U.S. GLOBAL CHANGE RESEARCH PROGRAM

The United States Global Change Research Program (USGCRP) seeks to provide a sound scientific understanding of both the human and natural forces that influence the Earth's climate system. USGCRP science results provide useful information for environmental decision-making on issues such as climate change, ozone depletion, changes in ecosystems, and land use. This multi-agency effort is coordinated through the National Science and Technology Council.

For FY 2001, the President is requesting $1.74 billion for the USGCRP, an increase of $39 million above the amount enacted for FY 2000. $843 million is for scientific research and improvements to surface-based monitoring, (an increase of $79 million, or about 10%). $923 million is for NASA's development of Earth observing satellites to monitor climate and global change (a decrease of $34 million, reflecting the phasing of funding for large development projects). Important USGCRP budget highlights include:

- ***Improved Climate Observations.*** The FY 2001 budget provides $26 million to enhance NOAA surface-based observations, including creation of a climate reference network to provide, for the first time, simultaneous, automated, and ideally located measurements of changing temperatures, precipitation and soil moisture. Measurements of atmospheric trace gases, aerosols, ocean temperatures, and ocean currents will also be expanded.

- ***Carbon Cycle Initiative.*** The FY 2001 budget request continues strong support for the multi-agency carbon cycle science initiative begun in FY 2000, providing $227 million (an increase of $23 million or 11%) to study how carbon cycles between the atmosphere, the oceans, and land, and the role of farms, forests, and other natural or managed lands in capturing carbon. Key agencies include USDA, DOE, NASA, NSF, DOI, and the Smithsonian Institution.

- ***Ecosystem Changes.*** The FY 2001 budget provides $224 million for research on the potential impacts of climate change and other stresses on forests, coastal areas, croplands, and other ecosystems (an increase of $19 million, or 9%). New studies will help identify "thresholds" for significant changes in ecosystems.

- ***The Global Water Cycle.*** The FY 2001 budget provides $308 million (an increase of $35 million, or about 13%) for research on changes that appear to be occurring in the Earth's water cycle -- one of the primary determinants of the Earth's climate. The launch of NASA's EOS Aqua spacecraft in December 2000 will support this research by provide new global measurements of humidity, cloud properties, precipitation, snow, and sea ice.

USGCRP Budget Summary

	FY 2000 ($M)	FY 2001 ($M)	Percent Change
National Science Foundation	$187	$187	0%
Department of Energy	$120	$123	+3%
Department of Commerce (NOAA)	$67	$93	+39%
Department of Agriculture	$53	$85	+60%
Department of Interior	$27	$25	-7%
Environmental Protection Agency	$21	$23	+10%
Health and Human Services	$46	$48	+4%
Smithsonian	$7	$7	0%
NASA (science)	$236	$252	+7%
NASA (space-based observations)	$937	$897	-4%
TOTAL	$1701	$1740	+2%