

An Overview of the Federal R&D Budget for FY2010

[House Science and Technology Committee](#)

May 14, 2009

Chairman: [Bart Gordon](#) (D-TN)

Ranking Member: [Ralph Hall](#) (R-TX)

Witness

Dr. John Holdren, Director, White House Office of Science and Technology Policy ([prepared testimony](#))

Background

The Office of Science and Technology Policy ([OSTP](#)) is part of the Executive Office of the President. The Director of OSTP, Dr. Holdren, also serves as President Obama's Science Adviser. OSTP advises the President on the effects of science and technology on domestic and international affairs and leads an interagency effort to develop and implement sound science and technology policies and budgets. This hearing covered all the federal government's R&D agencies and related issues such as scientific integrity. The [webcast](#) of the hearing is available on the committee's website.

Nuggets

Dr. Holdren --

- stated again that the Obama Administration will reinstate a National Space Council
- agreed with Rep. Rohrabacher that space debris and Near Earth Objects are issues that need international attention
- agreed with Rep. Kosmas that efforts must be made to close the gap between "our aspirations and our needs" in human spaceflight

Hearing Highlights

Note: this hearing discussed the entire federal budget for research and development (R&D) and related issues. This summary reflects only the discussion about space activities.

In his [prepared testimony](#), Dr. Holdren made these comments about NASA.

National Aeronautics and Space Administration (NASA)

The 2010 Budget requests \$18.7 billion for NASA, nearly \$1 billion more than the 2009 enacted level, in addition to the \$1 billion provided in the Recovery Act. These boosts reflect the Administration's commitment to a balanced and robust space program. Maintaining and expanding our capabilities in space is sometimes regarded as a luxury we should do less of in the face of more pressing earthbound concerns, but that would be a false economy. Space is crucial to our national defense; to civil as well as military communications and geo-positioning; to weather forecasting and storm monitoring; to observation and study of the condition of our home planet; and to study and exploration that is increasing our understanding of the physical universe and our place in it. The 2010 Budget and the Recovery Act add money that will be needed to keep vital satellite missions for gathering climate data on track, to sustain a full schedule of Space Shuttle flights, to complete assembly of the International Space Station, to restore funding for aeronautics research, and to develop the next generation of human spacecraft.

As President Obama has emphasized on a number of occasions, he remains committed to U.S. participation in human as well as robotic space exploration, including sending astronauts beyond low-earth orbit. Reconciling these aspirations with NASA's other missions in an era of budget constraint remains a great challenge, however, and to help with it as we contemplate the budgets looking forward from FY2010 to the "out years", the Administration is establishing a blue-ribbon team of experts who will work closely with NASA to re-examine human space flight activities beyond the scheduled retirement of the Space Shuttle at the end of calendar 2010. The goal for the review, which will report to me and the NASA Administrator, is to be sure that all of the options for achieving as many of our human spaceflight goals as possible in this crucial period, consistent with also fulfilling NASA's other missions, have been identified and carefully analyzed.

During the hearing, these key issues arose concerning the space program.

President Obama's Commitment to Human Spaceflight and the Augustine Panel

Several members of the committee expressed concern about the lack of sufficient funding in the NASA FY2010 budget and its "runout" through FY2014 to achieve the goal of returning humans to the Moon by 2020 and all of NASA's other activities. Reference repeatedly was made to the "\$3 billion cut" that the Exploration Systems Mission Directorate would receive in the "outyears" beyond FY2011. (*Note: this is a cut in projected funding for FY2011-FY2013 as compared with the previous Bush Administration budget projection.*) Rep. Ralph Hall commended Dr. Holdren for appointing a panel to be chaired by Norman Augustine to review options for NASA's human spaceflight program, but

expressed dismay about the lack of a NASA administrator at this crucial time, calling it a “budget gap and leadership gap at NASA.”

Dr. Holdren reassured the committee that President Obama has an “emphatic” interest in space as he has demonstrated repeatedly, including by the teleconference he had with astronauts on the International Space Station. Dr. Holdren noted that those astronauts later met with the President in person. He told Rep. Olson that the President “lights up” every time space is on the agenda for discussion. But he added that “We have challenges.” Budget stringency means that we cannot do everything we want and that is why the Augustine panel has been established. The panel will take a fresh look at options to maximize our capacity to do what we want to do in face of budget challenges, including how to minimize the gap between the end of the space shuttle and the availability of a new human space transportation system, workforce issues during the gap, and what we can do to extract value from what we have invested in the International Space Station. He added that although the Augustine panel has been asked to assess what can be accomplished within the current budget, that if Mr. Augustine wants to talk about the implications of that constraint, it will be hard to stop him from doing so. In response to a question from Rep. Kosmas about the Obama Administration’s vision for space, he explained that the Bush Administration had a “grand vision” but did not provide the necessary funding for it. That led to raiding other parts of the NASA budget, and even that was not sufficient. He said that “we are starting where we are” in terms of “the gap between our aspirations and our needs” and the Augustine panel is going to figure out how to reduce that gap.

International Cooperation on Space Debris and Near Earth Objects

Rep. Rohrabacher stated that he had discussions with space leaders in Europe, Russia and Japan and they all agree that international cooperation is needed on a strategy to clear space debris and on how to deal with Near Earth Objects (NEOs – i.e., comets and asteroids) that may threaten Earth

Dr. Holdren agreed that these are important issues that need attention. He reiterated that the Obama Administration will reinstate a Space Council to address such issues, and noted also that some members of the [President’s Council of Advisors on Science and Technology](#) (PCAST) have expertise in these areas.

China and Commercial Space Launches

Rep. Rohrabacher expressed concern that the Obama Administration seems to be leaning the direction to help China reenter the commercial space launch market. He believes that would deal “a death blow” to the U.S. space launch industry, and allow the Chinese to take technology “that they stole from us 10 years ago and use it to compete with us.”

Dr. Holdren responded that it was an overstatement to say the Administration is leaning in that direction. He acknowledged that he had previously said that the United States should “look” at China, but that was a far cry from saying we should do it. He observed that there are downsides and obstacles, but there also are benefits to looking at China with regard to U.S. dependence on Russia during the gap between the shuttle and the new human space flight transportation system.

Dependence on Russia for Flight to the International Space Station

Rep. Kosmas noted that the Russians have recently increased the price they are charging to send astronauts to the ISS. It is now \$51 million per seat. She asked if the Administration might reconsider our dependence on Russia considering the price increase.

Dr. Holdren responded that when a price goes up so steeply it indicates the peril of a monopoly, but he does not perceive any plans to change the U.S. policy in this regard. Rep. Kosmas replied that some find it hard to swallow that we are paying money to Russia while losing jobs and skills here, and that she hoped the Obama Administration would take a close look at the issue.