



EARTH OBSERVATIONS

Research and Development Funding in the President's FY 2007 Budget

Over the past year, natural disasters in the United States and abroad have illustrated the need for a better understanding of the Earth system. The U.S. supports a large number of space-based, airborne and ground-based instruments to observe, monitor and measure a multitude of the Earth's characteristics around the globe. The President is committed to optimizing these scientific efforts by developing sustained and integrated Earth observation systems for the Nation and by making these systems an integral part of a global system.

Global Earth observations support research in a wide range of sciences important for society. The *U.S. Strategic Plan for an Integrated Earth Observations System* (IEOS) provides guidance for agencies contributing to these efforts. Sixteen federal agencies, with primary leadership from NOAA, NASA, and OSTP, have been actively planning an integrated Earth Observations System under the National Science and Technology Council's U.S. Group on Earth Observations (USGEO).

One critical area of Earth Observations is the ability to observe the land's surface from space—land observations are critical to all of the 9 societal benefits identified in the *U.S. Strategic Plan for an Integrated Earth Observations System*. The FY2007 budget includes \$98 million for NASA to procure a next-generation Landsat instrument to continue the 30-year record of land imagery. In addition, the administration has directed the USGEO to develop a long-term plan to meet U.S. land observing needs for decades to come. This will ensure that the US will continue to have access to this critical satellite imagery of the Earth's land surface and that we will maintain our global leadership in land observations.

The USGEO is also developing plans for six near-term activities that integrate the nation's Earth Observation capabilities to address specific national and global needs. These plans address multiple societal benefit areas, ranging from reducing loss of life and property from disasters to supporting sustainable agriculture, to improving public health.

The near-term plans make recommendations for:

- 1) An Air Quality Assessment and Forecast System
- 2) Improved Observations for Disaster Reduction
- 3) A Global Land Observation System
- 4) Improved Observations for a National Integrated Drought Information System
- 5) A Sea Level Observation System
- 6) An Architecture and Data Management System for the U.S. integrated system.

The U.S. national strategy is being developed in parallel to the international Global Earth Observation System of Systems (GEOSS). The U.S. plan was submitted at the third Earth Observation Summit in 2005 as the U.S. contribution to GEOSS. The intergovernmental Group on Earth Observations, now 60 countries strong, is working to integrate energy and environment research initiatives that are critical for achieving sustained global economic growth while ensuring a healthy environment.