



Budget Review FY 2003

# NASA

University of California • Office of Federal Governmental Relations

## Partners: The University of California & NASA

NASA supports its mission of assuring long-term development of aeronautic and space research with extensive programs conducted in NASA centers and in university and industry laboratories. University support is awarded for research programs in physics, astronomy, materials, life sciences and information systems from the Office of Space Science (OSS). It is also awarded from the several research divisions of the Office of Space, Aeronautics and Technology (OSAT). OSAT supports research at NASA Centers which, in turn, support research at universities.

The University of California received 464 awards for a total of \$53.2 million from NASA in FY 1999. Most NASA awards to UC support individual research programs in the physical sciences, life sciences, and engineering. Examples of NASA awards to UC campuses vary widely. At UC Berkeley awards range from The High Energy Solar Spectroscopic Imager (HESSI) to CHIPS, The Cosmic Hot Interstellar Plasma Spectrometer. UCLA is a principal participant in the SOFIA airborne observatory program. Both UC Santa Barbara and UC Davis are participating in the NASA Earth Science program. At UC San Diego, NASA and Scripps Institution of Oceanography have formed a new center to promote research on the ocean and atmosphere using remote sensing and computer modeling. In addition, NASA has joined UC and Caltech in support of the construction and operation of the Keck Observatory and its twin 10-meter telescopes.

<b>FY 2003 Budget Request (\$ in millions)</b>	<b>FY 2002</b>	<b>FY 2003</b>	<b>% Change FY02 to 2003</b>
NASA (overall)	14,901.0	15,000.0	0.7%
Human Space Flight	6,830.1	6,130.9	-10.2%
Science Aero and Tech	8,047.0	8,844.5	9.9%
<i>Office of Space Science</i>	2,867.1	3,414.3	19.1%
<i>Mission Operations and Data Analysis</i>			***
Research and Analysis	255.5	272.9	6.8%
Data Analysis	347.3	387.2	11.5%
<i>Earth Sciences</i>	1,625.7	1,628.4	0.2%
<i>Life &amp; Microgravity Sciences</i>	820.0	842.3	2.7%
Academic Programs	227.3	143.7	-36.8%

## FY 2003 Budget Highlights

The President's overall FY 2003 request for NASA is \$15.0 billion, an increase of \$99 million (0.7 percent) from FY 2002. The budget calls for increasing the Space Science budget by 19.1 percent and for level funding of the Earth Science budget. In addition, NASA's out-year funding profile has increased from last fiscal year, with a moderate rise in funding projected in the years 2004-2007.

**Office of Space Science (OSS)** – The Administration proposes \$3.4 billion for NASA's Office of Space Science (OSS), an increase of \$547 million (19.1 percent) over current levels.

**Data Analysis** – Within OSS, the President's budget request increases Data Analysis (DA) by 11.5 percent after a 5.3 percent gain in FY 2002. NASA is committed to enhancing the value of space and earth science missions

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by increasing the data analysis support, conduct fundamental research and ground-based observations and develop the theoretical basis for future missions.

**University Explorer Missions** – Two University Explorer class missions are included in the FY 2001 budget, one of which is the Cosmic Hot Interstellar Plasma Spectrometer (CHIPS) proposed and developed by UC Berkeley.

**SOFIA** – NASA has requested \$46.9 million, an increase of \$8.9 million (+23 percent) for the Stratospheric Observatory for Infrared Astronomy (SOFIA) program. The program is scheduled to complete modifications to the 747 aircraft that carries the observatory in FY 02 and the program expects delivery of the telescope in 2002. Development of the science instruments continues and the first flight is scheduled for 2005. Both UCLA and UC Berkeley are part of the team that is building and will operate SOFIA.

**Aerospace Technology** – The budget proposes a 12.2 percent increase in NASA's Aerospace Technology program. The goals are to fund enabling technologies that would be applicable to a host of next generation launch vehicles, space science missions and develop the next generation of aviation vehicles. Air traffic control, microthrusters, advanced power systems, nanospacecraft, ultralight structures and thinking spacecraft systems are all envisioned as research areas.

**Earth Sciences Program** – The President's request proposes \$1.63 billion in FY 2003 for NASA's Earth Sciences program, no change from the FY 2002 level. Of interest to UC and the higher education community, the President's budget calls for modest increases to the Research and Analysis function within the Earth Sciences program, \$353.9 million (+4 percent) for FY 2003. These funds support a number of researchers on UC campuses.

**Life and Microgravity Science** – The Office of Life and Microgravity Science would receive \$842.3 million, an increase of \$22.3 million (2.7 percent) reflecting NASA's commitment to this research in support of the activities aboard the International Space Station (ISS). UC campuses all have significant life and microgravity research interests. The ISS would be funded at \$1.492 billion in FY 2003, reflecting the effort to get the facility to "Core Complete" status and evaluate the costs of further expansion. It is possible that the Space Station will need additional funding to support the research program outlined and supported by NASA, the Administration, International Partners and Congress and researchers.

### **UC FY 2003 Budget Priorities**

- Support efforts to increase the fundamental research funding for research agencies including NASA over the next ten years. NASA's science support in the FY03 budget is strong, but management challenges relating to the International Space Station and continued manned access to space threaten NASA's long-term plans. We urge Congress to support the science funding requests and to support development of the full capabilities of the international space station. NASA's FY03 requested budget is too modest to achieve this goal.
- Support the President's request to increase funding for the Office of Space Science (OSS) and the Applied Research and Data Analysis portion of the Office of Earth Science. All UC campuses are active on the NASA Earth Science program and nearly all UC campuses conduct research in physics, astronomy and related fields that is funded through OSS.

- Support the proposed 11 percent increase in funding for Data Analysis (DA). DA supports peer reviewed research by UC campuses involving the data collecting hardware and the data analysis that produces scientific discoveries.
- Support NASA's request for a 6.7 percent increase to Space Science Research and Analysis. The account funds the peer reviewed research that analyzes the data collected by NASA's space and earth science missions and is critical to gaining the maximum scientific return from the investment in NASA science missions.
- Support and encourage NASA's plans to create an Ames Research Park in conjunction with the University of California and other state-supported universities. The University of California is committed to playing a lead role in providing educational opportunities to the Silicon Valley population and the NASA Ames partnership could become the flagship model for creating the next generation of partnerships between NASA and universities.
- Support the President's request to increase the Life Sciences account by 10.1 percent. The Life Sciences account sponsors basic and applied research in biomedicine, biology, environmental science, and related technologies in support of NASA's goal of human space exploration and development of the space enterprise.