

Opening Session

MONDAY — NOVEMBER 15, 1971

Chairman — L. W. Strasburger, *Strasburger Inspection Service*
Metairie, Louisiana

OPENING ADDRESS

The Organization of NOAA and Its Cooperation With the Oceanographic Community

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It has been just a little bit more than a year since the National Oceanic and Atmospheric Administration (NOAA) was organized. A group of separate organizational units and functions from many departments and agencies is making a transition into a cohesive NOAA organization. While it may be a little early to expect significant accomplishments program-wise, it certainly is appropriate for people to ask about NOAA's attitudes and philosophies as it concerns its missions and as it concerns our interface with our broad and varied constituency.

Perhaps it will be useful to briefly outline how we have organized to meet our missions, which can also give you an insight on how we will be interfacing with our constituency.

We have defined the major thrusts of NOAA as outlined in the President's Reorganization Order during subsequent congressional hearings, and in talks with key people throughout the country.

Four basic missions have been identified which will accommodate NOAA's varied tasks and responsibilities: The first of these is the exploration, conservation, development and management of the resources of the sea, including diverse related roles in the coastal zone. The second is the development, operation and maintenance of a national system for observing and predicting the state of the atmosphere, the rivers, the oceans and the solid earth. The third is the exploration of the possibilities and consequences of environmental modification. We are concerned both with arresting the deterioration of the environment caused by pollution and with conscious attempts to modify environmental phenomena for man's benefit. The fourth major focus of activity for NOAA is to foster development of the necessary scientific understanding and technological capabilities the nation must have to achieve the foregoing objectives.

The existing Major Line Components (MLC's) should serve as the fundamental building blocks of the organization. Each service will carry out the applied research and technology development activities for which it is responsible. By going this way, many organizational units have an involvement in each of NOAA's four basic missions. For example, our work in exploring, conserving, developing and managing ocean resources involves the activities of the National Ocean Survey, the National Marine Fisheries Service (NMFS), the Environmental Data Service, the Office of Sea Grant and the Environmental Research Laboratories, with support from the National Weather Service, the National Environmental Satellite Service and our Man Under-the-Sea Technology Program (MUST).

To assure firm policy direction and program guidance, Dr. White has established offices of Associate Administrators for Marine Resources, for Environmental Monitoring and Prediction and for Science and Technology.

David H. Wallace, the Associate Administrator for Marine Resources, has cognizance of NOAA's total marine resource activities as well as its geodesy, mapping and charting programs—except for real-time environmental observation and prediction responsibilities. These responsibilities include living and non-living resources and coastal zone activities of concern to NOAA.

Dr. Richard Hallgren, the Associate Administrator for Environmental Monitoring and Prediction, will maintain cognizance over all efforts in NOAA directed at this objective. He will insure that our meteorological, hydrological and marine monitoring and predictions activities, as well as our data activities, are properly planned, managed, executed and directed to meet national needs. He will carry out the national meteorological and ocean observation and prediction coordination functions that have been assigned to NOAA.

The Associate Administrator for Science and Technology, who has not yet been appointed, will be the policy focus for the research and technology activities throughout NOAA. In addition, he will maintain cognizance over NOAA's programs in environmental modification. To work with this Associate Administrator, we plan to establish NOAA committees for scientific research and technological development.

The Assistant Administrator for Policy and Plans is responsible for integration of our programming activities, the preparation of our annual budget presentations and conduction of policy studies and long-range planning. This office also has responsibility for NOAA's emergency readiness planning activities.

Another important office in NOAA headquarters I should mention is the Office of Ecology and Environmental Conservation headed by Dr. William Aron. This office is the focus for guiding NOAA's response to the provisions of the Environmental Policy Act of 1969, and is our principal interface with many conservation and ecologically oriented groups outside of government.

NOAA's broad national responsibilities, which I mentioned earlier, are not considered exclusive property. They require the participation and action of many state and federal agencies from the academic community and from various segments of industry. There are many on-going programs that reflect this attitude.

