

**NOAA Town Hall
Boulder, CO
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Under Secretary of Commerce
for Oceans and Atmosphere
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As Delivered**

Thank you Sandy, for that kind introduction. *Good morning* everyone. I am deeply honored to be with you today on my first trip to Boulder as the new administrator of NOAA. This is only my second time speaking directly to a group of NOAA employees outside of D.C. so I am especially excited about the opportunity to hear from you; particularly given my Colorado roots.

As many of you know, I had hoped to come to Boulder back in March. Unfortunately those plans also coincided with the great blizzard of 2009 and we had to cancel at the last minute. Though I believe the message was already passed along back in March, I want to personally thank the Weather Forecast Office and ESRL for the great job of forecasting the storm and keeping my staff up-to-date on travel implications; and also to express my disappointment at not being able to meet with all of you at NOAA-Boulder at that time.

Although my visit this time is brief and I will not have the chance to meet all of you, I am certain I will be back. This is so much going on here; I've only begun to scratch the surface.

I must confess that when I received the call asking me to come to NOAA, I was initially reluctant. I have taught at Oregon State University for more than 30 years – a job that I love. I was able to juggle a wonderful combination of teaching, research, outreach and service.

But the opportunity to have a hand in connecting science to policy and management in a more direct fashion, to work with the many wonderful people at NOAA on issues ranging from oceans to climate, to weather on earth and in space, and to help President Obama achieve his vision was too much to resist. Moreover, since I've always counseled my students to make career choices based on what gives them energy -- choices to learn, to grow, and to be helpful to the greater good - I decided to listen to my own advice. Now, just a few months into the job, I'm glad I did. I'm finding my sea legs, thanks to the help of the superb team of NOAA folks.

Despite the very tough challenges facing Americans these days, President Obama has energized us with a sense of hope and optimism, and a belief that if we work together, we can build a better world for ourselves, our children, and grandchildren.

I am inspired by President Obama's vision for our country, and his commitment to bring good science to good government.

I am inspired by you - the gifted team at NOAA whom I know from personal experience to be both talented and committed.

And I am inspired by our opportunity to seize the moment to make meaningful changes for our nation and our environment. Science lies at the heart of NOAA's ability to deliver on the President's agenda and serve the Nation. The President has made it clear that good government depends on good science and that he views NOAA as a science agency. The fact that he nominated the NOAA Administrator so very early in his nomination process and that the nomination was one of the suite of science team appointments underscores the high regard that President Obama has for science and for NOAA. I take the science part of

NOAA's science-services-stewardship mission very seriously.

Since taking the helm at NOAA, I have identified several science priorities for the agency including. Those that are particularly relevant to you include:

- Ensuring that the integrity of science is protected. From the discovery of new knowledge to the communication of results to the crafting of policy and management decisions, the scientific process must be independent of political interference. As many of you know, NOAA is an active partner in the interagency process led by OSTP that is focused on scientific integrity.
- ***Understanding and adapting to climate change.*** Improved understanding of how the planet is changing will be the basis for essential decisions that affect society. NOAA must also help the Nation adapt to these changing conditions so that we can minimize the impacts. Continuing to advance our understanding of the science of climate change while also evaluating its consequences is a tall order – one that NOAA is well-positioned to lead. Equally important is our role in communicating our knowledge to a variety of users. I'll talk more about the state of play for a National Climate Service in a few minutes.

- ***Providing critical weather information.*** Improving data collection and computer processing ensures the most reliable projections, providing more advance and accurate warning to protect life and property. Whether the weather of interest is on Earth or in space, NOAA can and should enhance its capacity to be of service.

There are comparable scientific priorities for coastal and ocean systems, so I simply highlight the ongoing need to understand the interconnectedness of oceans, land, and atmosphere. These priorities will push the boundaries of knowledge while providing useful knowledge for society. It's a tall order, but we are up to the task. In Boulder, I'm here to listen and learn from you and to introduce myself to you.

