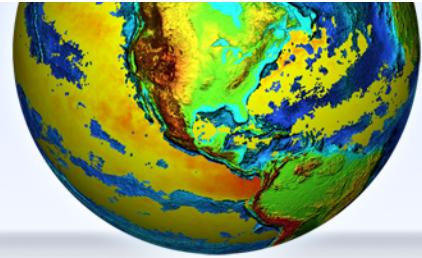


Update on Response to CWG Review of Climate Information Products and Applications

**July 13-15, 2009
Broomfield, CO**

Eileen L. Shea

CWG Meeting, February 14-15, 2010



Climate Information Products and Applications Review

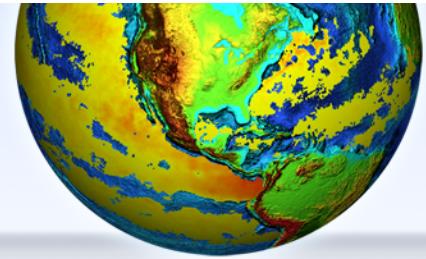
General Findings

The team was impressed by the NOAA work in many respects.

However, the landscape for climate information products and applications is undergoing rapid change as the Nation begins to recognize the importance of climate services in addressing the issues of climate adaptation and mitigation.

It is expected that these societal needs will lead to the establishment of a National Climate Service.

Within this emerging context, the team believes a new course should be charted for CIPA.



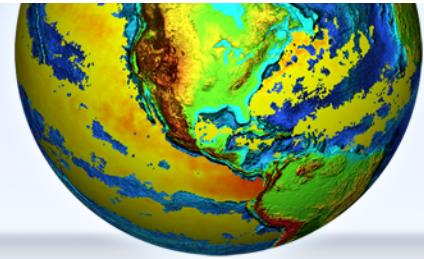
Climate Information Products and Applications Review

Major Challenges

The team found that both the *level and the nature of the existing NOAA effort fall far short of the national need for climate services.*

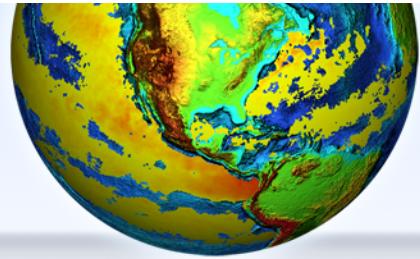
The team therefore recommends that NOAA:

- **develop a strategic plan and framework** for its climate information products, applications, and related services.
- **give highest agency priority to scaling up the level of its effort** devoted to climate information products, applications, and services to match the growing scope and accelerating pace of societal needs.
- **become, in the process, far less insular, more outward-looking, and do far more to partner and collaborate.**



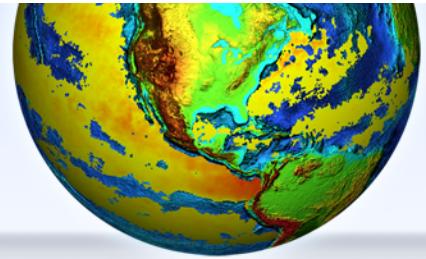
Climate Information Products and Applications Review: What we have done

- *Developed a vision and strategic framework* for the Climate Service, including a Integrated Service Development and Decision Support core capability for climate services. and ensure the scientific underpinning of the CS information, data, products and services thus making them credible, timely and relevant.
- The vision and strategic framework document focuses on *four societal challenges* and how current activities may scale up in these areas:
 - Provide some specific problem areas to focus early activities;
 - Opportunity for integration across observations/monitoring, research, modeling, assessment and services.



