Oceanography: A "Wet NASA," Will Nixon Take the Plunge?

Despite growing pressure for stronger federal ocean programs, the Nixon Administration has been as slow as its predecessors in giving attention to oceanography. Most of the pressure has come from Congress, where support is building for creation of the proposed National Oceanic and Atmospheric Agency (NOAA).

The Administration's reluctance to take a firm position on NOAA, or to offer a strong alternative, is causing intense irritation among oceanography's friends in Congress. Senator Ernest F. Hollings (D–S.C.) reflected the impatient mood when he complained in a floor speech on 5 March, "President Nixon treats oceanography with slightly more dignity than the Board of Tea Tasters."

Not all the oceanography promoters on Capitol Hill express their displeasure as bluntly or as colorfully as Hollings, the chairman of the Senate Commerce Committee's new oceanography subcommittee. But there is growing, bipartisan discontent over the Administration's apparent lack of interest in reorganizing the nation's civilian ocean activities.

Stratton Commission Proposal

Creation of a NOAA (usually called "Noah") was recommended on 9 January 1969 by the Commission on Marine Science, Engineering and Resources, a 15-member panel authorized by Congress in 1966 and appointed by President Johnson. The commission chairman was Julius A. Stratton, former president of the Massachusetts Institute of Technology and board chairman of the Ford Foundation.

In a report widely praised in the oceanographic community, the Stratton Commission made 126 recommendations for strengthening the federal government's role in exploring, protecting, and developing ocean and Great Lakes resources. It proposed NOAA as a means of providing focus and coordinated leadership for federal ocean programs, which now are scattered through 22 separate agencies.

The hope was that a NOAA could establish a coherent national policy for the oceans and achieve greater efficiency by eliminating duplication and wasteful competition. More important, perhaps, many advocates of a single agency saw it as a sort of "wet NASA" that might dramatize and promote oceanography in much the same manner as the National Aeronautics and Space Administration promotes space exploration. At present, no single agency can speak for oceanography in soliciting public and congressional support.

To form NOAA, the Stratton Commission proposed taking the Coast Guard from the Transportation Department, the Environmental Science Services Administration from the Commerce Department, the bureaus of Commercial and Sports Fisheries from the Interior Department, and the National Sea Grant program from the National Science Foundation. With these and some smaller organizations, NOAA would absorb, in all, 55,000 employees, 320 ships, and 38 laboratories. The agencies to be absorbed have annual budgets totaling some $800 million. (The National Council on Marine Resources estimates federal spending exclusively for marine sciences in fiscal 1970 at $514.3 million; of this, $239 million is going to the Navy's military oceanography. Other estimates vary, depending on what is defined as an oceanography expenditure. But since a NOAA would assume the total budgets of its component agencies, ocean-related or not, the $800 million figure is pertinent here.)

When the Nixon Administration took office on 20 January 1969, it found the freshly printed Stratton Commission report awaiting action. It also found stiff opposition to the NOAA proposal from departments and agencies that would lose ocean programs to a new agency. The Interior Department, in particular, felt that it should be the new lead agency in the event of a reorganization. With more pressing problems to attack, the new Administration sidestepped a bureaucratic quarrel by consigning the NOAA idea to a study and evaluation by the President's Advisory Council on Executive Organization, headed by Roy L. Ash, the president of Litton Industries.

After many postponements, the Ash Council is now scheduled to make its recommendation to the President by 15 April. No Presidential decision is expected before June, if then. But it is common knowledge that the Ash Council is leaning toward a plan that would put the major ocean agencies—exclusive of the Coast Guard—into an expanded Interior Department. The new department, to be renamed the Department of Environmental Affairs or the Department of Natural Resources, would have responsibility for a wide range of environmental programs.

Another study of the NOAA plan by the President's task force on oceanography, headed by James H. Wakelin, Jr., a former assistant secretary of the Navy, resulted in a recommendation for what is derisively called a "mini–NOAA"—an agency to include only the Sea Grant Program, the National Oceanographic Data Center, and the Oceanographic Instrumentation Center. (The latter two are interagency services run largely by the Navy.)

Backing for NOAA

Meanwhile, congressional support for NOAA appears to be growing. Representative Alton Lennon (D–N.C.), chairman of the House Oceanography Subcommittee, held hearings on the Stratton Commission report over a period of months, compiling a record of support for NOAA from academic oceanographers, sea-related industries, coastal-state governors, and others. The only prominent opposition witnesses were from the Administration. The hearing record is roughly the same in the Senate subcommittee, which heard witnesses periodically from December through early March.

Lennon's House subcommittee approved the NOAA bill in January and sent it to the full Merchant Marine and Fisheries Committee, which is expected to pass it soon. The Senate Commerce Committee also is expected to act favorably. Among the advocates of a NOAA is the Senate committee chairman, Warren G. Magnuson (D–Wash.), long regarded as oceanography's leading promoter in Congress.

