



Research in NOAA: Toward Understanding and Predicting Earth's Environment



A Five-Year Plan (2005-2009)

NOAA is pleased to announce the publication of its first corporate five-year research plan. The research plan supports the four mission goal areas identified in the NOAA Strategic Plan - Ecosystems, Climate, Weather and Water, and Commerce and Transportation - while underscoring the importance of research that cuts across traditional disciplinary boundaries. The research plan identifies key directions for NOAA's research over the next five years and provides an overview of our planning process to improve our products and information services. Key areas for research in each of the mission goals over the next five years are listed below.

Ecosystem Mission Goal - *Protect, Restore, and Manage the Use of Coastal and Ocean Resources through Ecosystem-Based Management*

- Integrated Earth observing system and data management system;
- Assessments and forecasts of coastal and marine ecosystems;
- Scenario development to support specific management actions and decisions;
- Ocean exploration;
- Capacity building and effective knowledge transfer.

Climate Mission Goal - *Understand Climate Variability and Change to Enhance Society's Ability to Plan and Respond*

- Develop an integrated global observation and data system for routine delivery and attribution of the state of the climate and climate forcing;
- Document and understand changes in climate forcings and feedbacks, thereby reducing uncertainty in climate projections and extending their scope;
- Improve skill of climate predictions and projections and increase range of applicability for management and policy decisions;
- Understand impacts of climate variability and change on marine ecosystems to improve management of these systems;
- Enhance NOAA's operational decision support tools to provide climate services for national socioeconomic benefits.

Weather and Water Mission Goal - *Serve Society's Needs for Weather and Water Information*

- Improve weather forecasts and warning accuracy and amount of lead time;
- Improve water resources forecasting capabilities;
- Provide information to air quality decision makers and establish and improve a national air quality forecast capability;
- Improve NOAA's understanding and forecast capability in coasts, estuaries, and oceans.

Commerce and Transportation Mission Goal - *Support the Nation's Commerce with Information for Safe, Efficient, and Environmentally Sound Transportation*

- Reduced risks to life, health and property within our nation's transportation system;
- Improved movement of goods and people in the U.S. transportation system;
- Reduced risks and adverse environmental impacts from the U.S. transportation system.

NOAA is leading the way in delivering the information and services that the nation will need now and in the future to make intelligent decisions about our environmental resources. The five-year research plan reflects NOAA's response to some of our nation's most challenging environmental needs as identified in the 20-Year Research Vision.

You may download a copy of the NOAA Five-Year Research Plan at <http://www.nrc.noaa.gov/reports.htm>. Comments and questions can be directed to Dr. Terry Schaefer at Terry.Schaefer@noaa.gov.