

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

For the last half of the 20th century, the National Aeronautics and Space Administration (NASA) captured the country's imagination and represented the new frontiers for our nation. The moon landing, the triumphs and tragedies of the Space Shuttle program, and the stunning photographs of distant planets and galaxies are just some of the highlights of NASA's great contributions to mankind's understanding of the universe as well as our own world.

Consolidating and Eliminating Duplicative and Wasteful Programs that Distract from the Agency's Mission

NASA's "mission is to pioneer the future in space exploration, scientific discovery and aeronautics research."¹ Yet with the retirement of the space shuttle program, many believe NASA has lost its focus. Without a bold, clear mission of widely-accepted importance, much of the agency's efforts and resources are drained on costly and out-of-date projects, non-essential research, and other diversions.

For the first time in thirty years, the United States will no longer have its own operational manned space program. In fact, NASA last year agreed to a \$335 million deal with the Russian Federal Space Agency to provide round trips to the International Space Station for six American astronauts, which is roughly \$56 million per seat plus cargo.²

NASA's lack of focus is evident in its budget and many of the projects it funds. NASA's total budget for 2011 is nearly \$18.5 billion. Only a third of that (\$6.031 billion) will be spent by the Space Operations and Aeronautics accounts. The bulk of NASA's budget (\$12.417 billion) will be spent on other accounts, such as education, cross-agency support, construction and environmental compliance and restoration.³

NASA runs more than 80 education programs for teachers and students.⁴ Some of these, such as the Exploration Infusion program and the HUNCH program, are limited to only specific populations in select states. The National Space Club Scholars program, for example, is not a national program at all despite its name. Rather, participants "must live and maintain permanent residence within commuting distance of the NASA Goddard Space Flight Center, Greenbelt,

¹"NASA 101," National Aeronautics and Space Administration website, accessed June 1, 2011; http://www.nasa.gov/audience/formedia/features/NASA_101.html.

²Todd Halvorson, "After shuttle, NASA to pay Russia \$56M a seat for rocket rides," Florida Today, April 7, 2010.

³Congressional Research Service, electronic mail communication with the Office of Senator Tom Coburn, May 24, 2011.

⁴"All NASA Education Projects Listed Alphabetically," NASA website, accessed June 2, 2011; http://www.nasa.gov/offices/education/programs/descriptions/All_Alpha.html.

Md., or the NASA Wallops Flight Facility, Wallops Island, Va.”⁵ Other NASA education programs duplicate each other as well as similar programs administered by other Departments and agencies.

Many NASA programs have little to do with space, such as creating on-line video games,⁶ producing hip-hop and rap videos,⁷ hosting art contests,⁸ sending grade school children on field trips to an oyster farm⁹ and the zoo,¹⁰ and raising guppies and seahorses.¹¹ NASA’s Spaceward Bound program is not actually bound for space. Instead it sends classroom teachers globetrotting on trips to Chile, Australia, and even the Arctic.¹² All of these are activities already being supported by other federal agencies. Some clearly are not even necessary for any agency to fund.

The research NASA conducts that is not related to space is also largely duplicative and, in some cases, unnecessary. For example, NASA aerospace engineers tested the fabric of the Speedo LZR Racer swimsuit worn by world champion swimmer Michael Phelps and others at the 2008 Summer Olympics in Beijing.¹³



NASA researchers helped to engineer the Speedo LZR Racer swimsuit worn by world champion swimmer Michael Phelps and others at the 2008 Summer Olympics in Beijing.¹

⁵ “National Space Club Scholars,” NASA website, accessed June 2, 2011;

http://www.nasa.gov/offices/education/programs/descriptions/National_Space_Club_Scholars.html .

⁶ Jeremy Hsu, “NASA Creating Online Multiplayer Video Game,” Live Science, February 19, 2009; <http://www.livescience.com/space/090219-nasa-mmo.html> .

⁷ Chris Bianchi, “NASA takes the RAP on climate change,” Climate Change Corp (United Kingdom), February 19, 2009; <http://www.climatechange.com/content.asp?ContentID=5974> . Videos can be viewed at <http://passporttoknowledge.com/polar-palooza/whatyoucando/taacc/> .

⁸ “Future of Flight Art Contest,” NASA website, accessed June 1, 2011; <http://artcontest.larc.nasa.gov/> .

