COMMITTEE ON SCIENCE AND TECHNOLOGY
U.S. HOUSE OF REPRESENTATIVES

NASA's Fiscal Year 2008 Budget Request

Thursday, March 15, 2007

10:00 A.M – 12:00 P.M.
2318 Rayburn House Office Building

Purpose:

On Thursday, March 15, 2007 at 10:00am, the Committee on Science and Technology will hold a hearing on the National Aeronautics and Space Administration's (NASA) Fiscal Year 2008 budget Request and NASA's proposed Fiscal Year 2007 Operating Plan.

Witness:

Dr. Michael D. Griffin
Administrator
National Aeronautics and Space Administration

BACKGROUND INFORMATION

Overview

The National Aeronautics and Space Administration (NASA), which was established in 1958, is the nation's primary civil space and aeronautics R&D agency. The current civil service workforce consists of approximately 18,100 full time equivalent (FTE) employees. According to NASA's budget request, that level is projected to decline to 17,000 FTEs by 2012. NASA has ten field Centers, including the Jet Propulsion Laboratory (JPL) FFRDC. Although there have been discussions in the past regarding the future

disposition of NASA's Centers (e.g., potential closure or privatization of one or more Centers), NASA Administrator Griffin has stated his intention to maintain "ten healthy Centers."

NASA conducts research and development activities in a wide range of disciplines including aeronautics, astrophysics, heliophysics, planetary science, Earth science and applications, microgravity research, and long-term technology development. NASA also operates a fleet of three Space Shuttles and is assembling and operating the International Space Station. NASA also maintains a space communications network that supports both NASA missions and other federal agency requirements. Almost 90 % of NASA's budget is for contracted work. In addition, a number of NASA's scientific and human space flight activities involve collaboration with international participants.

In January 2004, President Bush announced his "Vision for U.S. Space Exploration" (VSE). According to the President, the United States is to do the following:

- *"Implement a sustained and affordable human and robotic program to explore the solar system and beyond;*
- *Extend human presence across the solar system, starting with a human return to the Moon by the year 2020, in preparation for human exploration of Mars and other destinations;*
- *Develop the innovative technologies, knowledge, and infrastructures both to explore and support decisions about the destinations for human exploration; and*
- *Promote international and commercial participation in exploration to further U.S. scientific, security, and economic interests."*

With respect to the Space Shuttle, the President's policy stated that NASA should:

- *"Focus use of the Space Shuttle to complete assembly of the International Space Station; and*
- *Retire the Space Shuttle as soon as assembly of the International Space Station is completed, planned for the end of this decade."*

With respect to development of a new human transportation system, the President's policy states that the U.S. shall:

- *"Develop a new crew exploration vehicle to provide crew transportation for missions beyond low Earth orbit;*
- *Conduct the initial test flight before the end of this decade* [i.e., before end of 2010] *in order to provide an operational capability to support human exploration missions no later than 2014."*

Budgetary Information

NASA's proposed budget for FY 2008 is $17.3 billion, an increase of 3.1% over the FY07 President's request for NASA and an increase of 6.5% over the FY 2007 Joint Resolution [P.L. 110-5] appropriation for NASA. Attachment 1 summarizes the FY 08 budget request and its five-year funding plan. It should be noted that NASA has once again changed its accounting structure, and the budget request now incorporates "full cost simplification". As a result, some of the overhead burden has been reallocated among the Mission Directorates at NASA, leading to some accounts having to include more of the overhead costs in their budgets (and other accounts including less). NASA has stated that no program funds have been increased or decreased as a result of the full cost simplification process.

As noted in the Committee's Views and Estimates submitted to the Budget Committee, the FY 08 budget request is *"approximately $690 million less than the amount stipulated for FY 2008 in the FY 2005 five-year budget plan that accompanied the President's Vision for Space Exploration (VSE). That shortfall replicates the practice in each of the previous two years, i.e., the Administration's FY 2006 NASA request and its FY 2007 NASA request were approximately $546 million and $ 1.02 billion less than the amounts stipulated for FY 06 and FY 07 respectively in the five-year budget plan that accompanied the President's VSE. The cumulative effects of those budgetary shortfalls, coupled with OMB's under-budgeting for the costs of Space Shuttle and the International Space Station (ISS) in that same five-year budget plan, are manifested in the strains and stresses that are visible in all of the agency's programs."*

The Minority Views and Estimates echoed that conclusion, stating that the Minority members of the Committee are *"concerned that NASA's budget request, together with reductions in FY 07 appropriations, may*

jeopardize NASA's ability to successfully accomplish its portfolio of missions, and is especially threatening to our manned spaceflight capabilities."

