NOAA Revived for the Green Decade

After 8 years of being strangled by the Reagan Administration, the National Oceanic and Atmospheric Administration is coming back as the people's servant and Earth's protector

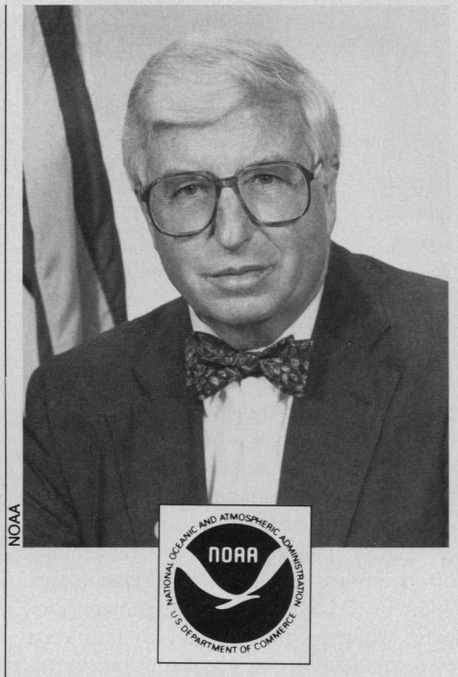
HERE'S A QUIZ FOR THE 1990s, the decade of the environment. Which federal agency directed the billion-dollar cleanup of the *Exxon Valdez* oil spill? Which agency considers itself "front and center in the environmental decade"? Which is "the leading federal science agency in global change"? No, not the Environmental Protection Agency. It's NOAA, the National Oceanic and Atmospheric Administration, the same multifaceted agency that forecasts the weather, protects sea turtles, and monitors Earth's rotation to the millisecond.

NOAA was never a household name, and it didn't help that it spent most of the 1980s trying to defend itself against the Reagan Administration's efforts to hack away major pieces of the agency in the name of economy and proper federal-state relations.

But now all that seems to be changing. Enter the environmental President and a highly respected new administrator at the helm and NOAA is suddenly rejuvenating itself. Its proposed budget is up, morale is sky high, and a sense of near-missionary zeal pervades the agency. "Everyone at NOAA is very excited," notes a NOAA watcher on Capitol Hill. "This is such a change: we're all so flabbergasted."

NOAA's sunny new outlook cannot entirely blot out some threatening clouds on the horizon. Aside from the federal budget deficit's looming threat, bureaucratic reorganization could carve up or even absorb NOAA. The agency, which was born in 1970 on the same day as the EPA, is a conglomeration of disparate scientific, regulatory, and service roles. That diversity makes it a prime target as the government considers how to best meet the challenge of the environment decade. For example, NOAA's regulation of ocean activities might fit better in the proposed department of environment than in the Department of Commerce, where the agency is now. Alternatively, NOAA could remain in Commerce, although it has always seemed a bit like a fish out of water there.

But today's uncertainty is nothing compared to the gloom that hung over NOAA during the Reagan years, especially the final 4 years when career bureaucrat Anthony Calio was administrator. Like his immediate predecessors, Calio, an 18-year veteran of NASA, did little to stave off the Administration's annual gutting of the NOAA budget, including the excision of entire programs that were, at the eleventh hour, reinstated by Congress.



Morale booster. *NOAA's John Knauss starts off with the respect of his staff.*

Managers in the Sea Grant Program, which funds marine research at universities, spent most of the 1980s juggling budgets whose prospects changed from day to day. At the same time, the NOAA hierarchy was in turmoil as officials fought over shrinking budgets with little guidance from above about where the agency was going. Grumbles one underling about Calio's days at NOAA: "When they weren't fighting among themselves, they didn't know what they were doing."

The man who is credited with the turnaround in the agency's morale and who will be steering it through the still potentially turbulent winds of change is John A. Knauss, 64, who became the NOAA administrator last fall. Until then, he had been a physical oceanographer at the University of Rhode Island's Graduate School of Oceanography, a position he had held for only 2 years following his stepping down after 25 years as the Graduate School Dean.

After a few months to gauge the new man, his troops are nothing short of ecstatic. "He's really been a delight and a real surprise," says NOAA comptroller Rodney Weiher. "He's got a good sense of what this agency is and can be. He's already captured our imaginations." "We all think the world of him," adds Virginia Tippie, one of five assistant administrators. "John's range of knowledge is from physical oceanography to coastal zone management and meteorology. We can't brief him without his asking really tough questions. As a result, he has the respect and admiration of all his lieutenants. The morale is unbelievable."

