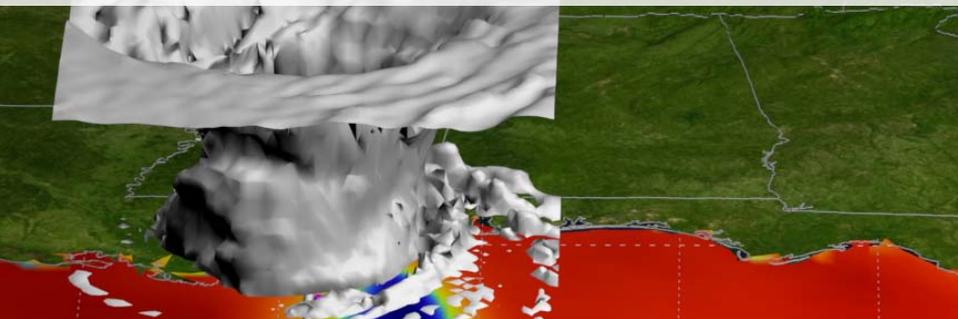


# ***NOAA and OAR Approaches to Research Planning***



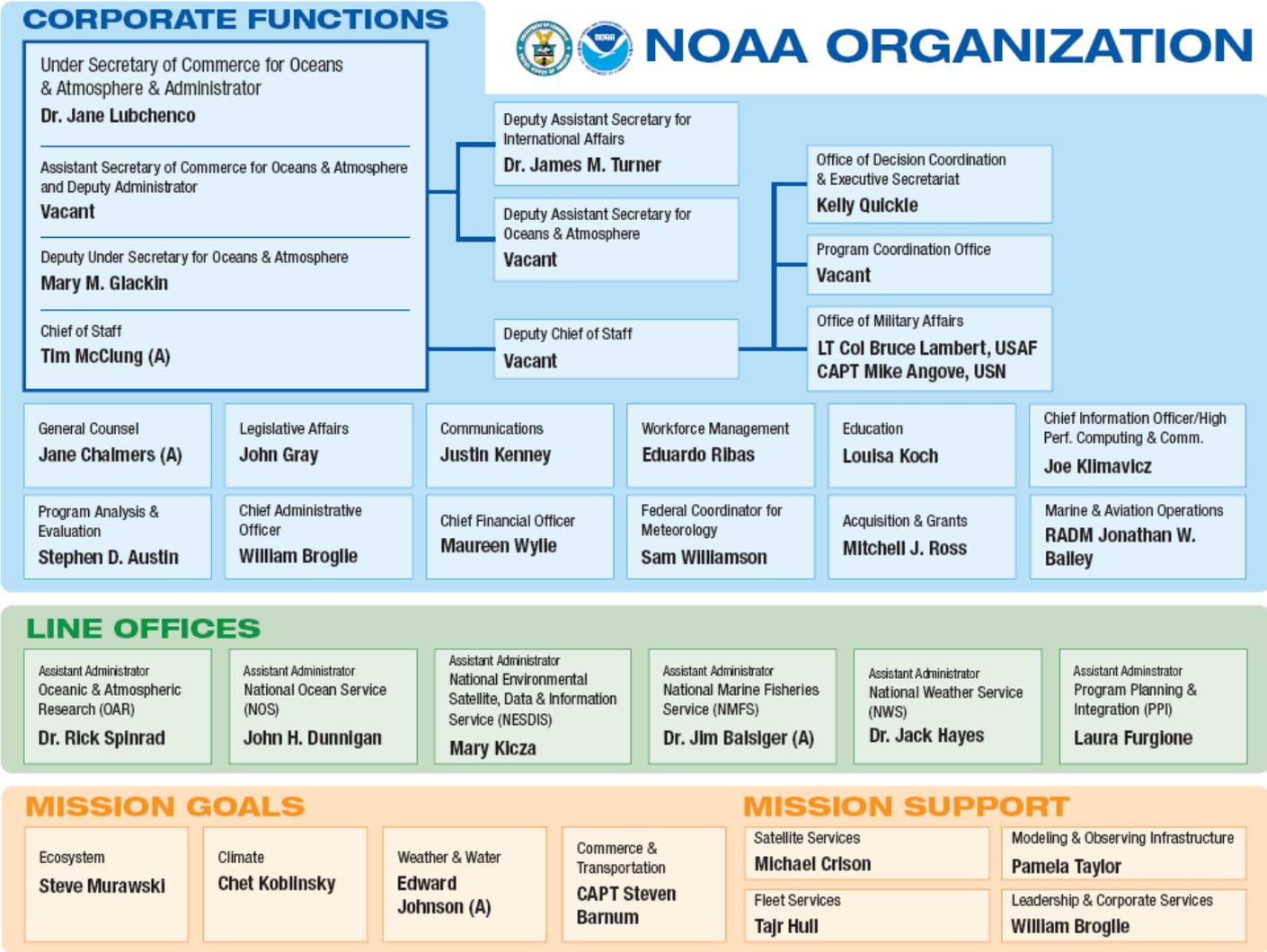
**Alexander E. MacDonald PhD**  
**Deputy Assistant Administrator for Laboratories  
and Cooperative Institutes**  
Office of Oceanic & Atmospheric Research (OAR)  
National Oceanic & Atmospheric Administration (NOAA)