Attachment 2 compares the NASA budget plan that accompanied the President's Vision initiative with the actual funds requested (or planned to be requested per the FY 08 budget request's five-year plan) by the President for the years FY 06-12. As can be seen, the President's requests have been significantly less (i.e., typically on the order of a half-billion dollars or more in the early years) than what was projected by the Administration as being needed to carry out the Exploration initiative and NASA's other core missions. The cumulative shortfall over that period is in excess of $3.8 billion.

The FY 07 appropriation contained in the Joint Resolution maintains NASA's overall funding level at the FY 06 level. As a result, the FY 07 appropriation is approximately $545 million lower than the FY 07 budget request for the agency. NASA was not given the authority to transfer funds between appropriations accounts. Under the terms of the Joint Resolution, NASA is to submit to Congress by March 15, 2007 a revised Operating Plan that reflects how the agency will allocate its FY 07 appropriation within the constraints of the Joint Resolution. Administrator Griffin has been asked to discuss the FY 07 Operating Plan at the hearing.

To put the FY 08 budget request into context, NASA has been tasked with flying the Shuttle safely until the end of decade and then retiring the Shuttle fleet; assembling, operating, and utilizing the International Space Station; completing the development of a new Crew Exploration Vehicle/Crew Launch Vehicle by 2014; pursuing human exploration of the Moon no later than 2020; and conducting science and aeronautics programs. The NASA Authorization Act of 2005, which was signed into law in December 2005, authorized an FY 07 funding level for NASA of $17.93 billion; the FY 07 NASA appropriation is $16.25 billion. The NASA Authorization Act authorized an FY 08 funding level for NASA of $18.69 billion; the President's FY 08 budget request is $17.3 billion.

With respect to NASA's contract management practices, NASA remains on GAO's "high risk" list for its contract management practices. With respect to its financial management, NASA once again failed to pass

an independent audit, and the auditors identified a number of "material weaknesses" that NASA will have to address.

Program Areas

Space Science

The President's FY 2008 budget requests $4.019 billion to fund NASA's space science programs, including Heliophysics, which seeks to understand the Sun and how it affects the Earth and the solar system; Planetary Science, which seeks to answer questions about the origin and evolution of the solar system and the prospects for life beyond Earth; and Astrophysics, which seeks answers to questions about the origin, structure, evolution and future of the universe and to search for Earth-like planets. The proposed budget represents a $16.5 million increase (or about 0.4 %) over the President's proposed FY 07 budget.

Programmatic content changes in the FY 08 budget include the following:

- Geospace Missions of Opportunity Phase B studies not funded
- MMS Solar Terrestrial Probe descoped to stay within budget profile
- New Millenium ST-9 technology demonstrator mission award delayed at least two years
- Planetary Science program reserves reduced and re-phased; future Planetary Science projects and Juno and New Frontier missions "re-phased"
- New "Lunar Science" budget line created
- GLAST and Kepler astrophysics mission launch dates slipped
- Reserves for James Webb Space Telescope (JWST) increased
- Space Interferometry Mission (SIM) deferred and reduced to a technology development program with no identified launch date
- SOFIA project reinstated

The FY 08 budget request maintains the research and analysis (R&A) accounts at FY 07 budget levels and thus sustain the 15% R&A cuts included in the FY 06 and FY 07 NASA budgets. Astrobiology, an

interdisciplinary field that NASA created to study the origin, evolution, and possible existence of life in the Universe, has been cut by some 50% since FY 06. The competitively-selected Explorer and small missions programs that National Academy decadal surveys have emphasized as vital, continue to lack the required funds to restore the 2-year cycle of issuing announcements of opportunity (AOs). The current AO rate has been diminished considerably compared to earlier periods. The last Explorer AO was issued in 2003; under the FY 08 budget request, the next AO is expected to be issued in late 2007 or 2008 leaving a gap of approximately 5 years in new selections.