In Washington, however, Knauss's administrative experience is perhaps of greater importance than his scientific expertise. One Hill staffer describes him as having been "an academic with half a foot in government." During his Rhode Island years, Knauss nurtured a small coastal laboratory into a major research and teaching institution. His frequent service in Washington included membership on the Stratton Commission, which in 1969 recommended the formation of an independent National Oceanic and Atmospheric Agency to ensure "full and wise use of the marine environment."

How this respected academic administrator will fare as a full-time participant in the rough and tumble politics of Washington remains to be seen. Among politicos having only a passing acquaintance with the perennially bow-tied Knauss, the most frequent comment is that "he's a nice man, but . . . ."

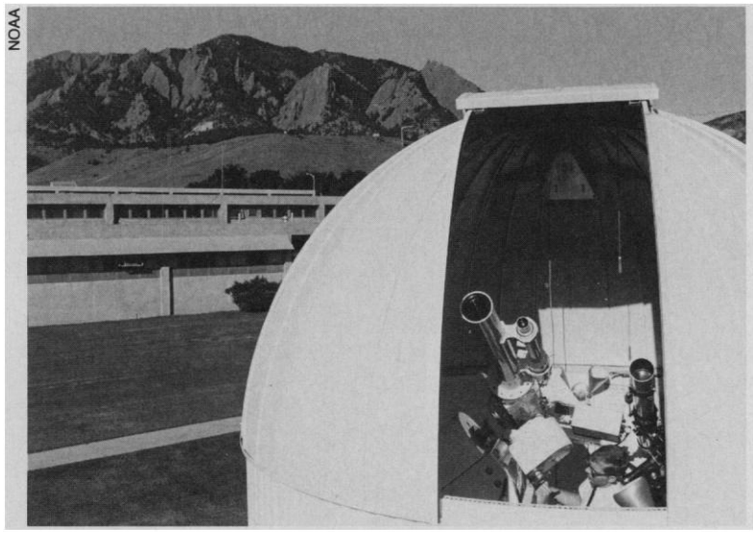
At first meeting, he comes across as a quiet, even retiring man. Thoughtful pauses mark his conversation; eyelids sometimes droop as he ponders his next words. "He doesn't seem to be a hard-charging guy," notes one observer, "not a dynamic leader." One of his staff concedes the obvious: "True, he's not another Bill Reilly," referring to the dashing head of EPA.

But supporters say first impressions are deceiving. Knauss "shouldn't be underestimated on his political skills," says a Rhode Island colleague who has watched him maneuver in university and state politics. "He

has a shy style; he seems quiet, not listening, and then he comes through with the right political move."

Moreover, the staff Knauss is choosing may help make up for his own apparent lack of dynamism. "He's smart enough to know that he needs some scrappers," says assistant administrator Tippie, and she thinks he's got some in herself and Elbert "Joe" Friday of the National Weather Service, among others.

Knauss scored another coup when he landed marine botanist Sylvia Earle, who has just been nominated for the chief scientist position. Tippie, for one, hopes that Earle, a businesswoman, ardent conservationist, co-holder of a deep-diving submersible record, and a prolific writer and speaker, can do for NOAA and the oceans what Surgeon General Koop did for the Public Health Service and the nation's health.



NOAA's long reach. *These telescopes help monitor solar disturbances that can disrupt radio communications and power transmission on Earth.*

But to many in NOAA, the most encouraging sign of the dawning epoch is embodied in the team spirit the new appointees are generating. Gone is the infighting that had been endemic for a decade or more. "The chemistry is fantastic," says Ned Ostenso, assistant administrator for research. "There are absolutely no turf battles."

But are there more concrete signs of a NOAA resurgence than high hopes? Nothing in Washington speaks louder than dollars, and there, too, things are looking up, thanks to the Bush Administration. "The important thing," says Knauss, "is that the [Administration's fiscal year 1991 budget] is 35% higher than the one submitted the year before" by the outgoing Reagan Administration. Congress, as usual, restored much of what Reagan cut out, but the 1991 budget proposal is even 9% higher than what Congress gave NOAA last year, Knauss notes.

Part of the big jump in the proposed budget comes in funding for programs that the Reagan Administration targeted for elimination year after year. Each year since 1982, for example, it had routinely zeroed out the Sea Grant Program, which supports marine research at over 200 universities and colleges through 29 institutions that have been designated sea grant colleges (including Knauss's University of Rhode Island), much as land grant colleges have been designated since the time of Lincoln for fostering agricultural research.

