



National Research Council Review of
the *Strategic Plan* for the Climate
Change Science Program

**Chapter 12 – Observing and
Monitoring the Climate System**

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CCSP Observations

Overarching Question

How can we provide active stewardship for an observation system that will document the evolving state of the climate system, allow for improved understanding of its changes, and contribute to improved predictive capability for society?

CCSP Observation Strategy

Goals

- 1: Design, develop, deploy, and integrate observation components into a comprehensive system;
- 2: Accelerate the development and deployment of observing and monitoring elements needed for decision support;
- 3: Provide stewardship of the observing system;
- 4: Integrate modeling activities with the observing system;
- 5: Foster international cooperation to develop a complete global observing system;
- 6: Manage the observing system with an effective interagency structure.

NRC Observation System *Recommendations*

- A strategic program for an integrated observing system.
 - Integration of existing facilities with plan for expansion
 - Interagency and international cooperation
 - Plan to make scientific products widely available
 - Continuity
 - Flexibility to address changing needs
- CCSP role
- Balance of satellite and in situ observations.
- Climate quality calibration.
- Observe important local and regional variability.
- Coordination of modeling and observations.
- Transition from research to operations.
- Climate requirements on weather observations.

Workshop/Public Comments - *Issues*

- We do NOT have an adequate Climate Observing System
- Observing Principles are Incomplete
- CCRI Timelines
- Ecosystem observation component needs further development
- Independent analysis of observational data
- Long-term strategy vague
- More on “stabilization” and “improvements” for observations
- Balanced use of existing assets for multiple priorities
- Data assimilation and analysis for products.



Next Steps

- Earth Observation Summit
 - Hosted by the U.S. Government in Washington, DC, on July 31, 2003
 - Senior international government and non-government leaders in climate science, technology and environment from 34 nations
 - To obtain international support for a system of integrated space-borne, airborne, and in situ observations, to help understand and address global, environmental and economic concerns (www.earthobservationsummit.gov)
- Initiated a year-long development of a decadal plan for Earth observation
 - US participation led by the NOAA Administrator
- Resources for climate observations