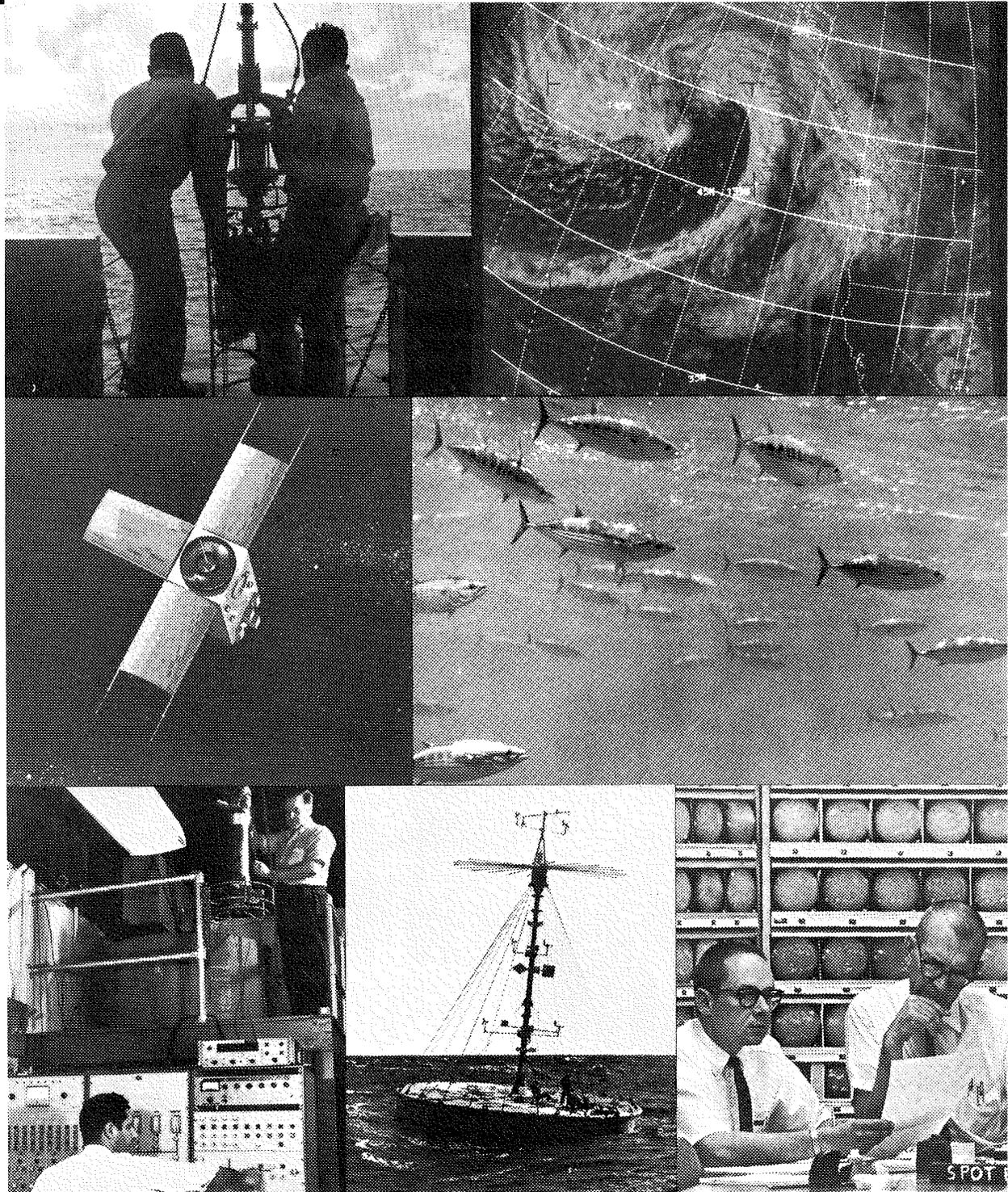


*J. Davis
1970*

A UNITED STATES
DEPARTMENT OF
COMMERCE
PUBLICATION



NOAA Photoessay No. 1: A NEW AGENCY



U.S.
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National
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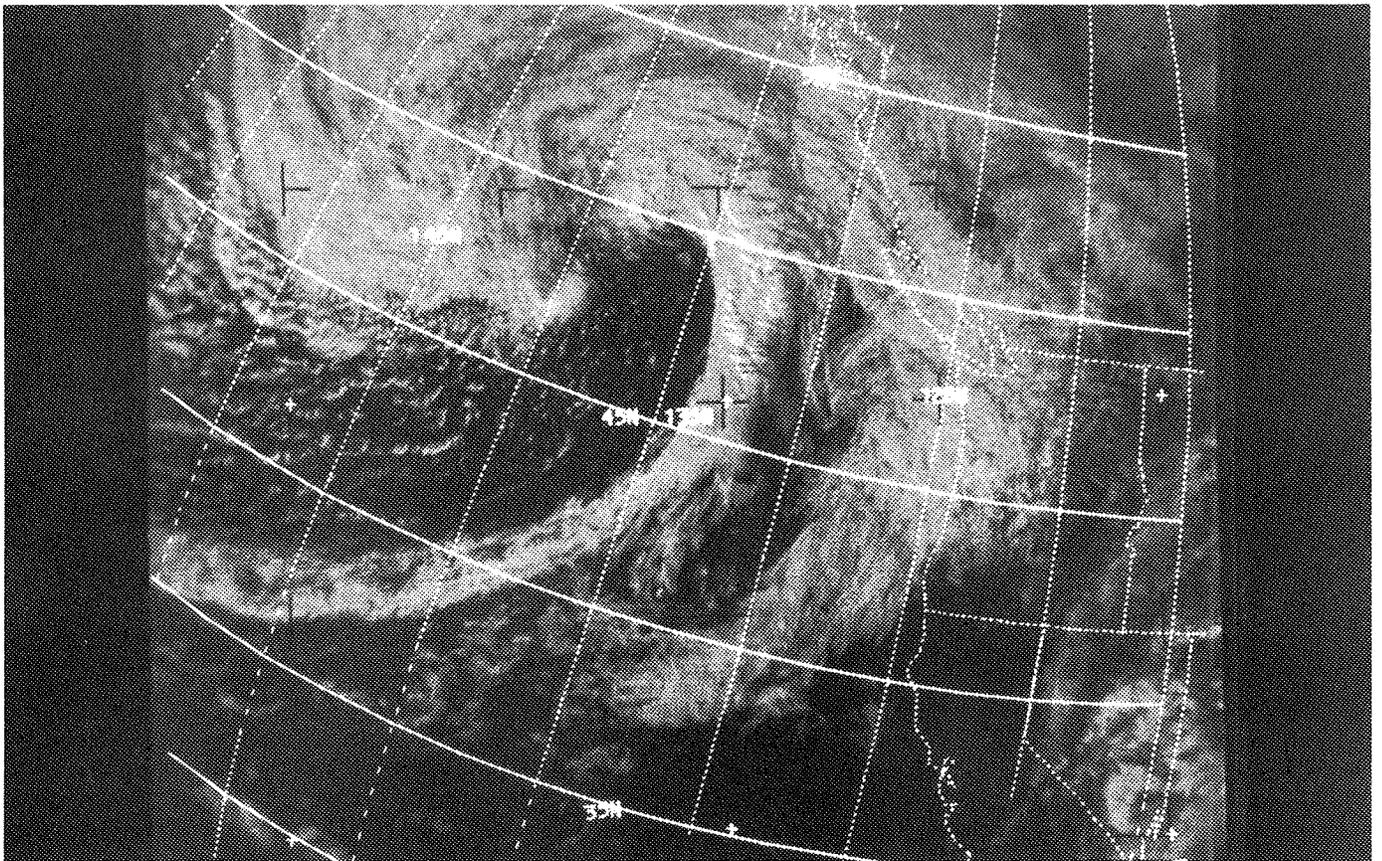
NOAA, the National Oceanic and Atmospheric Administration of the U. S. Department of Commerce, was created in October 1970 by President Nixon's Reorganization Plan Number Four, to improve man's understanding and uses of the physical environment and oceanic life.

The new Commerce agency provides a single Federal home for those activities which are concerned with exploring and charting the oceans