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NOAA REPORT



September 1993

Baker Interview Kicks Off New Monthly Feature

"Talking With. . .," a new NOAA Report feature bringing you interviews with NOAA officials on the day's important issues, begins this month on page 3 with a dialogue with new NOAA administrator Dr. D. James Baker. Future subjects will include NOAA Chief Scientist Kathryn Sullivan and Deputy Under Secretary Diana Josephson.

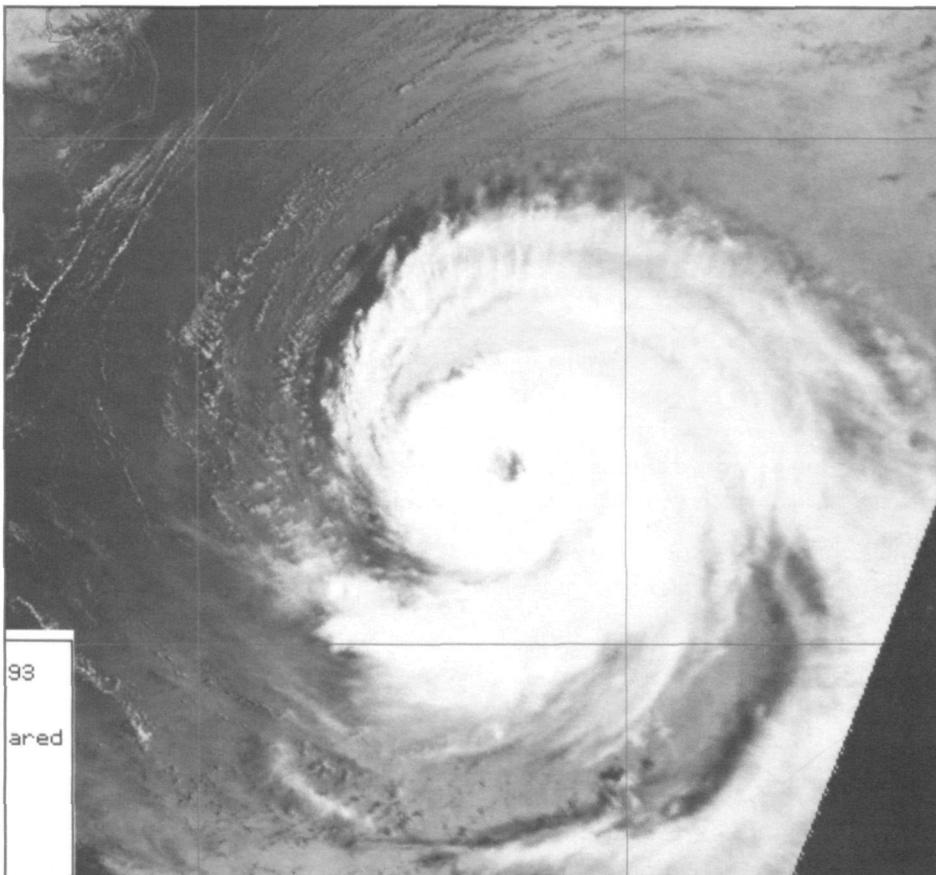
Controllers Lose Contact with Satellite:

Satellite controllers have lost contact with NOAA-13, an environmental satellite launched Aug. 9. The last contact with the satellite was Saturday, Aug. 21, at 7:15 p.m. EDT. Subsequent attempts to contact the satellite were unsuccessful. Engineers from NOAA, the National Aeronautics and Space Administration and Martin Marietta Astro Space, manufacturer of the satellite, are attempt-

NEWS

BRIEFS

ing trying to determine what went wrong. NOAA-13, successfully launched by the Air Force for NASA and NOAA, was designed to monitor Earth's oceans and atmosphere. The satellite's mission was to collect meteorological and ocean data for direct transmission to users around the world and to central data processing centers. NOAA-13 was planned to replace NOAA-11, but with the continued availability of NOAA-11 and -12, there is no immediate
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Satellite Catches Emily

