

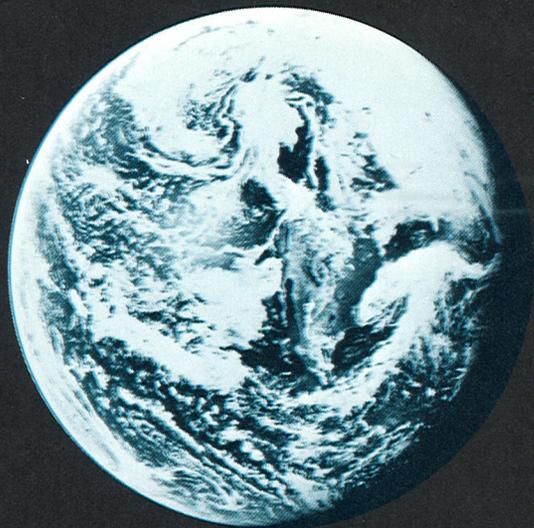


NOAA

The National Oceanic and
Atmospheric Administration

U.S. DEPARTMENT OF COMMERCE

Ray Atkeson Photo



Planet Earth, mantled in multi-hued patterns of land, sea, and atmosphere, floats—perhaps alone as far as life is concerned—in the inhospitable vacuum of space; a combination of elements exactly suited to its inhabitants.

But now, for the first time in history, man has come to realize the fragile nature of his planetary environment. The land, sea, and air are not boundless resources, as was once believed. Man cannot take the fish, strip the land, or pollute the air without paying a price. On the other hand he must feed, he must grow, he must survive through his ability to take what is necessary from his surroundings. How much can he take? How much must he leave? These are questions now being considered by those who think, not just for the present, but for the future years of Planet Earth.

NOAA, the National Oceanic and Atmospheric Administration, is a vital part of the American effort to answer these questions.

Its mission: To improve man's comprehension and uses of the physical environment and its oceanic life.

Its evolving role: A major Federal environmental management agency and a source of objective information on the effects which man's actions may have on environmental quality.

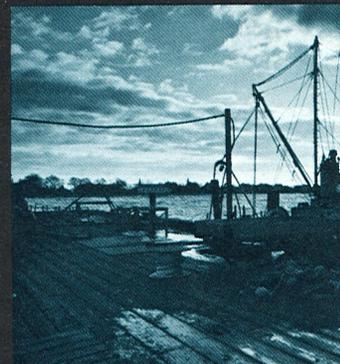
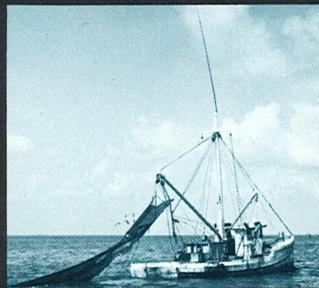
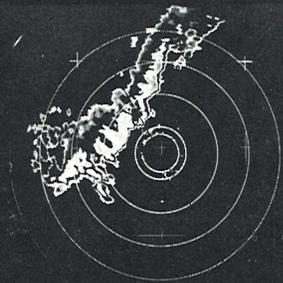
NOAA, created within the U.S. Department of Commerce in 1970, has become an environmental science agency with programs in atmospheric, oceanic, and earth sciences; and a storehouse of environmental data from which policy-makers on all levels can obtain the information necessary to environmental decisions.

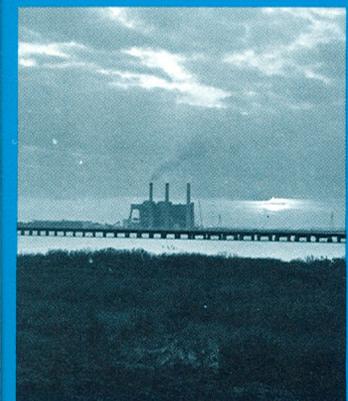
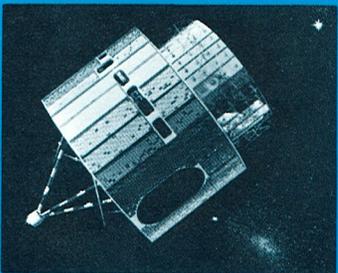
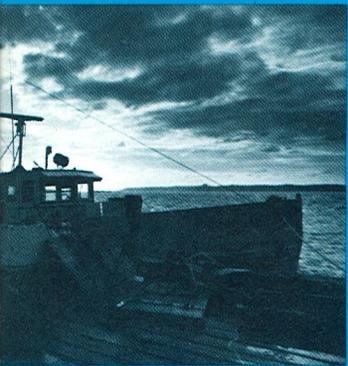
The National Ocean Survey prepares aeronautical charts, conducts precise geodetic and oceanographic surveys, predicts tides and currents, and prepares and publishes navigational charts and related materials for coastal waters and the Great Lakes. The Survey also works toward applying the traditional forms of hydrographic and oceanographic surveys to solving environmental problems in our coastal zone. A fleet of research and survey ships is operated by the National Ocean Survey. The Survey is developing a system of automatic ocean buoys for obtaining essentially continuous marine environmental data, and provides a national focal point for technology related to instrument measurement, evaluation, and the reliability of sensing systems for ocean use.