and their mineral and nutritive resources, with monitoring and predicting rapid and long-term changes in environmental condition and quality, with detecting and warning against environmental hazards, and with the development of the new-generation technology this broad mission will require.

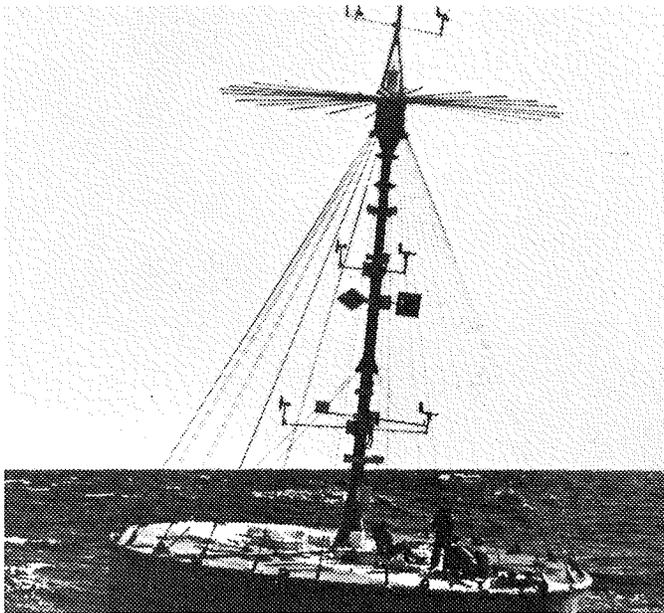
NOAA's story is one of diverse activities forged into a strong, coherent Federal attack on the unknowns of ocean and atmosphere, sun and solid earth, the fragile, complex food web of the sea. This publication tells some of that story in photographs, reproduced here in screened form for line reproduction. They are also available as 8 x 10 inch black and white glossy prints, from:

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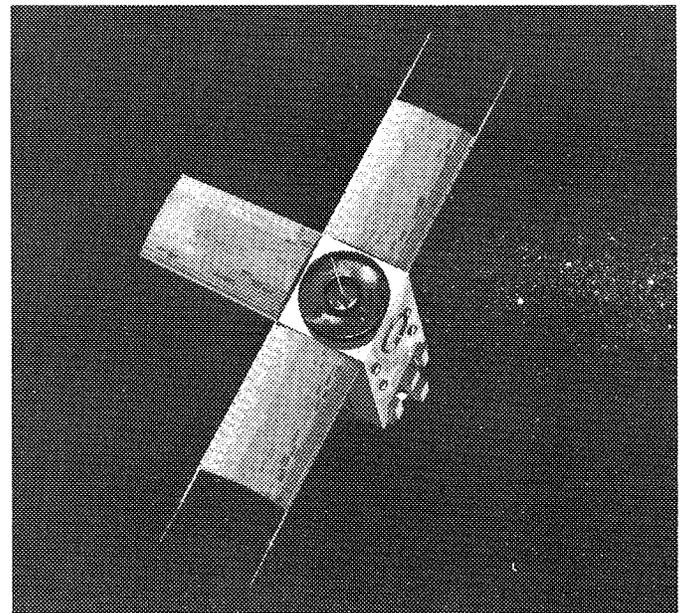
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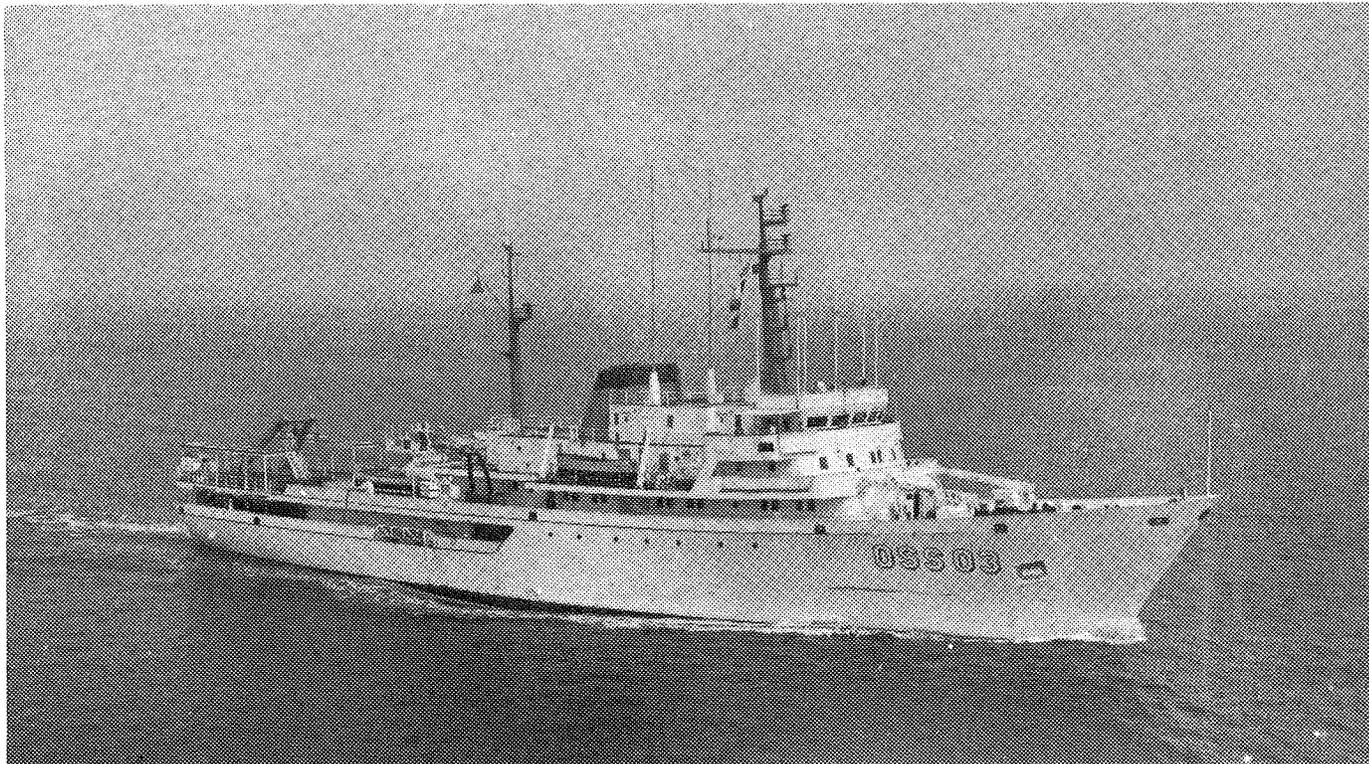
NOAA's reason for being is the inextricably close linkage between elements of the physical environment. Here, interactions of sun, atmosphere, and ocean have produced the extratropical cyclone, a giant relative of hurricanes and thunderstorms. NOAA's National Weather Service keeps the watch on events in the global atmosphere, using a network of observers, earth-orbiting satellites, computers, and communication links.



