



Climate Service - Questions and Answers
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Next Steps and Timeframe

Q: What is the timeframe and next steps for establishing a Climate Service?

- The President’s FY 2012 budget includes a detailed reorganization proposal to establish a Climate Service in NOAA. The Department and NOAA will continue to engage with Congress in the coming year to seek approval of the proposed reorganization.
- In the interim, NOAA is committed to working with our stakeholders and partners within our existing organizational structure to continue and improve upon the existing climate science and services we provide to Americans.

Need and Purpose

Q: What are climate services and who needs them?

- There is growing public demand for *climate services*— accessible and timely scientific data and information about climate that help Americans make informed decisions for their families, businesses, and communities.
- Examples of climate services include information about expected future temperature and precipitation scenarios, sea level changes, snow, glacier and sea ice coverage, growing seasons, and the potential impacts of a changing climate on the natural environment and major business and public sectors such as agriculture, energy, transportation, public health and national security.
- A burgeoning private sector climate service provider industry is also calling for authoritative and accessible climate information on which they can build a new industry that will fuel jobs and innovation. In the U.S., up to one-third of the gross domestic product depends on accurate weather and climate information.
- U.S. businesses need authoritative information about the climate to guide their investments, spur innovation, and to be competitive in national and global marketplaces. For example:
 - electricity producers want information about future peak heating and cooling days, as well as trends in water availability to be able to appropriately size and site new power plants that can meet anticipated demand and also have access to sufficient water for cooling.

- states, counties and cities need authoritative climate information to make smart decisions about infrastructure investments, ensuring public safety, and stimulating economic development that ensure America's communities are resilient and prosperous.
- coastal counties want information about anticipated sea level change to safely site and appropriately configure critical infrastructure like hospitals, wastewater treatment facilities, and bridges; and
- cities and towns are requesting information about precipitation trends to make long-term investments in storm-water management and storage capacity.

Q: What is the Climate Service?

- The Climate Service will be a newly designated line office in NOAA that will bring together many of the agency's existing climate assets including research labs, climate observing systems, modeling facilities, integrated monitoring systems and extensive on the ground service delivery infrastructure.
- This proposed reorganization would allow NOAA to provide a reliable and authoritative source for climate data, information, and decision-support services and to more effectively work together with other agencies and partners and to better meet the growing demand for climate information from businesses, communities and individuals.
- *See Org Chart for which NOAA assets and components will be housed in the new Climate Service.*

Q: What will a climate service do?

- A Climate Service will provide a reliable and authoritative source for climate data, information, and decision-support services to help individuals, businesses, communities and governments make smart choices in anticipation of a climate changed future.
- Reorganizing NOAA's climate assets into a single line office, the Climate Service will make our climate services more visible, accessible and useful to our many partners and users.
- Climate Service will:

Science

- Guide the evolution of NOAA's climate science enterprise based on changing societal needs, new scientific insights and continuous evaluation in collaboration with users, scientists and partners.
- Strengthen comprehensive climate observation and monitoring systems and provide state of the art research, modeling, predictions, and projections.
- Support research on the impacts of climate variability and change on human and natural systems, how these systems may respond, and what can be done to minimize the negative impacts of these changes.
- Clarify and consolidate information regarding the causes and effects of climate change.

Services

- Develop accurate and reliable, science-based climate information, products and decision support tools that are relevant and useful to equip policy makers, business leaders, local governments and other decision-makers to plan for a changing climate.
- Support the development of assessments and adaptation strategies from international to local levels.
- Collaborate with stakeholders to enhance their capacity to use climate information and related decision-support resources.
- Provide more accurate climate information, helping communities better prepare for future heat waves, poor air quality, drought, forest fires, coastal inundation, and other phenomena.
- Serve as a one-stop point of entry to NOAA's climate information, which will allow NOAA to better engage with users and partners in a clear and coordinated manner.
- Promote integrated service delivery at the national and regional scales.

