



FY 2012 NASA Budget Comparison

President's FY 2012 NASA Budget Request, FY 2012 funds authorized by the NASA Authorization Act of 2010 (PL 111-267), House Appropriations Committee Proposed FY 2012 NASA Budget (H.R. 2596), Senate Passed FY 2012 NASA Approps Bill (S. 1573), FY 2012 Agriculture, Commerce/Justice/Science, and Transportation/House and Urban Development Appropriations Bill (H.R. 2112) as passed by Congress.

Update 3

This document provides an overview of the President's NASA FY 2012 budget request in comparison with the FY 2012 funds authorized by the NASA Authorization Act of 2010 (PL 111-267) and proposed appropriation bills under consideration by the 112th Congress. The first section provides a comparison of funding levels provided by each top-line item. The analysis then looks in detail at similarities and differences within Science, Exploration and Space Operations.

NASA Budget Proposals Overview – FY 2012 Funding*

Budget Authority, \$ in millions	President's FY 2012 NASA Budget Request	FY 2012 funds authorized by the NASA Authorization Act of 2010 (PL 111-267)	House Appropriations Committee Proposed FY 2012 NASA Approps Bill (H.R. 2596)	Senate Passed FY 2012 NASA Approps Bill (S. 1573)	FY 2012 Agriculture, CJS, & THUD Approps Bill (H.R. 2112)
Science	5,016.80	5,248.60	4,504.00	5,100.00	5,090.00
Aeronautics Research	569.40	584.70	569.93	501.00	569.90
Space Technology	1,024.20	486.00	375.00	637.00	575.00
Exploration	3,948.70	5,252.30	3,649.00	3,775.00	3,770.80
Space Operations	4,346.90	4,141.50	4,064.00	4,285.00	4,233.60
Education	138.40	145.80	138.00	138.40	138.40
Cross-Agency Support	3,192.00	3,189.60	3,050.00	3,043.07	2,995.00
Construction and Environmental Compliance and Restoration	450.40	363.80	424.00	422.00	390.00
Inspector General	37.50	37.80	36.32	37.30	37.30
Total	18,724.30	19,450.00	16,810.25	17,938.80	17,800.00

*The numbers used for this table, including the individual mission directorate budgets and the overall budget estimates, reflect the numbers explicitly called out in the relevant document. In some cases, the sum of the budgets for each category does not match the total funding level given in the document.

Total NASA Budget

NASA Authorization Act of 2010 (PL 111-267)

The NASA Authorization Act of 2010 authorizes \$19.450 billion for NASA in FY 2012, \$726 million above the President's request.

House Appropriations Committee Proposed FY 2012 NASA Appropriations Bill (H.R. 2596)

The House Appropriations Committee Bill would appropriate \$16.810 billion for NASA in FY 2012, \$1.914 billion below the President's request. The House Appropriations Committee Report cites the "new reality of constrained budgets," as its rationale for the significant cut in NASA's budget request. Therefore, the House Appropriations Committee Report notifies NASA that "annual budget increases can no longer be counted on as the means for achieving mission goals." However, the House Appropriations Committee Report goes on to state that the cut "does not mean that NASA cannot or will not continue to make significant achievements." The House Appropriations Committee Report advises NASA to "develop and pursue new and different ways of operating that will promote efficiency and economy," in order for the Agency to "successfully accomplish everything outlined in" the NASA Authorization Act of 2010.

Senate Passed FY 2012 NASA Appropriations Bill (S. 1572)

The Senate passed Appropriations Bill would appropriate \$17.938 billion for NASA in FY 2012, \$785 million below the President's request. The Senate Appropriations Committee Report acknowledges the "bill is presented in the context of an austere budget," leading the Committee to "make tough choices in order to afford a balanced space program." The Committee in its report cautions NASA not to "disregard the Congress's choices about where limited resources should be spent," which if ignored, could render the Committee's "efforts at prioritization and balance meaningless." The Committee acknowledges in its report that "NASA is making progress in strengthening financial management," but notes that "it is imperative that NASA do a better job of managing" its large-scale projects. The Committee in its report advises NASA to adopt more "cost realism through independent cost assessment and incentivizing not only technical but also cost and schedule performance." In addition, the Committee directs NASA to work more closely with the GAO "to get NASA's acquisition management off of the GAO high risk list."