One of NOAA's polar-orbiting satellites, NOAA-12, took this image of Hurricane Emily on the morning of August 30 as it prepared to hit the Outer Banks of the North Carolina coast (*upper left*). At the time of the picture, Emily was 340 miles southeast of Cape Hatteras, and its winds were clocked at 85 miles an hour; they eventually reached 115 miles per hour. Emily's eye never hit land, but it nevertheless caused upwards of \$100 million in damage. ☺

Mass. Mayor Named Chief

Sustainable Development Office Created

NOAA's efforts in sustainable development will be headed by a former New England mayor with extensive experience in fisheries issues.

President Clinton appointed former New Bedford, Mass. Mayor John Bullard as director of the Department of

Commerce's newly-created Office of Sustainable Development and Intergovernmental Affairs, Commerce Secretary Ronald H. Brown announced today at a ceremony last month. The office will be a part of NOAA.

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U.S., Europe Sign Satellite Backup Pact

The United States and Europe have signed a long-term agreement for mutual backup of their geostationary weather satellites.

These satellites transmit images to Earth and enable weather forecasters to track severe storms such as hurricanes.

This agreement signed by Diana H.

Josephson, Deputy Under Secretary of Commerce for Oceans and Atmosphere, and John Morgan, director of the European Organisation for Exploitation of Meteorological Satellites (EUMETSAT), becomes effective when both parties have baseline systems in place, expected by late 1995.

NOAA's baseline system will consist of two geostationary operational environmental satellites (GOES) positioned 22,000 miles above the equator at 75 degrees and 135 degrees west longitude. EUMETSAT's system will consist of one operational Meteosat satellite operated at 0 degrees longitude and an operable spare in orbit. If a satellite failure occurs, NOAA and EUMETSAT have agreed to reposition their respective satellites within a month of a request.

Previous Agreements

Both parties have aided each other in the past. EUMETSAT made use of NOAA's GOES-4 satellite when the data collection and relay system on Meteosat-2 failed. EUMETSAT moved a spare satellite, Meteosat-3, to a position over the western Atlantic to fill a temporary gap in coverage due to the failure of GOES-6 in 1991. ♣

Monitor Team Succeeds, Despite Weather

Despite stormy weather and heavy seas, an exploration and preservation mission to the sunken Civil War ironclad *U.S.S. Monitor* achieved success.

Researchers and underwater archaeologists accomplished most of their goals during the expedition off Cape Hatteras, N.C., from July 26 through August 11. They used the Florida-based Harbor Branch Oceanographic Institution's manned submersible *Johnson-Sea-Link II* and its research ship *Edwin Link*, which was anchored over the shipwreck to support the operation.

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Mass. Mayor Named Sustainable Development Chief

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Liaison to White House

Bullard will also serve as Commerce Department's liaison to the President's Council on Sustainable Development, which will advise the President on policies to encourage economic growth, job creation and environmental protec-

tion. The Council was established by an executive order in June 1993, and will exist for two years unless extended by the President.

term economic growth depend on sound management of our natural resources. In order to be effective managers of natural resources, we must be willing to address the human impacts of our policies. John has considerable experience with government and natural resource-based industries, and is

will be to chair a federal task force designed to review existing federal programs and devise a coordinated effort to address economic issues related to the New England seafood industry.

A new council, the Northeast Coastal Economic Advisory Committee, will advise Bullard and the task force on economic planning, will be formed. The committee will include representatives from the Commerce Department, National Marine Fisheries Service, Congress, members of the New England Fishery Management Council and Advisory Committees, and trade associations.

"One of the key challenges of this decade is to relieve the tension between environmental protection and economic growth," said Secretary Brown. "... [T]o be effective managers of natural resources, we must be willing to address the human impacts of our policies."

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"One of the key challenges of this decade is to relieve the tension between environmental protection and economic growth," said Secretary Brown. "We know that a healthy economy and long-

uniquely qualified to achieve the Council's goals."