As the Senate subcommittee hearings concluded, the impatience of the NOAA supporters became increasingly apparent. They dislike the Administration's plan for an expanded Interior Department and are discouraged because no alternative plan has been offered.

Interior Department spokesmen con-

tend, however, that it would be illogical to create a separate ocean agency if Interior is to retain primary responsibility for protecting and developing the nation's resources. They argue that such resource problems as water pollution, estuary protection, mining, oil drilling, and recreation—all current responsibilities of Interior—do not stop at the water's edge. They insist that the agency charged with protecting the environment must have in-house capability on both land and water. Moreover, they contend that ocean programs could get stronger congressional support and attract more competent personnel if they were operated by a large and experienced department. Interior already is the largest civilian ocean agency, with a budget of about $78 million for sea-related activities in the current fiscal year.

But supporters of NOAA fear that ocean programs might get even less attention if they were submerged in a big department and left to compete for the Secretary's favor. They complain that Interior is too "land-oriented." Representative Lennon contended in an interview that Interior had often neglected its oceanography mission until it saw the current opportunity for expansion. "Why have they suddenly become interested in this field?" Lennon asked. "Because they want to increase their prestige and their responsibility. They want to be the biggest department, and they certainly don't want to give up any functions they now have."

Ironically, it was the Secretary of the Interior, Walter J. Hickel, who provided the strongest ammunition for NOAA advocates during the Senate hearings. Hickel admitted under questioning that he had not read the Stratton Commission report. He also rankled some oceanography supporters by referring to Project Tektite, the Caribbean undersea-living experiment, as "Textite." The Secretary's performance later drew this scathing attack from Hollings in his Senate speech of 5 March.

> He is the Secretary who soon after assuming his office "recognized a need within the department to forge ahead with imaginative new marine programs." Accordingly, he added the words "marine affairs" to his Assistant Fish Secretary and hired three female secretaries. . . . He is the Secretary who opposed NOAA because you couldn't get competent personnel in an independent agency, yet he wasn't competent enough to get his Fisheries budget through the Bureau of the Budget without a 14 per cent cut this year. . . . The Department's [total] marine sciences budget was cut $2.5 million. The Bureau of Commercial Fisheries in his department has been politicized to the point that one of our witnesses stated that the Bureau's morale is at an all-time low. . . . In spite of [Interior's] failure to bring [the Santa Barbara oil spill] under control, this is the department that continues to license oil drilling in the same area. . . .

Hickel was not alone in his failure to read the Stratton Commission's massive report, "Our Nation and the Sea." As Hollings' hearings proceeded, the same admission was made by the Secretary of the Navy, John H. Chafee; the Secretary of Transportation, John Volpe; and the President's science adviser, Lee A. DuBridge. It was a stunning reminder to oceanography boosters that their most elementary problem is getting someone to listen. Is the Administration interested? Its spokesmen say that it is, that the NOAA proposal is under intense study, that substantive recommendations will be made soon.

Yet the full Council on Marine Resources, a coordinating group headed by Vice President Agnew and including the head of each department with ocean-related duties, has not met since last May—and has met only twice in the course of this Administration. The council's work has been carried on by the staff and by a second-level committee. Moreover, the Administration did not request funds to continue the council's existence past its 30 June expiration date until 12 March—7 days after Hollings had complained that the council was going to be scrapped. The council's highly regarded executive secretary, Edward Wenk, resigned late last year to take a post at the University of Washington and has not been replaced.

Although the Stratton Commission report is almost 15 months old, the Administration has taken only one formal action on it—on 19 October, when the council announced support of five proposals: (i) cooperation with the states in creating Coastal Zone Management programs; (ii) establishment of more Coastal Zone laboratories; (iii) Great Lakes restoration projects; (iv) U.S. participation in the International Decade of Ocean Exploration, beginning this year; and (v) Arctic environmental research.

Congressional supporters of the NOAA bill had hoped the Administration would announce more marine science plans in the President's message of 10 February on the environment. But the President merely noted, in what seemed like almost an afterthought,

NEWS IN BRIEF

• **OIL SPILL INQUIRY:** Charging that Chevron Oil Company had "knowingly and willfully" violated offshore oil drilling regulations, Secretary of the Interior Walter J. Hickel has recommended a grand jury investigation of the company's operations. This recommendation was prompted by an investigation begun after a month-long oil and gas fire was finally extinguished 10 March off the coast of Louisiana. The federal law which Hickel wants invoked provides for fines of up to $2000 per day for violations and a maximum of 6 months' imprisonment for individuals found guilty. These provisions have not been invoked previously, although the act dates from 1953.

