NASA Research and Application

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ESE Research and Application

Assimilation & Modeling

Data and Information Products

Observations

ESE Applications

Data and Information Synthesis

National Applications

Decision Support System
In 2001, NASA compiled the first-ever detailed record of the global carbon cycle. The study was based on continuous SeaWiFS observations.

How are global ecosystems changing, and what changes are occurring in global land cover and land use, and what are their causes?
Modeling is Key to Providing Economic and Policy Relevant Information

- NASA is providing global, systematic observations from multiple satellites and instruments, which augment a 20+ year data archive.
- Combined, the use of more global satellite observations, faster computers, and more accurate models will result in more accurate prediction for decision makers.
Meeting Societal Needs

Petabytes
Multi-platform, multi-parameter, high spatial and temporal resolution, remote & in-situ sensing

Autonomous, In-space Calibration and Data Reduction

Terabytes
Interaction Between Modeling/Forecasting and Observation Systems

Gigabytes
Predictions
Interactive Dissemination

Megabytes

Advanced Sensors
Processing Webs
Information Synthesis
Access to Knowledge

Roadmap from Data to Decision Support