

Accomplishments and Challenges Mark Former NOAA Administrator Lubchenco's Tenure

Progress and challenges in several key areas—including weather satellites, the federal budget, climate change, ocean policy, and fisheries—are among the issues that Jane Lubchenco faced as administrator of the U.S. National Oceanic and Atmospheric Administration (NOAA) and under secretary for oceans and atmosphere of the U.S. Department of Commerce (of which NOAA is a part) from 2009 until her departure on 27 February 2013. Lubchenco is returning to the West Coast, where this spring she will be a visiting scholar at Stanford University's Haas Center for Public Service. With her departure, Kathryn Sullivan, the assistant secretary of commerce for environmental observation and prediction and NOAA deputy administrator, became the agency's acting administrator.

During a 22 February interview with *Eos*, Lubchenco reviewed some of NOAA's most significant accomplishments and concerns over the past 4 years, including the impact of potential across-the-board cuts, known as sequestration, slated to kick in on 1 March, as *Eos* went to press.

Lubchenco expressed concern that sequestration "leaves agencies with very little discretion to decide what's more or less important. That, in and of itself, presents some very significant challenges." She referred to an 8 February letter from acting Commerce secretary Rebecca Blank to U.S. Sen. Barbara Mikulski (D-Md.), chair of the Senate Committee on Appropriations, that said potential sequestration effects on NOAA include furloughing up to 2600 NOAA employees, forcing a reduction in funds for fishery stock assessments, and causing a 2- to 3-year launch delay for the first two next-generation geostationary weather satellites.

In discussing the Obama administration's forthcoming fiscal year (FY) 2014 budget proposal, Lubchenco said that NOAA is working to address two overarching concerns: ensuring sufficient funds "to do justice to" NOAA's weather satellite program and having sufficient funds to begin to rebalance NOAA's budget. "In the last couple of years, funding for satellites has eroded funding for other very important parts of NOAA, and that's been the guiding philosophy that

we have used in putting together our thinking about the FY 14 budget," she said, adding that "finding a way to rebalance the portfolio of NOAA such that the oceans, the research, the education programs, are not being squeezed out because of the satellites is vitally important."

Concerns About the Satellite Program

NOAA's satellite program, which includes the Joint Polar Satellite System (JPSS) and the Geostationary Operational Environmental Satellites-R Series (GOES-R), accounts for about \$2 billion of NOAA's approximately \$5 billion budget. Some members of Congress have grown concerned about JPSS cost overruns. In April 2012, Mikulski proposed that funding and responsibility for procuring NOAA's operational satellites be transferred to NASA, noting that the Senate Appropriations Subcommittee on Commerce, Justice, Science and Related Agencies (which she also chairs) had "lost confidence in NOAA's ability to control procurement costs or articulate reliable funding profiles."

In addition, a February 2013 report from the U.S. Government Accountability Office (GAO) listed gaps in NOAA weather satellite data as one of 30 "high-risk" government operations in need of progress. The GAO report notes NOAA's anticipation of an 18- to 24-month gap in the afternoon orbit between the end of the life span of the current polar satellite and the operation of the first JPSS satellite. The report also states concern about a potential geostationary satellite gap due to delays in the launch of the first GOES-R series satellite.

Lubchenco told *Eos* that "it is good to draw attention to the importance of the issue. The gap is something that we have been very concerned about." The satellite gap is "a direct function of insufficient funding in previous years," Lubchenco said. "It's vitally important that everyone understand what is at risk if there is insufficient funding for these weather satellite programs." She said that NOAA has done everything possible to minimize the coverage gap and keep satellite costs down.

Lubchenco said that NOAA normally would be building either a geostationary or a polar orbiting satellite system for weather purposes, but because the National Polar-Orbiting Operational Environmental Satellite System (NPOESS, the precursor to JPSS) “was very poorly managed, it incurred significant delays, and that is what has forced us to be building both geostationary and polar orbiting simultaneously. That’s one reason why we have a very significant budget challenge. We don’t have the luxury of evening out the funding for one and then do another and then do the first again. We have to do them both.”