FY 2012 Agriculture, Commerce/Justice/Science, and Transportation/House and Urban Development Appropriations Bill (H.R. 2112)

The FY 2012 Agriculture, Commerce/Justice/Science, and Transportation/House and Urban Development Appropriations Bill would appropriate \$17.8 billion for NASA in FY 2012, \$924 million below the President's request.

Exploration

NASA Authorization Act of 2010 (PL 111-267)

The NASA Authorization Act of 2010 states that the "long term goal of the human space flight and exploration efforts of NASA shall be to expand permanent human presence beyond low-Earth orbit (LEO)." Although the Authorization Act does not identify a specific destination that NASA should initially focus on, it does note that extending human presence beyond LEO "will enable missions to the surface of the Moon and missions to deep space destinations such as near-Earth asteroids and Mars." However, the Authorization Act does stipulate that initial missions beyond LEO should "provide operational experience prior to the further human expansion into space." In addition, the Authorization Act states that exploration beyond LEO "should be based around a pay-as-you-go approach."

House Appropriations Committee Proposed FY 2012 NASA Appropriations Bill (H.R. 2596)

The House Appropriations Committee Report states NASA should identify "specific" and "aggressive goals," which are "necessary both to focus the program and to provide a common vision around which public and political support can be rallied." Therefore, the Committee "urges NASA to adopt a destination-based approach to exploration that would designate a specific target location," in order to "drive development decisions and timelines going forward."

Senate Passed FY 2012 NASA Appropriations Bill (S. 1572)

The Senate Appropriations Committee Report states it is the Committee's belief that "the Nation deserves a robust human spaceflight program," which "regularly and reliably provides access to the International Space Station [ISS] and enables exploration beyond low Earth orbit." In order to achieve these goals the "United States needs to move forward in building a heavy lift rocket to complement commercial activities." In addition, the Committee states in its report that the "United States will need to engage its partners to have a truly robust and successful" space exploration program.

FY 2012 Agriculture, Commerce/Justice/Science, and Transportation/House and Urban Development Appropriations Bill (H.R. 2112)

N/A

Space Technology

The developing approach to space exploration under discussion in recent years has resulted in changes in both NASA's organization and budget.

For example, NASA created the Space Technology Account, which reports directly to the NASA Administrator, is managed by the Office of the Chief Technologist and comprises technology development efforts previously managed by, among others, the Exploration Systems Mission Directorate, the Aeronautics and Space Technology Research Directorate and the Innovative Partnerships Program.

The President's FY 2012 budget request for Space Technology is \$1.151 billion, of which \$1.024 billion is from the Space Technology account and \$127 million is from the Exploration Mission Directorate's Advanced Capabilities account.

NASA Authorization Act of 2010 (PL 111-267)

The NASA Authorization Act of 2010 authorizes \$923 million for Space Technology funds in FY 2012, \$228 million below the President's request. The Authorization Act outlines its goal for NASA's space technology program in section 904. The Authorization Act states that "It is critical that NASA maintain an Agency space technology base that helps align mission directorate investments and supports long term needs to complement mission-directorate funded research and support."

House Appropriations Committee Proposed FY 2012 NASA Appropriations Bill (H.R. 2596)

The House Appropriations Committee Bill would appropriate \$375 million for Space Technology in FY 2012, \$649 million below the President's request. The House Appropriations Committee Report states that funding under Space Technology "consists of numerous existing activities, including Small Business Innovative Research (SBIR) program, the Small Business Technology Transfer (STTR) program, and significant portions of the Exploration Technology Development and Demonstration (ETDD) program, as well as some newly evolving cross cutting activities." The House Appropriations Committee Report goes on to state that the Committee supports the concepts underlying the Space Technology request, and its "competitive nature, projectized approach and balance between technologies of differing readiness levels seem likely to produce innovative ideas that will benefit NASA, other Federal agencies and the commercial sector." However, the Committee in its report outlines several reasons why it believes the billion dollar request for Space Technology funds in FY 2012 was "premature." First, the House Appropriates Committee Report notes that "NASA has yet to complete a full year managing these activities as a consolidated portfolio, and the technology roadmaps that are intended to guide and prioritize its investments are still in draft form and under external review by the National Research Council (NRC)." Second, "NASA does not yet appear to have a sustainable budgetary plan for absorbing a new program of such significant size without causing damage to other necessary activities." Therefore, the Committee "expects that NASA will use fiscal year 2012 to address these outstanding issues, which will put the program in a stronger position to seek additional funds in future requests."

