

NASA Outlines FY 2006 Operating Plan – no nuclear propulsion

Unfortunately NASA is going to play in safe inner-space while the Chinese show them how.

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NASA has sent to Congress its operating plan for the remainder of fiscal year 2006, which runs until Sept. 30. Such plans, a formality required as part of the budget process, allow legislators to evaluate the proposed funding requests by federal agencies by comparing them to current spending and activities.

The plan also reflects the amount Congress actually approved for NASA during FY 2006 – \$16.623 billion (including \$349.8 million in emergency funds to deal with the impact of Hurricane Katrina on NASA's facilities in the Gulf Coast area). That figure represents a \$166.8 million increase over the Bush administration's original FY 2006 funding request.

"This total funding level, with some adjustments within the total, will enable NASA to meet critical priorities, in accordance with direction of the Congress and the president," NASA Administrator Michael Griffin said about the plan, which was sent in the form of a letter to the chairmen of the key Senate and House committees that oversee NASA.

Griffin also noted, however, that 198 budget components, called Congressional interest items – which total \$568.5 million – represent a record-high total and an increase of more than \$100 million over last year. They are the special projects required by certain legislators to divert NASA funds to their districts.

"I am deeply concerned that the growth of these unrequested Congressional directions is eroding NASA's ability to carry out its mission of space exploration and peer-reviewed scientific discovery," Griffin wrote.

"I would like to note that the impact of Congressional direction of this magnitude could conflict with NASA's ability to strive to deliver the Crew Exploration Vehicle ... by the earliest possible date following the 2010 retirement of the space shuttle as part of a balanced program of exploration, as directed in the recently enacted NASA Authorization Act of 2005 (P.L. 109-155).

"The redirection of funding, from levels planned in the president's request, to support Congressional direction has resulted in measurable impacts upon NASA's ongoing Science and Education programs, including delays and/or cancellation of planned activities."

That said, Griffin continued, "I wish to assure the Committees that NASA will honor the \$568.5 million in unrequested Congressional directions, and NASA will assess appropriate administrative charges against them, consistent with full-cost management."

He said he appreciated that the House-Senate conference committee that hammered out NASA's FY 2006 appropriation did not require any of these funds to be used "for non-NASA construction projects."

One key element of NASA's FY 2006 operating plan is the preservation of about \$176 million for the agency's Exploration Systems Mission Directorate. At one point, Congress

was considering cutting the funds to help rein in the federal budget deficit, but the decision not to slice away the money will "preserve the president's priorities for space exploration and ensure that adequate resources are available ... to support development of the CEV and Crew Launch Vehicle," Griffin's letter said.

"Funding included in this plan will support NASA's effort to launch the CEV by 2014, and to strive to launch it as close to 2010 as possible," he added.

Part of that strategy involves redirecting existing funding for longer-term and lower-priority research and technology to activities that will accelerate the CEV. In all, Griffin said, NASA will shift \$568 million within the ESMD from R&T to the Constellation effort (including the CEV and CLV).

The agency is committing about \$288 million in FY 2006 funding to the next space shuttle flight, currently scheduled for May. "NASA expects that not all of the work associated with the current FY 2006 estimate will be continued and that the revised estimate will be lower," Griffin's letter said.

"Barring any unforeseen events leading to the second (return-to-flight) mission, or anomalies discovered as a result of that mission, NASA intends to absorb any residual RTF work from FY 2006 into the FY 2007 baseline and will cease tracking RTF costs separately."

Related to the shuttle's return to flight, NASA's FY 2006 operating plan includes \$100 million for cargo and crew servicing to the International Space Station – of which the agency is setting aside \$52 million during the fiscal year to invest in commercial proposals.

"With a limited number of Space Shuttle flights available to support ISS assembly before the shuttle's retirement in 2010, NASA has established a commercial cargo and crew services element within the Constellation Systems program to provide ISS logistical transport," Griffin wrote. That program "is the primary planned means of supporting ISS transport in the next decade," he added.

As Griffin and other NASA officials have mentioned recently, the agency has decided to curtail efforts to develop nuclear space propulsion. "Surface nuclear power, a potential need for long-duration stays on the Moon, will not be required until after 2018," Griffin wrote. "Nuclear propulsion will not be required until planning for Mars missions begins in earnest."

Instead, he added, NASA will continue low-level funding for nuclear systems research, with an eye on developing the technology for the longer term.

Also confirming what he and other officials have said, Griffin wrote that NASA's latest decision on undertaking a robotic probe mission to Jupiter's moon Europa "would add unacceptable risks to the planned schedules of existing missions."

Griffin's letter said NASA has selected the JLTNO New Frontiers mission to Jupiter, including observations of Europa and other moons, but the FY 2006 operating plan "also slows the development of advanced technologies, consistent with need dates, including advanced radioisotope power systems, solar sails, aerocapture, and chemical and solar electric propulsion technologies."

Although NASA's FY 2007 budget request includes cuts to or postponements of several high-profile astronomy projects - including the James Webb Telescope, the Space Interferometry Mission and the Terrestrial Planet Finder - the FY 2006 plan calls for additional funding for the Gamma Ray Large Area Space Telescope (GLAST) and the previously delayed Kepler mission.

Other delays and cuts during NASA's current fiscal year plan include SOFIA - the high-flying Boeing 747 mission carrying an infrared telescope - the Solar Dynamics Observatory, and the Global Precipitation and Hydros missions. The agency also has decided to shift some of the responsibility for - and the costs of - the Landsat mission to the U.S. Geological Survey.