ESRL Physical Sciences Laboratory Review

Organization Overview, Physical Sciences Research, Priority Setting

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March 9-12, 2010
Earth System Research Laboratory

Talk Overview

- ESRL - Organizational Overview
  ESRL Role within NOAA & OAR

- ESRL Mission, Approach

- Physical Science Research at ESRL
  Major Foci • Major Drivers

- Charting Our Way in the NOAA Climate Service
Earth System Research Laboratory

Who We Are

NOAA’s Mission Line Offices

- Oceanic & Atmospheric Research
- National Marine Fisheries Service
- National Weather Service
- National Environmental Satellite, Data & Information Service
- National Ocean Service
- Program Planning & Integration

Oceanic & Atmospheric Research

- Assistant Administrator
  - Richard Spinrad

- Deputy Assistant Administrator, Labs & Cooperative Institutes; Director, Earth Systems Research Lab
  - Alexander MacDonald

- Deputy Assistant Administrator, Programs & Administration
  - Craig McLean

- Earth System Research Laboratory
- Air Resources Laboratory
- Atlantic Oceanographic & Meteorological Laboratory
- Great Lakes Environmental Research Laboratory
- Pacific Marine Environmental Laboratory
- National Severe Storms Laboratory
- Geophysical Fluid Dynamics Laboratory
Earth System Research Laboratory
Overview & Mission

ESRL Directorate
& centralized support

Global Monitoring Division
Physical Sciences Division
Chemical Sciences Division
Global Systems Division

Cooperative Institute for Research in Environmental Sciences (CIRES)
Cooperative Institute for Research in the Atmosphere (CIRA)

ESRL Mission

To observe & understand the Earth system & to develop products
through a commitment to research that will advance NOAA’s environmental
information & service on global-to-local scales
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**Approach**

Comprehensive approach provides for ‘end-to-end’ science that supports NOAA’s operational & information service missions in weather & climate.
Earth System Research Laboratory

Drivers & Priorities

Major Drivers:

- NOAA Strategic Plan
- NOAA Research Plan
- NOAA Next Generation Strategic Plan
- National Programs
- U.S. Legislation
- Interagency Agreements
- International Agreements

You will hear more details over the next two days...
The complexity of today’s issues means ‘no one can do it all’
- *the ability to partner is of critical value*

- Cooperative Institutes - *
  CIRES, CIRA, CIFAR, ...*

- Other OAR Labs & Programs - *ESRL (GMD, CSD), Climate Program Office, NSSL, PMEL, AOML, ARL, GFDL, ...*

- Other NOAA Line Offices - *NWS, NESDIS, NMFS, NOS*

- Other U.S. Agencies - *FAA, NASA, DOE, EPA, NSF, DOI, ...*

- Academia - *Many longstanding & productive partnerships!*

- Private Industry – *Aerospace/aviation, weather enterprise, museums, ...*

- International - *Australia Bureau of Meteorology, Taiwan Central Weather Bureau, Finnish Meteorological Institute, Roshydromet, Environment Canada, Korean Meteorological Administration, ...*

*Specifics will be given in the talks to come...*
More will be discussed in our closing remarks ...
Welcome

Up Next -- New Advances in Global Assimilation and Modeling