Other Space Science issues include the following:

Mission Size and Programmatic Balance—The FY 08 budget request continues budgetary trends that are creating imbalances in science programs, especially in the research and analysis (R&A) accounts, which fund grants to analyze science mission data, and in the portfolio of sizes for science missions. Science programs that lack balance are not robust: they cannot be sustained or contribute adequately to high priority research questions laid out in National Academy decadal surveys. Moreover, in addition to their high scientific productivity, small and medium-sized missions are instrumental in training young scientists and engineers and in exciting the science and broader communities through the Principal Investigator team's promotion of the mission.

Cost-Growth in Missions—Several of the increases in the proposed FY 08 Science budget provide funds for projects that have run over budget or schedule, or that run the risk of doing so. The factors contributing to cost and schedule growth are not easy to pinpoint, but include underestimates in the technology developments required for mission readiness; increases in launch vehicle costs; inadequate models to estimate mission costs; internal decisions to delay missions or alter budget profiles; project management difficulties; and delays in contributions from international or interagency partners. Mission cost growth erodes opportunities to conduct other high priority science and can lead to delays, cancellations, or reduction in funds for other NASA science missions and activities.

Launch Services/ Access to Space—Officials from NASA's Science and Space Operations Mission Directorates have called attention to a potential crisis in launch vehicle access for science missions. The Space Science

program has been a regular user of Delta II vehicles, which are reported to have a 98% success rate for science missions flown since 1961. Between 2007-2009, NASA's Science Mission Directorate plans to launch at least eight missions on the Delta II vehicle. NASA is uncertain about the availability of the Delta II beyond 2009 and is conducting a study to investigate options for alternatives to the Delta II. The potential loss of Delta II raises the question of reliable access to space for science missions. Shifting to alternative vehicles could affect mission costs and schedule.

Earth Science

The President's budget for FY 08 requests $1.497 billion for Earth science research, applications, Earth observing missions, education and outreach, and technology development. The proposed FY 08 Earth science budget represents an increase of $32.8 million (or about 2.2 %) over the President's FY 07 budget request. The increase reflects the net addition of funds to address cost and schedule issues for Earth Science missions under development including the Landsat Data Continuity Mission, Glory mission, NPOESS Preparatory Project (NPP), and the Global Precipitation Measurement mission (GPM). Increases were also provided for Earth System Science Pathfinder missions (Orbiting Carbon Observatory and Aquarius) to help maintain schedule.

The proposed FY 08 budget maintains the nearly 20% cuts to the Earth science research and analysis (R&A) accounts that were proposed in FY 07 budget. The R&A accounts fund grants for fundamental research, technology development, training of graduate students, theory research, and data analysis, in essence the intellectual underpinning for the program. As stated in the decadal survey, "*Without adequate R&A, the large and complex task of acquiring, processing, and archiving geophysical data would go for naught. Finally, the next generation of Earth scientists – the graduate students in universities – are often educated by performing research that has originated in R&A efforts.*"

Other Earth Science issues related to the FY 08 budget request include the following:

Future Earth Observing Missions and Measurements—As discussed in the full House Committee on Science and Technology hearing on February 13,

2007, the National Academy of Sciences recently released the results of the first-ever decadal survey on Earth science. The report, which was requested by NASA, NOAA, and USGS, states that *"the number of operating sensors and instruments on NASA spacecraft, most of which are well past their nominal lifetimes, will decrease by some 40 percent"* by the end of the decade. The report also states that *"…the United States' extraordinary foundation of global observations is at great risk."* Many of the measurements that may be lost with these sensors provide critical information on weather and climate. Some of the planned replacement sensors, which are to be flown on NPOESS, are less capable than existing sensors and may affect future abilities to forecast El Nino events, hurricanes and weather forecasts in coastal areas. Moreover, the decadal survey notes that between 2000 and 2006 NASA's Earth science budget decreased by more than 30% when adjusted for inflation. The proposed FY08 budget for NASA's Earth science programs responds to the recommendations of the interim report of the decadal survey by adding funds to complete missions currently under development that will sustain critical, high priority measurements (e.g., the Landsat Data Continuity Mission, the Glory mission and the GPM). However, the proposed FY 08 budget does not provide outyear funding that would enable development of even the first few of the 15 new, high-priority NASA missions recommended in the Decadal Survey.