In his new position, Bullard and the other 24 Council members will explore and develop policies to support a national strategy on sustainable development.

N.E. Seafood Issues Eyed

One of Bullard's first assignments

Bullard leaves his post as Director of Fisheries Representation with the New Bedford Seafood Co-Operative Association, Inc. to join the Commerce Department. He served as Mayor of New Bedford for three terms, from 1986 to 1992. Bullard has received numerous awards for his government and community service. ♣

Talking With . . .

Dr. D. James Baker NOAA Administrator

When President Clinton named D. James Baker to be the new NOAA administrator, he praised his "great scientific skills and laboratory management experience." Before heading NOAA, Dr. Baker was president of the Joint Oceanographic Institutions, which represents the ten largest U.S. academic ocean research institutions. He previously served with NOAA at the Pacific Marine Environmental Laboratory in Seattle. We talked with him in his Washington office.

Q: Why did you want to be the Administrator of this far-flung agency?

Baker: I joined NOAA in 1977 as a scientist at PMEL [Pacific Marine Environmental Laboratory, in Seattle]. And I was excited about being involved with an agency that was doing a lot of applications of research to solving practical problems. I was very interested in the research side, the applications side, all the things that NOAA was doing. The PMEL work was also close to the research that I'd been doing at the time, which was ocean circulation, air-sea interaction, and climate—understanding the basis of climate and trying to forecast climate.

I left NOAA in '79 to become Chairman of the Department of Oceanography, and later Dean, of the College of Ocean and Fisheries Sciences at the University of Washington. That was an interesting opportunity for me to get involved in some more administrative things and continue some of the research that I was doing.

But I'd always had an interest in NOAA and in certain broader issues. I

"Talking With . . .," a new monthly feature in NOAA Report, will bring you interviews with top NOAA officials as well as outstanding NOAA staffers.

moved to Washington in 1983 to become President of the Joint Oceanographic Institutions, and I think it was a year later that [then-Administrator] John Byrne left NOAA and urged me to apply for the position of Administrator. I was one of the candidates on a reasonably short list. I got very much involved with all the aspects of NOAA and convinced myself that it would be an interesting and exciting thing to do. Needless to say, I didn't get the job.

Ever since then, I've stayed interested and engaged in things that NOAA was doing. Then during the '92 Presidential campaign, I was involved with working with Senator Gore on a number of environmental, oceanographic, and satellite issues, and told him that I was interested in the NOAA position. When I was on the transition team, I put my name in again.

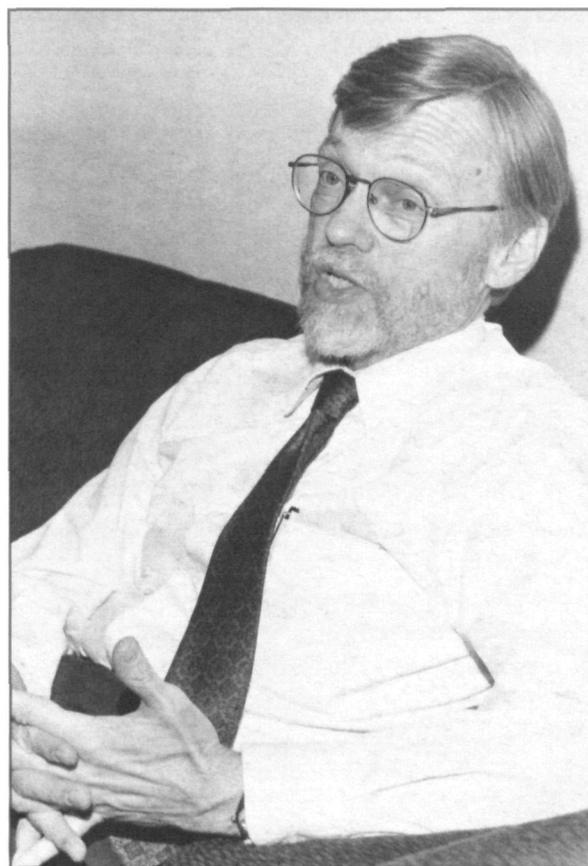
To me, NOAA is where all the issues come together in environmental science, because NOAA does science,

technology, resource management, regulation and enforcement, and environmental monitoring. And while I knew that NOAA did those things, I can now really see that it's a much richer and diverse mix than I had known from being on the outside.

