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Fact Sheet
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NASA's FY2014 Budget

President's Request and Final Appropriations

President Obama requested $17,715.4 million for NASA in FY2014. The FY2014 Consolidated Appropriations Act (usually called "the omnibus") provided $17,646.5 million. That is $68.9 million less than the request.

The request and congressional action on it are summarized in Table 1 below. A separate breakout for the Space Launch System (SLS) appears in Table 2 since its funding spans various accounts. Table 3 provides a breakdown of FY2013 funding, the FY2014 budget request, and budget projections through FY2018 for the planetary science budget because it is somewhat controversial, but Congress did not use the same precise categories in its final appropriations recommendations, so final action on the planetary science budget is not included in that table, although it is explained in a footnote to the table.

NASA requested $105 million for an **Asteroid Redirect Initiative** (discussed below), but it is not identified separately in the FY2014 budget request. NASA states that the $105 million is comprised of $20 million in the planetary science line for additional funds to locate asteroids (on top of $20 million already planned); $45 million in the Space Technology line for development of high power solar electric propulsion and other technologies; and $40 million in the Exploration account for mission concept studies. Congressional action on this request is explained below.

Continuing Appropriations Bills

No appropriations bills cleared Congress by October 1, 2013, the beginning of FY2014. Consequently, the government partially shut down for 16 days (October 1-16). NASA was closed the entire time, with 97 percent of its staff furloughed. The only programs exempted from the shutdown were operations of the International Space Station and other spacecraft already launched, and preparations for launch of the MAVEN mission to Mars (which received an exemption only after it became apparent the shutdown would last more than a few days).

On October 16, the Senate and House passed the Continuing Appropriations Act, 2014 (H. R. 2775 as amended), which keeps the government funded at its FY2013 levels until January 15, 2014. The President signed the bill into law in the early hours of October 17 and the government shutdown ended, with workers returning to their jobs that morning.

A second CR was passed to cover three more days (January 16-18, 2014) while Congress completed work on an omnibus appropriations bill for the rest of FY2014 (see next item).

By Marcia S. Smith

Regular Appropriations Bills (FY2014 Consolidated Appropriations Act)

The House and Senate Appropriations Committees completed markup of their respective, and very different, versions of the Commerce-Justice-Science (CJS) appropriations bill, which includes NASA, on July 17 and July 18, 2013 respectively. Table 1 shows how much funding was recommended by each committee compared with the request. One reason the bills were so different was because the House and Senate had each passed budget resolutions, with the House version cutting federal spending dramatically, while the Senate did not have such deep cuts. Thus, the House and Senate appropriations CJS subcommittees had differing levels of funding to allocate. The House had much less and NASA funding consequently was lower.

A compromise budget agreement reached in December 2013 between the chairs of the House and Senate Budget Committees, Rep. Paul Ryan (R-WI) and Sen. Patty Murray (D-WA), for top level government spending for FY2014 and FY2015 improved the budget outlook for NASA and many other government agencies. The Ryan-Murray agreement passed Congress and was enacted as the Bipartisan Budget Act (P.L. 113-67). It cleared the way for the appropriations committees to complete their work on the FY2014 appropriations bills. The budget agreement did not replace the sequester with an alternative method of deficit reduction, but reduced its impacts for both defense and non-defense discretionary spending in FY2014.

On January 13, 2014, a compromise agreement on all 12 regular appropriations bills, including CJS, was reached between the House and Senate appropriations committees. They were packaged together into a single "omnibus" appropriations bill. The bill, officially named the Consolidated Appropriations Act, 2014, passed the House and Senate on January 15 and 16 respectively, and was signed into law on January 17, 2014 (H.R. 3547, P.L. 113-76).[1] A three-day CR was passed to cover the short period of time between the expiration of the first CR on January 15 and the enactment of this bill.

Final FY2014 funding for NASA is shown in the tables below. In total, NASA received $17,646.5 million, very close to its request of $17,715.4 million. This was good news for the agency, which at one point appeared destined to get as little as $16.1 billion under the most dire budget scenarios.

Authorization Bills

Authorization laws set policy and recommend funding levels, but do not actually provide any money; only appropriations laws provide money. The 2010 NASA Authorization Act (P.L. 111-267) authorized funding for FY2011, FY2012 and FY2013, so a new law is needed if Congress wants to authorize funding for FY2014 and beyond. However, the policy provisions of the 2010 NASA Authorization Act remain law unless they are repealed or replaced by subsequent laws; only the funding authorizations expire.