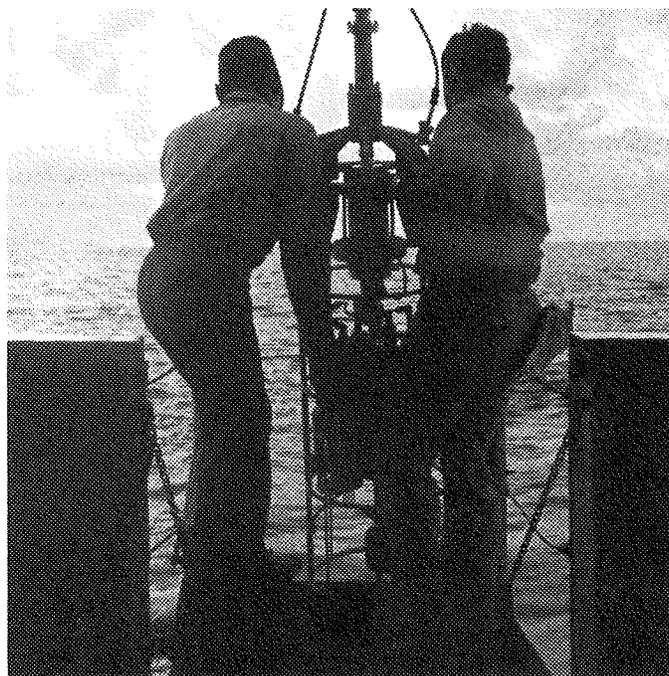
Centerpiece in new marine environmental observation platforms is the development of a system of automatic ocean buoys. The enterprise is managed by NOAA's Data Buoy Project Office. Shown here is an experimental model, on-station off the North Carolina coast.



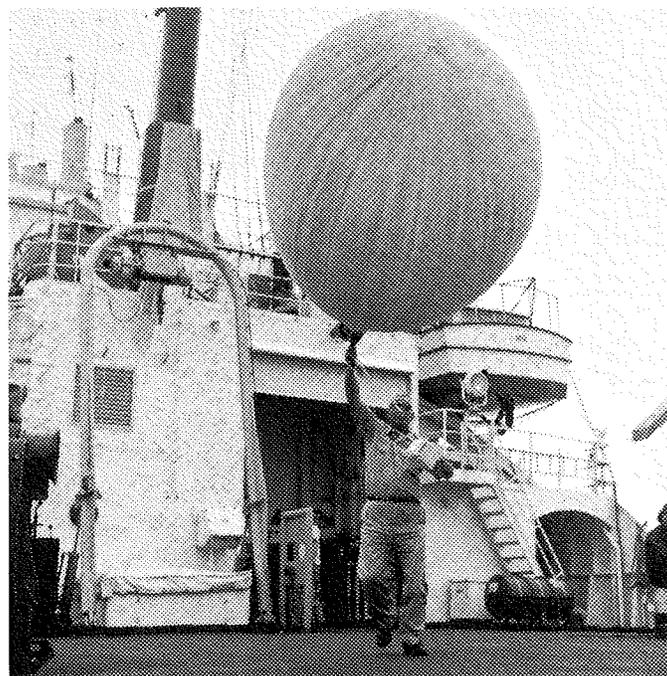
NOAA's National Environmental Satellite Service operates the U. S. Commerce Department's meteorological satellite system, now in its second-generation with NOAA-1, shown here. These satellites are evolving into platforms for observing oceanographic and other environmental parameters.