Then each year, after much delay and disruption, Congress would reinstate Sea Grant, as it did last year with $41 million. But aside from the chaos engendered by trying to run programs on money that might or might not soon arrive, Congress could never quite keep up. As a result, by the measure of the number of projects that could be supported or the number of graduate students participating, Sea Grant shrank by one-third during the Reagan years. NOAA's Coastal Zone Management Program, which guides states in setting up their own mechanisms for regulating coastal activities, suffered a similar fate.

To Hill staffer Tom Kitsos, the worst of this destructive budgetary seesaw may be past. "Under the Knauss administration," says Kitsos, "it looks positive. There's a feeling here that the budget proposals for the agency are much more in line with Congress's view of what NOAA should be doing than under Reagan."

Kitsos believes that NOAA's problems under Reagan derived from a combination of ideology and economics. On the economics side, cutting Sea Grant's $40 million, for example, meant that much more slashed from domestic spending, a favorite target of Reagan. And from an ideological point of view, Sea Grant and Coastal Zone Management made particularly attractive targets for abolition because they are grant programs to state governments and universities, Kitsos says. "That kind of outreach program through the states was not the kind the Administration wanted to support." If the states were going to benefit, they could pay for it, the reasoning went. Coastal Zone Management had the added burden of endowing states with power over federal activities, such as oil exploration, in their coastal waters.

The Administration also had a generic problem with NOAA, however. "It just felt that NOAA as an agency was largely a creation of the Congress. It was viewed as a kind of science pork-barrel agency," says Kitsos.

Congress itself no doubt contributed to that perception, when, in the absence of leadership by Reagan era NOAA appointees, it took a stronger hand in agency affairs, as in the case of NOAA's National Marine Fisheries Service (NMFS). "Congress has basically managed NMFS for 8 years," observes another Hill staffer. "That's absurd, but with no one else in charge, we came into it." Congress will back off, he adds, if NOAA reasserts its leadership, as it appears to be preparing to do.

Since Knauss's arrival, much of the ideological baggage of the Reagan era has disappeared—most particularly from the fiscal year 1991 budget, the first the Bush Administration developed from scratch. There are still plenty of lesser examples of philosophical differences between the White House and the Congress. The President's budget slates for elimination everything from state weather modification grants to Alaska salmon enhancement activities. But Sea Grant and Coastal Zone Management are funded. The bad news is that proposed funding levels for 1991 are down $13 million and $5 million, respectively, from last year's appropriations, but as assistant administrator Ostenso notes, "It's not a philosophical issue now, it's just a pricing issue."

Although the Sea Grant and Coastal Zone Management victories loom large with NOAA staffers who spent the past decade in the trenches, two emerging areas —modernization of the Weather Service and research in climate and global change—could be the biggest winners of all in the annual fiscal sweepstakes. With $178 million in the proposed budget for systems acquisition, an increase of $76 million over this year's funding, the Weather Service could get serious about replacing outmoded weather radars (some of which still use vacuum tubes), automating surface weather observations, and integrating radar, satellite, and other data at forecast offices. The goal is to improve weather forecasts, especially those of short-lived severe weather like tornadoes, flash floods, and thunderstorms.

Climate and global change would gain even more, jumping from $18 million this

year to $87 million in the coming fiscal year. This largess would go toward monitoring the globe's oceans and atmosphere, research to understand how they can change, and the prediction of that change. Projects involve all five line organizations making up NOAA and include everything from the absolute measurement of sea level change to computer modeling of greenhouse warming.

There is widespread agreement that the modernization and global change initiatives, which have been under way for several years or more, did so well this year on more than simple merit. "NOAA systematically made a plan," says Knauss, "sold it in the department, and sold it in OMB [Office of Management and Budget]." The rationale was that a comprehensive plan with a clearly stated goal would make more sense to the scientifically uninitiated—Department of Commerce higher-ups and OMB budget examiners—than would a seemingly haphazard basket of arcane research projects.

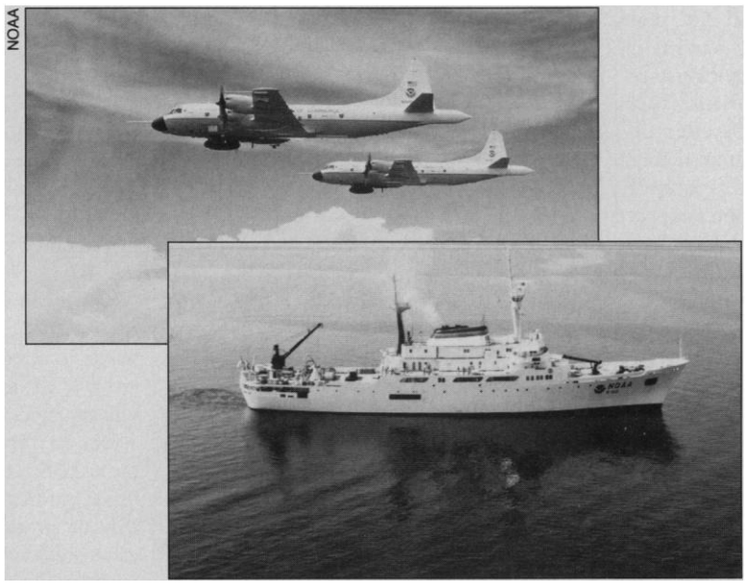
That NOAA's global change research program did so well in the budget process may not be surprising, given the President's call for more research rather than action on global warming. But the program had something else going for it as well. Instead of pitching it just to Commerce's OMB examiners, NOAA last year went into a room with the other agencies having a hand in global change and their respective OMB people.