Aeronautics Research

The President's FY 2008 budget requests $554M for Aeronautics Research, which includes aviation safety, airspace systems, fundamental aeronautics, and aeronautics test program. While the FY 08 budget for Aeronautics represents a $170.4 million decrease from the President's FY 07 NASA budget request, NASA states that the decrease can be attributed to changes in NASA's allocation of overhead rates (referred to as "full cost simplification") and does not reflect any changes in programmatic content. If full cost simplification is taken into account, NASA would say that the FY 08 request is an increase of $24.7 million (or about 4.7%). After FY 08, the NASA Aeronautics funding would decline to $546.7 million in FY 09. As a point of comparison, NASA Aeronautics funding was about $1.85 billion (2006 dollars) in 1994—the current budget request is thus only about 30% of that level.

The FY 08 five-year budget plan would increase Aeronautics funding by $222 million (or about 10%) over the period FY 08-11 relative to the amounts in the FY 07 five-year budget plan (assuming full cost simplification). However, the budget request for FY 08 is approximately $336 million less than the $890.4 appropriated for NASA Aeronautics in the FY 07 Joint Resolution, or approximately $141 million less if NASA is able to apply full cost simplification to the FY 07 appropriated amount. Thus the funding reduction from the FY 07 appropriation to the FY 08 budget request would largely or completely negate the funding increase to Aeronautics over the FY 08-11 period.

The aeronautics community relies upon NASA for aeronautical research and development. Beginning in late 2005, NASA began restructuring its aeronautics program to move away from a program that included technology demonstration projects and R&D that led to greater technology maturity and towards a program focused on more fundamental research. In addition, NASA has cut back substantially on the amount of the research that would be conducted by universities and industry, with almost 90% of the research conducted in-house at NASA. The specific types of projects that NASA will undertake and the level of technical maturity that the R&D will be allowed to reach are still unclear. These changes in NASA's Aeronautics program occur at a time when the Next Generation Air Transportation System (NGATS), which will modernize the air traffic control system to accommodate projected growth in air passenger and cargo rates over the next decade, is ramping up. The FAA has traditionally relied on NASA for a significant fraction of the R&D related to air traffic management, and concerns have been expressed that NASA's redirection of its aeronautics research priorities could lead to a significant "technology gap" in a number of key next generation air traffic management programs.

International Space Station

The President's FY 2008 NASA budget requests $2.2 billion for the International Space Station (ISS) program to continue ISS assembly and development of assembly elements, augment ISS robotic capability (by adding the Canadian Special Purpose Dexterous Manipulator), conduct ISS crew exchanges (2 Russian Soyuz flights per year); carry out ISS operations, including conducting extravehicular activities for maintenance, science, and assembly. The proposed FY 08 budget represents an increase of $476

million (or about 27%) over the FY 07 budget request. The increase reflects a number of factors, including the such things as the transfer of the ISS Crew and Cargo Services budget from the Exploration Systems budget where it had been bookkept; addition of funds to deal with the Shuttle transition and retirement impacts; and an increase in the amount of overhead allocated to the ISS program.

Some of the issues related to the FY 08 budget request include the following:

ISS Cargo and Crew Transportation Services—According to NASA, the FY 08 budget request and five-year budget plan include an estimated shortfall of $924 million in funding needed for ISS Crew and Cargo transportation services. $308 million of the shortfall is supposed to be made up by the Space Operations Mission Directorate and the remainder has been placed as a lien against the Exploration Systems Mission Directorate's programs. Commercial orbital transportation services [COTS] are still being developed and the costs of these privately-provided options for cargo services are uncertain. The recently-released Final Report of the International Space Station Independent Safety Task Force notes that COTS, as a new development activity, will likely cost more and take longer than expected. Purchases of Russian Progress, European ATVs, Japanese HTV launch vehicles, or possibly other commercial systems could potentially provide some back-up should the COTS program not deliver an operational capability when needed, but those alternatives would require some time to procure.