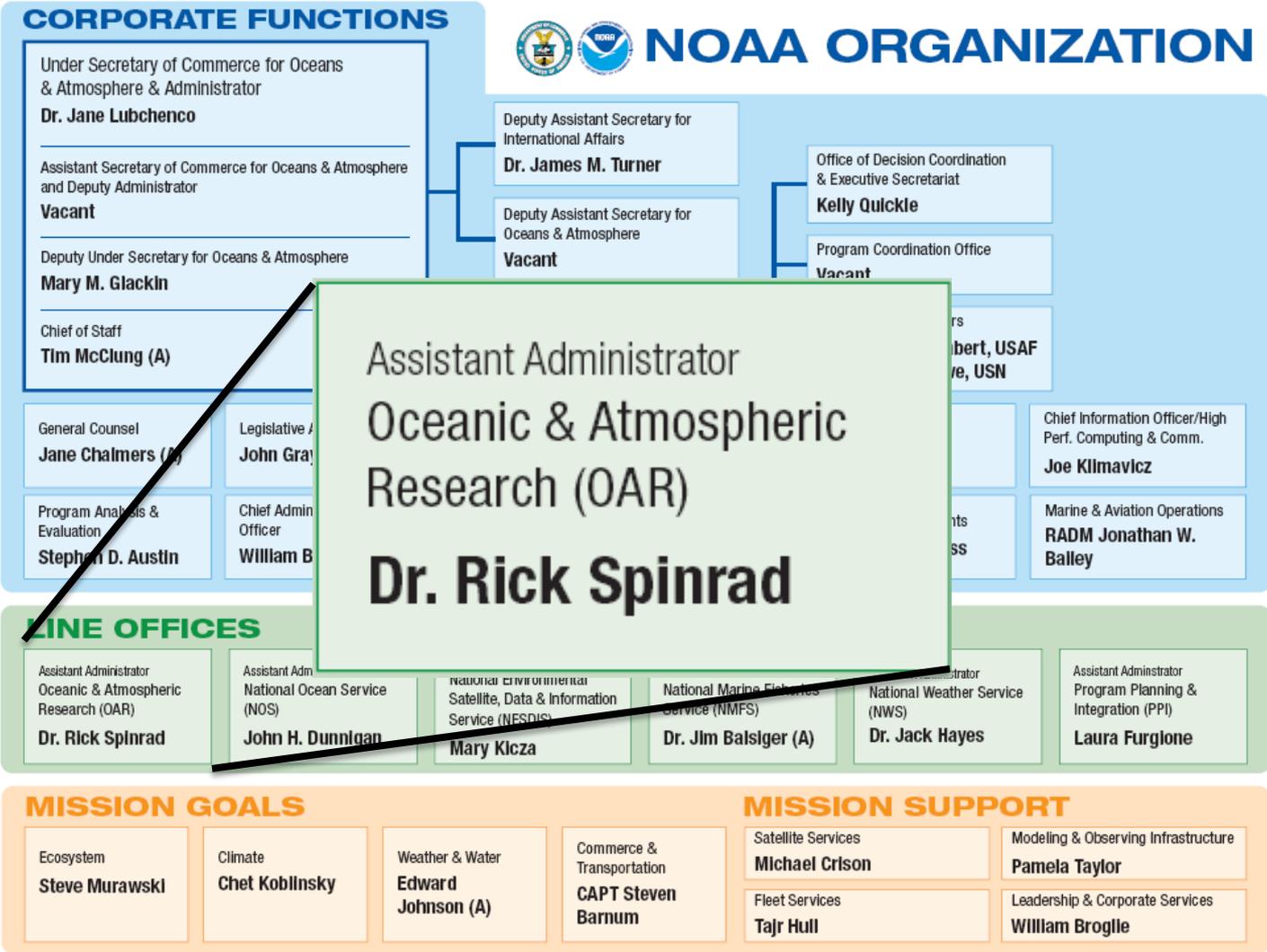
# OAR Science Reviews

- 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

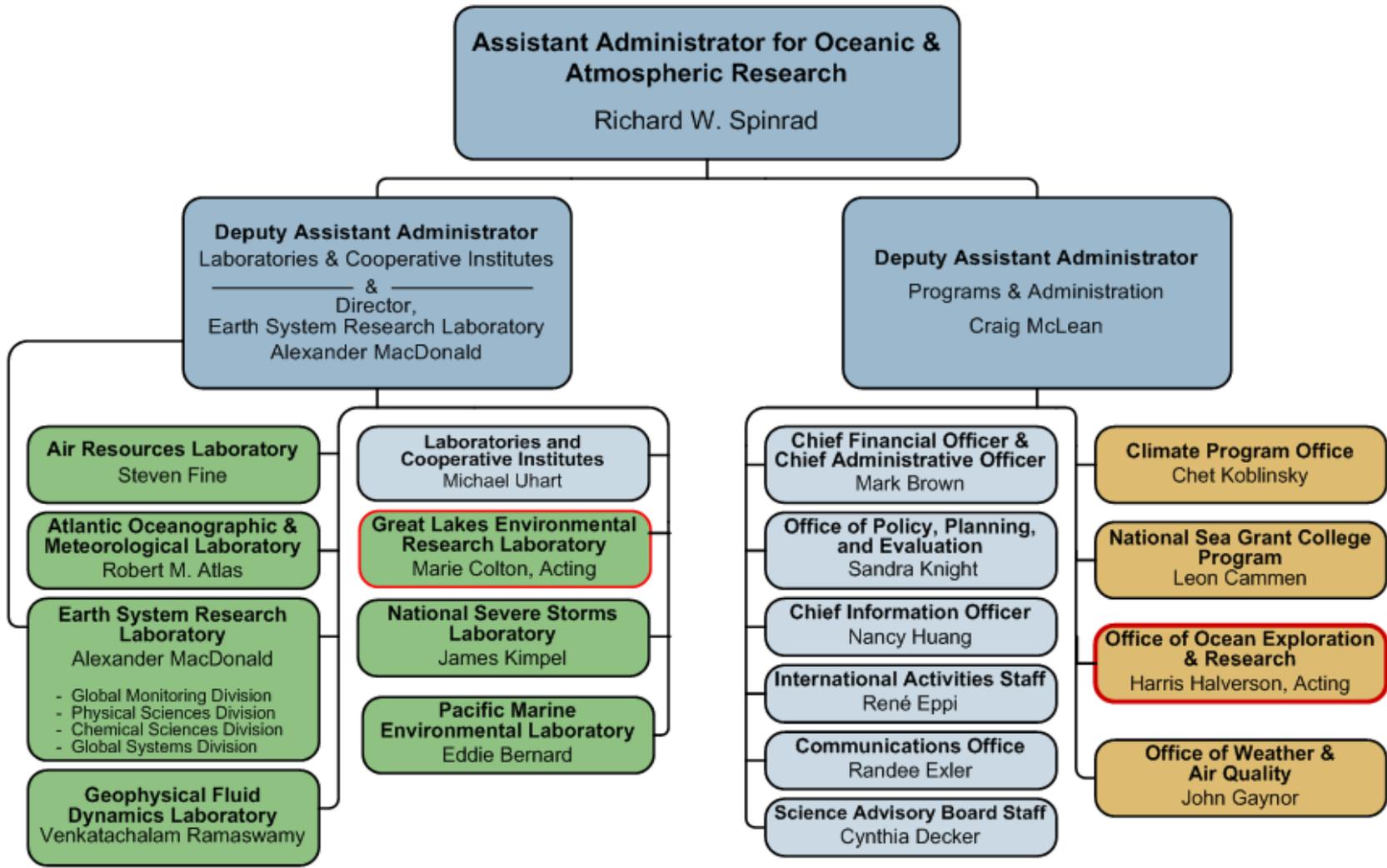
# NOAA's Organization



# NOAA's Organization