Senate Passed FY 2012 NASA Appropriations Bill (S. 1572)

The Senate passed Appropriations Bill would appropriate \$637 million for Space Technology in FY 2012, \$387 million below the President's request. The Committee in its report states that it "regrets not being able to fund this promising new program more robustly and has prioritized funding for ongoing activities." In particular, the

Committee recommends NASA “continue to fund satellite servicing at the fiscal year 2011 level,” which will “contribute to the planned competitive demonstration mission.”

FY 2012 Agriculture, Commerce/Justice/Science, and Transportation/House and Urban Development Appropriations Bills (H.R. 2112)

N/A

Science

Budget Authority, \$ in millions	President's FY 2012 NASA Budget Request	FY 2012 funds authorized by the NASA Authorization Act of 2010 (PL 111-267)	House Appropriations Committee Proposed FY 2012 NASA Approps Bill (H.R. 2596)	Senate Passed FY 2012 NASA Approps Bill (S. 1573)	FY 2012 Agriculture, CJS, & THUD Approps Bill (H.R. 2112)
Earth Science	1,797.40	1,944.50	1,699.00	1,765.50	N/A
Planetary Science	1,540.70	1,547.20	1,500.00	1,500.40	N/A
Astrophysics	682.70	1,109.30	683.00	682.20	N/A
<i>James Webb Space Telescope</i>	373.70*	N/A	0	529.60	529.60
Heliophysics	622.30	647.60	622.00	622.30	N/A
Space Operations	5,016.80	5,248.60	4,504.00	5,100.00	5,090.00

*In previous budgets, the James Webb Space Telescope funds were included under the Astrophysics budget account.

Earth Science

NASA Authorization Act of 2010 (PL 111-267)

The NASA Authorization Act of 2010 authorizes \$1,944 million for Earth Science programs in FY 2012, \$147 million above the President's request. The Authorization Act states that "Congress supports the strengthening of collaboration" within the United States Government and internationally in the area of Earth observations. The Authorization Act goes on to state that NASA should "obtain and convert data from other government agencies, including data from the United States Geological Survey, and data derived from satellites operated by NOAA as well as from international satellites," and that "such cooperative relationships and programs should be maintained."

House Appropriations Committee Proposed FY 2012 NASA Appropriations Bill (H.R. 2596)

The House Appropriations Committee Bill would appropriate \$1,699 million for Earth Science programs in FY 2012, \$100 million below the President's request. The House Appropriations Committee Report states the "current constrained fiscal environment simply cannot sustain the spending patterns envisioned by NASA in this field," which the Committee notes has "rapidly grown over the past few fiscal years." However, the House Appropriations Committee would leave it up to NASA to "propose such reductions."

Senate Passed FY 2012 NASA Appropriations Bill (S. 1572)

The Senate passed Appropriations Bill would appropriate \$1,765 million for Earth Science programs in FY 2012, \$31 million below the President's request. The Committee continues to support NASA's Earth Science Decadal Survey Missions, IceBridge, Carbon Monitoring, and SERVIR program, but acknowledges that it is "discouraged by NASA's lack of cooperation with NOAA's Ocean and Atmospheric Research office in the area of non-space based Earth science." Therefore, the Committee directs NASA to "better coordinate with NOAA on all aspects of relevant NASA-funded projects, including project planning, project execution and post-project data sharing."

FY 2012 Agriculture, Commerce/Justice/Science, and Transportation/House and Urban Development Appropriations Bills (H.R. 2112)

N/A

Planetary Science

NASA Authorization Act of 2010 (PL 111-267)

The NASA Authorization Act of 2010 authorizes \$1,547 million for Planetary Science programs in FY 2012, \$7 million above the President's request.