We have begun a cooperative program between states and the National Ocean Survey which is concerned with coastal zone mapping with emphasis on the delineation of coastal boundaries. We are already working with Florida in this activity and we are negotiating with several other states to initiate similar programs. This program is in addition to NOAA'S marine mapping and charting missions and other ancillary services, such as tables for tides and tidal currents.

NOAA is one of the nation's key environmental agencies—concerned with proper and effective use of environment for all national purposes: for the protection of life and property against the hazards of nature, and for the conservation and development of our marine resources. A special concern, of course, is our fishery resources. In addition to consolidating our research facilities for this purpose, we have proposed increased studies in marine ecosystems dynamics. We have developed a NOAA plan to provide a concerted effort in key coastal areas, by state and federal agencies and the academic community, to develop information necessary for rational management of the coastal zone which give adequate consideration to our sport and commercial fishery resources. This is a total NOAA effort which is being coordinated in the Office of Marine Resources.

One of NOAA's major concerns is to provide relevant data for policy and decision making in coastal zone management. Through Sea Grant we have supported important programs, conducted mostly by the universities, but of substantial use to the states. Before Sea Grant, no complete studies of legal regimes in the various states had been compiled and analyzed, but a study by the National Council on Marine Resources and Engineering Development made a good start. Now Sea Grant Institutions are conducting studies appropriate to their regions. These include compiling and analyzing legal regimes in terms of scientific validity and conservation and economic impact. Sea Grant has also supported definitive studies of the long-term social and economic values (as opposed to short-range development) as a basic input to management decisions.

We are developing a NOAA-wide extension program and have assigned the Office of Sea Grant the coordinating role. In fisheries, we propose to build upon what has already been accomplished through the universities under Sea Grant and through NMFS Federal Aid Program under P.L. 88-309. Our goal is to supply organization and financial support to enable fishery extension agents to act and interact directly with fishermen, both commercial and sports, and the fishing industry. In mariculture, too, we want to mold the accomplishments in NMFS and Sea Grant with those of the states, universities and industry into a truly national effort.

More and more, Sea Grant has been able to serve as an effective coordination focal point between state and federal agencies in some states and has stimulated coordination and cooperation between state agencies, academia and industry within certain states. One of NOAA's overriding concerns, and yours too, I believe, deals with the way our fisheries resources are managed. We have begun a program to explore new federal-state cooperative management systems which can effectively deal with the root problems confronting users of living marine resources — both commercial and recreational. In this endeavor, we are relying on the expertise from several universities as well as state conservation agencies to help us develop the types of management systems that can do the job. NOAA's MUST is a new effort within NOAA which should stimulate and contribute to research of university scientists as well as those in government and industry. The program presently is limited and now centers principally upon the use of presently owned submersibles for research. In Florida we have initiated project FLARE (Florida Aquanaut Research Expedition) which will support a series of research dives next winter between January and March 1972. As the undersea program grows, we foresee the deployment of a varied number of undersea laboratories and continued use of submersibles. Federal, university and industrial scientists will play an integral role in the projects utilizing such facilities.

The National Data Buoy and Environmental Satellite programs are two other relatively new major initiatives that have already drawn upon scientists and engineers from industry and academia, and we plan that this effort will continue with their involvement.