Q: As an oceanographer—the second Administrator in a row to be an oceanographer—how will that affect how you deal with other parts of NOAA, which while related are not strictly oceanography, such as fisheries, weather and such? Of course, your book [*Planet Earth: The View From Space*; Harvard University Press, 1990] was all about satellites.

Baker: I think the Administrator should have a deep knowledge of at least one of the subjects that NOAA is involved with, to have some sense about what environmental science and technology is all about. For me, that's oceanography. At the same time, you have to have a sympathetic understand-

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D. James Baker

Talking With . . .

Dr. D. James Baker

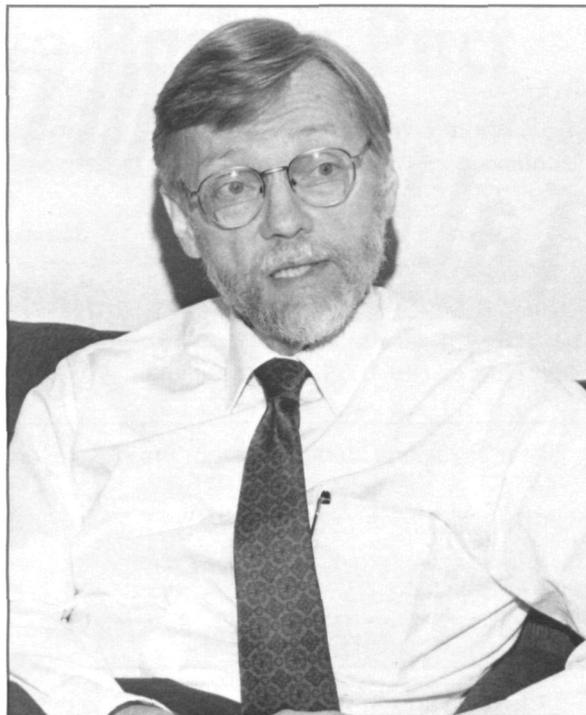
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ing of the other fields that NOAA is involved with.

Because of my career, I've had contact with most of the areas NOAA is involved with. I've been very much involved with meteorology, through the National Academy of Sciences, through research studies that I've done. I've been a member of the Council at the American Meteorological Society, and a member of the Joint Scientific Committee for the World Climate Research Program, for example. So I've acted kind of as a bridge between oceanography and meteorology. When I was at the University of Washington, I was Dean of the College of Ocean and Fisheries Sciences and the School of Fisheries reported to me. And so I had a chance to understand the issues that fisheries scientists are involved with.

That's been helpful to me, because

at least I have some background in the various areas. But it's important that you don't bend over backwards to support the field that you understand the best. As you mentioned, another strong interest of mine is satellite remote sensing, which is a big driver for the NOAA budget. When I came to Washington, I started working with NASA's Stan Wilson [now National Ocean Service assistant administrator] on a ten-year plan for oceanographic satellites for NASA. Out of that came my participation on a number of high-level Presidential commissions and advisory councils. I was on the Vice President's Space Policy Advisory Board, the Augustine Commission, and then I wrote my book on



satellites to try to provide a background on how satellites work, and so on. That gives me some background for dealing with the NOAA operational satellite program.

Q: There's been more and more cross-cutting efforts within NOAA, even dating back to the previous Administration. As an example, Fisheries working with NOS on what the impact could be in the Gulf from the Midwestern floods. Can we expect to see more of that sort of cross-cutting efforts?