House Appropriations Committee Proposed FY 2012 NASA Appropriations Bill (H.R. 2596)

The House Appropriations Committee Bill would appropriate \$1,500 million for Planetary Science programs in FY 2012, \$40 million below the President's request. The House Appropriations Committee Report states that the Outer Planets Flagship (OFP) missions will have to be "substantially descope in order to remain within the portfolio." The House Appropriations Committee Bill directs \$4 million from the OFP budget be used to "conduct

the necessary descope studies for” the Mars Sample Return (MSR) and the Jupiter Europa Orbiter (JEO) missions. The House Appropriations Committee Report goes on to state the remaining \$39 million of OPF funds “should be held pending the completion of the descope analysis and, depending on the results, either used in support of an acceptably descope flagship mission or proposed for reprogramming to other Planetary Science project lines.”

Senate Passed FY 2012 NASA Appropriations Bill (S. 1572)

The Senate passed Appropriations Bill would appropriate \$1,500 million for Planetary Science programs in FY 2012, \$40 million below the President’s request. The Committee in its report reiterates its support for NASA’S flagship missions, but notes that “future large projects will need to have a scope that is aligned with a sound and executable budget.” Therefore, the Committee suggests NASA “focus its management efforts on rigorous requirements definition, program management, and cost discipline so that it can meet the commitments it makes within projected budgets.”

FY 2012 Agriculture, Commerce/Justice/Science, and Transportation/House and Urban Development Appropriations Bills (H.R. 2112)

The FY 2012 Agriculture, Commerce/Justice/Science, and Transportation/House and Urban Development Appropriations Bills Report directs NASA to “implement the recommendations of the most recent National Research Council planetary decadal survey.” Therefore, NASA “shall follow the decadal survey’s recommended decision rules regarding program implementation,” which includes “strict adherence to the recommendation that NASA include in a balanced program a flagship class mission.” The Flagship class mission “may be executed in cooperation with one or more international partners,” if the Flagship mission “can be appropriately de-scoped and all NASA costs for such mission can be accommodated within the overall funding levels appropriated by Congress.”

Astrophysics

NASA Authorization Act of 2010 (PL 111-267)

The NASA Authorization Act of 2010 authorizes \$1,109 million for Astrophysics programs in FY 2012, \$426 million above the President’s request. However, the large disparity between the two numbers is misleading. Prior to the FY 2012 NASA budget request, funding for the James Webb Space Telescope (JWST) was included within the Astrophysics budget line. However, NASA proposed in its FY 2012 budget request to move the JWST to “its own Theme,” which NASA stated was a reflection of “management changes implemented in FY 2011 to improve oversight and control over the project in direct response to the Independent Comprehensive Review Panel’s (ICRP) report in November 2010.” When the funds requested for the JWST are counted with the funds requested for Astrophysics, then the funds authorized for Astrophysics is only \$51 million above the President’s request.

House Appropriations Committee Proposed FY 2012 NASA Appropriations Bill (H.R. 2596)

The House Appropriations Committee Bill would appropriate \$683 million for Astrophysics to fully fund the President’s FY 2012 request.

Senate Passed FY 2012 NASA Appropriations Bill (S. 1572)

The Senate passed Appropriations Bill would appropriate \$682 million for Astrophysics in FY 2012, just \$500,000 below the President’s request.

FY 2012 Agriculture, Commerce/Justice/Science, and Transportation/House and Urban Development Appropriations Bills (H.R. 2112)

N/A

James Webb Space Telescope

NASA Authorization Act of 2010 (PL 111-267)

As noted above, prior to the President’s FY 2012 NASA budget request, the JWST was funded within the Astrophysics budget line. However, NASA’s FY 2012 budget request proposed moving the JWST to “its own Theme.” Since the proposed move was made public in February 2011, months after the NASA Authorization Act of 2010 was signed into law, the Authorization Act does not authorize a specific amount for the JWST.

House Appropriations Committee Proposed FY 2012 NASA Appropriations Bill (H.R. 2596)



The House Appropriations Committee Bill would recommend no funds for the JWST, \$373 million below the President's FY 2012 request. The House Appropriations Committee Report outlined two reasons for the Committee's decision to eliminate funds for JWST. First, the Committee targeted JWST to set a "cost discipline example for other [NASA] projects," in order to force NASA to address the underlying causes for the significant cost overruns that are "commonplace at NASA." Second, the House Appropriations Committee Report states the Committee wanted to provide relief from the "enormous pressure that JWST was placing on NASA's ability to pursue other science missions."

