did not exclude the possibility of practical accommodations on enforcement, they emphasized that they were not in a position to accept the U.S. driftnet legislation and would not enter into formal agreements that might derogate from Japanese sovereignty over its high seas fisheries. (In the meantime, there has also been little progress on the driftnet negotiations with either Korea or Taiwan.)

Japan is currently attempting to enter into negotiations with the United States and Canada to seek alternate fishing areas for its mothership salmon fishery to offset the lost fishing area in the U.S. EEZ.

LANDSAT 4/5 OPERATIONS

ISSUE:

Lack of Congressionally appropriated funds for Landsat 4 and Landsat 5 Operations beyond April 1, 1989.

SIGNIFICANCE:

To adequately respond to the Congressional Conference Report 100-979, ("The conference agreement provides $29,800,000 for the Landsat system, of which $20,400,000 is for the continued construction of Landsat 6, and $9,400,000 is for the expenses associated with the continued operation of Landsats 4 and 5 ... The total amount provided for the operational expenses of Landsats 4 and 5 is based on the revised estimate of continued availability and level of Landsat imagery during the first half of fiscal year 1989. If Landsats 4 and 5 continue to operate for a longer period of time, then NOAA will need to make suitable financial arrangements."), a supplemental budget request may be required to operate the Landsat 4/5 satellites after March 31, 1989. This action would assure the continued use of the satellites to provide data to the major government user agencies such as the Departments of Defense, Agriculture, and Interior. In addition, the U.S. would continue to maintain a worldwide presence in civil earth remote sensing through delivery of data to over a dozen foreign ground stations. The operations of the system will yield about seven to eight million dollars during the last half of fiscal year 1989, furthering the commercialization effort. This will probably assure that the government receives the $2.5 million payback from EOSAT from net profits in calendar year 1989, as agreed in the Commercialization contract. Finally, continuation of the program would ensure continuity of Landsat data, and reduce the length of the potential data gap that is likely to occur between the demise of Landsat 4/5 and the operations of Landsat 6.

The alternative is to do nothing and declare the practical demise of the Landsat 4/5 system on April 1, 1989. This action would directly contravene Congressional intent, would leave an expensive U.S. resource in orbit unutilized, and eliminate the U.S. presence in civil land remote sensing. Foreign programs like SPOT would have two to three years to cultivate new data markets without significant competition. This would put EOSAT at a severe disadvantage to regain this lost market share when Landsat 6 becomes operational.

The loss of revenue will increase the cost to the government to complete Landsat 6, since the yearly pay back would probably not occur, and it will give EOSAT the right to exercise the Contractor's Right to Terminate Clause of the current contract. This places the government at risk in providing the funds to build the new Landsat 6 system but not knowing, with any certainty, how it will be operated.

BACKGROUND:

Landsat 4 and 5 have been producing highly useful information about the earth's resources since the early 1980s. These spacecraft continue to operate nominally, although they have exceeded their design lifetime.

Due to the lower level of funding, Landsat 4 and 5 data collection and processing were reduced on November 1, 1988. NOAA will also continue to provide data to international Landsat receiving stations through March 1989. However, operation of these satellites after March is not possible without additional funding.

STATUS AND OUTLOOK:

There is no indication, at the present time, that the two satellites will not exceed the March 31 date. If the Department is to follow the Congressional intent with regards to the continued operation of Landsats 4 and 5, then action must be taken shortly to begin the process of requesting a supplemental appropriation.

TIMETABLE:

Scenario 1: continued operation of Landsat 4 and 5

Prepare supplemental appropriations request (late Jan/Feb, 1989)

Scenario 2: declare the Landsat 4 and 5 system finished

Develop a contingency plan to include an orderly "shut down", and the relocation of personnel and equipment (late Jan/Feb, 1989)

Begin implementation of an orderly shut down plan on March 1, 1989 if additional funding is not approved.

Negotiations

Pacific Island Network (PIN)

Other Country or Countries

Belau, Federated States of Micronesia, Republic of the Marshall Islands, Guam, American Samoa, Commonwealth of the Northern Marianas

Forum or Fora of Negotiations

Coordinating Committee for the PIN

Agreements already concluded during negotiations

- to meet biannually
- to identify fax and telecommunications equipment
- to contribute funds and FTE's to field representatives

Description of General Problem

PIN is an attempt to coordinate the delivery of U.S. government oceans and coastal programs to U.S. affiliated island states. Its genesis is in implementing legislation for the Compacts of Free Association.

Nature and Purpose of U.S. Involvement

In addition to overall support for U.S. goals in the Pacific, the PIN should substantially increase the efficiency of U.S. programs and enhance their effect.

Areas of NOAA Participation

fisheries
coastal planning
habitat
marine science
ocean mining

Priority Issues: 1989 & 1990

To fully establish the Network and set up working relationships with island representatives.

Key Meeting Dates: 1989 & 1990

Saipan - January 13-14, 1989

Lead Agency/Department

NOAA

Interagency Coordinating Mechanism

PIN Coordinating Committee

Chief U.S. Scientists/Representatives

Thomas L. Laughlin

Responsible NOAA Office

Lead Official - Thomas L. Laughlin

Others - Doyle Gates, NMFS, Honolulu; Bruce Miller, Sea Grant, Honolulu

Statutory Authority/Congressional Oversight

Compacts of Free Association with FSM and RMI

Negotiations

Research Vessel Clearances

Other Country or Countries

The U.S. seeks research vessel clearances for U.S. government sponsored cruises (and facilitates clearances for private research cruises) through bilateral consultations with States around the globe.

Agreements already concluded during negotiations

The 1982 UN Law of the Sea Convention (UNCLOS) suggests model guidelines for granting access to research vessels into areas under a coastal state's jurisdiction and obligations of researching institutions.