International Space Station Research—the ISS is intended to serve as an on-orbit facility where R&D in support of both human exploration and non-exploration purposes and other exploration technologies is to be conducted. However, the ISS research budget, which is bookkept in the Exploration Systems (ESMD) budget has been significantly cut back in recent years to help fund the Crew Exploration Vehicle/Crew Launch Vehicle and for other purposes. The FY 08 budget request for the ESMD ISS research budget is $78 million, a 25% decrease from the FY 07 budget request, which itself represented a cut relative to previous years.

ISS Reserves—According to NASA briefing charts, the ISS program is "*facing most challenging period of assembly with minimal reserve*

posture…negative reserves in FY 2007; nearly depleted reserves in FY 2008."

Space Shuttle

The President's FY 2008 budget requests $4.0 billion to operate and maintain NASA's three Space Shuttles, and to conduct four ISS assembly flights and a Hubble Space Telescope (HST) servicing mission in FY 08. The proposed budget represents a decrease of $10 million from the President's FY 07 budget request. The decrease represents the net difference between funding increases for flight and ground operations and flight hardware and a funding decrease for program integration.

Some of the issues related to the FY 08 budget request include the following:

Space Shuttle Program Transition and Retirement—There will be a significant level of effort required for program shutdown after the Shuttle's retirement in FY 10. However, the FY 08 budget request's five-year plan doesn't include funds to address Space Shuttle program transition and retirement past FY 10 even though NASA knows there will be costs associated with the shutdown. In addition, the budget number for FY 11 only includes a "placeholder" amount for severance and retention payments.

Space Shuttle Program Reserves—NASA states that the FY 08 budget request has reduced the level of reserves that would be available to address remaining program threats. For FY 08, NASA is bookkeeping $62 million in program reserves for a $4 billion Shuttle program.

Exploration Initiative

The President's proposal for NASA's FY 2008 budget provides $3.92 billion for Exploration Systems to fund Constellation Systems, which includes the development, demonstration, and deployment of the Orion Crew Exploration Vehicle (CEV) and the Ares 1 Crew Launch Vehicle (CLV) as well as associated ground and in-orbit infrastructure; and

Advanced Capabilities, which includes human research to support ISS and future exploration; a lunar precursor robotic program; microgravity research; and technology development to support Orion and other exploration programs.

The proposed FY 08 budget represents a decrease of $229 million (about 5.5%) from the President's FY 07 budget request. In addition, the President's request for the Constellation program (which funds the CEV and CLV development) declines from the FY 07 request level of $3.23 billion to $3.07 billion in the FY 08 budget request. The bulk of the decline is due to the transfer of the ISS Crew and Cargo services account from the Exploration Systems Mission Directorate to the Space Operations Mission Directorate.

Some issues related to the FY 08 budget request and FY 07 appropriation include the following:

CEV and CLV schedule and budget—The President's Vision statement directed NASA to have the CEV operational no later than 2014. The NASA Authorization Act of 2005 directed the NASA Administrator *"manage human space flight programs to strive to achieve…launching the Crew Exploration Vehicle as close to 2010 as possible"* subject to the proviso that the Administrator shall *"construct an architecture and implementation plan for NASA's human exploration program that is not critically dependent on the achievement of milestones by fixed dates."* NASA had been saying that its budget plan would deliver an operational CEV in 2014. However, independent of any potential impact of the FY 07 Joint Resolution, NASA has recently concluded that *"As a result of this analysis over the past two months, the FY 2008 budget request does not support a 2014 initial operational capability, but March 2015, even before the FY 07 CR impact…"* NASA is now projecting a six-month slip in the CEV schedule, independent of the Joint Resolution impact. NASA estimates that the Joint Resolution could potentially add another four to six-month delay on top of that, although that would depend on how NASA implemented the Joint Resolution.

ISS Cargo and Crew Transportation Services--the Exploration Systems budget has had a lien of $616M put on it to help fund the $924 million shortfall in funding for ISS Crew and Cargo transportation services during 2010-2015 when the Shuttle is no longer operating. Those transportation

services are expected to be provided by privately-provided Commercial Orbital Transportation Services [COTS]. COTS are still being developed and the costs as well as the viability of these privately-provided options for cargo services are uncertain. The shortfall will likely have to be taken from the Exploration Systems Advanced Capabilities program.

Lunar Robotic Precursor Program—NASA indicates that funding will be eliminated for any lunar robotic missions that were to follow the Lunar Reconnaissance Orbiter (LRO) and its accompanying payload—the LCROSS—which is scheduled to launch in October 2008.

