May 14, 2010

The Honorable Jane Lubchenco
Under Secretary of Commerce for Oceans and Atmosphere
Herbert Clark Hoover Building
14th and Constitution Avenue, NW
Washington, DC 20230

Dear Jane,

On behalf of the 95 members of the Consortium for Ocean Leadership, I am writing to express our appreciation for NOAA’s leadership in proposing a climate service and to share with you some recommendations for strengthening the existing proposal. NOAA has a strong record of providing critical climate information for research and resource management decisions. The commitment to build and implement a global climate observing system is notable as are the climate and ocean data centers and the dedication of GFDL to produce climate projections and prediction.

As detailed in the 2009 NRC report Informing Decisions in a Changing Climate, the nation urgently needs a comprehensive and integrated slate of climate-related services, requiring direct, immediate and substantive involvement of a broad range of scientific expertise, constituent engagement, cross-jurisdictional cooperation, and operational capacities. NOAA’s Climate Service initiative is an important step in developing, providing and sustaining the climate products and services demanded by many sectors of our economy and all levels of government.

The NOAA reprogramming proposal contains many useful elements, builds on some of NOAA’s existing strengths and provides a basis for the implementation of the NOAA Climate Service (NCS). However, many practical aspects of a climate service are missing from the proposal including maintaining climate research independence, ascertaining the true cost of a NCS, determining the foci of the regional climate directors, and establishing NOAA’s approach to enhancing existing and developing new Federal and external partnerships. Further description of our concerns is described below.

Embedding Climate Research into the Climate Service Program

The climate service proposal shuffles the existing research structure and moves some laboratories into a new line office. It is unclear if and how NOAA will establish its research priorities across the agency as the bulk of OAR is effectively moved within the climate service.
Most importantly, moving the Climate Program Office (CPO) into the new Climate Service line raises the danger that NCS will focus mostly on product development and transferring research to application while limiting support for the research on the fundamental understanding of the climate system. Such research is necessary in both the natural and related socio-economic sides at this early time as we are still unable to quantitatively assess the uncertainties and regional biases exhibited by our prediction tools. We have significant concerns with the inclusion of science within mission lines as the mission will always dominate the budget, leaving science behind in times of limited budgets. We refer to the Department of Defense’s setting up its 6.1, 6.2, 6.3, etc. structures as an excellent example of addressing the requisite independence of research and operations. Does NOAA have a plan to address the independence of the NCS research component so it is not at the mercy of operational budgetary shortfalls?

While the proposal provides a sense of the high level requirements (e.g., deliver regional-scale information to help with climate adaptation) and the administrative requirements, there is very little mention of the functional requirements (e.g., types of observations, models, etc.), the operational model, and how the reorganization of existing NOAA laboratories will address these requirements. Specifically, two NOAA laboratories with critical relevance to ocean observations, namely PMEL and AOML, are left out of the NCS proposal as well as the NCEP Climate Prediction Center (CPC) – the main operational modeling capability within NOAA. Furthermore GFDL, the main research modeling capability with NOAA, will become part of the NCS. This arrangement suggests a separation that we feel is not in the best interest of addressing the full range of adaptation and mitigation services. Will NCEP be responsible for the range of time-scales between weather and seasonal-to-interannual prediction and the NCS for decadal to century time scales? Will GFDL become the operational modeling center for the NCS, and if so how will that modeling be integrated into the climate service products that are currently provided by CPC? Where will NOAA research modeling occur? This information is vital to the internal and external ocean and climate communities; we hope to receive a more detailed explanation of how climate research and observations will be managed so we can understand our involvement with the new research structure.

**Funding Shortfalls**

The proposal does not anticipate increasing NOAA’s budget to manage the climate service, apparently assuming that shifting current resources will suffice. Although we are aware the current plan is only the first stage, we believe NOAA’s claim that this initiative will be deficit-neutral is inconsistent with previous external and internal assessments regarding what a climate service will require and misrepresentative of the challenge and effort needed to accomplish the task. Given that the ocean covers 70% of the Earth’s surface and is a critical component of the climate system in defining the global cycles of heat, water, and carbon, additional resources are essential for incorporating ocean research and observations into a climate service. In particular the lack of a national ocean and coastal observing system will hinder our ability as a nation to provide essential information to adapt to regional climate change. Furthermore, and beyond the initial cost of ramping-up the climate service, investments to educate and train a new generation of NOAA employees capable of working in teams and providing climate services should be an element in the discussion in the current plan.
Location of the Regional Climate Directors
The current NCS plan proposes locating the Regional Climate Directors (RCD) within the National Weather Service (NWS) regional offices. However, climate science and resource management are fundamentally different from those of weather and, except for the Pacific and Alaska, the NWS regions do not align with the many climate regions and different climate-related socio-economic stressors in the United States. Climate services will have different foci or different demands than weather services for a particular climate regime. Housing the Directors within the NWS entities will create disconnection between the climate science that is needed for decision support and the stakeholder and economic drivers that require that support. For a nascent climate service, this connection with users of climate services is critical for the NCS success.

There is also a question of the appropriate number of personnel. As it was made clear, there will be no relocation of assets or personnel to the NWS regional offices. It appears this will make it very difficult to coordinate remotely located centers. Furthermore, the initial FTE requirement for one such position (RCD) in each NWS office is significantly below criticality which will diminish the ability of these directors to carry out their responsibilities.

Nurturing Federal and External Partnerships
The nation has climate-related information needs at all levels of social and political organization, and in public, private, and non-profit sectors. A broad suite of climate services must therefore support not only NOAA’s existing constituencies, but constituencies traditionally supported by other agencies and sectors. This diversity will require the establishment of communication networks and operational capabilities across agencies and levels of government that are more rigorously structured, publicly participatory, and broadly accountable. The NCS proposal seems to be designed to meet NOAA’s needs and very little is mentioned about how the new structure will work with other agencies to build and strengthen partnerships and/or determine the external requirements driving the design. For example, the current proposal lists the important Federal agencies without the mention of NSF and NASA. Despite their contribution to a significant amount of the research and observations for climate, these agencies are not mentioned as important Federal partners. NOAA’s approach to working with other agencies and external research communities deserves more clarity since a climate service will have a broad set of users and stakeholders with various needs for climate information.

We believe the success of the NCS is dependent on addressing the aforementioned issues. Also, we encourage NOAA to work more closely with its internal and external partners and stakeholders to comprehend concerns and understand current capabilities which may help NOAA execute product delivery. This will be a critical step in finalizing a framework for a NCS.

A climate service will need to address the high demand of various products and services from a diverse set of audiences. NOAA can benefit from leveraging the role of academia, professional organizations, as well as private organizations that already provide climate services to industry during their progress in developing a NCS. NOAA and the external research community have the same goal of defining and implementing best practices and innovative solutions for the
benefit of the nation. We look forward to hearing from you concerning these issues as NOAA continues to develop the framework for a Climate Service line office. We hope these comments are useful and plan to share them with other stakeholders.

Sincerely,

Robert B. Gagosian, Ph.D.
President & CEO
Consortium for Ocean Leadership