So let me tell you a little bit about myself. I grew up just down the road Denver. My family loved to camp, fish, sing, hike, play sports and have fun.

We played multiple sports – in a pre-Title-IX era - because our parents believed that sports, individual and team sports were important, in addition to academic and a variety of extracurricular activities.

As doctors, both of my parents valued learning, open inquiry, free-ranging discussions and, of course, quality education. My Mom was from North Dakota and Minnesota – and her parents were from Norway and French Canada. Daddy's family hailed from S. Carolina and Ukraine. My sisters and I saw firsthand how different cultures could blend and enrich each other. We were encouraged to be well-rounded with a balanced portfolio of active intellectual, spiritual, athletic, cultural, public service and family activities.

I fell in love with the oceans during a college class in Woods Hole, Massachusetts, at the Marine Biological Laboratory. To a Colorado native, sea life was exotic and endlessly fascinating. My exposure to the oceans was love at first sight and there was no turning back. I couldn't get enough of things marine, and decided to pursue graduate studies – initially at the University of Washington, then Harvard.

Since 1975, I have taught marine biology and environmental science at Harvard and Oregon State University. As an ecologist, I focus on connections – connections among the land, sea, and air, and connections between nature and people. This perspective will serve me well at NOAA, as we work together as a team and

connect with our many partners in other agencies, on Capitol Hill, in the states, civil society, and the private sector.

One reason that I am so excited to be here is the track record of diverse and excellent science at NOAA, coupled with the commitment to make policy and management decisions based on scientific knowledge, and the focus on delivering useful services based on that science.

With the extraordinary changes in our world's oceans and atmosphere expected in the decades to come and with consequences that may dramatically change the way we live our lives, there is much work for us all to do.

I am beginning to become familiar with the great work that goes on here to better understand the earth system and I greatly appreciate all of today's briefings

I know that all of you – the scientists here at NOAA and from CIRES and CIRA, as well as the staff who support them, have helped solidify NOAA's reputation as a world leader in environmental research.

NOAA's research is grounded in observations. From the Mauna Loa Observatory to Arctic Observatories to field missions to the Arctic, Antarctic, and tropics, ESRL has played a leading role in advancing sustained earth observations.

I am proud and have bragged to the Secretary that more than 120 NOAA scientists contributed to the Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report that shared the 2007 Nobel Peace Prize "for their efforts to build up and disseminate greater knowledge about man-made climate change, and to lay the foundations for the measures that are needed to counteract such change."

Managing over 600 different types of data, ranging from the core of the earth to the surface of the sun is what the National Geophysical Data Center (NGDC) does best.

The Space Weather Prediction Center (SWPC) is the Nation's official source for space weather alerts, watches and warnings. The next solar maximum, expected in 2012 – 2013, may pose significant challenges for power grids, critical military and airline communications, satellites, and GPS.

I am only beginning to learn about all the many great research activities here in Boulder. From research on oceans to weather, climate and atmosphere, NOAA here is focused squarely on saving lives and property, and broadening scientific horizons, sparking our imaginations, and finding answers to guide social decisions. Work being done here to improve our understanding of the role of aerosols, ozone-depleting substances, Arctic haze, black carbon, and the water cycle – to name a few – on our changing climate is critical to meeting our mission.

Climate change is obviously a topic of great interest and importance to everyone here. The forthcoming report on *Global Climate Change Impacts in the United States*, a Global Change Research Program product, will provide a comprehensive survey of the state of knowledge about climate change impacts in the United States.

With a June target release date for the report, we will need everyone in the climate community to amplify the report's messages and drive home the importance of climate change impacts at the regional scale.

Decision makers need reliable climate information in order to plan and adapt communities for the unprecedented changes before them. The concept of a National Climate Service has emerged in recognition of this need.

NOAA, in collaboration with many partners, already provides a broad range of climate information and services. Partnerships are critical to some of our most successful endeavors.