- Provide the raw data for the private sector to develop and deliver diverse climate services to businesses and individuals.
- Stimulate the development of environmental technologies, applications and services in the private sector.

Products: Climate Services will build upon existing efforts and improve the provision of climate products such as:

- Inundation maps for coastal communities that reflect the best available information on sea-level rise and changing patterns of coastal storms;
- Heat projections to help managers plan future energy and health services needs;
- Climate and precipitation models to help farmers know the impact of a changing climate on their crops;
- Relevant historical climate data and data from state-of-the-art climate models to inform investment and planning for businesses and local governments;
- Routine vulnerability and risk assessments for climate-sensitive regions and sectors.

Q: How will a climate service in NOAA help the nation?

- Establishing the Climate Service will ensure that the best available climate science is accessible and readily available to those who need it, and that the information is used by people to make informed decisions in their lives, businesses, and communities.
- The Climate Services will provide businesses with information that will help them evaluate options and make smart investment choices to respond to the impacts of climate variation and change while continuing to spur innovation, and foster economic competitiveness.
- The Climate Service will provide an opportunity to support a new category of economic innovation: entrepreneurs, as well as established businesses, that will seek to specialize in the provision of services and products based on environmental and climate data, much like the National Weather Service has done with basic weather information.
- Benefits of the Climate Service will include:
 - Cities and states will have a clearly identified source of authoritative information on the likelihood of climate extremes (such as heat waves and sea level rise) and accompanying impacts (such as poor air quality and inundation) to help them identify vulnerabilities and develop adaptation strategies.
 - Coastal communities will become more resilient as a result of state and local policy and planning that is well informed by information and services provided by the Climate Service. For example, these services will integrate local sea level trends with global sea level projections; assess the risk of coastal inundation from changes in the intensity and frequency of tropical and subtropical storms; and characterize changes in runoff flooding, wave action, and storm surge.
 - Natural resource management agencies will use Climate Service information to make more informed adaptation decisions in the fulfillment of their stewardship and conservation requirements to protect ecosystems and species.
 - National infrastructure planners will use Climate Service information to manage critical infrastructure, resulting in more durable, resilient, and cost effective water systems, dams, runways, roads and bridges.
 - National security decision makers will use Climate Service information to identify geopolitical areas of potential near-term upheaval and long-term conflict in response to changes in food and water availability, climate-related health issues, coastal sea-level rise, and other climate impacts.

Q: Why is NOAA proposing to create a Climate Service?

Growing Need for Trusted Climate Information

- Scientific, industry, government and public concerns about the potential impacts of climate variability and change are fueling an exponential growth in the demand for climate related information from NOAA.
- All sectors of society are faced with the need to better understand and anticipate the impacts of climate variability and change, in order to make the best decisions and be competitive at home in the United States and abroad. From across the nation, sectors including energy, agriculture, transportation, human health, and water resources are already recognizing the need for reliable and authoritative climate information to inform their decision-making.
- They are calling for easy and timely access to scientific data and information about the state of our climate today, how it may change in the future, and what impacts any anticipated changes may have on our environmental, social and economic systems. This information is crucial to help them make informed decisions in their lives, businesses, and communities.
- These and other climate information users recognize that our changing climate brings not only new challenges to manage business, industry and the environment, but also new opportunities for innovation, adaptation and commerce. They want trusted and timely information about our climate so they can make informed decisions that minimize their own exposure to impacts while maximizing their future opportunities.

NOAA is unable to Keep Pace with Growing Demands

- Through its existing network of laboratories, data centers, programs, and operational assets distributed throughout the agency, NOAA responds to millions of annual requests for climate information.
- However, under its current distributed organizational structure for climate science and services, the rapidly-increasing user demand has outpaced NOAA's capacity to effectively deliver requested products and information and exceeded its ability to meet or be responsive to future needs.