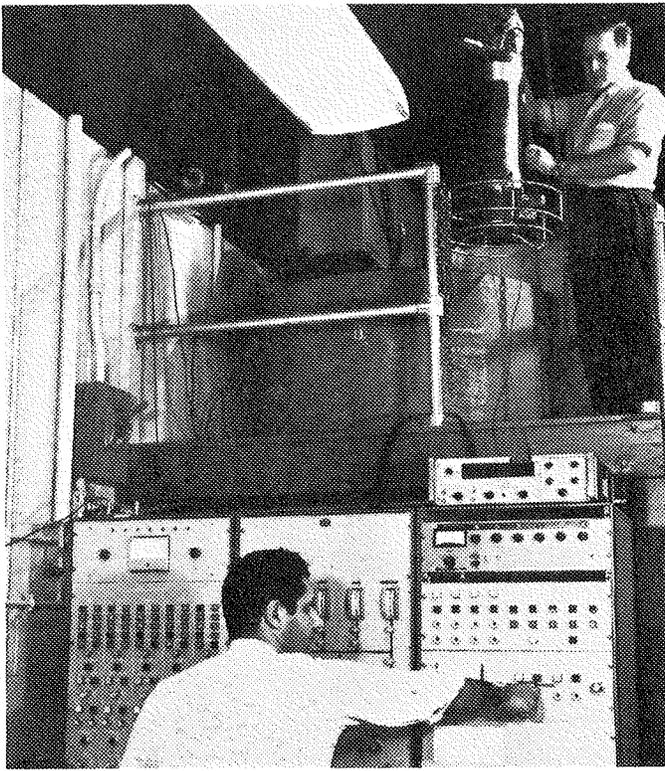
The NOAA ship **Researcher**, commissioned October 8, 1970, is a new, compact design featuring a uniquely sophisticated data-acquisition system. Operated by NOAA's National Ocean Survey and commanded by NOAA commissioned officers, the Miami-based **Researcher** supports the programs of NOAA's Environmental Research Laboratories.



Oceanographers, like these preparing a multisensor cast, are the central figures of man's progress in the sea. NOAA's Office of Sea Grant administers and directs the National Sea Grant Program which supports selected institutions and individuals engaged in marine research, education, and service programs.



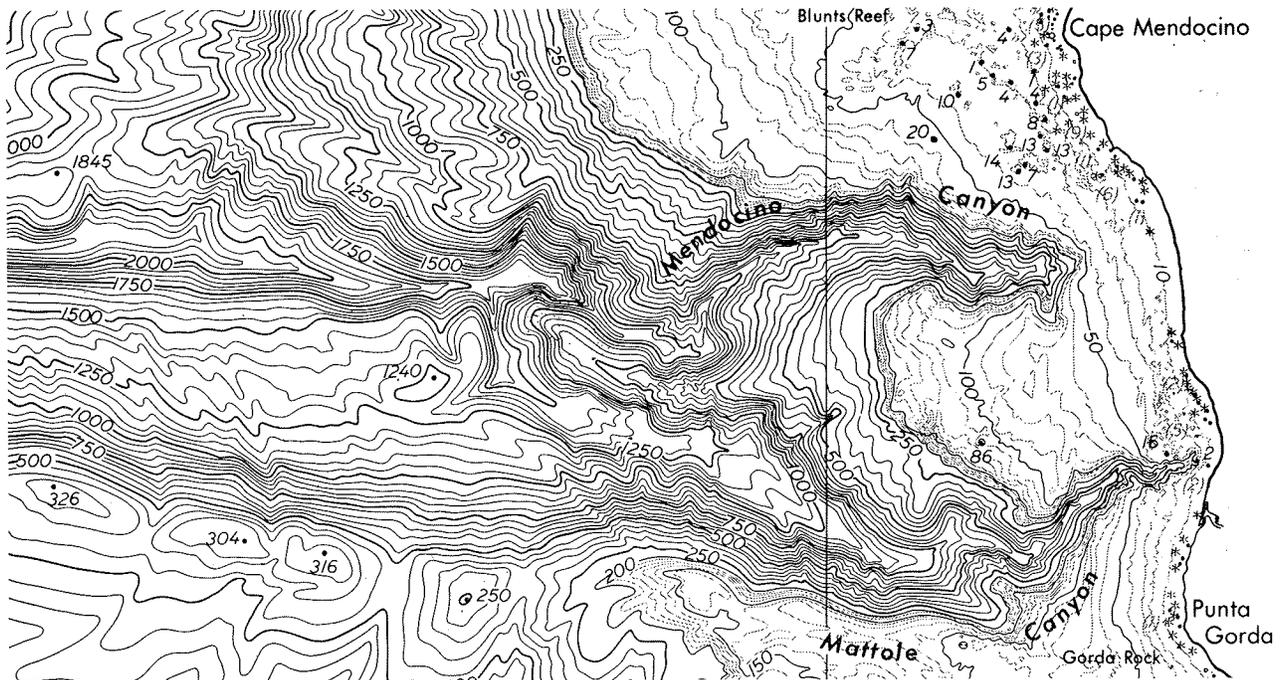
An ocean-going meteorologist launches a radiosonde at sea to obtain another upper-air observation for the data-sparse ocean area. NOAA's data buoy and satellite programs will ultimately fill these gaps; in the meantime, National Weather Service weathermen must go to sea for data.