She added that because JPSS and GOES-R are primarily weather missions and because NOAA has the responsibility for operational weather forecasts and warning, “it makes good management sense to have the budget be where the mission is.”

Strong Headwinds Against Climate Change

Another key challenge at NOAA “has been the very strong headwinds against the realities of climate change,” Lubchenco told *Eos*. “Fortunately, I think that is beginning to change. More and more people are paying attention to all the extreme weather that we’ve been having and saying, ‘What the heck is going on?’ And I think we’re seeing a renewed discussion about climate change. But that has certainly been a challenge and a frustration because I believe the problem is so serious that we need to be dealing with it, and that has been made difficult.”

Lubchenco called it “highly unfortunate” that in 2011 Congress killed a NOAA initiative to establish a National Climate Service that she said would have been a budget-neutral reorganization to provide climate information to a variety of stakeholders. “It just made a lot of sense to be doing something that didn’t cost any more taxpayer dollars but would enable us to do something we are supposed to do more efficiently,” she said.

NASA/Bill Ingalls



Jane Lubchenco, former National Oceanic and Atmospheric Administration administrator.

Despite the congressional setback on the National Climate Service, Lubchenco said that NOAA is involved with climate change in several ways. These include helping with the fundamental scientific understanding about climate and providing climate services that include useful and credible information that is relevant for a number of stakeholders regarding decisions on planning, mitigation, and adaptation. She said an example of a useful climate product provided by NOAA that has received strong bipartisan support from western U.S. governors and others is the National Integrated Drought Information System.

Extreme Weather and Other Challenges

Lubchenco said that many of the challenges NOAA has faced had not been anticipated, including “one of the wildest set of 4 years in the weather world ever.” According to newly released data that NOAA provided to *Eos* on 22 February, during this time, there were more than 770 major tornadoes, 70 Atlantic hurricanes and tropical storms, 6 major floods, 3 tsunamis, a historic drought in much of the United States, prolonged heat waves, and record snowfall and blizzards across the country.

She said that the 2010 Deepwater Horizon oil spill in the Gulf of Mexico was also an unanticipated challenge. The spill “consumed an inordinate amount of time and energy of people across all parts of NOAA,” she said. “I’m very proud of the comprehensive effort that we had to provide the science and the stewardship to help inform the response. Obviously, we are still intimately involved with that, with the damage assessment process, but dealing with a catastrophe of that magnitude was a very significant challenge on top of trying to keep everything else under way.”

NOAA also faced other significant concerns during Lubchenco’s tenure, including

the retirement of a NOAA National Weather Service director following an internal inquiry into the alleged mismanagement of funds within the department as well as calls from some Democratic congressmen for Lubchenco to resign over fisheries-related issues. However, Lubchenco cited the fisheries issue as one of the agency’s accomplishments, with plans put in place to end overfishing and rebuild depleted fish stocks. Between 2001 and 2012, the agency declared that 31 fish stocks were rebuilt—most of them within the last few years, according to NOAA.

Lubchenco said other accomplishments during the past 4 years include investing in coastal communities to make them more resilient through integrated conservation and restoration, establishing the agency’s first scientific integrity policy, and more than doubling the number of senior scientist positions at NOAA. In addition, she noted that NOAA played an active role in helping to create the first U.S. national ocean policy, which U.S. president Barack Obama established by an executive order in July 2010.

“On a day-to-day basis but also in times of a crisis, whether it’s Deepwater Horizon or tsunamis, I’ve seen the power of the different parts of NOAA working together and think that is one of its greatest strengths. The integration across those parts of NOAA needs to be continually strengthened,” Lubchenco said.

She said that another challenge is that NOAA needs to strengthen its connections with the academic community. “We already have a lot of good interactions,” she said. “I think we need more, and we need to be taking full advantage of what the academic community has to offer.”

In reflecting on her tenure and looking to the future, Lubchenco had some simple advice for the next NOAA administrator: “Be prepared for surprises.”

—RANDY SHOWSTACK, Staff Writer

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