



EARTH OBSERVATIONS

Research and Development Funding in the President's FY 2006 Budget

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.

16 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 Interagency Working Group on Earth Observations (IWGEO). The IWGEO has prepared a strategic plan as the first step in the planning process towards the development and implementation of the U.S. *Integrated Earth Observation System (IEOS)*. The goal of this strategic plan is to integrate the nation's Earth Observation capabilities to address national and global needs. It will also provide the U.S. a framework for participating in the international effort to develop a 10-year plan for a Global Earth Observation System of Systems (GEOSS).

The strategic plan identifies nine societal benefit areas which will accrue from an integrated approach to Earth Observations and where progress can be realized most quickly:

- Improve weather forecasting;
- Reduce loss of life and property from disasters;
- Protect and monitor our ocean resource;
- Understand, assess, predict, mitigate and adapt to climate variability and change;
- Support sustainable agriculture and forestry, and combat land degradation;
- Understand the effect of environmental factors on human health and well-being;
- Develop the capacity to make ecological forecasts;
- Protect and monitor water resources; and
- Monitor and manage energy resources.

A poignant reminder of the need for improved Earth Observations is the recent tsunami disaster in the Indian Ocean. As a first example of better coordinated Earth observations, the Administration has committed \$37.5 million in FY 2005 and FY 2006 to expand U.S. tsunami detection and monitoring capabilities in the Atlantic, Pacific and Caribbean. This investment will enable NOAA, USGS and NSF to deploy a fully operational tsunami warning system by mid 2007. This system will provide the U.S. with nearly 100% detection capability for any tsunami striking the U.S. coast to allow for rapid response. In addition, it will provide tsunami detection capability for regions bordering half of the world's oceans.

Concurrent with the domestic strategy, the U.S. is also spearheading the international development of GEOSS, which will include the U.S. plan as a key component. Launched at the first-ever global Earth Observation Summit, held on July 31, 2003, in Washington, D.C., the intergovernmental Group on Earth Observations includes 56 participating countries, the European Commission, and 29 international organizations.