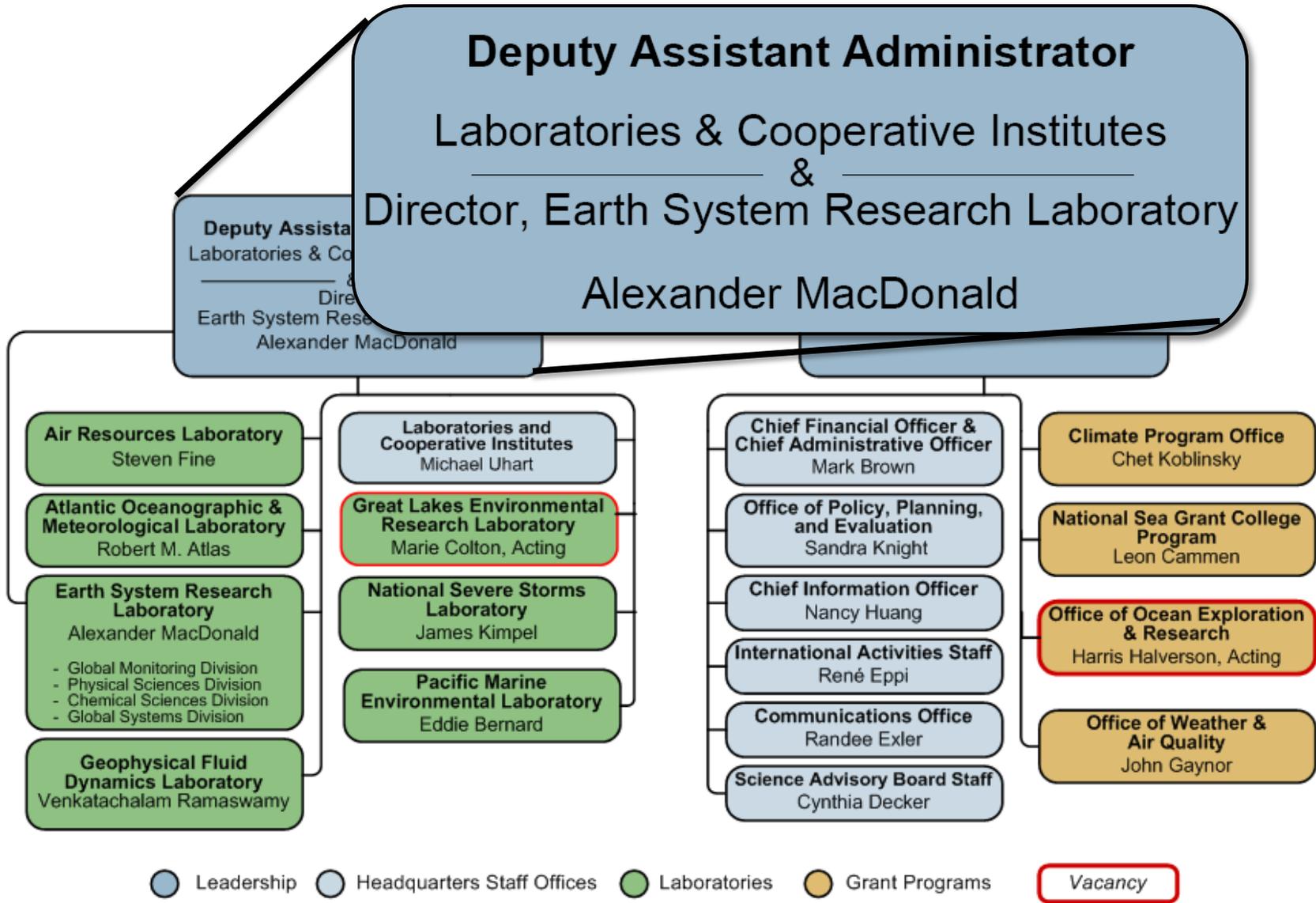


# OAR Organization



- Leadership
- Headquarters Staff Offices
- Laboratories
- Grant Programs
- Vacancy

# OAR Organization





# NOAA Research

## *Vision*

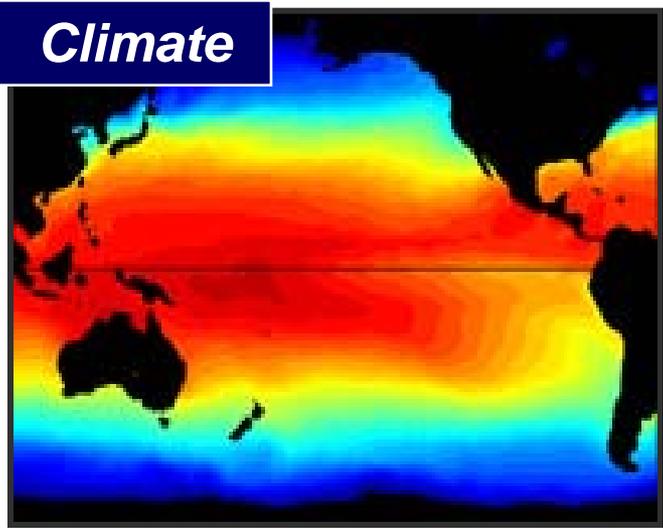
**A society that uses the results of our research as the scientific basis for more productive and harmonious relationships between humans and the environment. \***



