Earth System Research Laboratory
Serving Society through Science

From GEOSS to Models:
Filling the Gap between Observations and Predictions

http://www.esrl.noaa.gov/about/dedication

Session Chair: Dr. Steven Koch, Steven.Koch@noaa.gov

GEOSS

The Global Earth Observing System of Systems (GEOSS) addresses the Earth as an integrated and complex system. All processes that influence conditions on Earth are linked and impact one another. ESRL assimilates integrated observations into coupled models to improve prediction of the Earth System and to increase understanding of linked physical processes.
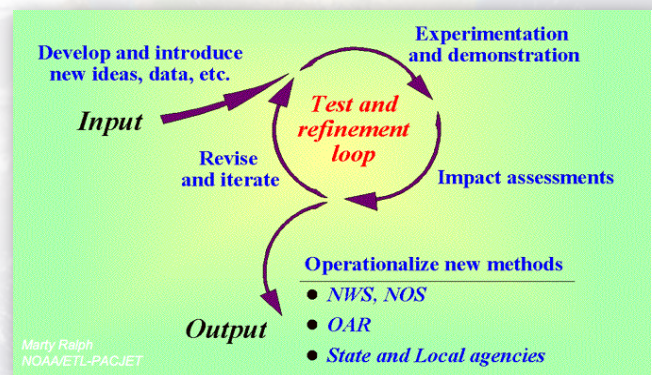

Technologies for Observing Earth

ESRL is a leader in the development of technologies for observing the Earth System, and participates in the assessment of observations to improve forecasts. This unique combination of capabilities enables NOAA to provide the best possible environmental predictions for the least amount of money.

Hydrometeorological Testbeds

Testbeds are an innovative concept for quickly assessing new tools and bridging gaps between research and operations. The Hydrometeorological Testbed implements the most successful method for improving precipitation and flood forecasting. Droughts are likewise complex natural phenomena with extensive impacts. Their causes, often far removed from the drought region itself, require global observations and models to accurately forecast them.

ESRL has great strengths and diverse expertise required to advance our ability to monitor the state of the Earth System. We improve observing technologies, numerical models, and develop information systems and sophisticated tools for user decision support.