I have sketched here a few areas of NOAA interest and initiatives that will be drawing upon the expertise of people outside of NOAA to satisfy specific aspects of our missions. We have, of course, on-going programs, with which you are all familiar, in our Office of Sea Grant and NMFS that provide direct assistance to academic, industry and state conservation agencies to solve local problems and to train scientists and technicians. NOAA will employ many of the scientists and technicians that universities train. We have brought together in the agency some 13,000 scientists, engineers, technicians and others covering a broad spectrum of environmental and marine services. About 90% of the federal civilian-oriented laboratories concerned with various aspects of marine and coastal zone problems are now in NOAA. To further a closer contact with the university community, it has been a long established policy among the elements that have been combined within NOAA to locate their major laboratories either within or adjacent to academic centers. Here in Miami we have the South Atlantic-Gulf Fisheries Research Center and the Atlantic Oceanographic and Meteorological Laboratories. Both of these laboratories were established here in large part because of the marine programs associated with the University of Miami. Similarly, we have complexes of our major facilities in Seattle; Woods Hole; La Jolla, California and Hawaii, close to the University of Washington, the Woods Hole Oceanographic Institution and Marine Biological Laboratory, Scripps Institute of Oceanography and the University of Hawaii, respectively. We believe it is essential that our scientists and those in the universities work in close cooperation. Often these scientists share facilities. NOAA operates a fleet of 38 ships over 60 feet in length. On many occasions they have provided the means for university scientists to conduct research in the deep ocean. In the Gulf and Caribbean region, this has been especially due to the efforts of Harris Stewart, Director of the Atlantic Oceanographic and Meteorological Laboratories. But this spirit of cooperation exists in all of our laboratories and it is a mode of cooperation we should and do foster. The closeness of these relationships is further demonstrated by the individual research grants that laboratories make available to university scientists for special projects, and by the fact that in many of our laboratories we have staff scientists appointed by local universities, as adjunct professors, to play an active role in the academic programs of these universities.

Finally, I would like to summarize some points affecting NOAA — university and extramural relationships.

In FY 1972 — the present fiscal year — NOAA was appropriated \$137.1 million for its various ocean programs. Of this amount, \$77.3 million is estimated for research and development. Approximately 25% of the research and development funds will be spent directly through colleges and universities. The Sea Grant level is \$17.7 million. Support to state agencies (which in turn have some university contracts) is \$6.5 million. The relatively new extramural programs on data buoys and manned undersea technology will expend approximately \$13.0 million and \$1.5 million, respectively.

1. NOAA is very interested in joint-coordinated research with the universities. We are interested in cooperative research, not only in those projects we are funding by grants or contracts, but also in any marine related research.

2. We recognize the benefits of providing grants or contracts to universities. We get the research product — but also we are investing in the future by contributing to the education process.

3. Because of the great deal of federal government (NOAA) and university research that is going on in the marine area, information exchange, coordination and, in some instances, joint planning is desirable. To facilitate this coordination, we favor a greatly expanded personnel exchange program where on a regular basis NOAA professionals might work at a university for six months to a year and faculty from the university might work for NOAA for a year or so. This would give each a better understanding of both the strengths and weaknesses and ideas of how to get the best research results while at the same time retaining academic freedom. This will give the university faculty a better idea of national needs and assist them in developing project proposals that are in their interest but also relevant to the federal mission.

4. Some problems with academic research are: (a) At times, NOAA needs short-term projects with results in a period of a few months. Our experience thus far is that those universities which have the expertise we might like to use for short-term work are frequently fully committed. In such cases, our alternative is to do the work in-house or contract with industry. Thus, if universities are to be in a position to be of greatest assistance to us, in a sense to compete for the research dollar, they must be able to provide some flexibility and adjust their efforts when short-term results are needed. We believe that Sea Grant may be able to help in forming a base for a flexible organization through which universities can then be in a position to accept short-term grants or contracts. (b) We need to improve coordination of research at the regional level as well as at the national level and we feel the universities, especially if they are receiving funds from us, must share in the responsibility and be “aggressive” in maintaining continuing contacts for research coordination.

5. We would like to stress again the need and opportunity for university people to take sabbaticals to work in our laboratories and in our headquarters offices. Such an arrangement is one through which both federal and university institutions will profit.

In conclusion, we in NOAA are enthusiastic about the progress we can make together. It is an optimism based on talks various NOAA people have had with many of you. I expect you have heard Robert White indicate how strongly he intends to support our academic community, the states and industry. We look to organizations like yours to help us, so let us know your views. Let me assure you, on behalf of Dr. White, Dave Wallace and others, that we intend to keep you advised of important issues as they arise so we can have a truly meaningful partnership.