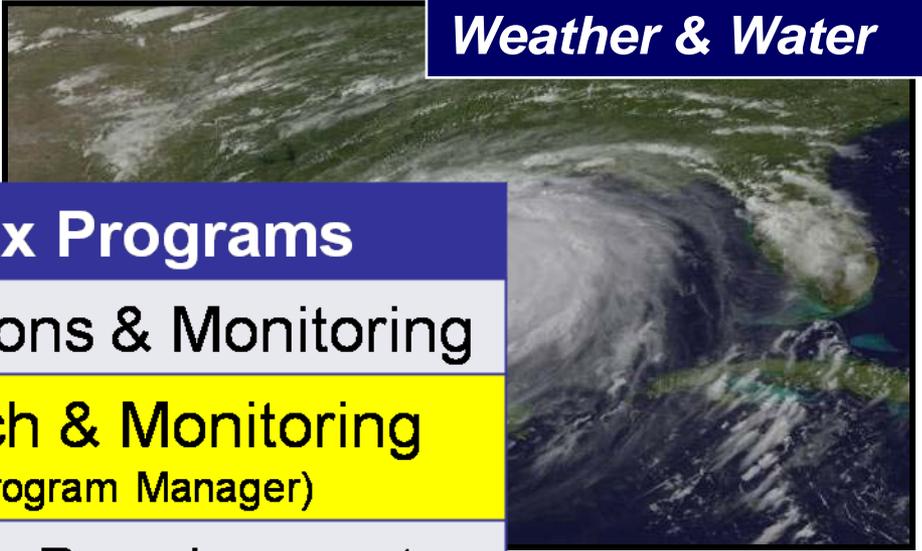
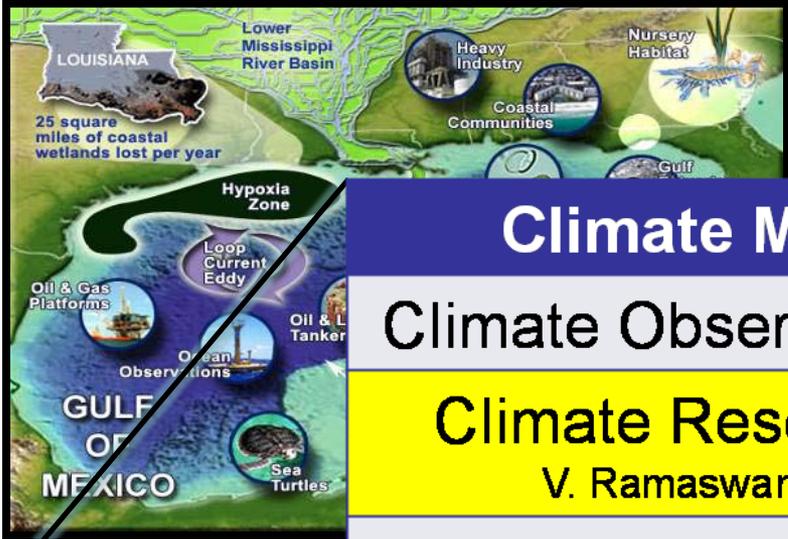
## *Mission*