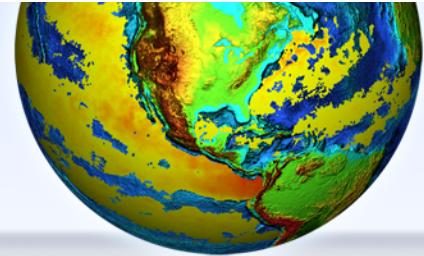
Climate Information Products and Applications Review: What we have done

- Enhanced regional coordination and development with appointment of 6 Regional Climate Service Directors each initiating engagement with partners and joint development of regional action plan(s)
 - NOAA and non-NOAA partners
 - Regional dimensions of core capabilities
 - Problem-focused products & services (regional face of societal challenges)
- Completed a review by the National Academy of Public Administration on organizational options, emphasizing effectiveness and efficiency.
- Signed a Memorandum of Understanding between the Department of Commerce and the Department of Interior on climate science, assessment, services, education:
 - Early activities focused on *regional* climate activities and pursued linkages/ joint activities (e.g., PaCIS/PICCC, ACCER, Colorado River Basin, ...)
 - Linked to interagency discussions on both National Assessment and Regional Adaptation Consortia



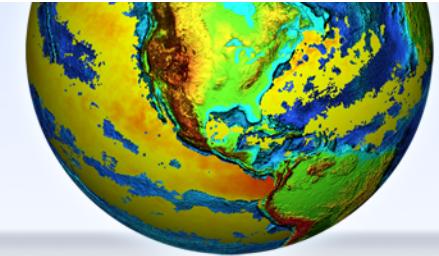
Climate Information Products and Applications Review: What we are working on

- Initiation of a rigorous and sustained needs assessment process related to the four societal challenges and initial development of products and services in these four high-priority areas:
 - climate impacts on water resources (e.g., NIDIS regional drought early warning systems),
 - changes in extremes of weather and climate (quasi-operational event attribution capability, precipitation extremes)
 - sustainability of marine ecosystems (e.g., prototype marine climatologies for resource managers), and
 - coasts and climate resilience (local sea level rise prediction system).
- Development of outcome based performance measures with clearly identified annual deliverables.



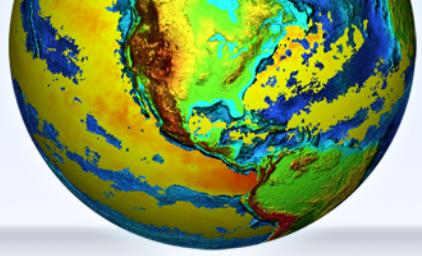
Climate Information Products and Applications Review: What we are working on

- Enhance private sector engagement and partnership:
 - Public-private principles and practices (AMS engagement)
 - Regional services development & implementation
 - Private sector customers and partners in societal challenge areas.
- Continue development of the Climate.Gov portal, make it operational and expand its scope to include other federal agencies.
- Pursuing opportunities to enhance available resources through leveraging/focusing ongoing programs, opportunities for cost-sharing and developing outyear proposals



Climate Information Products and Applications Review: What we are working on

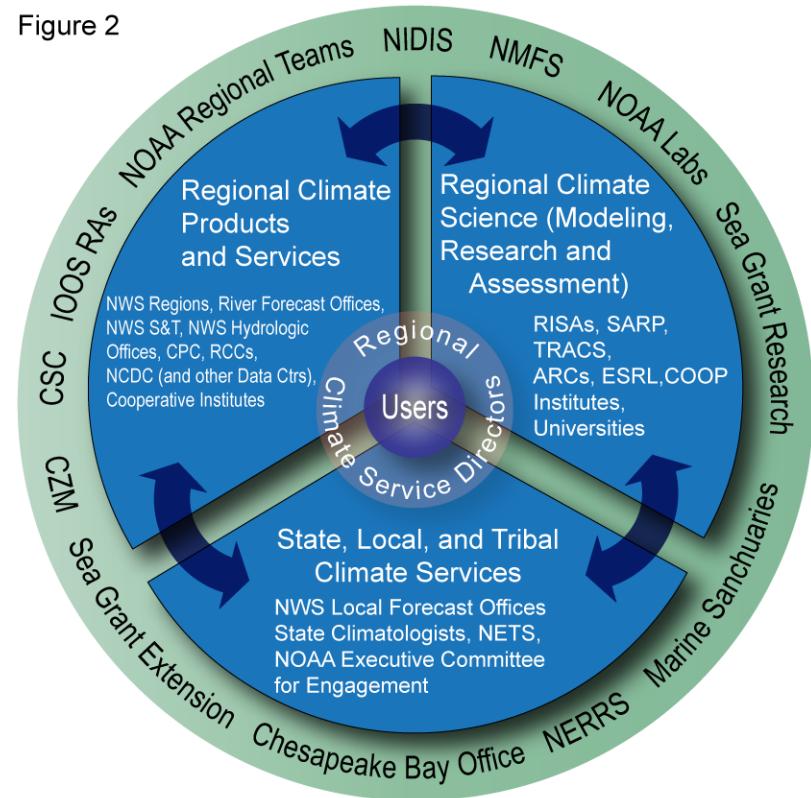
- Synthesis of existing needs assessments, inventories of assets and gaps, engagement of partners and development of action plans for **regional** climate services:
 - Developed collaboratively with NOAA and non-NOAA partners in regions;
 - Coordinated by Regional Climate Service Directors working with regional steering committee(s) and teams;
 - Connected to interagency planning for National Assessment and Regional Adaptation Consortia
- In FY11, begin program management transition to integrated regional climate services programs and partnership endeavor involving internal and external activities.