NOAA's National Oceanographic Instrumentation Center provides a central point for knowledge and technology related to instrument measurement, evaluation, and reliability. Here, Center technicians calibrate an oceanographic sensor.



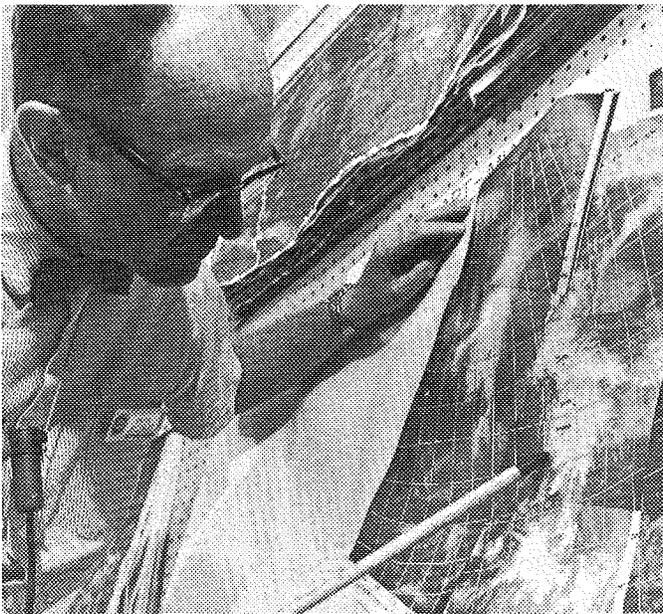
Computer selection and retrieval of information characterizes activities at modern data centers. NOAA's Environmental Data Service archives, processes, and disseminates climatological, aeronomic, seismological, geophysical, and oceanographic data.



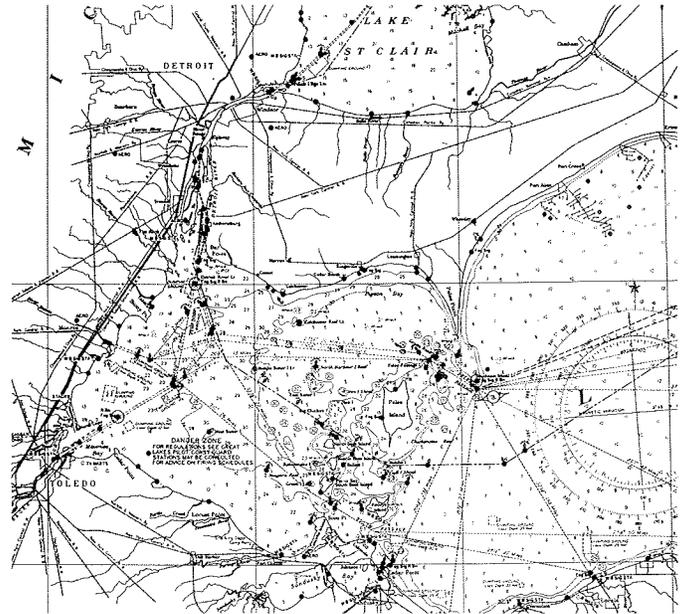
The bathymetric map (a topographic map of the ocean floor) is one of the essential products needed for man's advance onto the continental shelves and deep ocean floor. Produced by NOAA's National Ocean Survey, bathymetric maps and associated geophysical overlays are opening the way to shelf resources. NOAA's Marine Minerals Technology Center is concerned with the development of environmentally acceptable ways of assessing and tapping them.



Commerce Department scientists at the Space Disturbances Laboratory, one of NOAA's Environmental Research Laboratories, monitor changes in solar activity levels, a factor in telecommunications reliability and space travel. NOAA also monitors world weather, earthquake activity, magnetic field, and such gradual changes as those of continental drift and climatic change.



At the Hurricane Forecast Center in Miami, a NOAA weatherman uses satellite photographs to predict the path of an Atlantic hurricane so that timely warnings may be given to threatened areas. The new Commerce agency also warns against severe thunderstorms and tornadoes, winter storms, floods, earthquake-generated tsunamis, solar flares, and pollution-concentrating conditions in the atmosphere.



The National Ocean Survey charts coastal areas and the Great Lakes (a section of a Lake Erie chart is shown here), predicts tides and currents, and prepares narrative descriptions of ports and waterways. This Commerce Department service also provides charts for safe aerial navigation and conducts the precise geodetic surveys essential to most major engineering activities in America.