• **CANADA RENOUNCES BIOLOGICAL WEAPONS:** In a government statement submitted by the Canadian delegate to the 25-nation disarmament conference, Canada said that it does not possess any biological weapons and does not intend to develop, produce, acquire, stockpile, or use such weapons at any time. Canada also promised that it would produce and use chemical weapons only if they were used against Canada or its allies.

• **SACCHARIN STUDY:** The Food and Drug Administration has contracted with the National Academy of Sciences–National Research Council for an investigation of possible health hazards from saccharin. The investigation is expected to take 2 months. The FDA placed high priority on a quick study after a University of Wisconsin researcher, Dr. George T. Bryan, produced cancer in the bladders of mice with implants of saccharin pellets. The chemical, which was discovered almost a century ago, is 300 times sweeter than sugar and is a common additive in diet foods and drinks. An earlier investigation resulted in a ban on cyclamates, another artificial sweetener.

• **NEW DIVISION AT OAK RIDGE NATIONAL LABORATORY:** A new Ecological Sciences Division has been formed at the Oak Ridge National Laboratory to place special emphasis on understanding the balances of nature and the dangers of pollution. Ecological studies had previously been a part of the Health Physics Division. Stanley I. Auerbach, head of ecological studies, will direct the new division.

New Role for NASA Research Center

It was a little like the last act of a melodrama last week with the Administration foiling the foreclosers when it announced that the Department of Transportation (DOT) would take over NASA's Electronics Research Center in Cambridge, Mass., which the space agency vacates on 30 June.

The $36-million facility, located in downtown Cambridge near M.I.T. in a complex of still unfinished buildings, will be renamed the Transportation Development Center. DOT Secretary John A. Volpe, a former governor of Massachusetts, indicated that his new center would undertake advanced research in automated air traffic control, electronic guidance systems for highways, and antipollution research.

Since it began operating in September 1965, the center, which has administered research contracts with industry, universities and other government laboratories (the research budget last year was $31.6 million), and performed some inhouse research, built up to about 825 employees, some 420 of them professionals. Volpe said that a majority of the present employees would be retained. It is understood that more than 100 members of the staff have left since NASA on 29 December announced its projected closedown, some to take jobs at other NASA locations. Less than a fifth of those departing were professionals.

In taking over the Cambridge center DOT is following the logic that moved NASA to locate there in the first place—that an agency that depended so heavily on electronics would profit from propinquity to M.I.T., Harvard, and the electronics industry arrayed around Route 128.

The decision to locate the center in the Boston area actually precipitated one of the few political storms in NASA's relatively tranquil period of growth in the early 1960's. By 1963 Congress had developed a conviction that federal military and space contracts and government science installations spelled prosperity for a region and that Massachusetts, perhaps second only to California, had won an unfairly large share of economically progenitive research funds.

So aroused were the legislators that the bill authorizing the electronics research center carried an unprecedented requirement that funds could not be expended until NASA submitted a detailed study of the claims of areas competing for the center in order to justify the space agency's choice to Congress and constituents.

Locational politics, in fact, seem not to have been a decisive factor in the choice of Boston. NASA administrator James Webb argued that NASA electronics at that stage were an outgrowth of military and commercial technology and that NASA needed to look beyond the lunar landing program to interplanetary flights which would require new dimensions of sophistication in electronic systems. He believed that Boston was the only area where such over-the-horizon research could be done.

Webb was assuming that NASA funding would continue at a level of $5 or $6 billion a year or more. The downward plane of spending for space has slowed the demand for advanced electronics and this seems to have strongly influenced the NASA decision under budgetary duress last fall to close the center. In fact, at least since the present director of the center, James C. Elms, took over in 1967, the tendency in center research has been away from absorption in exotic advanced projects and toward research with more immediate applications, including automatic airplane landing controls. Elms is to stay on as director.

If the NASA and DOT proponents are right it may not require so wild a transition to bring space electronics research down to earth and deploy it against problems of air traffic control and collision avoidance, pollution, and urban transit and highway traffic control. There seems to be a fair amount of optimism that the technical problems of developing effective control systems will yield to electronics research, but DOT, which plans a budget of about $20 million next year for the center, is likely to encounter the practical problems of getting research funds equal to the task.—J.W.

that the Ash Council was still at work.

Since that disappointment, there has been growing sentiment within the Lennon and Hollings subcommittees for trying to push NOAA legislation through Congress and dump it on the President's desk. It would not be the first time Congress had taken the initiative in marine affairs. In 1966, Lennon and Magnuson guided to passage bills that created the Cabinet-level Marine Science Council and authorized formation of the Stratton Commission. At the time, the Johnson Administration opposed both proposals. Many coastal-state legislators now fear that there will be no meaningful reorganization of oceanographic activities unless Congress again forces the issue.

