NOAA and OAR Approaches to Research Planning

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Office of Oceanic & Atmospheric Research (OAR)
National Oceanic & Atmospheric Administration (NOAA)
OAR Science Reviews

• Conducted every four years to evaluate the quality, relevance, and performance of research and development in OAR labs
• Assist in strategically positioning the lab for planning future science
• Intended to ensure that research is preeminent and linked to the NOAA Strategic Plan
• The Review Panel is asked to evaluate each science area based on specific questions within the Charge to the Review Panel
NOAA’s Organization

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Vacant

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Laura Furgione

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Ecosystem
Steve Murawski

Climate
Chet Kobylinsky

Weather & Water
Edward Johnson (A)

Commercial & Transportation
CAPT Steven Barnum

Satellite Services
Michael Grison

Fleet Services
Talir Hull

MISSION SUPPORT

Modeling & Observing Infrastructure
Pamela Taylor

Leadership & Corporate Services
William Broglie
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Director, Earth System Research Laboratory
Alexander MacDonald

Air Resources Laboratory
Steven Fine

Atlantic Oceanographic & Meteorological Laboratory
Robert M. Atlas

Earth System Research Laboratory
Alexander MacDonald
- Global Monitoring Division
- Physical Sciences Division
- Chemical Sciences Division
- Global Systems Division

Geophysical Fluid Dynamics Laboratory
Venkatachalam Ramaswamy

Laboratories and Cooperative Institutes
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Great Lakes Environmental Research Laboratory
Marie Colton, Acting

National Severe Storms Laboratory
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Office of Weather & Air Quality
John Gaynor

Leadership

Headquarters Staff Offices

Laboratories

Grant Programs

Vacancy
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Alexander MacDonald
- Global Monitoring Division
- Physical Sciences Division
- Chemical Sciences Division
- Global Systems Division

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Headquarters Staff Offices
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Grant Programs

NOAA Research
NOAA Research

Vision
A society that uses the results of our research as the scientific basis for more productive and harmonious relationships between humans and the environment. *

Mission
To conduct environmental research, provide scientific information and research leadership, and transfer research into products and services to help NOAA meet the evolving economic, social, and environmental needs of the Nation.*

*From OAR Strategic Plan (2005-2010)
NOAA’s Mission Goals

Weather & Water

Ecosystems

Climate

Commerce & Transportation
NOAA’s Mission Goals

Climate Matrix Programs

Climate Observations & Monitoring

Climate Research & Monitoring
V. Ramaswamy (Program Manager)

Climate Services Development

Weather & Water

Commerce & Transportation
NOAA’s Mission Goals

Weather & Water

Ecosystems

Climate

Mission Support

Commerce & Transportation
NOAA’s Mission Goals

Mission Support Subgoals
- Satellite
- Fleet Services
- Modeling and Observing Infrastructure
- Leadership and Corporate Services

Weather & Water

Commerce & Transportation

Climate
NOAA’s Mission Goals

Mission Support Subgoals

Satellite
Fleet Services
Modeling and Observing Infrastructure
Leadership and Corporate Services

Weather & Water

Mission Support

Modeling and Observing Infrastructure Matrix Programs

Environmental Modeling
Integrated Ocean Observing System
Technology, Planning and Integration

NOAA’s Environmental Data Value Chain

Decisionmakers
Public
Industry

Earth Observing Systems
Data Assimilation & Integration
Environmental Modeling
Product & Services
Product Delivery & Public Outreach
# PPBES Process

<table>
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<tr>
<th>Purpose: What NOAA...</th>
<th>Steps</th>
<th>Leads</th>
<th>Who in OAR</th>
<th>Execution (FY 09)</th>
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<td>Should do</td>
<td>Strategic &amp; Annual Planning</td>
<td>Climate Programs (3)</td>
<td>OAR Labs &amp; Programs</td>
<td>Program Performance &amp; Financial Management</td>
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<tr>
<td>Can do</td>
<td>Program Review &amp; Development</td>
<td>Climate Goal</td>
<td>OAR HQ</td>
<td>Deputy Under Secretary &amp; NOAA Budget</td>
</tr>
<tr>
<td>Will do</td>
<td>Formulation &amp; Justification</td>
<td>NOAA Budget Office</td>
<td>OAR Budget</td>
<td>OAR AA &amp; GFDL Director</td>
</tr>
<tr>
<td>Does</td>
<td></td>
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- **Planning (FY 12-16)**
- **Programming (FY 11-15)**
- **Budgeting (FY 10-11)**
- **Execution (FY 09)**
Research Planning and Priorities

- Matrix management
  - Mission Goals and Line Offices
- External drivers
  - Legislation, Policy statements, Executive Orders, etc.
- Internal requirements development
  - Based on mission
  - Developed with input from:
    - Line Offices, Councils, Goal Teams, and Regional Collaboration Teams
    - Regional and national stakeholders
    - Non-governmental organizations
    - NOAA Employees
The Funding Process:

- President’s Request
- Congress
- DOC/OMB
- NOAA Budget
- PPBES Goal Teams
- GFDL
- NOAA/OAR Budget Office
- Program Offices (CPO, HPCC, NWS)
- GFDL base funds
- GFDL funded proposals
- “Other NOAA funds”
- Other Agencies (DOE, NASA)
Drivers for NOAA Research

Policy Drivers

- Ocean Action Plan
- Ocean Research Priorities Plan (ORPP)
- United States Global Change Research Program (USGCRP)
- NOAA 5-Year Research Plan
- NOAA 20-Year Research Vision

Legislative Drivers

- National Integrated Drought Information System (NIDIS)
- National Climate Program Act (NCPA)
- Global Change Research Act (GCRA)
- America COMPETES Act
NOAA’s 5 mission goals were derived from stakeholder input and internal assessments of our mandates and mission. For each mission goal, the Strategic Plan lists the relevant:
- Performance to date
- Programs
- Outcomes and Objectives

NOAA’s Next Generation Strategic Plan is expected in early 2010.

NOAA’s research enterprise develops the understanding required for each goal to achieve its mission and associated outcomes in the Strategic Plan.
NOAA Strategic Plan: Climate

Outcomes
• A predictive understanding of the global climate system …
• Use of NOAA’s climate products by climate-sensitive sectors and … the public …

Objectives
• Describe and understand the state of the climate system…
• Understand and predict climate variability and change …
• Improve the ability of society to plan for and respond to climate variability and change
NOAA 5-Yr Research Plan (FY 08-12)

• Emphasizes the integration of the observational, experimental, analytical, and modeling tools that are the core of NOAA’s research
  – Identifies specific research milestones and objectives to reach our Strategic Plan Goals and Objectives,
  – Encourages transformational research, and
  – Based on societal needs

• Next version is in the works
NOAA 5-Yr Research Plan: Overarching Research Questions

• What factors influence ecosystem processes and ... forecasts [of] their future state?
• What is the current state of biodiversity in the oceans ... [and how do we determine future states]?
• What are the causes and consequences of climate variability and change?
• What improvements to ... analysis approaches and models will allow lead us to better predict[ions] ...?
• How are uncertainties ... best estimated and communicated?
• How can the ... warning times for ... high-impact environmental events be increased significantly?
NOAA Research Tenets

Preeminent Research
Value to Society
Culture of Transparency