✓ The northern aurora is produced by interactions of solar energetic particles, the ionosphere, and the earth's magnetic field, all provinces of NOAA's broad investigation.

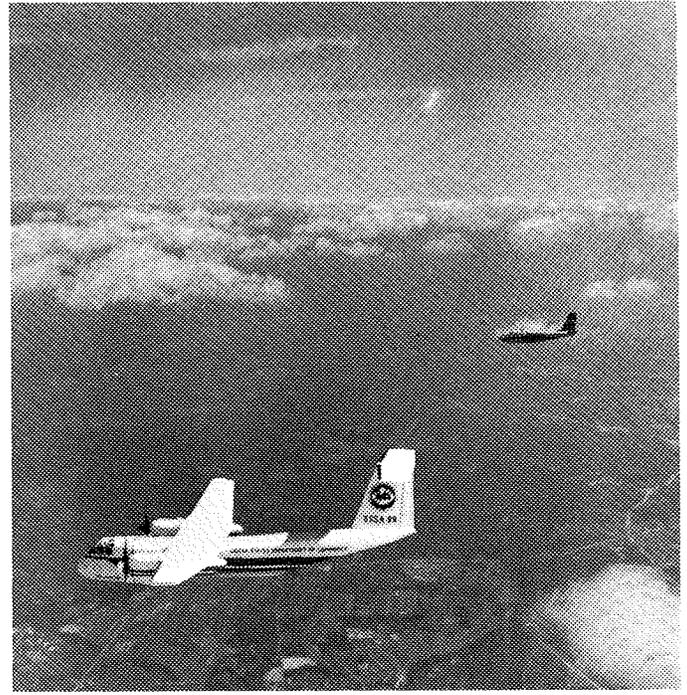
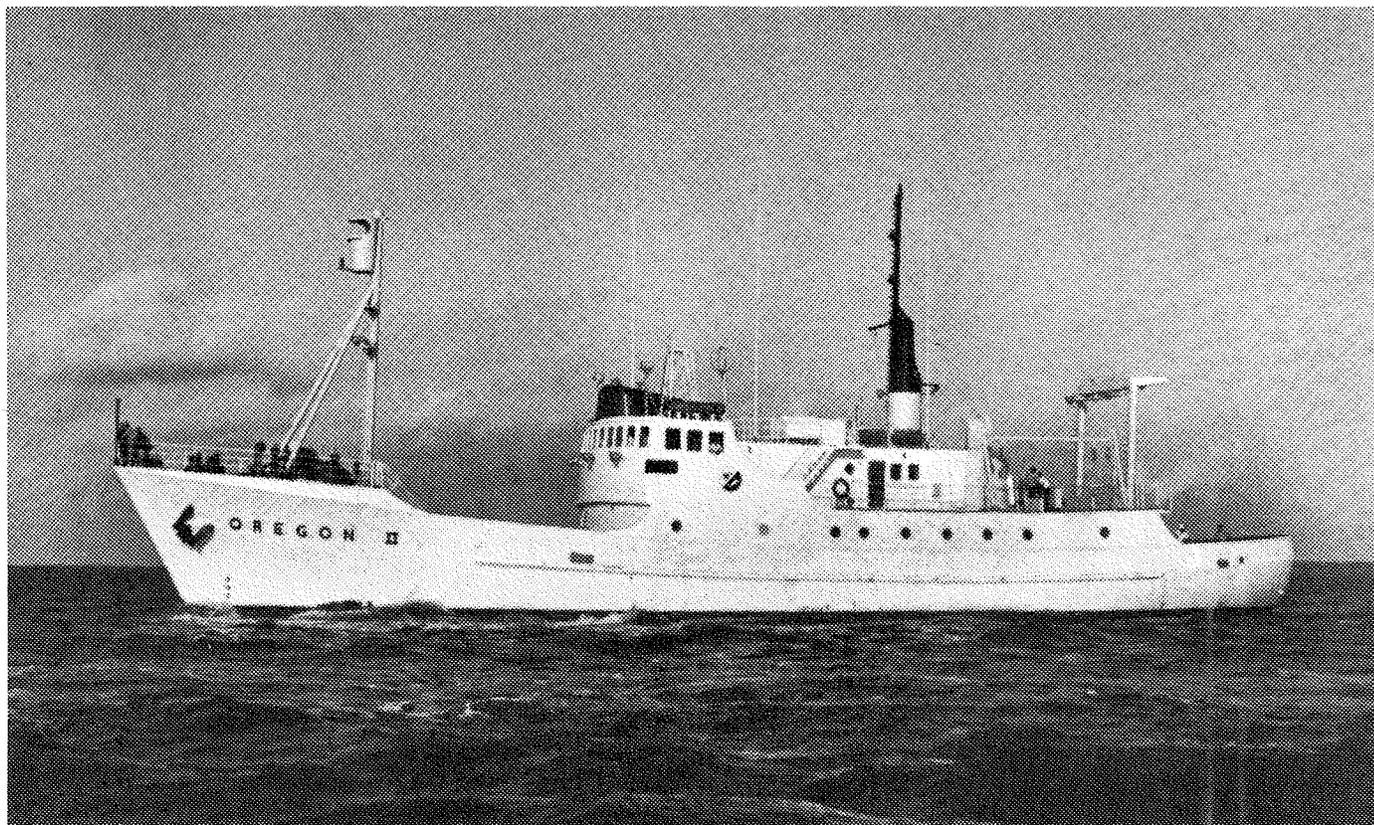