Need for an Expanded Climate Service to Meet Demands

- The Nation needs an objective, authoritative, and consistent source of timely and reliable climate information, based on the best available science, to support decision-making at national, regional, state, and local levels.
- Reorganizing NOAA's existing climate capabilities under a single line office will create a more integrated and efficient organization to better respond to these critical national needs, and allow the agency to make key contributions in the development and delivery of relevant, scalable climate science, tools, products, and information.
- NOAA is uniquely positioned to help address this need, and stands ready to make key contributions in the development and delivery of climate science, tools, products, and information. NOAA can contribute urgently needed services to this effort by integrating and expanding its unique earth observation and monitoring assets, its world-class research and modeling capabilities, and its broad operational information services to support this unified service on a regional basis.
- Numerous external studies, by NOAA's Science Advisory Board, the National Academies, the National Academy of Public Administration and others have reiterated the need for easy-to-find, reliable and understandable information and products about climate variability and change.
- A centralized Climate Service in NOAA will increase the agency's ability to anticipate, understand and provide the information Americans need to meet the challenge of being competitive and resilient in the climate of the future by incorporating relevant climate knowledge in their decision-making today.
- Creating one office will establish a stronger position for NOAA to strategically guide its climate research, monitoring and assessment work in a coordinated fashion. It will also create a visible and

easy to find, single point of entry for people to access NOAA's science and service assets, and enable improved information sharing and more productive partnerships with federal agencies, local governments, private industry and other users and stakeholders.

Q: Why does NOAA need to reorganize to deliver better climate services? Can't NOAA do this within their existing structure?

- NOAA's existing framework for climate was established before climate services were recognized as essential and it is not optimized for climate service delivery.
- The National Academy of Public Administration (NAPA) specifically addressed this question in their report. For the past 8 years, NOAA has been using a matrix management system to integrate climate activities from across the agency. In NAPA's review they stated, "The introduction of matrix management and the creation of the Climate Goal Team were thoughtful and significant investments to respond to demand by improving performance across NOAA's distributed network of climate activities. Matrix management has helped improve alignment across a range of activities and organizational stovepipes." NOAA has maximized the use of matrix management, but the rising demand for climate services requires NOAA to take additional action.
- NAPA concluded, "A major challenge of the [NOAA's] Climate Goal Team has ultimately been its lack of consolidated management control of personnel and budgets.... This has limited NOAA's ability to meet strategic climate objectives, and the agency has cited it as an important reason for why it proposed creation of a Climate Service."
- A NOAA Climate Service line office would also create a visible and easy to find, single point of entry for people to access NOAA's climate science and service assets, and enable improved information sharing and more productive partnerships with federal agencies, local governments, private industry and other users and stakeholders.

Q: What will NOAA be able to do in a few years that it can't do now as a result of creating this climate service? What are the top priorities for this office?

- The Climate Service will work to develop a sustained capacity to provide regional and sectoral climate vulnerability and risk assessments to more effectively meet the requirements of the US Global Change Research Act (national assessment required every 4 years).
- The Climate Service will have a more clearly established regional footprint to coordinate and provide improved regional climate services.
- The Climate Service will be able to better align climate observing and modeling assets with strategic needs.
- The Climate Services will be able to better integrate and coordinate climate communications and outreach efforts from throughout the agency, and function as a one-stop trusted source for information from the public, the private sector, and other government agencies.

Q: What will the Climate Service focus on initially?

- Through ongoing investments – both internal and extramural- in its core capabilities of Observing Systems, Data Stewardship, and Climate Monitoring; Understanding and Modeling; Predictions and Projections; and Integrated Service Development and Decision Support, the Climate Service will more efficiently continue to provide basic climate information and services to serve the transportation, agriculture, energy and health sectors. NOAA will also bring additional focus – where new resources are available – to four critical challenges facing the nation: 1) climate impacts on water resources, 2) coasts and climate resilience, 3) sustainability of marine ecosystems, and 4) changes in the extremes of weather and climate. For more information, see the [draft Vision and Strategic Framework](#).