The House and Senate committees that authorize NASA activities are working on a new authorization bill for the agency. The House Science, Space and Technology (SS&T) Committee marked up its 2013 NASA authorization bill (H.R. 2687) on July 18. The Senate

[1] Congress used a bill introduced for another purpose as the "legislative vehicle" for the Consolidated Appropriations Act. This is a common practice, but, ironically, in this case it used a bill whose original purpose was related to the space program. H.R. 3547's original purpose was to extend the FAA's authority to indemnify commercial space launch services companies from certain amounts of claims by third parties in the event of a launch accident. The final Consolidated Appropriations Act incorporated this provision, extending "third party indemnification" authority for three more years, to December 31, 2016.

Commerce, Science and Transportation Committee marked up its bill (S. 1317) on July 30. The funding levels they recommend for FY2014 are shown in Table 1. Any further action on these bills will be discussed in our fact sheet on NASA's FY2015 Budget Request.

Asteroid Redirect Initiative and Asteroid Redirect Mission (ARM)

The most controversial aspect of NASA's FY2014 budget request was the Asteroid Redirect Mission (also called the Asteroid Return Mission or Asteroid Retrieval Mission).

NASA differentiates between the Asteroid Redirect MISSION and the Asteroid Redirect INITIATIVE. ARM is part, but not all, of the Initiative. For FY2014, the request was $78 million for the MISSION ($40 million in Exploration for studies, $38 million in Space Technology for solar electric propulsion), plus $20 million in planetary science for asteroid detection and $7 million in Space Technology for related activities. So the request was $105 million for the Initiative, of which $78 million was for the Mission. Most people call the whole concept ARM.

President Obama proposed sending astronauts to an asteroid as the next step in human spaceflight in April 2010. The idea was that astronauts would travel for several months to visit an asteroid, learning lessons about human adaptation to deep space missions as a step towards even longer missions to Mars. That asteroid mission was itself controversial and received little support in Congress or the broad space community.

In 2012, the Keck Institute for Space Studies (KISS) published a report recommending that an asteroid be captured by a robotic spacecraft and redirected into lunar orbit where it would be more easily accessible by astronauts who could visit it there and collect a large sample for return to Earth for study. The KISS report estimated the mission cost at $2.6 billion.

In the FY2014 budget request, released in April 2013, the White House proposed a variation of its 2010 proposal based on the KISS study as a way to accomplish the President's goal of sending humans to an asteroid more quickly and cost effectively. Presidential Science Adviser John Holdren enthusiastically defended the mission at an April 17, 2013 hearing before the House SS&T Committee, calling it "ingenious."

NASA has been struggling to explain the mission and build support for it, so far with little success. Republicans on the House SS&T Committee openly oppose it. Their version of the 2013 NASA authorization bill specifically prohibits spending any funds on ARM. The FY2014 Commerce-Justice-Science (CJS) appropriations bill as reported from the House Appropriations Committee recommended no funding, but did not prohibit NASA from spending money on studies. The Senate versions of the authorization and appropriation bills were silent about it.

The authorization bills did not move beyond the committee stage during 2013, so ARM's fate for now rests with the FY2014 CJS appropriations bill. The final compromise reflected in the omnibus appropriations bill signed into law in January 2014 essentially adopts the House Appropriations Committee's stance of neither approving nor prohibiting the mission, telling NASA it needs to do more groundwork before a decision is made: "While ARM is still an emerging concept, NASA has not provided Congress with satisfactory justification materials such as detailed cost estimates or impacts to ongoing missions. The completion of significant preliminary activities is needed to appropriately lay the groundwork for the ARM prior to NASA and Congress making a long term commitment to this mission concept." ARM is included in the NASA's FY2015 budget request. See our fact sheet "NASA's FY2015 Budget Request."