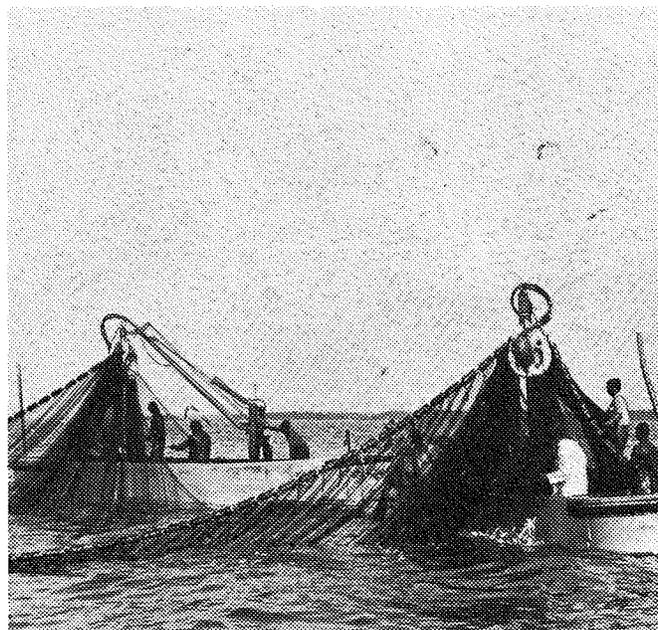
Photo aircraft of the National Ocean Survey move to their working grounds. Photographs taken by these aircraft are used in nautical and aeronautical charting, in certain specialized coastal charting operations, and in assessing changes wrought by destructive natural hazards. Instrumented aircraft of NOAA's Research Flight Facility provide the flying laboratories needed for weather modification and other research.



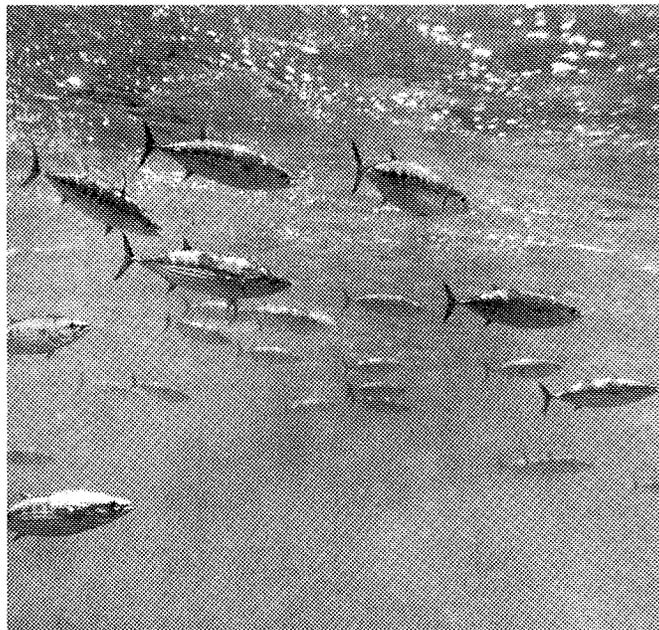
Tsunami damage after the Alaskan earthquake of March 1964. NOAA's ~~National Ocean Survey~~ ^{NWS} operates the Tsunami Warning System, using a network of seismographs and tide gages to detect earthquake-generated "tidal waves" and speed warnings to the people of the Pacific. A regional tsunami warning system in Alaska cuts warning time to that highly seismic area. ✓



Operated by NOAA's National Marine Fisheries Service, the **Oregon II** is one of a fleet of vessels used to discover, describe, develop, and conserve the living resources of the global sea.



A major mission of the Commerce Department's National Marine Fisheries Service is to help the fisherman with fisheries research, analysis of economic aspects of fisheries operations and rates, and new methods for improving the American catch.



Conservation of fisheries resources is an important aspect of NOAA's National Marine Fisheries Service operations, which include biological research on economically important species, studies of fish behavior and resources, descriptions of critical ecological relationships, and investigations of thermal and chemical pollution effects.

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