

NASA's FY2010 Budget Request  
Senate Appropriations Committee  
Commerce, Justice, Science Subcommittee  
May 21, 2009

Chair: [Sen. Barbara Mikulski](#) (D-MD)  
Ranking Member: [Sen. Richard Shelby](#) (R-AL)

Witnesses

Christopher Scolese, Acting NASA Administrator  
STS-125 Hubble Servicing Crew (via telecon from orbit)

Background

NASA's Fiscal Year (FY) 2010 budget request is \$18.7 billion, an increase of \$904 million over the amount that was appropriated by Congress for FY2009. However, Congress included \$1 billion for NASA in the American Recovery and Reinvestment Act (the "stimulus" bill), making a total of \$18.8 billion available to the agency for FY2009, so the FY2010 request is essentially the same as the FY2009 funded level. The request is for FY2010 and includes projected funding levels for the next four years (FY2011-2014). Much of the debate over the FY2010 request concerns those "outyears" rather than FY2010 itself, particularly whether the flat funding projected for the Constellation program to build new launch vehicles and spacecraft to take astronauts to and from Earth orbit, and to return humans to the Moon by 2020, is sufficient. Another issue is the "gap" between when the shuttle is scheduled to terminate (2010) and when the new Constellation earth orbital system (Ares I/Orion) is expected to be available (2015). The United States will have to rely on Russia to take its astronauts to and from the space station during that gap. Many want to close the gap, but the options are limited: retain the shuttle at a cost of \$3-4 billion per year, try to accelerate Project Constellation though NASA has said more funds would not make much difference, or hope the private sector can develop a "commercial crew" capability sooner than NASA. The White House has created a panel, chaired by Norman Augustine, to assess options for the future human space flight program. For more information, view the [webcast](#) of this hearing.

Nuggets

"We believe science at NASA saves lives, saves the planet and creates jobs for the future." Senator Mikulski

"We may be the leader in manned spaceflight today but the eventual ramifications of this budget as I understand it has the potential to ensure that this lead will end, perhaps forever." Senator Shelby

## Hearing Highlights

### ***FY2010 Request and Future Budgets***

Sen. Mikulski generally praised the budget request for FY2010, but was concerned that the budget gains for NASA in FY2009 and FY2010 are not continued in the outyears. She especially expressed concern about the aeronautics budget, noting that 10 years ago the aeronautics budget at NASA was \$1.5 billion whereas the request for FY2010 is \$507 million. She said “we need to get back” to making public investments that increase our competitive edge in aeronautics. She was pleased with the request for science programs, and asserted that “We believe science at NASA saves lives, saves the planet and creates jobs for the future.”

### **The Future of Human Space Flight and the Augustine Panel**

Sen. Mikulski praised the selection of Norm Augustine to lead a panel to assess future options for the human space flight program, noting that he had led a study on the future of NASA for a Republican President (George H.W. Bush) in 1990 that provided guidance that was followed for many years. She said that she looked forward to the new deliberations.

Conversely, Sen. Shelby expressed displeasure with the creation of the Augustine panel (though not of Mr. Augustine himself) and of the timing of its recommendations, which are due in August. He noted that this approach delays plans for spending \$4 billion of NASA’s FY2010 budget until weeks before the fiscal year begins, leaving little time for Congress to consider the recommendations. Instead, he feels that the Augustine recommendations should be used in formulating the FY2011 budget, not to influence FY2010 funding decisions.

He criticized efforts to develop a “commercial crew” capability wherein the private sector rather than the government would develop spacecraft to take people into space. He labeled as “fantasy” the idea that a company (SpaceX) that has only had one successful launch in four attempts could be relied upon to develop such a capability in the near term. He asserted that he would have trouble supporting a budget --

“that is poised to eliminate a real manned space program and instead maintains the fantasy of one. This course I believe will only extend the time we will have to rely on the Russians to get our astronauts to a space station for which we have invested billions of dollars. Without truly supporting and building upon the human and heavy lift launch capabilities that already are under development, our astronauts will have no choice but to wave at the Russians, perhaps the Chinese, and possibly astronauts from India and other countries as they pass by the space station on their way to exploring space. As our astronauts endlessly circle the Earth in the future, the astronauts of other nations perhaps will be exploring well beyond the edges of Earth’s atmosphere and will become the inspiration of America’s children. Is that what we want? I hope not. We may be the leader in

manned spaceflight today but the eventual ramifications of this budget as I understand it has the potential to ensure that this lead will end, perhaps forever.”