Senate Passed FY 2012 NASA Appropriations Bill (S. 1572)

The Senate passed Appropriations Bill would appropriate \$529 million for the JWST in FY 2012, \$155 million above the President's request. The Committee in its report states it "strongly supports completion of the James Webb Space Telescope." The Committee report notes that last year's Independent Casani Study on JWST found that "NASA has never requested adequate resources to fund" the development of JWST. The Senate Appropriations Committee Report states NASA's "budget optimism led to massive ongoing cost overruns" and caused the JWST "schedule to slip." The Committee in its report notes that "NASA has submitted a new baseline for JWST with an overall life cycle cost of \$8,700,000,000," which the Committee "intends to hold NASA and its contractors to." Therefore, the Senate Appropriations Committee Bill "caps the overall development cost for JWST at \$8,000,000,000."

FY 2012 Agriculture, Commerce/Justice/Science, and Transportation/House and Urban Development Appropriations Bills (H.R. 2112)

The FY 2012 Agriculture, Commerce/Justice/Science, and Transportation/House and Urban Development Appropriations Bills Report states the James Webb Space Telescope "shall not exceed \$8,000,000,000." In addition, if the JWST program determines it is likely to exceed the \$8 billion limitation, it will "immediately notify the Administrator."

Heliophysics

NASA Authorization Act of 2010 (PL 111-267)

The NASA Authorization Act of 2010 authorizes \$647 million for Heliophysics programs in FY 2012, \$25 million above the President's request. The Authorization Act notes that "space weather events pose a significant threat to modern technological systems."

House Appropriations Committee Proposed FY 2012 NASA Appropriations Bill (H.R. 2596)

The House Appropriations Committee bill would appropriate \$622 million for Heliophysics to fully fund the President's FY 2012 request.

Senate Passed FY 2012 NASA Appropriations Bill (S. 1572)

The Senate passed Appropriations Bill would appropriate \$622 million for Heliophysics to fully fund the President's FY 2012 request.

FY 2012 Agriculture, Commerce/Justice/Science, and Transportation/House and Urban Development Appropriations Bills (H.R. 2112)

N/A

Exploration

Budget Authority, \$ in millions	President's FY 2012 NASA Budget Request	FY 2012 funds authorized by the NASA Authorization Act of 2010 (PL 111-267)	House Appropriations Committee Proposed FY 2012 NASA Approps Bill (H.R. 2596)	Senate Passed FY 2012 NASA Approps Bill (S. 1573)	FY 2012 Agriculture, CJS, & THUD Approps Bill (H.R. 2112)
Exploration Research and Development	288.5	702.30	289.00	275.00	304.80
Heavy Lift and Propulsion Technology	N/A	N/A	N/A	N/A	N/A
Human Research	164.1	165.00	N/A	N/A	N/A
Exploration Technology and Demonstration Program	N/A	N/A	N/A	N/A	N/A
Exploration Precursor Robotic Mission Program	N/A	N/A	N/A	N/A	N/A
Exploration Technology Development	N/A	437.30	N/A	N/A	N/A
Robotic Precursor Studies and Instruments	N/A	100.00	N/A	N/A	N/A
Advanced Capabilities	124.4	N/A	N/A	N/A	N/A
Commercial Spaceflight	850.00	500.00	312.00	500.00	406.00
Commercial Cargo	0.0	N/A	N/A	N/A	N/A
Commercial Crew	850.00	500.00	312.00	500.00	406.00
Constellation Transition	N/A	N/A	N/A	N/A	N/A
Human Exploration Capabilities	2,810.20	4,050.00	3,048.00	3,000.00	3,060.00
Constellation Systems	N/A	N/A	N/A	N/A	N/A
Multipurpose crew vehicle(s)	1,010.20	1,400.00	1,063.00	1,200.00	1,200.00
Space Launch System	1,800.00	2,650.00	1,985.00	1,800.00	1,860.00
Exploration	3,948.70	5,252.30	3,649.00	3,775.00	3,770.80

Space Launch System

NASA Authorization Act of 2010 (PL 111-267)

The NASA Authorization Act of 2010 authorizes \$2,650 million for the Space Launch System (SLS) in FY 2012, \$850 million above the President's request. The Authorization Act states the Space Launch System's initial capability of core elements shall be able to lift "payloads weighing between 70 tons and 100 tons into low-Earth orbit," but "without an upper stage." However, the Authorization Act states the Space Launch System "shall be designed from inception as a fully-integrated vehicle" that will be eventually capable of carrying "an integrated upper Earth departure stage bringing the total life capability of the Space Launch System to 130 tons or more."