Q: What are the economic benefits of a Climate Service?

- A high quality climate service is critical to a healthy economy in the future. With the impacts of climate change happening across the country, all businesses, large and small need the best available information to best prepare for, succeed and grow in the future. The impacts of climate change are closely tied to our economy and will affect all aspects of our society and ecosystems.
- The Climate Service will provide important information to decision-makers, resource managers, and the public to better anticipate, plan for, and respond to impacts of changing climate conditions. The climate service will give businesses, local municipalities, and state governments better access to high-quality, reliable climate information to support the planning and locating of critical infrastructure.
- These services will help taxpayers by providing tools that help in adapting to and mitigating climate impacts that could potentially result in significant economic, societal, and environmental damages.
- Adequate planning today for the future impacts of a changing climate can avoid costly expenditures required to respond to climate change in the future.
- The reorganization also offers the potential to create new jobs. A brand new private sector industry -- one spawning new jobs and supporting a green economy -- could emerge around the core products and information generated by the new office, much like NOAA's National Weather Service spawned the creation of the private sector weather industry which is valued at over half a billion dollars.

Q: What input has NOAA received about its proposal to create a Climate Service?

- Over the past two years, NOAA has been actively engaged in evaluating climate service activities within the agency, from the NOAA Science Advisory Board, the National Academies, and from the contributions and needs of our partners and the greater user community. Relying upon this wealth of knowledge and analysis, NOAA and the Department of Commerce leadership announced the intent to establish a Climate Service in February 2010. Since that time NOAA has been seeking input and engaging its partners including federal, state and local agencies, Congress, business and industry, the academic community, and non-governmental organizations. To this end, NOAA has held dozens of roundtables with its partners and constituents to discuss their needs for climate services and get their feedback. In the spring, NOAA, at the request of Congress, commissioned a National Academy of Public Administration (NAPA) study of organizational options for delivering climate services, which included an extensive stakeholder and partner engagement process. On September 14, NAPA released its final recommendations to NOAA and Congress. The final report contained more than two dozen insightful recommendations, and stated that "the Academy panel strongly supports the creation of a NOAA Climate Service as a line office in NOAA." The report also provided specific recommendations used by NOAA to refine the reorganization proposal, and useful recommendations on business processes and other aspects of implementing the Climate Service. Finally, this fall, NOAA developed and released a draft vision and strategic framework document for public input. NOAA has incorporated the input we received and the latest draft is available at www.noaa.gov/climate.

Funding/Budget

Q: Won't you need new funding to really get this office up and running?

- This is a reorganization of existing assets to coordinate and integrate NOAA's existing climate capabilities for greater effectiveness, cohesiveness, and to improve service relevance and delivery. It will be accomplished through a zero sum realignment of funds within the current NOAA budget and will (1) neither increase or decrease the NOAA Full-Time Equivalent (FTE) or billet allocation, or require any relocation of employees, (2) not require any physical relocation of programs or labs, or require any new facilities to accommodate this reorganization, (3) result in a zero sum realignment

of funds within the current NOAA budget, or (4) not increase the size of NOAA overhead. The Climate Service headquarters will be located in Silver Spring, MD, consistent with all other line offices.

- NOAA will work with Congress to establish a Climate Service in the most efficient, effective, and streamlined manner while still providing the products and services that the American people are demanding.

Q: How much funding is requested in FY'12 for the Climate Service?

- The FY12 request unifies the majority of NOAA's climate activities under the new Climate Service Line Office to integrate NOAA's existing climate research, observations, monitoring, modeling, information product development and delivery, and decision support functions, while strengthening climate science and leadership. In FY12 NOAA requests \$346M for the Climate Service, which is a decrease of \$3M from the FY 10 Enacted. See http://www.corporateservices.noaa.gov/~nbo/12bluebook_highlights.html for more information on the budget.