The agencies had already gotten their act together through a novel organization, the Committee on Earth Sciences. It is an arm of the White House's Office of Science and Technology Policy through which federal agencies such as NOAA, NASA, the National Science Foundation, and others could not just coordinate but actually integrate their global change programs. OMB was so impressed that the four leading agencies all got hefty increases totaling $305 million. "It's a remarkable new mechanism," says Michael Hall, head of NOAA's Office of Global Programs. "It's working better than any committee I've been with."

NOAA's emerging role in studying global change has improved the agency's standing and enhanced its sense of mission, but it also highlights a perennial question—what is NOAA and where in the government does it belong? The climate and global change program is just the sort of endeavor, one involving environmental research, monitoring, and prediction, that many at NOAA see as the agency's bread and butter. And a prediction, whether it deals with tomorrow's weather or the effect of shrimping on sea turtles, can help both public and private decision-makers. Providing prediction services is another function NOAA seems comfortable with.

The rub comes when the science and predictions must lead to regulation, as they often do at NOAA, especially in the fisheries area. The agency's numerous regulatory functions include protecting marine mammals like whales, preserving endangered species like certain sea turtles, and controlling plastic pollution of the oceans. NOAA's regulatory role may loom large on the Hill, Congress having saddled the agency with many of its regulatory duties, but most inside the agency see regulation as something of a necessary evil. "Our theory is that science and regulation don't go hand in hand," says Gray Castle, Commerce deputy undersecretary for oceans and atmosphere and Knauss's deputy.

As an example of the hazards of combining science and regulation, Castle cites the controversy triggered by NOAA's recommendation that shrimpers be required to use turtle excluder devices or TEDs. Attached to shrimpers' nets, TEDs help keep sea turtles from being trapped and drowned. But it is NOAA that feels trapped. "If you're doing the science upon which the regulation is based," says Castle, "the perception can be, rightly or wrongly, that you're doing the science to justify your position." That is just the charge shrimpers, who say that using TEDs will reduce their catch and cost them money, are making against NOAA. That is no way to increase your credibility as a science agency, Castle says, something NOAA is anxious to do. The agency is content with carrying out its present mandates, but he adds, "we certainly aren't seeking any more regulatory responsibilities."



By sea and by air. *NOAA operates heavily instrumented planes to investigate weather phenomena and 23 ships for oceanographic research.*

The perceived conflict between credible science and regulation, as well as NOAA's traditional stepchild status in Commerce, have long prompted discussion of whether part or all of NOAA should be moved. The latest talk, and it is only talk so far, is that perhaps NOAA should be incorporated into EPA if it moves up to Cabinet status, as proposed by the White House.

The reaction within NOAA to talk of such reorganization is predictably negative. First, EPA is the epitome of a regulatory agency, so a NOAA-EPA combination is generally frowned upon. Second, things are looking too good at Commerce to move now. "I'll go wherever Congress and the President say to go," says Knauss, "but I feel comfortable at Commerce."

One development making Commerce look good is the solution of the chronic problem of access. "I get to see the Secretary [of Commerce] and his deputy whenever I want to," says Knauss, "and we see each other every few weeks whether I have something in particular to discuss or not." The President even called Knauss in a few weeks ago for a one-on-one briefing prior to Knauss's heading of the U.S. delegation to a regional U.N. meeting on the environment and development. That seems to be a first for a NOAA administrator.

Another attraction of Commerce is the way its interests and NOAA's are melding, according to Knauss. "In a number of ways, NOAA fits better in Commerce than it did 20 years ago," he says. Development, a traditional Commerce interest, and the environment are linked, he says, "and they will be more so. So Commerce is well poised to be one of the key departments in the next century. I think we have just the right mix." If true, and if budget cuts allow, NOAA could well end up at the head of the pack in the environmental decade. ■ **RICHARD A. KERR**