Exploration Technologies—As a result of the shift of Advanced Capabilities funds to support the CEV/CLV development program, the amount of money available to support technologies not directly related to the CEV/CLV program needs has been significantly constrained, and the funding outlook is bleak for any near-term restoration of such long-term technology development activities.

Space Communications

The Tracking and Data Relay Satellite System (TDRSS), which provides in-orbit communications links between on-orbit systems, (e.g., the Shuttle, Hubble, and near-Earth orbiting satellites) and the ground is aging. Other agencies also relay on TDRSS. The communications support provided by TDRSS is projected to decline by 2011. After seeking funds to replace TDRSS satellites in several past budgets without success, the Space Operations Mission Directorate redirected $78.4 million from the Space Shuttle Transition and Retirement (STAR) budget and ISS reserves, as well as $33.6 million from Shuttle reserves as a down payment on two TDRSS replacement spacecraft. NASA has also secured an agreement from a partner agency to fund approximately 2/3 of the total cost of TDRSS replacements. These replacements will ensure TDRSS support until 2016.

Education

The President's budget proposes $154 million in FY 2008 to support NASA's Education program, including projects targeted at higher education, minority university research and education, elementary and secondary education; and the E-education project, which supports development of technology products, services, and applications, as the informal education

project, which seeks to expand student, educator, and public learning in STEM areas. The proposed FY08 budget represents a reduction of $13.7 million (about 8%) from the President's FY 07 budget request. In addition, funding for NASA's educations programs is projected to decline over the next five years from the FY 07 request level.

Commercial Technology

The President's budget proposes $198 million in FY 2008 to fund NASA's Innovative Partnerships Program, which is intended to establish partnerships with industry, academia, other government agencies and national laboratories in the interest of leveraging technologies and capabilities for NASA missions and programs. These programs include technology transfer, Small Business Innovative Research (SBIR) and Small Technology Transfer Research (STTR) programs. The proposed FY 08 budget represents a decrease of $17 million (about 8%) from the President's FY 07 budget request. The Red Planet venture capital fund program, which was modeled on CIA's In-Q-Tel program, is eliminated in this budget request.