**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.\***

# NOAA's Mission Goals



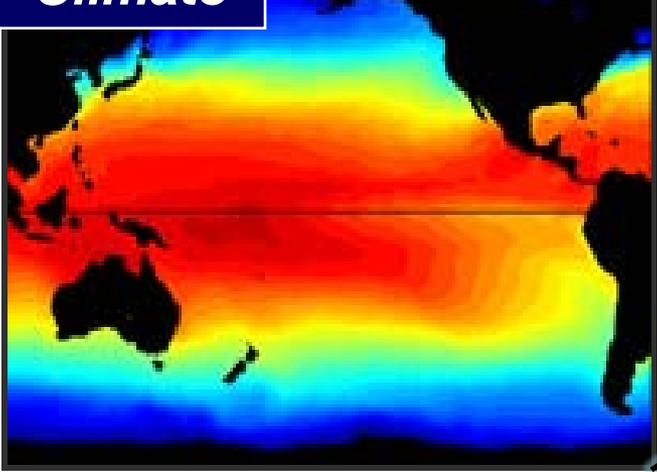
# NOAA's Mission Goals



**Weather & Water**

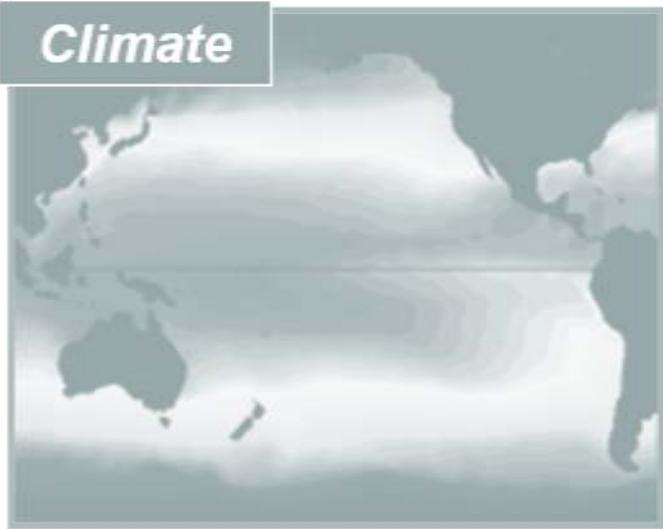
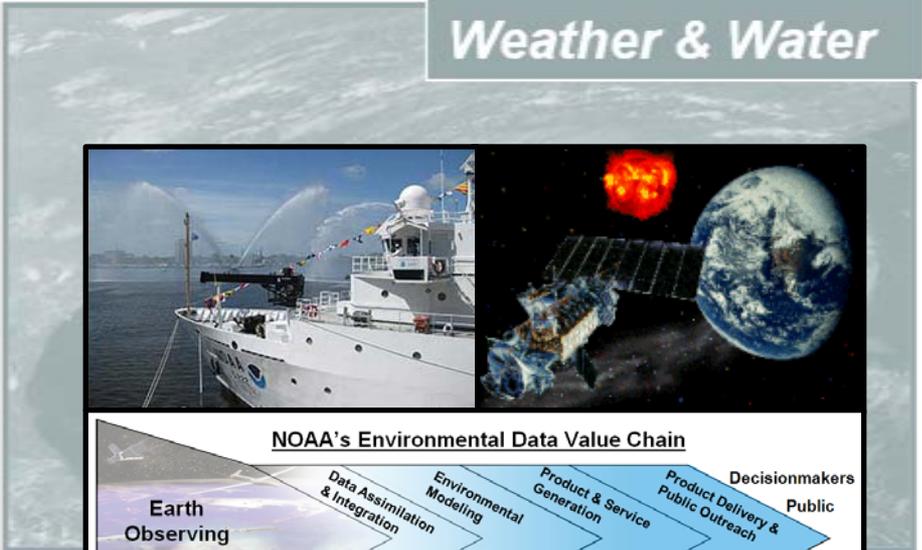
**Climate Matrix Programs**  
Climate Observations & Monitoring  
**Climate Research & Monitoring**  
V. Ramaswamy (Program Manager)  
Climate Services Development

**Climate**



**Commerce & Transportation**

# NOAA's Mission Goals



# NOAA's Mission Goals

## Mission Support Subgoals

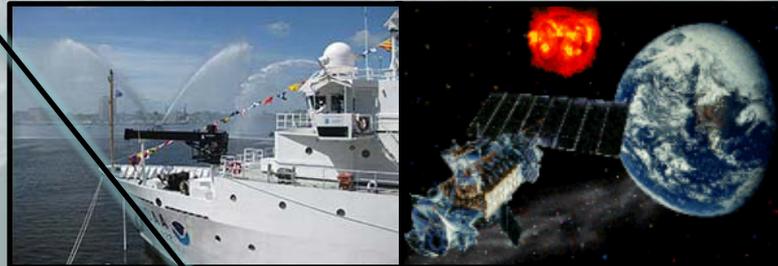
Satellite

Fleet Services

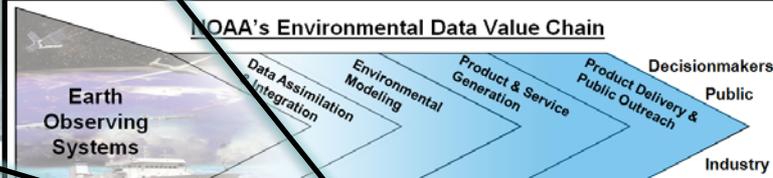
**Modeling and Observing Infrastructure**