House Appropriations Committee Proposed FY 2012 NASA Appropriations Bill

The House Appropriations Committee Bill would appropriate \$1,985 million for the Space Launch System in FY 2012, \$185 million above the President's request. The House Appropriations Committee Bill states the Space Launch System "shall have a lift capability not less than 130 tons;" reiterating its support for the NASA Authorization Act of 2010. However, the House Appropriations Committee Bill diverges from the Authorization Act by requiring the Space Launch Vehicle to "have an upper stage and other core elements developed simultaneously," rather than gradually. In addition, the House Committee Report states that SLS funds "are intended for the actual design and development" of the vehicle. Therefore, NASA should "take all possible steps to minimize the impact" of expenses related to civil service oversight, program integration, ground operations

and mission operations by “revalidating and streamlining each related expense and seeking acceptable funding sources for these expenses outside of the Human Exploration Capabilities line.”

Senate Passed FY 2012 NASA Appropriations Bill (S. 1572)

The Senate passed Appropriations Bill would appropriate \$1,800 million for the heavy lift launch vehicle to fully fund the President’s FY 2012 request. The Senate Appropriations Committee Report states the launch vehicle “shall be part of a sustained, evolvable effort around a common core to culminate in an initial human capability by 2017.” In addition, the launch vehicle “shall enable human transportation at the highest possible safety standards and lowest life cycle costs for beyond low Earth orbit.” The Senate Appropriations Committee Bill caps the program at \$11.5 billion through FY 2017.

FY 2012 Agriculture, Commerce/Justice/Science, and Transportation/House and Urban Development Appropriations Bills (H.R. 2112)

The FY 2012 Agriculture, Commerce/Justice/Science, and Transportation/House and Urban Development Appropriations Bills would appropriate \$1,860 million for the heavy lift launch vehicle, \$60 million above the President’s FY 2012 request. The FY 2012 Agriculture, Commerce/Justice/Science, and Transportation/House and Urban Development Appropriations Bills Report states the heavy lift launch vehicle “shall have a lift capability not less than 130 tons and which shall have an upper stage and other core elements developed simultaneously.” In addition, NASA shall not expend more than “\$316,500,000 of funds provided for the heavy lift launch vehicle system” on ground operations.

Multi-Purpose Crew Vehicle

NASA Authorization Act of 2010 (PL 111-267)

The NASA Authorization Act of 2010 authorizes \$1,400 million for the Multi-Purpose Crew Vehicle (MPCV) in FY 2012, \$390 million above the President’s request. The Authorization Act states the MPCV shall be made “available as soon as practicable, and no later than for use with the Space Launch System.” The Authorization Act goes on to state that the MPCV shall “continue to advance development of the human safety features, designs, and systems in the Orion project,” but also have the capacity for “efficient and timely evolution, including the incorporation of new technologies, competition of sub-elements.”

House Appropriations Committee Proposed FY 2012 NASA Appropriations Bill

The House Appropriations Committee Bill would appropriate \$1,063 million for MPCV in FY 2012, \$53 million above the President’s request. The House Appropriations Committee Bill states the MPCV shall “continue existing vehicle development activities.” In addition, the House Committee Report states that MPCV funds “are intended for the actual design and development” of the vehicle. Therefore, NASA should “take all possible steps to minimize the impact” of expenses related to civil service oversight, program integration, ground operations and mission operations by “revalidating and streamlining each related expense and seeking acceptable funding sources for these expenses outside of the Human Exploration Capabilities line.”