Table 1: FY2014 NASA Budget Request and Congressional Action

(in $ millions; see notes on next page)

			Authorization			Appropriation		
Account[3]	2013	2014 Req	House HR 2687 (ord. rept.)	Senate S 1317 (ord. rpt.)	Final	House HR 2787 H Rpt. 113-171	Senate S 1329 S. Rpt 113-78	Final P.L 113-76
Science	**4,781.6**	**5,017.8**	**4,626.9**	**5,154.0**		**4,781.0**	**5,154.2**	**5,151.2**
Earth Science	*1,659.2*	*1,846.1*	*1,200.0*	*1,800.0*		*1,659.0*	*1,846.2*	*1,826.0*
Planetary Science	*1,271.5*	*1,217.5*	*1,500.0*	*1,400.0*		*1,315.0*	*1,317.6*	*1,345.0*
Astrophysics	*617.0*	*642.3*	*642.3*	*642.0*		*622.0*	*678.4*	*668.0*
JWST	*627.6*	*658.2*	*658.2*	*658.0*		*584.0*	*658.2*	*658.2*
Heliophysics	*606.3*	*653.7*	*626.4*	*654.0*		*601.0*	*653.8*	*654.0*
Aeronautics	**529.5**	**565.7**	**565.7**	**570.0**		**566.0**	**558.7**	**566.0**
Space Technology	**614.5**	**742.6**	**500.0**	**635.0**		**576.0**	**670.1**	**576.0**
Exploration[4]	**3,705.6**	**3,915.5**	**4,007.4**	**4,275.0**		**3,612.0**	**4,209.3**	**4,113.2**
Expl Sys Dev[2]	*2,883.8*	*2,730.0*	*3,002.4*	*not shown*		*2,825.0*	[4]*not shown*	*3,115.2*
(Space Lnch Sys - SLS)[5]	*(1,414.9)*	*(1,384.9)*	*(1,802.4)*	*(1,600.0)*		*(1,476.0)*	*1,600.0*	*(1,600.0)*
(Orion)	*(1,113.8)*	*(1,026.8)*	*(1,200.0)*	*(1,200.0)*		*(1,050.0)*	*1,200.0*	*(1,197.0)*
(Expl Ground Sys)[5]	*(355.1)*	*(318.2)*	*not shown*	*(350.0)*		*(299.0)*	*318.2*	*(318.2)*
Commercial Spflt	525.0	*821.4*	*700.0*	*800.0*		*500.0*	*775.0*	*696.0*
Expl R&D	296.7	*364.2*	*305.0*	*325.0*		*287.0*	*316.1*	*302.0*
Space Operations	**3,724.9**	**3,882.9**	**3,817.9**	**3,832.0**		**3,670.0**	**3,882.9**	**3,778.0**
Space Shuttle	*38.8*	*N/A*	*N/A*	*N/A*		*N/A*	*N/A*	*not shown*
ISS	*2,775.9*	*3,049.1*	*2,984.1*	*3,000.0*		*2,860.0*	*3,049.1*	*not shown*
Space & Flt Support	*910.2*	*833.8*	*833.8*	*832.0*		*810.0*	*833.8*	*not shown*
Education[4]	**116.3**	**94.2**	**125.0**	**136.0**		**122.0**	**116.6**	**116.6**
Aersp Res & Career Dev	54.0	*33.0*	*not shown*	*not shown*		*33.0*	[4]not shown	*58.0*
(Space Grant)	*(37.2)*	*(24.0)*	*not shown*	*not shown*		*(24.0)*	40.0	*(40.0)*
(EPSCoR)	*(16.7)*	*(9.0)*	*not shown*	*not shown*		*(9.0)*	18.0	*(18.0)*
STEM Ed & Accntability	62.3	*61.2*	*not shown*	*not shown*		*89.0*	[4]not shown	*58.6*
(MUREP)	*(27.9)*	*(30.0)*	*not shown*	*not shown*		*(30.0)*	30.0	*(30.0)*
Stem Ed & Accnt Projects[4]	*(25.1)*	*(31.2)*	*not shown*	*not shown*		[4]*(59.0)*	28.6	*(28.6)*
Informal Education[4]	*(9.3)*	*not shown*	*not shown*	*not shown*		*not shown*	not shown	*not shown*
Cross Agency Support	**2,711.0**	**2,850.3**	**2,600.0**	**2,850.0**		**2,711.0**	**2,793.6**	**2,793.0**
CECR[5]	**646.6**	**609.4**	**587.0**	**610.0**		**525.0**	**586.9**	**515.0**
Inspector General	**35.3**	**37.0**	**35.3**	**38.0**		**35.3**	**38.0**	**37.5**
Total	**16,865.2**	**17,715.4**	**16,865.2**	**18,100.0**		**16,598.3**	**18,010.3**	**17,646.5**