The National Integrated Drought Information System (NIDIS), Regional Integrated Science and Assessment (RISA) projects at universities, Regional Climate Centers (RCCs), Sea Grant, and NOAA Cooperative Institutes are just a few examples.

There are also many climate information and services provided by organizations unrelated to NOAA. The challenge for all of us is to find ways to maximize use of all these capabilities. Integrating efforts to provide climate information and services that most effectively and efficiently respond to user needs is no small task.

For example, climate change is likely changing the patterns of precipitation, which could change plans for water use. Projections from a National Climate Service could help water managers plan for these patterns. Drought, wildfires, and planning the location of a wind farm, for example, require information about future wind patterns, not just historical data. The same goes for drought, wildfire and even weather dependant diseases, which may affect populations.

Delivering timely, relevant, and the best scientifically-informed climate information and services to decision-makers will require a coordinated effort that builds upon and expands the nation's observational, research, and modeling infrastructure.

The idea of a National Climate Service was conceived in NOAA and we believe its time has finally come. It is still in the early stages of development, but it clearly must be designed and implemented in a collegial and cooperative fashion. I expect NOAA to play a key role in this climate enterprise.

My vision of a National Climate Service is a partnership that would be established with other federal agencies, various levels of government, and the private sector.

The National Climate Service would provide credible and authoritative climate information and services to assist the nation, and by extension the world. This would include policy-relevant information for decisions related to climate change mitigation and adaptation.

It is critically important as we design this enterprise that we find the best arrangement for federal agencies to work in partnership in order to maximize delivery of climate services to the nation.

As such, the White House Office of Science and Technology Policy (OSTP) should lead an interagency process to analyze capacities and options.

This effort should complement the broader interagency effort being led by the Council on Environmental Quality, OSTP and NOAA to prepare a federal adaptation strategy to help the federal government, along with state, local, academic, and private actors, increase their resilience to a changing climate.

The National Climate Service must also remain engaged in climate change science to maintain credibility, awareness, and flexibility, and to avoid insularity. In

similar fashion, the National Climate Service must engage with a diversity of users to fully understand the needs and provide salient and useable information, tools, and expertise.

Hence, it is critical that an effective National Climate Service rely upon strong partnerships within and among federal agencies, and across levels of government, academia, and the private sector to provide the nation with the science-based and user-responsive climate services it needs. This vision also requires that NOAA integrate its own resources and coordinate efforts with its partners to ensure reliable delivery of climate services and information. As you know, much remains to be done.

The good news is that President Obama has made it clear that good government depends on good science. NOAA's science is providing knowledge and understanding to inform policy and management decisions and to enable citizens to appreciate and value nature. Our own health, prosperity and well-being depend intimately on healthy productive and resilient ecosystems, on land and in the ocean.

Our work here in Boulder is crucial. But we have serious challenges ahead- from climate change to ocean acidification to increases development of coastal areas, from increased unpredictability of extreme weather events to sea level rise. All of these are underway and society is seeking our guidance. Your work is essential to frame, guide and inform key decision and to help people understand what is at risk and what the likely consequences are of different choices.

Being the administrator of NOAA is a big job. Some of the challenges I know well and others I am just learning. I will need your help. I look forward to working with, and learning from you.

I am inspired by the opportunity for NOAA to seize this moment to make meaningful changes for our nation and our environment, especially amid a changing climate. I am mindful of the challenges, yet inspired to find durable solutions. NOAA has a central role to play in the research, synthesis, communication, management, policy and provision of services. And to this end, I pledge to bring diligence, transparency, fairness, integrity and accountability to the job

I'm pleased to be at the helm of the agency focused on integrated science, service and stewardship. We will uphold the rule of law, we will produce and respect science, and our decisions will be firmly grounded in scientific knowledge. We will integrate across difference parts of NOAA and to that end I look forward to getting to know more of you and working with all of you. I invite each of you to now join me at this very special moment in history. This is our time, our chance to build on NOAA's impressive track record and create an enduring legacy for our environment, our economy and our children!