Later he asked Mr. Scolese why NASA was not allocating to Project Constellation all of the \$400 million that Congress provided in the stimulus bill to close the gap between when the shuttle program ends in 2010 and the new Constellation system (Ares I/Orion) is available in 2015. Mr. Scolese explained that NASA is spending \$150 million of those funds to facilitate the commercial crew option: \$70 million on clarifying specifications and standards for anyone interested in sending U.S. astronauts to the space station, and \$80 million that will be available competitively to private sector entities interested in the commercial crew option. NASA will issue a Broad Agency Announcement (BAA) to determine the level of private sector interest. Sen. Shelby asked if those would not be considered new activities that are prohibited by Sec. 505 of the omnibus appropriations act. Mr. Scolese promised to get back to Sen. Shelby about NASA’s position on that question.

Regarding the Augustine panel, Sen. Voinovich (R-OH) asked Mr. Scolese to convey to that group that he and many others strongly support the current policy of NASA having 10 healthy centers.

### **Reliance on Russia’s Soyuz During the Shuttle-Constellation Gap**

Sen. Mikulski asked about the status of negotiations with the Russians on buying seats on Soyuz spacecraft to take NASA astronauts to and from the International Space Station. Mr. Scolese replied that the price for those seats has risen from \$47 million to \$51 million per seat and negotiations are ongoing. Sen. Voinovich asked if NASA had noticed any change in Russia’s attitude during those negotiation. He said that he recently heard a speech by the Russian Foreign Minister that concerned him, and asked Mr. Scolese -- “has paranoia set in?” Mr. Scolese assured him that no difference was discernable in the negotiations with Russia and that the United States and Russia are mutually dependent with regard to the space station: “We can’t survive without each other.”

### **Potential Budget Impacts if the Shuttle Schedule Slips**

Sen. Mikulski asked a number of questions about the budget implications if the eight remaining shuttle missions cannot be flown by the end of FY2010. She observed that there is no funding requested for the shuttle in FY2011, and asked where funds would come from if shuttle missions slipped into FY2011. Mr. Scolese responded that NASA is relatively confident that it can complete all eight flights before Sept. 30, 2010, but the date is not fixed and if slips occur, the agency will need to request additional funds or take the funds from elsewhere in NASA.

### **Workforce Issues**

Sen. Mikulski also expressed concern about workforce issues as the transition from the shuttle to Project Constellation takes place. In her opening statement, she said that “as

we retire the shuttle, we must do it with honor and acknowledge the great workforce.” Later, during a question and answer with Mr. Scolese, she reiterated her admiration for the shuttle workforce and the need to retain that talent. “Retention, retirement, and redeployment are the three tools you have, is that right?”, she asked Mr. Scolese. He agreed and echoed her sentiments about the shuttle workforce and the need to retain the talent pool necessary to fly the remaining flights safely. Sen. Mikulski added that with the last Hubble servicing mission completed, the end of the Hubble program also is in sight and NASA must pay “the same level of attention to details on those jobs.”

### **Cost Overruns**

During her opening statement, Sen. Mikulski stated that since 2006, 10 of the 12 projects in development at NASA had exceeded baseline cost and schedule. She later asked if a commission on acquisition problems needs to be created for NASA similar to the one that looked at the Pentagon’s acquisition problems. Mr. Scolese explained that he did not believe such a commission is needed since NASA is already reforming its acquisition practices.

Sen. Voinovich asked if contractors are penalized when such problems occur. Mr. Scolese responded that sometimes the problems are caused by NASA underestimating the cost, or by changes to the requirements, so the contractor may not be at fault. Where the contractor is at fault, he added, there can be penalties.

### **NASA’s Role in Climate Change Research**

In response to a question from Sen. Mikulski, Mr. Scolese listed a number of NASA programs that contribute to our understanding of climate change. He stressed that NASA is following the recommendations of the National Academies’ Decadal Survey on Earth Science and Applications from Space.

### **Telecon with the STS-125 Crew**

The subcommittee arranged to have a live telecon with the orbiting STS-125 crew that had just completed repairs to the Hubble Space Telescope. Sen. Mikulski invited Sen. Bill Nelson, who chairs the Senate Commerce, Science and Transportation Committee’s Subcommittee on Science and Space, which has authorization jurisdiction over NASA, to join the subcommittee during the telecon. Sen. Nelson flew on the space shuttle in 1986 when he was a member of the U.S. House of Representatives. Technical problems with the voice transmission between the subcommittee and the space shuttle complicated communications, but the crew essentially briefed the subcommittee on their Hubble repair exploits. STS-125 Commander Scott Altman ended the conversation by saying that “We’re not leaving an aging telescope. We’re leaving a newly refurbished telescope with new instruments, instruments that have been repaired -- a telescope that is now at the apex of its capabilities and will be for a long time to come.”

May 28, 2009