Baker: We absolutely can. In fact, this is probably going to be the decade of interdisciplinary programs, cross-cutting programs, where we try to take knowledge from one field and apply it in another.

One good example is the FOCI [Fisheries-Oceanography Cooperative Investigation] program that's run out of PMEL, where they look at the physics and the chemistry related to recruitment of Alaska pollock, in order to understand how the whole ecosystem works. This is a very valuable program as we look towards trying to manage that resource.

You're seeing some of the same cooperation in the TOGA program, where you've got close interaction

Sustainable Development: What is It?

Q: You mentioned "sustainable development." What exactly is it?

BAKER: Sustainable development, in the simplest sense, is protecting your environment and having it provide resources that don't run out as you continually upgrade your standard of living. One example for NOAA, is developing sustainable fisheries so that we have a viable commercial fishing and recreational fishing industry and we have a resource which is reasonably stable. And we are working on that. Some of our resources are in good shape. Some of them have been fished down to where they need strong protection.

Another emphasis is our goal, in

terms of coastal development, of trying to understand how much development you can have in a coastal regions and coastal habitats so that you can still maintain both viable fisheries and a growing population.

Right now we have a big problem with insurance, for example. People build on beaches and the houses get destroyed as the beaches move. Who should pay? This is something that involves science, engineering, economics, all pulled together.

Trying to understand exactly what sustainable development means and how we can do it is a key thing for the future. We're facing that problem right now in the U.S. and abroad. ☺

between oceanographers and atmospheric scientists learning how to do climate predictions. Both groups are working together.

The time is right and the context is

So there's a real opportunity to link the science that we have with what countries need in terms of predictions. To my mind, the El Niño predictions are a great example of social implications.

Vice President to have an opportunity to think and discuss the major environmental issues.

At [a recent] breakfast meeting we talked about the flooding issues and all of the ramifications of flooding and rebuilding wetlands and what will happen as this big slug of flood water moves from the Mississippi out into the Gulf of Mexico, for example.

At the breakfast we talk about what issues are going to be important, and what the Administration should be doing. The Vice President is a unique person in the sense that he is a politician with a very deep interest in science and technology. And so he wants to engage those thoughts with people who are interested in the environment. This breakfast meeting was his idea and he wanted to get Interior, EPA and NOAA, together with [White House science advisor] Jack Gibbons, [State Department Undersecretary for Global Affairs] Tim Wirth, and [director of the White House Office of Environmental Policy] Katie McGinty. And so that's the group. And we occasionally have other people in to talk about issues.

Q: You said that the last one

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That's the way we really solve problems . . . with large-scale cooperative studies. It means that you've got people of various disciplines sitting around the table. . . . [It's] really the wave of the future.

there for cooperative activities. For example, we have the Office of Global Programs, for example, which is really is a bridge, in a way, between OAR, the Weather Service, the Ocean Service and NMFS.

I think that kind of contact is the wave of the future. We're looking now at some major new research programs, for example, the Global Energy and Water Cycle Experiment, which is going to tell us about the water cycle, about precipitation. Such studies will have direct impacts on the problem of trying to predict floods, trying to predict the water resources and where they go. It means that you've got people of various disciplines sitting around the table, doing cooperative studies. And in my view, that's the way we really solve problems, with the large-scale cooperative studies. It's very important.

Q: You've talked a lot about the social implications of decisions made here. What sort of steps that you take to see what the social implications are, and how do they affect your decisions?