⁹ “Science And Math Scholars Program sponsored by NASA hits its stride with Lawn School students,” School Committee, The Jamestown Press (Rhode Island), March 17, 2011, video link at 49:15; <http://www.rinewmedia.com/jtownrecord/School-2011/sc.3.17.11.Flash.fp2.htm> .

¹⁰ Eileen M. Daly, “Grant funds received for SAMS project,” April 8, 2010, The Jamestown Press (Rhode Island); http://www.jamestownpress.com/news/2010-04-08/Front_Page/Grant_funds_received_for_SAMS_project.html .

¹¹ “Science and Math Scholars program (SAMS),” Jamestown Education Foundation website, accessed June 1, 2011; <http://www.jamestowneducationfoundation.org/sams.html> .

¹² “Spaceward Bound,” NASA website, accessed June 2, 2011; http://www.nasa.gov/offices/education/programs/descriptions/Spaceward_Bound.html .

¹³ “Rocketing Through Water: Space-age Swimsuit Being Tested At NASA,” Science Daily, July 6, 2008; <http://www.sciencedaily.com/releases/2008/08/080817231406.htm> .

NASA's focus should mirror its mission and its name. The bulk of the agency's budget should be directed towards space exploration and discovery.

These observations and proposals mirror the comments of some of our nation's space pioneers. Neil Armstrong, the first man to step on the moon, along with Apollo astronauts Jim Lovell and Gene Cernan, recently wrote, "NASA's human spaceflight program is in substantial disarray with no clear-cut mission in the offing," and that "after a half-century of remarkable progress, a coherent plan for maintaining America's leadership in space exploration is no longer apparent."¹⁴ The last Apollo program astronaut to set foot on the moon, Harrison Schmitt, says there is a "loss of focus and leadership within NASA," and recommends "downsizing" and "recreating" NASA to focus on space exploration, and consolidating many of its other functions that serve duplicative missions with other agencies, such as the National Science Foundation (NSF) and the National Oceanic and Atmospheric Administration (NOAA).¹⁵

Additionally, the Obama Administration has proposed reducing "low-priority programs" within NASA's Office of Education, which has an annual budget of \$184 million.¹⁶

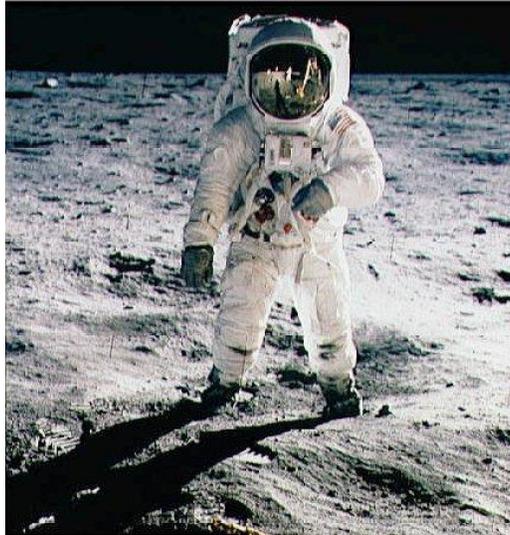
To achieve these goals, nearly all of NASA's programs and activities not directly related or essential to space and aeronautics should be transferred to the federal agencies already addressing those missions or eliminated altogether. NASA's education and research efforts, particularly Earth science, duplicate or overlap similar efforts being conducted by NSF, NOAA, the Department of Defense, the Department of Energy, among others.

This consolidation will ensure any essential and necessary federal support for science and education is maintained but streamlined to reduce unnecessary and duplicative administrative costs.

¹⁴ Neil Armstrong, Jim Lovell, and Gene Cernan, "Column: Is Obama grounding JFK's space legacy?," USA Today, May 24, 2011; http://www.usatoday.com/news/opinion/forum/2011-05-24-Obama-grounding-JFK-space-legacy_n.htm .

¹⁵ Harrison Schmitt, "Former Senator Schmitt Proposes Dismantling of NASA and Creation of a New, National Space Exploration Administration (NSEA)," AmericasUncommonSense.com, May 25, 2011; <http://americasuncommonsense.com/blog/2011/05/25/46-space-policy-and-the-constitution-4/> .