Notes: (1) Text and numbers ***in italics*** are subsets. Text and numbers **in *italics and (parentheses)*** are sub-subsets. Columns may not add due to rounding. Figures for FY2013 were provided by NASA to SpacePolicyOnline.com at our request on August 29, 2013 based on the congressionally approved FY2013 operating plan. Figures for the FY2014 request are from NASA's budget documents at http://www.nasa.gov/budget. Figures for congressional action are from the bills and reports from the relevant congressional committee.
(2) CECR = Construction, Environmental Compliance and Remediation. CoF = Construction of Facilities. N/A = not applicable. "Exploration Systems Development" was labeled "Human Exploration Capabilities" in the FY2013 operating plan figures provided by NASA.
(3) See main text for an explanation of the **Asteroid Redirect Initiative** and what funding is contained in the budget request for it..
(4) The Senate appropriations bill does not show the line items under Exploration or those under Education as sub-subsets as do the other bills and the request, but only as subsets, thus they are not in parentheses in this table. The House Appropriations report creates the STEM Facilitation and Coordination subaccount (instead of STEM Education and Accountability Projects) as "the agency's exclusive source of appropriated funds for education and public outreach activities other than Space Grant, EPSCoR and MUREP" as an "internal consolidation." Language in the Senate report suggests that although they did not rename the account, it does also represent a consolidation of education activities. The category "informal education" appears in the figures provided by NASA to SpacePolicyOnline.com for FY2013 spending. It does not appear in any of the other budget documentation.
(5) The Space Launch System program includes funds listed in the request and most of the bills as "Space Launch System" and "Exploration Ground Systems," both in the Exploration account, as well as related funding for construction of facilities in the CECR account. The following table compares the complete total for SLS in the request and bills. The House and Senate authorization bills do not indicate some of the amounts. They will be added if they become available, perhaps when the associated reports are released.

Table 2: Space Launch System Funding (in $ millions)

Account	FY2013	FY2014 Req	House Auth	Senate Auth	Final	House App	Sen App	Final
Exploration: Expl Systems Development/ SLS	1,414.9	1,384.9	1,802.4	1,600.0		1,476.0	1,600.0	1,600.0
Exploration: Expl Ground Systems	355.1	318.2	included in $1.802.4 (above)	350.0		299.0	318.2	318.2
CECR: Exploration CoF	252.6	142.3	not shown	not shown		142.0	142.3	142.0
Total	2,022.6	1,845.4				1,917.0	2,060.5	2,060.2

Table 3: President's FY14 Planetary Science Budget Plus An Approved FY13 Budget*
(in $ thousands)

Planetary Science Division	FY2012	FY2013 Operating Plan	FY2014 Request	FY2015**	FY2016**	FY2017**	FY2018**
Planetary Research	174,087	192,672	220,600	233,300	229,100	230,400	232,200
Lunar Quest	139,972	71,845	17,700	0	0	0	0
Discovery	172,637	207,414	257,900	268,200	242,300	187,500	215,000
New Frontiers	143,749	158,770	257,500	297,200	266,500	151,000	126,200
Mars Exploration	587,041	369,529	234,000	227,700	318,400	504,700	513,200
Technology	161,899	123,434	150,900	142,800	144,700	154,400	140,000
Outer Planets	122,054	147,836	79,000	45,600	24,400	26,400	26,000
TOTAL	1,501,439	1,271,500	1,217,600	1,214,800	1,225,400	1,254,400	1,252,600

*Adapted from a Powerpoint chart included in a September 4, 2013 presentation to the National Research Council's Committee on Astrobiology and Planetary Science (CAPS) by James Green, NASA Division Director for Planetary Science.

**Funding figures for FY2015 and beyond are notional.

Congress did not use these precise categories in the final appropriations bill for FY2014, so that action is not reflected in Table 3. For completeness, planetary science funding in the FY2014 omnibus appropriations bill is:

- $130 million for Research and Analysis;
- $40.5 million for Near Earth Object Observation;
- $285 million for the Discovery program;
- $258 million for New Frontier, including $218.7 million for OSIRIS-Rex;
- $288 million for Mars Exploration, including $65 million for the Mars 2020 rover;
- $159 million for Outer Planets, including $80 million for a Jupiter Europa mission; and
- $146 million for Technology, including up to the requested level for Plutonium-238 production.