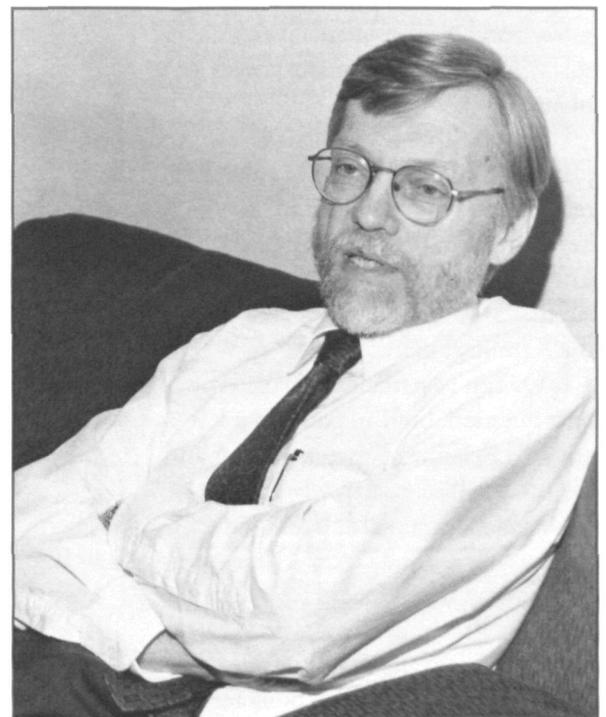
Baker: The concept of sustainable development will be driving a lot of the things that we'll be doing in the future. That is where the idea of social and economic implications come in. Look at El Niño. You have this process of trying to do seasonal predictions of the atmosphere and you know those have an enormous impact on agriculture. The tropical countries would like to know what crops to grow. That depends on what kind of rainfall you're going to get, and the predictions would tell you that.

Another good example is the one of the clean-car activities, looking at the emissions that come from automobile exhaust and how those interact in a chemical sense with the existing pollutants in the atmosphere. The work that [Environmental Research Laboratory director] Dan Albritton's doing is very important in terms of trying to look at how you decide what kind of catalytic converters that you should have. This is NOAA science built on the studies that were done to look at the stratospheric chemistry and the ozone hole, things that [NOAA scientist] Susan Solomon, with Dan, were doing. That's direct social implications.

I think this is the time, this decade is the time that we really are going to see social implications of a lot of the science that we do. I think it's one of the reasons that the U.S. Global Change Research program has been successful, is because people understand that you're starting to see results there.

Q: What goes on in your weekly breakfast meetings with the Vice President, EPA Administrator Carol Browner and Interior Secretary Bruce Babbitt? Is it an environmental brainstorming session?

Baker: Well, this is an informal meeting without a fixed agenda. It allows the



Talking With . . .

Dr. D. James Baker

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concerned the flooding. What other kind of issues are brought up? Is it normally just like a one-issue meeting?

Baker: We've ranged over the full set of issues, from NAFTA and GATT to the satellite measurement of deforestation. We've discussed the President's Council on Sustainable Development and funding for environment-related issues. Generally, it covers a full range of environmental topics.

Q: What do you see as NOAA's place within the federal environmental community of EPA, Interior, Federal Emergency Management Agency, and United States Geological Service?

Baker: We have a strong team at NOAA. It's the same recognition that these agencies have to be well supported because that's an important part of environmental policy. You can see this, I think, in the support of Secretary Brown, who from the very beginning supported NOAA, supported NOAA as a part of the Department of Commerce because of this link between economic growth and environmental protection, this whole idea of sustainable development.

And NOAA is seen as a strong player. More than ever before, there's a recognition that NOAA is an absolutely key player in all of this. We see that at Office of Management and Budget, we see that in Congress, and we see that in the Administration.

Q: You've partially answered my next question, but I'm going to ask it anyway. Relations between NOAA and Commerce have historically been, at some points, strained at best. I gather relations are getting better. Can you expound on that a little? How deeply is Secretary Brown involved with NOAA?

Baker: It's hard from outside to know exactly what the relations are

between bureaus in the Department of Commerce, but certainly I think the general impression is that NOAA, in previous administrations, has been a bit of an orphan in the system, not really treated well. In fact, even the Department of Commerce has not always been a powerful department in the government.

There have been numerous reports and discussion about taking NOAA out of the Department of Commerce, making some kind of merged Department of the Environment, and so on. I think there's a recognition in the new Administration that the Department of Commerce is a very important department for the nation if you are really trying to solve economic problems. And the President is very committed to doing that.