Senate Passed FY 2012 NASA Appropriations Bill (S. 1572)

The Senate passed Appropriations Bill would appropriate \$1,200 million for the Orion crew exploration vehicle in FY 2012, \$190 million above the President’s request. The Committee states in its report that the vehicle “shall be capable of being launched on the heavy lift launch vehicle and may also provide alternative access to low Earth orbit,” including the ISS. The Senate Appropriations Committee Bill caps the program at \$5.5 billion through FY 2017.

FY 2012 Agriculture, Commerce/Justice/Science, and Transportation/House and Urban Development Appropriations Bills (H.R. 2112)

The FY 2012 Agriculture, Commerce/Justice/Science, and Transportation/House and Urban Development Appropriations Bills would appropriate \$1,200 million for the Orion multipurpose crew vehicle in FY 2012, \$190 million above the President’s FY 2012 request.

Commercial Crew

NASA Authorization Act of 2010 (PL 111-267)

The NASA Authorization Act of 2010 authorizes \$500 million for Commercial Crew in FY 2012, \$350 million below the President’s request. The Authorization Act states the “Administrator may, beginning in fiscal year 2012 through the duration of the program, support follow-on commercially-developed crew transportation

systems dependent upon the completion of the following: Human Rating Requirements; Commercial Market Assessment; Procurement System Review; Use of Government-Supplied Capabilities and Infrastructure; Flight Demonstration and Readiness Requirements; and Commercial Crew Rescue Capabilities.”

House Appropriations Committee Proposed FY 2012 NASA Appropriations Bill

The House Appropriations Committee Bill would appropriate \$312 million for Commercial Crew in FY 2012, \$538 million below the President’s request. The House Appropriations Committee Report states the “sizable increase” requested by the President was “premature given the still-undefined acquisition strategy for the Commercial Crew Development Round 3 (CCDev 3) awards and the uncertainty behind assumptions about pricing, schedule, market demand, flight opportunities and other economic factors that are essentially unknowable at this time.” However, the House Committee Report notes that it is important to maintain sufficient funds for Commercial Crew in order to “reduce the risk of relying solely on Russia for ISS access and to address the need for the United States to establish a domestic means of access to low Earth orbit.”

Senate Passed FY 2012 NASA Appropriations Bill (S. 1572)

The Senate passed Appropriations Bill would appropriate \$500 million for the Commercial Crew in FY 2012, \$350 million below the President’s request. The Committee states in its report that the Commercial Crew funds “shall be available to continue and competitively expand the number of participants and the Commercial Crew Development program.” However, the Committee outlines several requirements on how and when NASA can spend all of the funds. First, the report explains that \$307 million will be available on October 1, 2011. However, the additional \$192 million will not become available until after the NASA Administrator has “certified, in writing, that NASA has published the notifications to implement acquisition strategy for the heavy lift launch vehicle system.” The Committee notes that this will assure it that “NASA is committed to all elements of the balanced human spaceflight program authorized in Public Law 111-267.” Second, the Committee directs NASA to utilize Commercial Crew funds to “develop and make available to the public detailed human rating processes and requirements to guide the design of all crew transportation capabilities.” The Committee report goes on to state that the requirements “shall be at least equivalent to requirements for crew transportation current in use.” Third, in future rounds of commercial crew competitions and acquisitions, NASA “shall limit the use of funded Space Act Agreements as stated in” NASA Policy Directive 1050.1I.

FY 2012 Agriculture, Commerce/Justice/Science, and Transportation/House and Urban Development Appropriations Bills (H.R. 2112)

The FY 2012 Agriculture, Commerce/Justice/Science, and Transportation/House and Urban Development Appropriations Bills would appropriate \$406 million for commercial spaceflight activities, \$444 million below the President’s FY 2012 request. The FY 2012 Agriculture, Commerce/Justice/Science, and Transportation/House and Urban Development Appropriations Bills Report states that \$100,000,000 of the funds provided for commercial spaceflight activities will only be available after the NASA completes two prerequisite tasks. First, the NASA Administrator “certifies to the Committees on Appropriations, in writing, that NASA has published the required notifications of NASA contract actions implementing the acquisition strategy for the heavy lift launch system.” And, second, NASA “has begun to execute relevant contract actions in support of development of the heavy lift launch vehicle system.”