For the present, however, the congressional maneuvers and rhetoric seem designed primarily to pressure the Administration into a compromise. The advocates of a NOAA would definitely accept something less, provided the new plan enhanced the status of oceanography and permitted central management. Hollings and others even concede that the nation eventually will need a major department on environmental matters, including the ocean agencies. But they reject the Ash Council's concept of such a department, fearing that the council's emphasis is on holding down budget requests rather than on planning for a strong national ocean program.

In any case, NOAA backers insist that their single-agency proposal would also serve the cause of economy. They say a NOAA would initially require only slightly more than the $800 million a year the component agencies are now spending. The Stratton Commission recommended a $2 billion annual budget for NOAA by 1980, assuming creation of the suggested programs and an annual growth rate of 7 percent. But this is now generally considered an unlikely goal, in view of budget prospects. Advocates of the single agency argue that its major immediate contribution would be improved management, which would enable the nation to get more from its limited funds for oceanography. For example, a NOAA might bring about greater sharing of ships, data buoys, and other equipment.

The budget squeeze came as oceanographers were on the verge of unprecedented opportunities to develop and use new undersea technology, to replace ships of World War II vintage, and to launch ambitious new research efforts. "In developing technology, we are now—by comparison—roughly

where the development of the airplane was in 1910 or 1915," said H. Crane Miller, counsel for Hollings' subcommittee and a former Stratton Commission staff member. The funding of ocean programs increased dramatically in the middle 1960's, but the level of support has virtually frozen. For example, the annual growth rate of academic marine science programs funded by the National Science Foundation and the Office of Naval Research was 7.3 percent from 1963 to 1966 but declined to 2.2 percent from 1966 to 1968, not even covering rising costs.

The Navy, with a marine science budget of some $239 million this year, continues to dominate U.S. oceanography. But even the Navy's funds are down by $24 million from last year, requiring deactivation of some research ships and postponement of new projects. "We have had our share of the cuts, but only our fair share," said Rear Admiral O. D. Waters, Jr., the Oceanographer of the Navy. "We have had to slow down, but nothing vital has been dropped." The Administration's request for fiscal 1971, however, would cut the Navy programs by another $19 million and increase the civilian oceanography budget by $40 million.

The Navy cooperates extensively with civilian ocean agencies, especially through the Oceanographic Data Center and the Instrumentation Center. For example, Navy data on water temperature is fed to the Bureau of Commercial Fisheries to guide fishing vessels to favorable waters. But, as Admiral Waters points out, "it is only happenstance, really, when our programs benefit the civilian sector. . . . Our purpose is always military."

On the NOAA proposal, the Navy has taken no formal position except to request that, whatever is done, the Coast Guard retain its semimilitary role. It is known, however, that many Navy oceanographers are unenthusiastic about a NOAA, viewing it as a potentially serious competitor for money and programs.

If effectively promoted, civilian oceanography could indeed win formidable support in Congress. There are, after all, 30 coastal and Great Lakes states with a direct interest, and the nation is increasingly resource-conscious. In hopes of tapping this potential support, oceanography lobbying groups and newsletters are proliferating. For example, the Washington-based National Oceanography Association added 700 new corporate and individual members in 1969, for a total of 2100. (In a poll, the membership heavily favored creation of a NOAA.) Sea-related industries are badly in need of new federal initiatives in developing technology.

Should civilian oceanography develop its own effective lobby, the marine science programs might be more than able to hold their own in a new Department of Environmental Affairs. Even NOAA champions such as Lennon and Hollings concede that such a department makes sense. But they contend that a single ocean agency is needed first, to reorganize existing programs, establish goals, and attract the necessary public and congressional support.—WILLIAM CONNELLY

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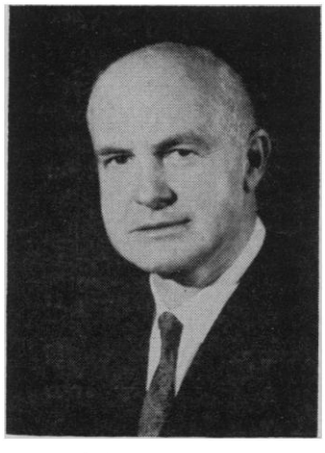
NSF: White House Nominates Four to Long-Unfilled Posts

The White House last Friday nominated four men to the National Science Foundation (NSF) assistant directorships which were created in 1968 and have yet to be filled. No nomination to the agency's number-two post, the deputy directorship, was put forward. The word on the Washington science grapevine has been that an earlier nominee met a White House rebuff, but a new nomination is said now to be nearing the end of the White House approval process.

Senate confirmation is required for the deputy director and four assistant directors, all of whom are presidential appointees.

The four nominees:

► As assistant director for research, Edward C. Creutz, 57, now division vice president in charge of research and development for Gulf General Atomic, San Diego, California.



Edward C. Creutz

Lloyd G. Humphreys

Louis Levin

Thomas B. Owen