Organizational Structure

Q: What does the climate service look like? How will the new structure differ from the current one? What programs will be included in the new office?

- The Climate Service office would incorporate a number of NOAA's climate science, research and observation centers, as well as some of its data and service delivery infrastructure. This arrangement would provide a strong climate research to service enterprise under a central management authority to further the goal of having a single, authoritative source of climate information.
- The building blocks of the new Climate Service will be drawn from three existing NOAA Line Offices:
 - From NOAA's Office of Oceanic and Atmospheric Research: The Geophysical Fluid Dynamics Laboratory, the Climate Program Office, and from the Earth System Research Laboratory – the Chemical Sciences Division, the Global Monitoring Division, the Physical Sciences Division.
 - From the National Environmental Satellite, Data and Information Service: The three data centers - the National Climatic Data Center, the National Oceanographic Data Center and the National Geophysical Data Center;
 - From the National Weather Service: The Climate Prediction Center, and management responsibilities for climate observing networks including the Tropical Atmosphere Ocean (TAO) array and the modernization of the Historical Climate Network (HCN-m).
 - There will not be any programmatic changes to NOS, NMFS or OMAO.
 - It is important to point out that reorganization alone will not meet the demands. For example, the nation is looking to NOAA for linkages between weather and climate, and sea-level rise and climate change. That will require close working relationships between the new climate office and our other line offices. Meeting the challenges effectively is a NOAA-wide endeavor, not just the work of any one office.

Q: Who is in charge?

- Tom Karl, the Director of the National Climatic Data Center, has been the lead on Climate Services for over a year, and has done a fantastic job, working with many of the senior managers and climate leaders at NOAA to help guide us to this decision. He will continue to lead this effort as the Transition Director for the Climate Service. Chet Koblinsky, Director of the Climate Program Office, will serve as the Transition Assistant Director for the Climate Service.

Q: Where will the Climate Service be headquartered?

- The Climate Service headquarters will be in Silver Spring, MD, where the rest of the NOAA line offices are headquartered. Other labs, data centers and program will remain where they are currently located.

Q: How will the new climate service affect NOAA's other missions?

- Just as a climate service will more readily provide access to information to external users, the other parts of NOAA that utilize climate information will be better served.
- The Climate Service will consolidate many of NOAA's existing climate science and service components currently dispersed across the agency into one line office. However, some climate-related programs and research that will remain in other line offices, since climate is an issue that transcends and intersects all of NOAA's mission areas.
- Efforts are underway to ensure that the climate science and service portfolio is coordinated across the agency through the planning and budget process and that business practices are put in place to ensure strong collaboration and connectivity.
- The establishment of the Climate Service has also been a catalyst for NOAA to address how it could strengthen all science throughout NOAA, not just for climate. One guiding principal of the reorganization is to ensure continued operations and not disrupt current NOAA functions.

Federal Agency Coordination

Q: How does this proposal fit into the larger Federal Government efforts improve climate services?

- The White House Office of Science and Technology Policy (OSTP) have stated they will review the current climate activities across the federal government and establish an OSTP-led interagency process to coordinate climate services across the relevant agencies. This is still underway.
- NOAA already works closely with many international, federal, regional, academic and other partners on climate research, data collection and dissemination and climate service provision, such as the USGCRP, the Interagency Climate Change Adaptation Task Force, the National Science and Technology Council's Roundtable of Climate Information and Services, and other international and national assessments. We recognized the importance of this collaboration, and understand that no single agency can provide all climate services for all people.
- NOAA recognizes the importance of collaboration. As a single, streamlined and more coordinated office, the Climate Service will make NOAA's climate science and services more visible and accessible to all its partners and users, strengthening its focus on better understanding and addressing their particular needs.
- NOAA is well-positioned, ready and willing to serve in a leadership role with its sister federal agencies to best equip the nation to face the challenges of a changing climate.

Q: Is NOAA working with other federal agencies on climate adaptation?