Space Operations

Budget Authority, \$ in million	President's FY 2012 NASA Budget Request	FY 2012 funds authorized by the NASA Authorization Act of 2010 (PL 111-267)	House Appropriations Committee Proposed FY 2012 NASA Approps Bill (H.R. 2596)	Senate Passed FY 2012 NASA Approps Bill (S. 1573)	FY 2012 Agriculture, CJS, & THUD Approps Bill (H.R. 2112)
Space Shuttle	664.90	N/A	548.00	650.90	N/A
International Space Station	2,841.50	2,952.25	2,767.00	2,803.50	N/A
Space and Flight Support	840.60	1,189.25	749.00	662.60	N/A
Space Operations	4,436.90	4,141.50	4,064.00	4,285.00	4,233.60

Space Shuttle

NASA Authorization Act of 2010 (PL 111-267)

The NASA Authorization Act of 2010 does not address the issue of funding the Space Shuttle workforce's pension plan. However, the Authorization Act notes that "it is imperative for the United States to retain the skills and the industrial capability to provide a follow-on Space Launch System that is primarily designed for mission beyond near-Earth space."

House Appropriations Committee Proposed FY 2012 NASA Appropriations Bill

The House Appropriations Committee Bill would appropriate \$548 million for the Space Shuttle in FY 2012, \$116 million below the President's request. The House Appropriations Committee Report states this amount "should be sufficient to cover NASA's liability pursuant to the termination of the pension plan under the Space Program Operations Contract."

Senate Passed FY 2012 NASA Appropriations Bill (S. 1572)

The Senate passed Appropriations Bill would appropriate \$650 million for the Space Shuttle in FY 2012, \$14 million below the President's request. The Senate Appropriations Committee Report states this amount includes the full amount "NASA has estimated for its pension liability for the primary Space Shuttle support contract."

FY 2012 Agriculture, Commerce/Justice/Science, and Transportation/House and Urban Development Appropriations Bills (H.R. 2112)

N/A

International Space Station

NASA Authorization Act of 2010 (PL 111-267)

The NASA Authorization Act of 2010 authorizes \$2,952 million for the International Space Station (ISS) in FY 2012, \$110 million above the President's request. The Authorization Act directs NASA to "take steps to maximize the productivity and use of the ISS with respect to scientific and technological research and development, advancement of space exploration, and international collaboration."

House Appropriations Committee Proposed FY 2012 NASA Appropriations Bill

The House Appropriations Committee Bill would appropriate \$2,767 million for the ISS in FY 2012, \$74 million below the President's request. In addition, the House Appropriations Committee Report directs "NASA to keep the Committee apprised of progress" it makes towards reaching the maximum research utilization goal of 35 hours of crew time per week on the ISS.

Senate Passed FY 2012 NASA Appropriations Bill (S. 1572)

The Senate passed Appropriations Bill would appropriate \$2,803 million for the ISS in FY 2012, \$38 million below the President's request. The Committee states in its report that it "fully supports the administration's plan to extend ISS research and operations through 2020."

FY 2012 Agriculture, Commerce/Justice/Science, and Transportation/House and Urban Development Appropriations Bills (H.R. 2112)

N/A



About the Space Foundation

The Space Foundation is an international, nonprofit organization and the foremost advocate for all sectors of the space industry - civil, commercial, military and intelligence. Founded in 1983, the Space Foundation is a leader in space awareness activities, educational programs that bring space into the classroom, and major industry events, all in support of its mission "to advance space-related endeavors to inspire, enable, and propel humanity." An expert in all aspects of the global space industry, the Space Foundation publishes [*The Space Report: The Authoritative Guide to Global Space Activity*](#) and provides three [indices](#) that track daily performance of the space industry. Through its [Space Certification](#) and [Space Technology Hall of Fame](#) programs, the Space Foundation recognizes space-based technologies and innovations that have been adapted to improve life on Earth. Headquartered in Colorado Springs, the Space Foundation conducts research and analysis and government affairs activities from its Washington, D.C., office and has field representatives in Houston, Texas, and Cape Canaveral, Fla. For more information, visit www.SpaceFoundation.org. Follow us on [Twitter](#), [Facebook](#), and [LinkedIn](#), and read about the latest space news and Space Foundation activities in [Space Watch](#).

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