Attachment 1

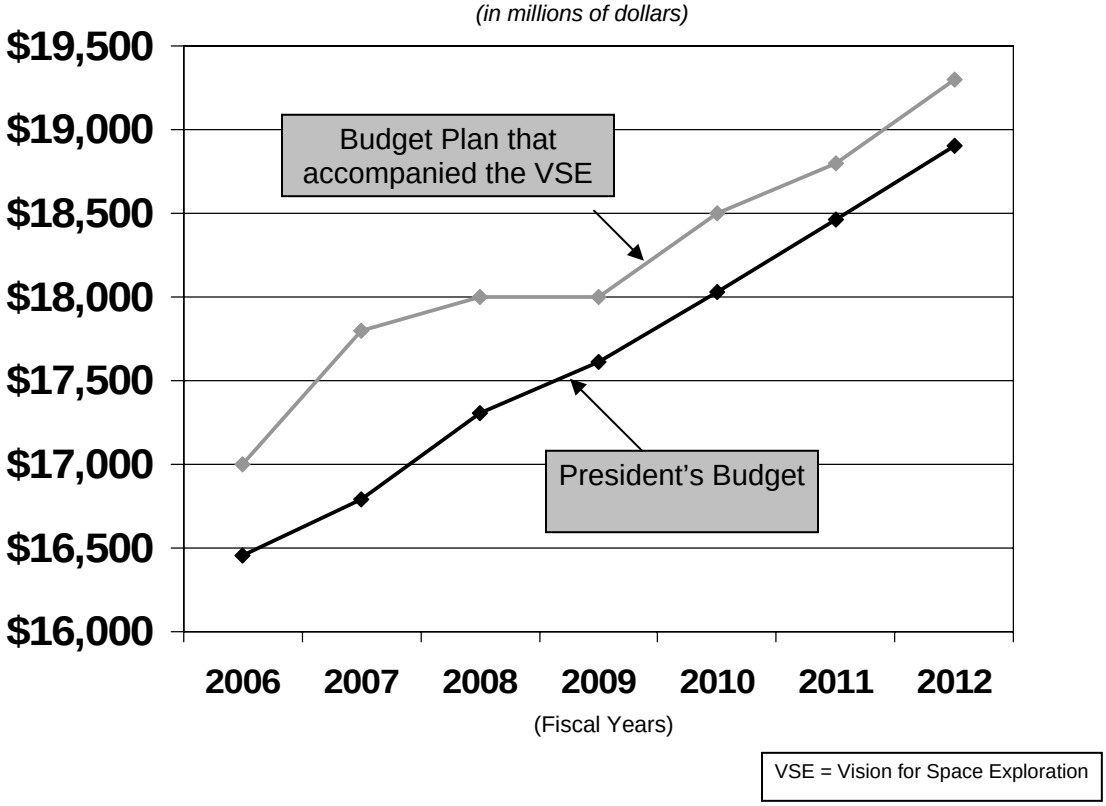
FY 08 NASA Budget Request

(Budget authority, $ in millions)	FY 2007 Request*	FY 2007 H.J. Res. 20	FY 2008 Request	FY 2009 Request	FY 2010 Request	FY 2011 Request	FY 2012 Request
Science, Aeronautics, and Exploration	**10,650.6**	**10,075.0**	**10,483.1**	**10,868.4**	**11,364.2**	**15,386.5**	**15,888.6**
SCIENCE	**5,466.8**	**5,251.0**	**5,516.1**	**5,555.3**	**5,600.6**	**5,656.9**	**5,802.7**
Earth Science	1,464.5		1,497.3	1,545.8	1,520.1	1,411.2	1,353.2
Heliophysics	1,028.1		1,057.2	1,028.4	1,091.3	1,241.2	1,307.5
Planetary Science	1,411.2		1,395.8	1,676.9	1,720.3	1,738.3	1,748.2
Astrophysics	1,563.0		1,565.8	1,304.2	1,268.9	1,266.2	1,393.8
EXPLORATION SYSTEMS	**4,152.5**	**3,401.0**	**3,923.8**	**4,312.8**	**4,757.8**	**8,725.2**	**9,076.8**
Constellation Systems	3,232.5		3,068.0	3,451.2	3,784.9	7,666.0	7,993.0
Advanced Capabilities	920.0		855.8	861.6	973.0	1,059.1	1,083.9
AERONAUTICS RESEARCH	**529.3**	**890.4**	**554.0**	**546.7**	**545.3**	**549.8**	**554.7**
CROSS-AGENCY SUPPORT	**502.0**	**531.8**	**489.2**	**453.5**	**460.4**	**454.7**	**454.4**
Education Programs	167.4		153.7	152.8	152.7	149.8	149.6
Advanced Business Systems	97.4		103.1	69.4	71.6	67.6	67.5
Innovative Partnerships	215.1		198.1	197.2	199.8	200.0	200.0
Shared Capabilities	22.1		34.3	34.2	36.2	37.3	37.2
EXPLORATION CAPABILITIES	**6,108.3**	**6,140.0**	**6,791.7**	**6,710.3**	**6,625.7**	**3,036.6**	**2,978.0**
Space Operations	**6,108.3**		**6,791.7**	**6,710.3**	**6,625.7**	**3,036.6**	**2,978.0**
Space Shuttle	4,017.6		4,007.5	3,650.9	3,634.4	116.2	0.0
International Space Station	1,762.6		2,238.6	2,515.1	2,609.2	2,547.5	2,600.8
Space and Flight Support	328.1		545.7	544.3	382.0	372.9	377.2
Inspector General	**33.5**	**32.0**	**34.6**	**35.5**	**36.4**	**37.3**	**38.3**
TOTAL AGENCY	**16,792.30**	**16,247.00**	**17,309.40**	**17,614.2**	**18,026.3**	**18,460.4**	**18,905.0**
Year to Year Increase	**3.2%**	**-3.2%**	**3.1%**	**1.8%**	**2.3%**	**2.4%**	**2.4%**

*** Adjusted for FY 07 Budget Request and beyond for Full Cost Simplification**

Attachment 2

Comparison of Budget Plan that accompanied the VSE (Vision for Space Exploration) with actual/planned President's Budget Requests for NASA
(in millions of dollars)



VSE = Vision for Space Exploration