And as you know, if you went to Ron Brown's first meeting with the staff here, he talked a lot about how he had been offered various departments and chose the Department of Commerce as

one that he would like to work on, because he saw that as key and the President saw that as a key department. And this is a very important statement, because Ron Brown is a very powerful person in the administration. He was a key person in the Democrats winning the election. He was head of the Democratic National Committee, pulled it all together. And he chose Commerce deliberately. He knew that NOAA was part of this and he fully supported NOAA as an activity of the Department of Commerce, which has not been true in the past.

Now, given that support and given the support of the people that he has brought in, the staff that he has, we are able to do things that we simply haven't been able to do before. We have more recognition for what we try to do. So, if we have a new budget initiative or new ideas, we get a sympathetic response. Now, there are always budget constraints and there are other constraints that the Administration puts on everyone. But what I have found is a very helpful and sympathetic response from the department for our issues, and an emphasis on trying to do cooperative activities across the department.

Q: As you travel around to various



There are a lot of people out there who really care and are involved and interested in what we do. This makes it a very exciting job.

NOAA outposts around the country, what do you see as the main concerns of the employees? What have they been telling you?

Baker: Well, I haven't traveled to all the facilities, but I've been to Miami and I met with a group of people there and I've been out in Seattle, and I'm planning to be out in Boulder in a couple of weeks.

I would say there's a couple of things. One is NOAA employees would

programs, there isn't a lot of money left. And so we have to find ways in which we can develop our resources. And this is one of the reasons that we talk a lot about new partnerships, new ways of doing things with the academic community, with industry and internationally. And we're trying to see how we can pull together programs across the federal agencies. Satellite convergence [merging NOAA and Department of Defense satellites for global observation] is a good

would want them to happen, whether it's personnel actions or other kinds of actions. We are pushing always to try to streamline and maneuver things so they can happen faster. This is something, I think, that's a difference between private industry and government.

On the other hand, one of the reasons that things are slower is because what we do is national policy. And so when we do national policy, then there has to be agreement and understanding about what really happens. These are important things that we are engaged with. And so you have to be a person who is both fully committed to trying to develop national policy and willing to try to make the system work. This whole idea of reinventing government is an attempt to address the issue of trying to make a very responsive system.

But for me, the biggest difference is this rich diversity of things that come across my desk, from weather stations to fisheries to satellites to mapping and charting, everything that we do. And the fact that there are a lot of people out there who really care and are involved and interested in what we do. This makes it a very exciting job.

I should say also say that we have with Doug Hall, Kathy Sullivan, and Diana Josephson, one of the strongest upper management teams of people in NOAA that has ever been put together. You never know how it's going to work because it's a political process that gives you the people at the top. Here we have, because of the strong interest Secretary Brown, Al Gore, and the President in having strong teams, a group of people that have good backgrounds in all of the topics that we need to do and who work well together. ☺

We have one of the strongest teams of people in NOAA that has ever been put together . . . a group of people that have good backgrounds in all of the topics that we need to do and who work well together.

like to see a better recognition of the things that they do. They feel that they have made important contributions, which they have, and that they are essential to the Nation, to the health of the environment and to the health of many industries, and that often the important and useful things that they've done are not recognized. And I see that as an important role for the headquarters and for the Administrator, is really to get that recognition for the things that NOAA does.

Another thing is resources to do the things that people want to do. The budget has not done well in the past years. I think there was a deliberate attempt to keep the budget down. And I think we have now an Administration that is really willing to look and try to fund those things that are going to be helpful to the environment. And so we're working hard on the budget issues to try to get the kind of support that we need. I think we've done quite well in the '94 process, and we're hoping we can do the same thing in '95.

But, of course, the President and the Congress are committed to reducing the deficit. And if you want to reduce the deficit and you put caps on spending and you're not willing to touch other

example.