Leadership and Corporate Services

## Weather & Water



NOAA's Environmental Data Value Chain



## Climate



## Mission Support

## Commerce & Transportation

# NOAA's Mission Goals

## Mission Support Subgoals

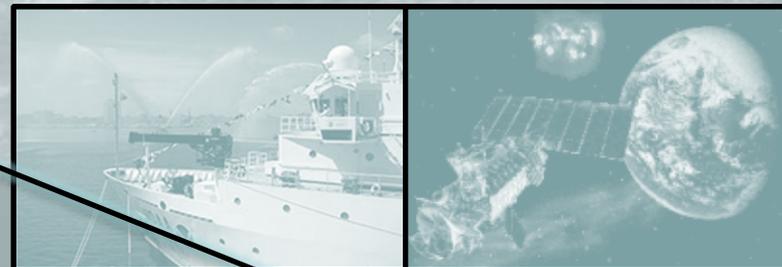
Satellite

Fleet Services

**Modeling and Observing Infrastructure**

Leadership and Corporate Services

## Weather & Water



### NOAA's Environmental Data Value Chain



## Climate



## Mission Support

**Modeling and Observing Infrastructure Matrix Programs**

**Environmental Modeling**

Integrated Ocean Observing System

Technology, Planning and Integration

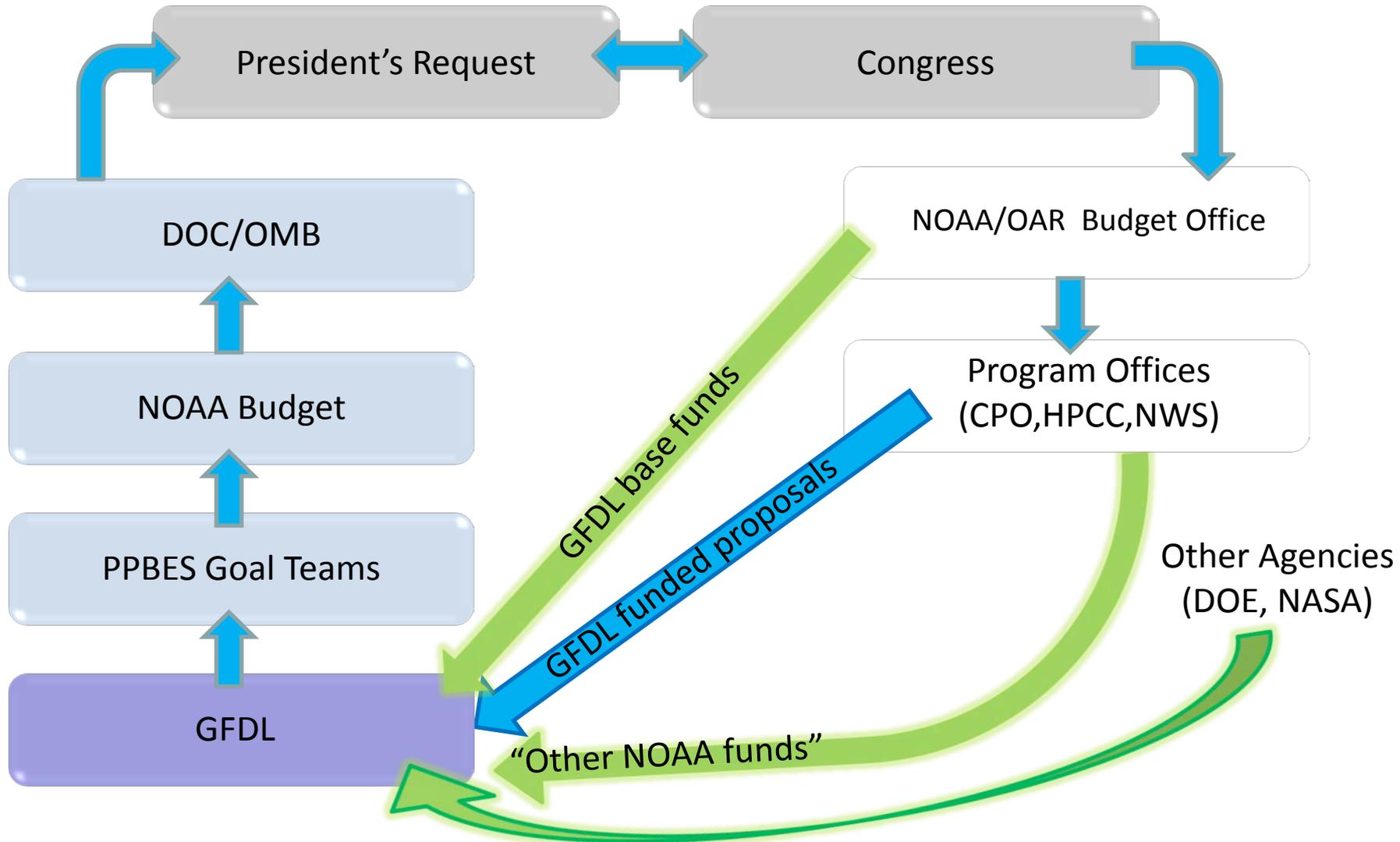
# PPBES Process

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