The National Weather Service reports the weather of the United States and possessions, provides weather forecasts to the general public, issues warnings against tornadoes, hurricanes, floods, tsunamis, and other atmospheric and hydrologic hazards, and provides a broad array of special services to aeronautical, maritime, astronautic, agricultural, and other weather-sensitive activities. These services are supported by an increasingly automated national network of observing and forecasting stations, communications links, satellite systems, and computers. Some 400 National Weather Service offices across the land ensure prompt and useful dissemination of weather information.

The National Marine Fisheries Service seeks to discover, describe, develop, and conserve the living resources of the global sea, especially as these affect the American economy and diet. The Fisheries Service conducts biological research on economically important species, analyzes economic aspects of fisheries operations and rates, develops methods for improving catches. With the U.S. Coast Guard, the National Marine Fisheries Service conducts enforcement and surveillance operations on the high seas and in territorial waters. It also studies game fish behavior and resources, seeks to describe the ecological relationships between game fish and other marine and estuarine organisms, and investigates the effects on game fish of thermal and chemical pollution. The Fisheries Service is the focus for NOAA's responsibilities under the 1972 Marine Mammals Protection Act and the 1973 Endangered Species Act. Financial assistance programs of benefit to industry are also administered by the Service.

The Environmental Research Laboratories are concerned with conducting the fundamental investigation needed to improve man's understanding of the physical environment. Research at facilities around the Nation focuses on atmospheric and oceanic processes and their interactions, the coastal environment, solar-terrestrial and upper-air atmospheric dynamics, weather modification, the environmental effects of global pollution, and such geophysical events as severe local storms, hurricanes, and tsunamis. The Laboratories are also leaders in developing new electromagnetic and acoustic remote sensing devices for environmental observations, and in simulating atmospheric and oceanic processes with computer models. They are NOAA's focus for assessing human impacts on selected marine ecosystems, and the probable ecological impacts of petroleum





development on Alaska's Outer Continental Shelf. NOAA's research aircraft are operated by the Laboratories.

The National Environmental Satellite Service operates the Nation's environmental satellite system and insures that the masses of data acquired flow in useful form to those who need them. The system includes the NOAA satellites in polar orbit 1,400 kilometers above the earth, and the Geostationary Operational Environmental Satellites (GOES) in earth-synchronous orbit 35,800 kilometers above the equator. NESS operates ground stations to receive and process satellite data, and has established field stations to meet regional needs for satellite data and products. NESS also develops new techniques for acquiring environmental satellite data and the application of these data to improving environmental monitoring, prediction, and warning.

The Environmental Data Service acquires, processes and disseminates global environmental data and information. It also provides professional data management support to large-scale data-gathering programs and assesses the probable impact of environmental fluctuations on world food supplies and national energy programs. In addition to several other specialized service centers, the Data Service operates the National Climatic Center, National Oceanographic Data Center, and National Geophysical and Solar-Terrestrial Data Center, and provides administrative support for corresponding, collocated World Data Center-A subcenters, which gather data from cooperative investigations and other international sources.

The Office of Sea Grant administers and directs the National Sea Grant Program. This program provides support for institutions engaged in comprehensive marine research, education, and advisory service programs, supports individual projects in marine research and development, and sponsors education of ocean scientists and engineers, marine technicians, and other specialists at selected colleges and universities. The Office also manages NOAA's Marine Advisory Service to insure the transfer of information to the user community and the needs of the community back to the researchers.

The Office of Coastal Zone Management carries out NOAA's responsibilities under the Coastal Zone Management Act of 1972 (P.L. 92-583), legislation aimed at helping States reconcile the increasing demands on their coastal zone lands and resources. NOAA provides funds to aid States in developing and carrying out comprehensive programs for managing their coastal zones. The Office of Coastal Zone Management also provides grants to establish estuarine sanctuaries, and administers the marine sanctuaries program established as part of the Marine Protection, Research and Sanctuaries Act of 1972.