- NOAA is committed to working with our Federal partners to provide the best and most comprehensive climate services and information to decision makers across all sectors. We already participate fully in a number of inter-agency efforts including co-chairing with OSTP and the Council on Environmental Quality (CEQ) Interagency Climate Change Adaptation Working Group, chairing the U.S. Global Change Research Program, leading many assessments for the US Global Change Research Program, and collaborating with the White House Office of Energy and Climate Change.
- NOAA understands that the relative roles and responsibilities of individual agencies will differ depending on the climate impact issue being addressed (e.g., water and other resource management, disaster risk reduction, community planning, public health) and that an effective response to the changing climate conditions will require an integrated, flexible, and responsive government-wide approach.

- NOAA is leading efforts to encourage collaboration on climate and related hazards and disasters between Federal, State, Tribal and other public and private agencies.

Partnerships

Q: What impact will the new Climate Service and the associated reorganization have on NOAA's existing Regional Climate Centers and Regional Integrated Science and Assessments?

- The reorganization proposal for the Climate Service assumes that the Regional Climate Centers (RCCs) will continue to be core partners in the development and delivery of climate data, products and information services at the regional level. Their sponsorship will move with NCDC into the proposed Climate Service.
- The Regional Integrated Science and Assessments (RISAs) will also continue to be core partners at the regional level, and will move from the Climate Program Office into the proposed Climate Service.
- The RCCs and RISAs will be a core part of our regional climate services partnership and will continue to deliver climate services at the regional level, conduct interdisciplinary research with our academic and research partners, conduct education and outreach activities, and enhance the integration and data quality of NOAA's observing networks. We are in the process of engaging the RCCs, RISAs, State Climatologists and other regional partners in the development of our regional climate operations plans.

Q: How will the proposed Climate Service fulfill NOAA's ocean, coastal, and marine stewardship requirements and satisfy NOAA's many stakeholder communities? What kinds of products and services will be provided?

- Climate information and predictions from a Climate Service will allow NOAA to better meet its stewardship requirements. Given NOAA's ocean, coastal and marine stewardship authority, these stakeholders, partners, and programs – both within the agency and external – will be principal clients for a Climate Service. Products and services to be provided by the Climate Service will include assessing and meeting regional climate prediction needs, identifying climate-related health risks, providing reliable information about floods and droughts, supporting a variety of environmental forecasts, modeling and predicting sea level rise, and working with communities and decision makers to factor climate change projections into adaptation strategies.
- The Climate Service would include other NOAA line offices among its partners and stakeholders, particularly the National Ocean Service and the National Marine Fisheries Service. The climate information needs of these offices would be among the highest priorities for the Climate Service. For example, the Climate Service would work to predict climate-related changes in marine ecosystems and to identify climate vulnerabilities to allow resource and coastal zone managers to adequately account for climate impacts in their planning and management decisions.

Strengthening Science

Q: What do you mean by "strengthening science"?

- At its core, NOAA is a science agency and science underpins all that NOAA does. We use the best possible science to inform our delivery of services, formulation of policies and execution of management responsibilities.
- We are developing policies and practices that will promote scientific excellence inside and outside the agency, and enable scientists within NOAA to thrive as they make the discoveries and pursue the research necessary to inform our services and our stewardship responsibilities
 - a. NOAA has been working to develop a scientific integrity policy that would ensure a continued culture of transparency, integrity, and ethical behavior in NOAA. The NOAA policy will be

consistent with guidance issued by the White House Office of Science and Technology Policy in December 2010.

- b. NOAA is working to support recruitment and retention of scientists through development of a more robust science career track and expansion of senior science positions.

Q: What does the establishment of the Climate Service mean for strengthening science in OAR and the rest of NOAA?