# 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:



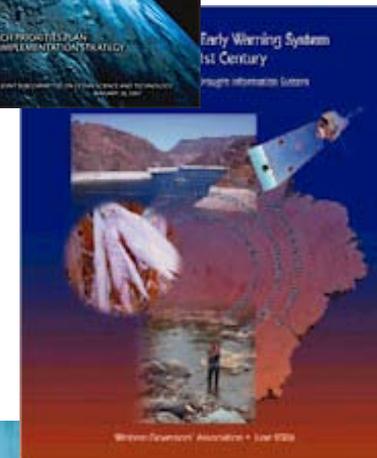
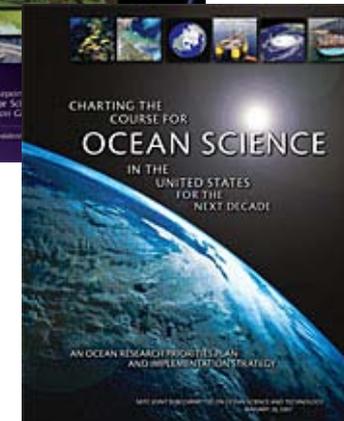
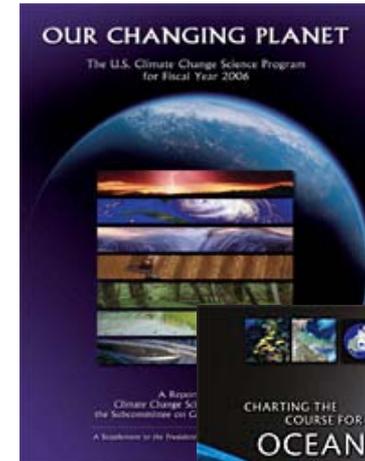
# Drivers for NOAA Research

## 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 Strategic Plan: (FY 09-14)

- 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**

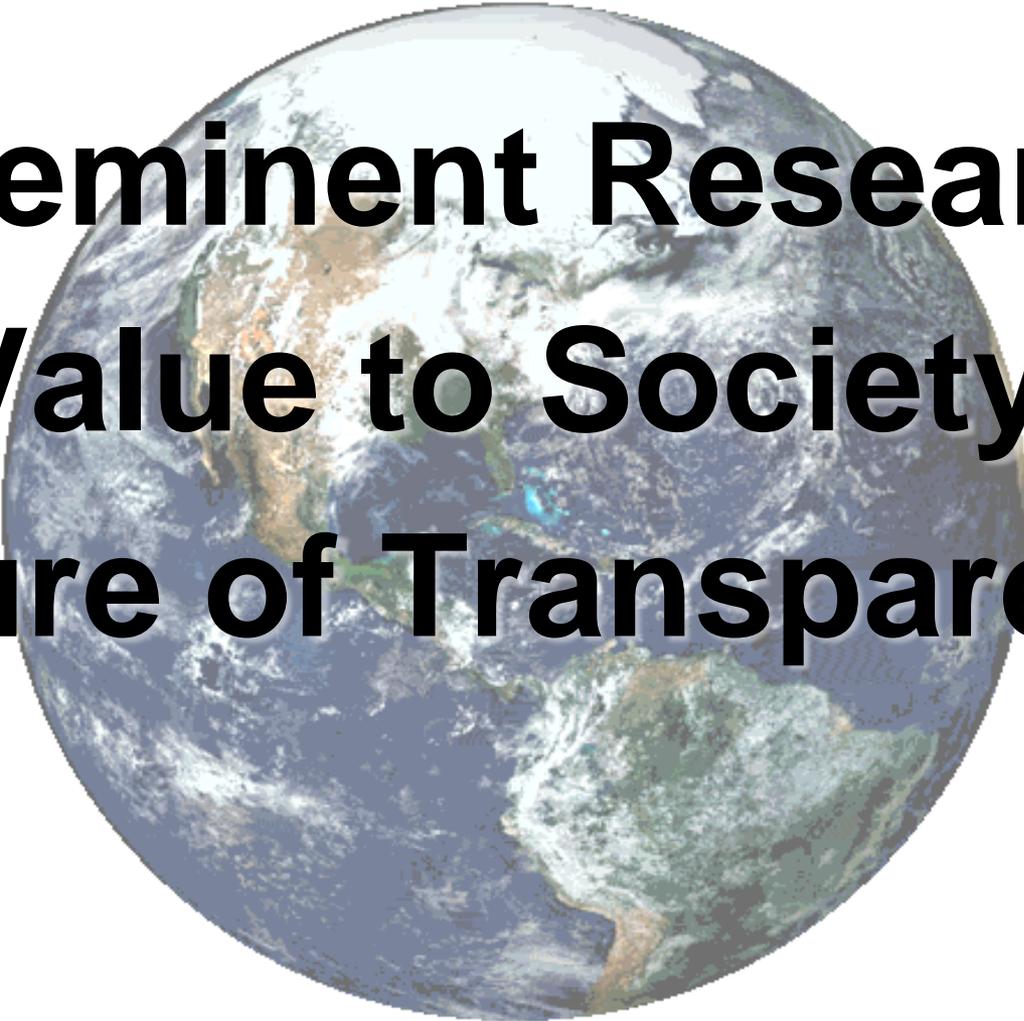
- Describe and understand the state of the climate system...
- Understand and predict climate variability and change ...
- Improve the ability of society to plan for and respond to climate variability and change

# 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?



**Preeminent Research  
Value to Society  
Culture of Transparency**