Q: When then-Commerce Deputy Secretary designate John Rollwagen decided to leave government this spring, it was said that he found government life—especially life at Commerce—to be bureaucratic and frustrating, unlike the private sector or academia. Are you finding any frustrations beyond what you expected?

Baker: When you go into a new system, you have to learn how things work. Of course, I worked in the government for several years before, so I had some sense about how it works. And, of course, living in Washington for the past few years, even though I wasn't working for the government, I couldn't escape it.

I would say the biggest frustration that comes in working in the government is trying to make things happen, because they're always slower than one

Talking With . . . Who's Next?

Next month, a one-on-one interview with *Douglas Hall*, NOAA's new Deputy Administrator.

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impact to the National Weather Service's forecast and warning program.

Warning Systems Worked During Iniki: National Weather Service and Civil Defense warning systems used to alert Hawaiian residents of Hurricane Iniki last September helped minimize loss of life and property damage, a NOAA study reported.

However, the report identified several deficiencies in the warning system that did not affect warnings during Iniki but could cause problems later. Emergency service organizations relied too heavily on telephone communications and there was no backup satellite observation system for storm tracking. Computer and word processing equipment in Honolulu's Central Pacific Hurricane Center were found to be outdated.

NEWS BRIEFS

The 106-page Hurricane Iniki Natural Disaster Survey Report was prepared by a NOAA disaster survey team following on-site assessments and interviews conducted between Sept. 17-22, 1992.

Eastern Tropical Pacific Spinner Dolphin "Depleted": The eastern spinner dolphin found off the western coasts of Mexico and Central America is well below "optimum sustainable population" and has been listed by NOAA under the Marine Mammal Protection Act (MMPA) as a depleted species.

Emily Hits NOAA: Three NOAA employees suffered losses of vehicles and homes when Hurricane Emily grazed North Carolina's Outer Banks. One NWS staffer was left only with the clothes he was wearing when he was forced to evacuate. To lend these fellow employees a helping hand during their time of need, call Hassan Sulaiman at 516-244-0162 for more information. ☺

'Reinventing Government'

Your Ideas Aid in Vice President's National Performance Review

NOAA has received more than 400 suggestions for Vice President Gore's National Performance Review, from both individual employees and NOAA customers.

Recurring themes include changing the performance appraisal system, making managers more accountable, streamlining the Federal budget process, employee review of managers, recycling, increasing office automa-

tion, streamlining administrative procedures, and a delineation of NOAA's mission and future.

Suggestions with government-wide impact were forwarded to the Vice President's group for review; suggestions that required DOC review were forwarded to them. NOAA is currently working on those suggestions for which we have control.

Implementation of some ideas has already occurred. For example:

- Commerce has increased the threshold for bankcard purchases from \$1,000 to \$2,500;
- NOAA has actively begun a forms automation effort which will ultimately permit many forms to be completed by computer;
- NOAA is beginning an effort to print our letterhead on recycled paper;
- Commerce's requirement for reporting group travel has been relaxed;
- NOAA's strategic plan has been provided to all NOAA employees for review and comment. ☺

Monitor Dive Team Battles Bad Weather

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"Although bad weather prevented divers from recovering any artifacts from the *Monitor*, we were able to accomplish most of our goals, including photographing the ship and documenting its deterioration," said John Broadwater, a NOAA scientist who headed the expedition.

The 173-foot Union ship, whose armor-plated hull and revolving gun turret brought to a dramatic close the era of wooden warships, lies in 230 feet of water 16 miles off Cape Hatteras. It sank in an 1862 gale after its standoff duel with the Confederate ironclad *Virginia* (formerly the Union ship *Merrimac*.)

Although weather prevented divers from descending to the wreck, the manned submersible took several hours of video tape, installed a 1,000-pound anchor near the warship for future use by divers and excavated about two feet of sand from the turret.

The turret lies upside down, supporting the *Monitor's* inverted hull, and has long intrigued historians and archaeologists. They believe it still contains two 11-inch Dahlgren canons and other equipment considered state-of-the-art for its day. ☺

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