Description of the General Problem

Because UNCLOS provisions are being interpreted differently by coastal states, State practice in granting access by research vessels to conduct research in EEZs of countries remains problematic.

The total number of clearance requests reached 288 in 1987. This increased number of requests has been accompanied by a disturbing rise in the percentage of projects that are cancelled or otherwise disrupted due to requests being denied, responded to late or not at all, by coastal states. Prior to 1986, disruptions of this type occurred in 5-10% of the research projects involving requests for foreign clearances. Since 1986, the number of disruptions has increased disproportionately to the increase in total requests for research clearance. In 1986 and 1987, 12% and 19% respectively of the total projects requiring foreign approval, experienced disruptions caused by clearances not being timely granted. These statistics, unfortunately, do not reflect the recent increase in the amount of effort required to continue obtaining those clearances which had before been routinely approved.

As various coastal states begin to adopt UNCLOS, their governments may have difficultly interpreting the various articles and how they should apply. This has led to late responses and sometimes non-response prior to scheduled start of research. Some coastal states have asked for additional prior notice to allow more time to consider clearance requests relative to UNCLOS and their own requirements. Hopefully, we are experiencing a transient problem which will be reduced by widespread acceptance of the articles of UNCLOS.

Obtaining clearance for research vessel access remains difficult. Some problem areas include: (a) access may be requested to areas that the host country may regard as militarily sensitive (Indonesia, Chile); (b) political problems may spill over into

vessel clearances (Mexico-bureaucratic resistance); (c) host government may require local sponsorship to ensure local scientist involvement, documentation in the local language (Venezuela) or prepublication consent (Trinidad and Tobago); (d) technological export/security considerations when local scientists, in particular East European scientists, may be involved.

Nature and Purpose of U.S. Involvement

Research access to the waters within the exclusive economic zones of other countries, for government and private sponsored research vessels, is essential to the advancement of U.S. and global understanding of the oceans, atmosphere and other components of earch system science.

Areas of NOAA Participation

Approximately one quarter of DOS's 288 clearance requests to 76 foreign governments during 1987-1988 involved NOAA cruises. NOAA is attempting to improve its intra- and interagency coordination to address the diverse problems it experiences in research vessel clearance.

Priority Issues: 1989-1990

To continue to seek access on a bilateral basis for research vessels, including those involved in internationally approved research projects under the IOC and WMO.

To facilitate international consensus on guidelines for research vessel access.

Key Meeting Dates: 1989-1990

Bilateral consultations as appropriate.

Fall 1989: The UN Office on Law of the Sea and Ocean Affairs will sponsor a workshop on State practice in granting, restricting or denying research requests (and possible guidelines for States).

Lead Agency/Department

State Department: Thomas Cocke

Interagency Coordinating Mechanism

Key governmental and non-governmental research agencies and institutions coordinate their interests in the University National Oceans Lab System (UNOLS). NOAA, USGS, MMS, and DOS participate.

Chief U.S. Scientists/Representatives

Responsible NOAA Office

Lead Officials: RADM J. Austin Yeager

Statutory Authority/Congressional Oversight

Negotiations

Deep Seabed Hard Minerals

Other Countries

Belgium, Canada, Federal Republic of Germany (FRG), France, Italy, Japan, Netherlands, UK, USSR, USA

Forum of Negotiations/Activity

No organizational umbrella

Agreements already concluded during negotiations

1982: Agreement among US, UK, France and FRG on dispute settlement procedures. 9/2/82

1984: Agreement among US, Belgium, FRG, France, Netherlands & UK to avoid mine site conflicts and to consult on future issues of mutual interest. 8/3/84

1987: Agreement among Belgium, Canada, FRG, France, Italy, Japan, Netherlands, UK, USSR & US to avoid mine site conflicts. 8/14/87

Description of Study/Problem

The United States is seeking means to establish a reciprocating states regime to minimize international conflicts over the licensing of areas of the international deep seabed for manganese nodule mining and provide maximum legal investment security. These efforts are all the more important because the U.S. is not a signatory of the Law of the Sea Convention. These efforts aim at removing international legal impediments to investment.

While exploration licensing may proceed in 1980s/1990s in a coordinated fashion among most pioneer miners, commercial mining operations not expected until turn of the century, in part because of depressed global metals markets.

Nature and Purpose of U.S. Involvement

See General Description

Areas of NOAA Participation

Participates in negotiation. Provides primary technical information and expertise. NOS has participated in meetings of other government licensing bodies.

Priority Issues: 1989-1990

Consultation and coordination will continue as the U.S. looks beyond the above fundamental agreements which include all seabed mining countries in the Pacific Ocean. The U.S. will focus on evolving institutional developments -- including possible changes to the seabed mining portions of the Law of the Sea Convention -- as well as opportunities for joint environmental research and information sharing.

Key Meeting Dates: 1989-1990

There are annual meetings of the UN Preparatory Committee (PREPCOM) to review international arrangements for international seabed mining under UN Convention on the Law of the Sea (UNCLOS). The U.S. cannot participate as a member of PREPCOM since it did not sign UNCLOS; it could send an observer but has not done so in the past.

Lead Agency/Department

State: Negotiation. Wesley Scholz, Economic Bureau.
Commerce/NOAA/NOS: Implementation

Interagency Coordinating Mechanism

No formal mechanism.

Chief U.S. Scientists/Representatives

State: Negotiation. Wesley Scholz, Economic Bureau.
Commerce/NOAA/NOS: James Lawless, N/OCRM

Responsible NOAA Office

Lead Official: James Lawless, Chief (Ocean Minerals & Energy), NOS

Others: Karen Davidson, General Counsel

Statutory Authority/Congressional Oversight

Some 9 committees have some jurisdiction: Congressioal staffers briefed by State Dept.