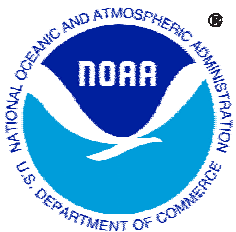


Earth Observations: Our global and national efforts



3 March 2005

Carla Sullivan

NOAA Senior Policy Advisor

Executive Secretary, Interagency Working Group on Earth Observations



Earth Observation Summit III

Brussels, Belgium
February 16, 2005





International Political Will

World Summit on Sustainable Development

G-8 Action Plan for Sustainable Development

Earth Observation Summits I & II

- 🌐 60 Countries + EC & 33 International Organizations currently represented
- 🌐 66% increase in country participation





Hon. Carlos Gutierrez U.S. Secretary of Commerce

- 🌐 "The United States is making the commitment to move earth observation to the next level to benefit this next generation. This is one of President Bush's environmental priorities..



... And today, I am pleased to present you with our government's plan for an Integrated U.S. Earth Observation system."



U.S. Contribution to GEOSS

VISION

Enable a healthy public,
economy, and planet through
an integrated, comprehensive,
and sustained Earth
observation system.

Strategic Plan
for the U.S. Integrated Earth Observation System
PRE-PUBLICATION COPY

prepared by the
Interagency Working Group on Earth Observations



of the Committee on Environment and Natural Resources

Integrated Earth Observations



A distributed system of systems

- 🌐 Links all platforms: in situ, aircraft, and satellite networks
- 🌐 Identifies gaps in our global capacity
- 🌐 Facilitates exchange of data and information
- 🌐 Improves decision-makers' abilities to address pressing policy issues



Societal Benefits Focus



Natural & Human
Induced Disasters



Water Resources



Ecosystems



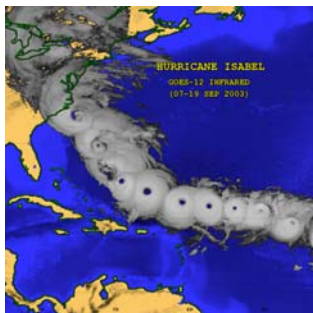
Human Health &
Well-Being



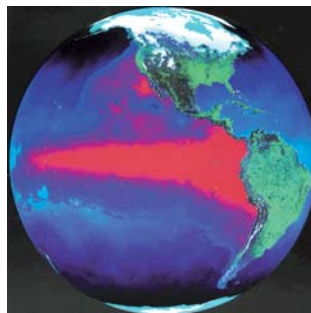
Energy Resources



Sustainable
Agriculture &
Desertification



Weather Information,
Forecasting & Warning



Climate Variability &
Change



Oceans

Ecological Forecasting



" ...Earth observations for application to ecosystems and ecological forecasting are less mature than for many of the other societal benefits. "

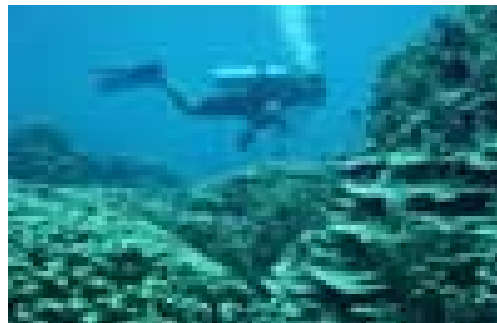
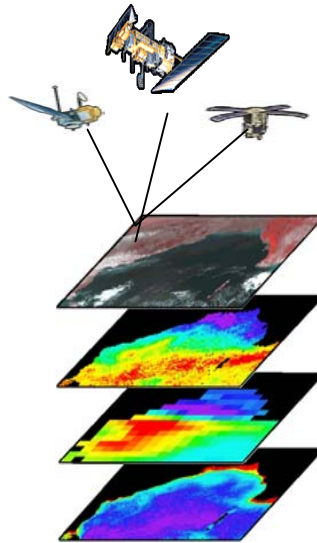


Diverse observational requirements and needs



Current Observations

- AVHRR / MODIS for Measuring Sea Surface Temperature
- Airborne Digital MultiSpectral Imagery for Species Distribution and Structure
- Field and Site Data for Groundtruthing



Major Gaps & Challenges

- Lack of Interoperability for Existing Deployed Observation Systems
- Too Few Sample Sites to Capture Spatial Variability in Ecological Processes and Conditions
- Insufficient *in situ* Observations of Marine Ecosystems



Integration of Data

Lifemapper (www.lifemapper.org)

- uses Internet and leading-edge technology to retrieve records of millions of plants and animals in the world's natural history museums; analyzes the data;
- computes an ecological profile of each species,
- maps where the species has been found; and
- predicts where each species could potentially live.

In a similar project, NOAA, the USGS and the Smithsonian Institute are developing a similar system to map and project risks of invasive species spread in to marine, estuarine and coral reef systems.



Upcoming activities..

International

- 🌐 Transition work plan in development
- 🌐 Formation/selection of Executive Committee underway
- 🌐 GEO Meeting at World Meteorological Organization, May 2-4

National

- 🌐 Upcoming rollout of US plan (pre-publication copy out now)
- 🌐 Development of Data Management Plan and Architecture
- 🌐 May 9-10 Public Engagement Workshop, Ronald Reagan International Trade Center



For More Information

Intergovernmental ad hoc Group on Earth Observations

<http://earthobservations.org>

Interagency Working Group on
Earth Observations

<http://iwgeo.ssc.nasa.gov>