Regional Services Requirements to Meet Objectives

- Engagement of core partners and customers in program evolution
- Establishment of multi-partner Regional Climate Service Partnership

Figure 2

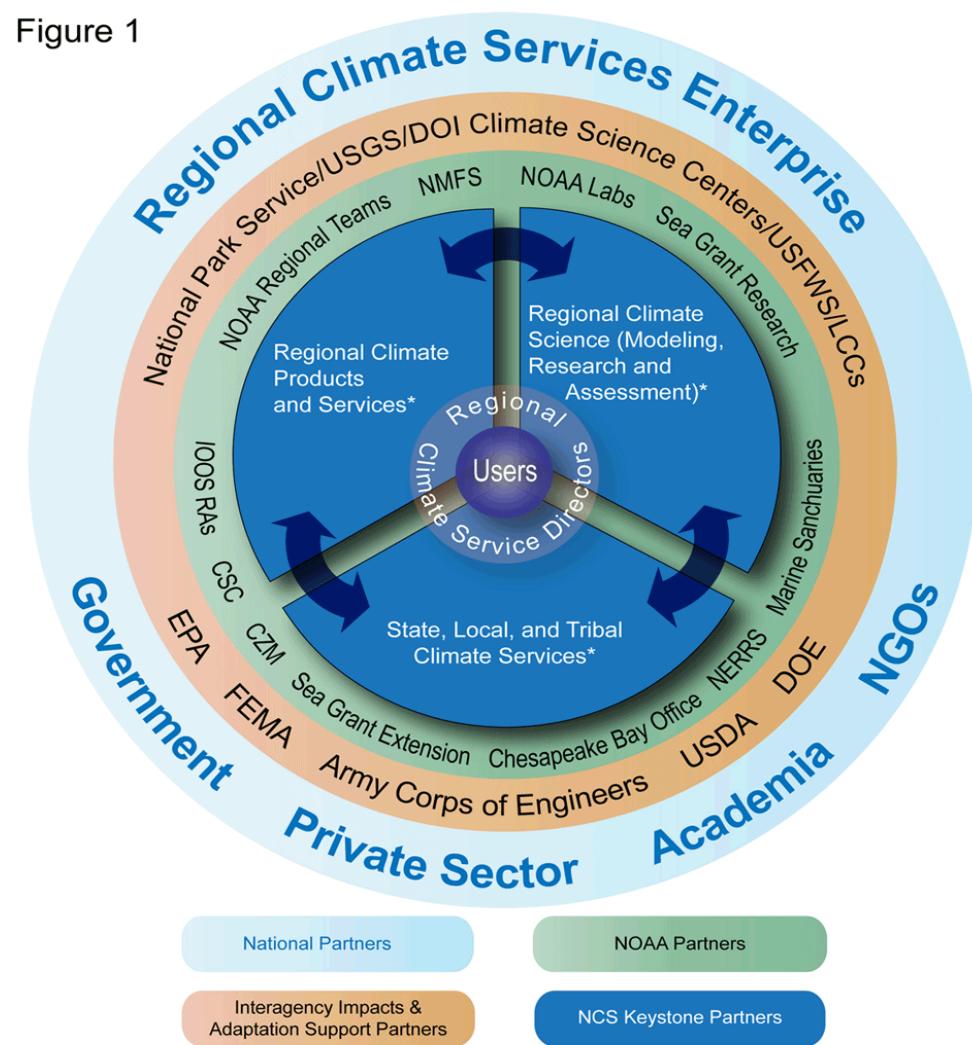


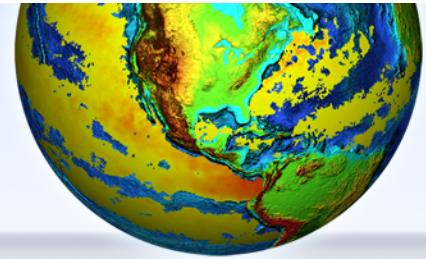
NOAA Partners

NCS Keystone Partners

Regional Climate Services Partnership: A Conceptual Pearl

Figure 1

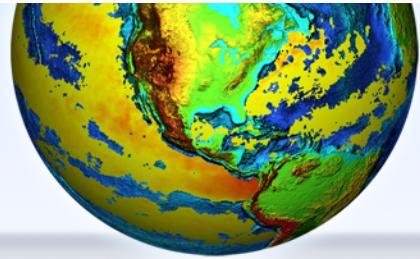




Climate Information Products and Applications Review

What we have not done:

- Conduct with CWG, perhaps within a year, a true NOAA climate services review (Organizational aspects covered in NAPA Review)
- A better inventory and understanding of its activities and assets, including external partnerships:
 - Initiated in the regions and in related interagency discussions of the National Assessment and Regional Adaptation Consortia

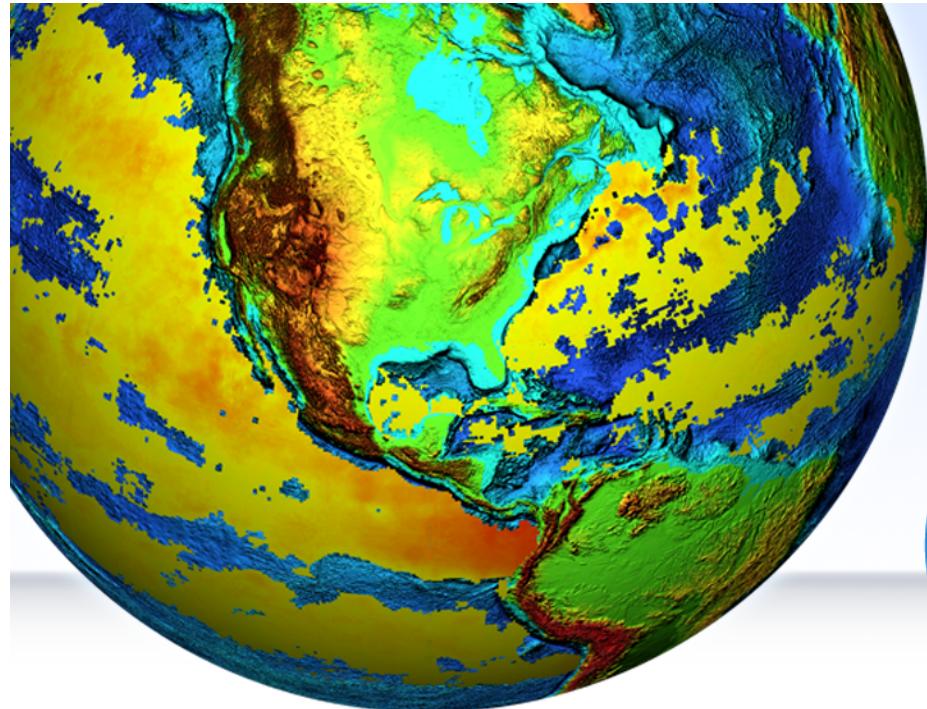


Effectively Anticipating and Responding to a Changing Climate Requires...

A continuously evolving understanding of the integrated “*climate-society system*” to address today’s challenges and plan for the future
and

An adaptive management approach that provides for regular evaluation and adjustment of decisions
– *and Climate Service programs* -- as new scientific insights emerge, information needs evolve and socio-economic and environmental conditions change

**People, Places, Possibilities, Partnerships:
Understanding Risks & Enhancing Resilience**



THE CLIMATE SERVICE

CLIMATE SERVICE

Thank You...

DISCUSSION