The NOAA Corps is the Nation's seventh uniformed service. Its ranks and privileges patterned after those of the Navy, the NOAA Corps' men and women constitute a nucleus of officer-scientists for the Agency's broad spectrum of environmental assignments, from ship and aircraft commands, to leading survey teams in the field, to conducting research in NOAA laboratories.



NOAA explores, maps, and charts the global oceans, and their mineral and living resources. New physical and biological knowledge is translated into systems capable of assessing the sea's potential yield, and into techniques which the Nation and its industries can employ to manage, use, and conserve these animal and mineral resources.

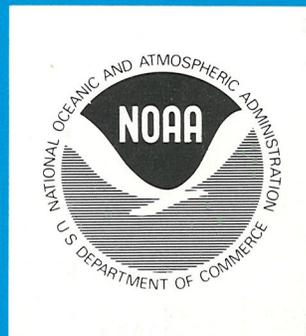
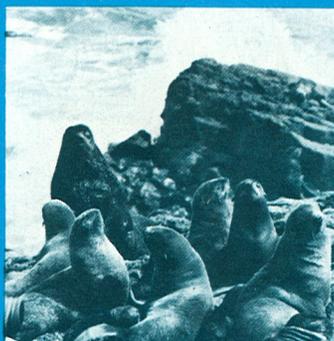
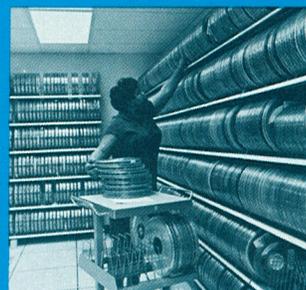
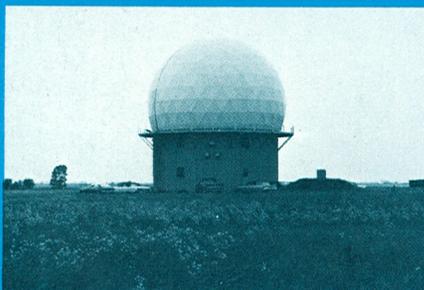
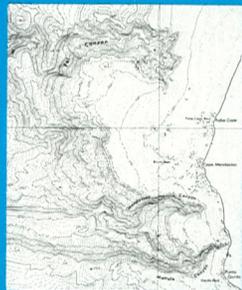
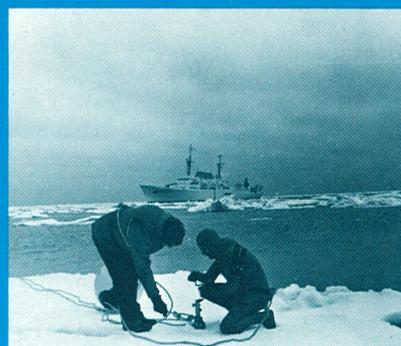
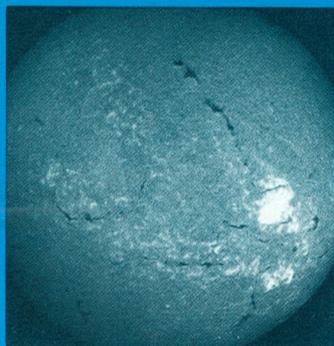
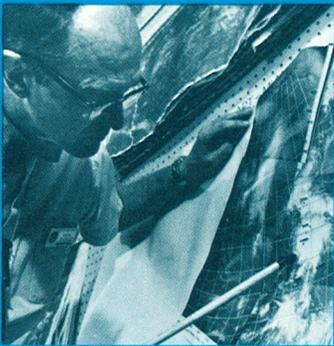
NOAA monitors and predicts the characteristics of the physical environment—the protean changes of atmosphere and ocean, sun and space environment—and warns against impending environmental hazards, easing the human burden of hurricane, tornado, flood, tsunami, and other destructive natural events.

NOAA monitors the gradual changes of climate and environment, and predicts the impacts of environmental change on food production, resource management, and energy utilization.

NOAA provides a focus within the Federal Government for the objective scientific assessment of the ecological consequences of specific actions, such as petroleum exploration, development, and transshipment, and marine mineral extraction.

To accomplish these broad objectives, NOAA draws upon the talent and wide experience of its people, its farflung facilities, and mutually important links between government, universities, and private industry. NOAA and its institutional partners are developing the technology and systems with which to comprehend this large province of service and science study—systems leading to effective resource assessment, utilization of environmental data, environmental monitoring and prediction, and environmental modification. The Agency's growing family of satellites, sensors, ships, research aircraft, data buoys, computers, and simulators help their human partners provide today's and tomorrow's essential environmental research and services.

Thus, NOAA improves the safety and quality of life, the efficiency and timing of oceanic hunts and harvests, and man's comprehension, use, and preservation of his planetary home.



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