- In addition to establishing the Climate Service, NOAA is equally committed to strengthening and integrating NOAA's science enterprise and advancing the vision of OAR. OAR will continue to serve as NOAA's centralized research line office, serving all of NOAA by supporting and producing preeminent research and technology innovation that advances NOAA's mission. OAR will innovate (make new discoveries), incubate (conduct long term research and develop technology), and integrate (strengthen research and technology across NOAA and with partners).
- In September, the National Academy of Public Administration, in their review of NOAA's proposed climate service enterprise, concluded that, "all parts of NOAA benefit from OAR's work to incubate fundamentally new approaches to mission-centered science, a capability best sustained by maintaining a nimble, freestanding OAR line office."
- Through the reprogramming process, NOAA carefully reviewed the role and structure of OAR, and it is our firm view that OAR is of unique importance in providing dedicated science and research enterprise within NOAA and should maintain its core capacity to provide critical weather and ocean research. The experience of Deepwater Horizon (DWH) highlighted the value of NOAA science to support decision-making and the delivery of trusted and accurate information.
- NOAA will look to OAR to play an expanded role as the integrator of science and technology across NOAA and provide research that supports NOAA's Next Generation Strategic Plan. OAR will continue to foster and grow collaborations with both the internal and external scientific community. While the Climate Service will strengthen climate science and deliver climate services, OAR will grow as an incubator of long-term and innovative research and integrate science across all of NOAA.

Q: How does NOAA intend to maintain its research enterprise in OAR? The Office of Oceanic and Atmospheric Research (OAR) performs a critical set of functions as NOAA's central research line office, serving all of NOAA by supporting and producing long-term and transformational research and technology innovation that advances NOAA's mission.

- Strengthening science and fostering a culture of innovation remains a critical priority for NOAA's research enterprise, which consists of much more than research on climate. The proposed reorganization does not diminish or eliminate any of NOAA's research or science activities.
- In their report, the National Academy of Public Administration echoed this important role and the need to sustain OAR as a line office, as we work to stand up a Climate Service line office that necessarily includes climate science and service.
- Through this reorganization, NOAA is strategically realigning OAR, recognizing that the climate science enterprise that started in OAR as part of its atmospheric science program has now matured to the point where it is now ready to be organizationally coupled with the development of climate services.
- OAR will renew and expand its role as the focus for long-term research in NOAA; an innovator and incubator of new science, technologies, and application, and an integrator of science and technology across all of NOAA to attain mission objectives.
- To this end, OAR will serve as the lead for comprehensive analysis and direction of NOAA's research portfolios. This responsibility includes:
 1. Identifying NOAA's science challenges and gaps,
 2. Recommending novel research portfolio management approaches, and

3. Integrating science across NOAA's Line Offices to gain a comprehensive understanding of the earth system.
- In addition, OAR's Assistant Administrator will be designated as the Senior Advisor to the NOAA Chief Scientist, and responsible for providing him or her with science program analysis and policy support.

Q: Will the proposed climate service or other parts of NOAA include social science capabilities?

- Both within the Climate Service and within the broader NOAA science enterprise, it is recognized that we need to focus more attention on social and economic science and strengthen our investments in these areas.
- As indicated by the recent recruitment of a NOAA Chief Economist, there is a growing recognition of the importance of the social sciences across all of NOAA's activities.
- Within the climate services, many of our user sectors are requesting social and economic information as it relates to climate. As we begin to plan how the various science entities will be organized within the Climate Service and the other research portfolios throughout NOAA, we will continue to look for ways to include and strengthen our commitment to social and economic science.
- In addition to enhancing social science capacity within the Climate Service, NOAA will continue to work to develop its existing social science capabilities in its other lines. NOAA, with advice from its Science Advisory Board Social Science Working Group, will also assess expanding its research portfolio to include the full spectrum of social, behavioral and economic research. In March, following approval from the NEP/NEC, NOAA recently submitted our responses to the SAB social science recommendations, and we encourage our employees to review the NOAA position and provide comments to their Line Office leadership (available at <http://www.sab.noaa.gov/Reports/Reports.html>).