¹⁶ "FISCAL YEAR 2012; TERMINATIONS, REDUCTIONS, AND SAVINGS; BUDGET OF THE U.S. GOVERNMENT," White House Office of Management and Budget, page 139; <http://www.whitehouse.gov/sites/default/files/omb/budget/fy2012/assets/trs.pdf> .



NASA's focus on space exploration has been blurred by other missions, many of which duplicate the efforts of other federal agencies.

Terminating Outdated, Unnecessary, Redundant, and Failed Projects

Space exploration, like other forms of scientific discovery, often requires numerous failures before a mission can be accomplished. But NASA should not provide financial awards for flawed efforts or prolong the life of outdated or failed projects. Billions of dollars in additional savings can be found within the space budget by cancelling failed, outdated, wasteful and unnecessary projects and initiatives.

End boondoggles for rocket program that may never get off the ground

The budget for NASA's Constellation rocket program, which intends to send manned spacecraft back to the moon and beyond, was nearly \$3.5 billion in 2010.¹⁷ The program has already cost \$9.4 billion, including \$500 million for a 355-foot tower at Kennedy Space Center to launch the Ares rocket.

But that tower has never been used and most likely never will be, since the Ares has not been built and President Obama has proposed killing the rocket and the Constellation program. Since the tower was custom made for the Ares rocket, the launch pad is a half-a-billion dollar boondoggle.¹⁸ Meanwhile, though Obama has sounded the call to end the program, NASA has been spending about \$95 million *every month* on Ares 1.¹⁹

¹⁷ "Terminations, Reductions, and Savings; Budget of the U.S. Government, Fiscal Year 2011," White House Office of Management and Budget, Page 18; <http://www.gpoaccess.gov/usbudget/fy11/pdf/trs.pdf> .

¹⁸ Joel Achenbach, "NASA's \$500 million launcher missing just one thing: the rocket it was made for," The Washington Post, March 28, 2010, page 1; <http://www.washingtonpost.com/wp-dyn/content/article/2010/03/27/AR2010032702810.html> .

¹⁹ Mark K. Matthews, "NASA's Ares rocket dead, but Congress lets you pay \$500 million more for it," Orlando Sentinel (Florida), December 26, 2010; <http://www.orlandosentinel.com/news/space/os-nasa-ares-rocket-constellation-20101227.0.2096166.story> .

According to GAO, “NASA estimates that Ares I and Orion represent up to \$49 billion of the over \$97 billion estimated to be spent on the Constellation program through 2020. While the agency has already obligated more than \$10 billion in contracts, at this point NASA does not know how much Ares I and Orion will ultimately cost, and will not know until technical and design challenges have been addressed.”²⁰ Orion is the spacecraft’s crew module.

NASA awarded a \$2 billion contract with Alliant Techsystems (ATK) to build a rocket that would use solid-fuel propulsion for the first stage of the Ares I.²¹ Again, it is uncertain if construction of this rocket will ever be completed. But, many in the NASA also “say a liquid-fueled rocket would be cheaper, more powerful — and safer” than the solid-rocket.

The program is well behind schedule and expected to cost far more than projected. A 2009 independent review of the Constellation program concluded “there are insufficient funds to develop the lunar lander and lunar surface systems until well into the 2030s, if ever.”²²

To prevent future budgetary black holes such as this, NASA should not prematurely build launch towers or obligate funding for costly projects with uncertain futures. Until NASA can determine more precisely how much it is likely to ultimately cost and whether or not that amount can be financed within the agency’s budget proposed here, the Constellation program should be canceled or delayed and obligated dollars should be re-evaluated and canceled if possible.

Cancel \$2 billion Kennedy Space Center upgrades

The Kennedy Space Center, home to the Ares launch tower, is slated to receive \$2 billion in upgrades, despite the fact that the programs it is meant to support may not go forward. “At the Kennedy Space Center, NASA managers say they plan to build a ‘21st-century spaceport,’ but the effort has a cart-before-horse problem,” *The Washington Post* recently reported. “NASA is trying to get infrastructure in place for rockets that haven’t been approved and destinations that haven’t been selected.”²³ Even some NASA employees question President Obama’s plan to spend \$2 billion “upgrading” the Kennedy Space Center (KSC). “They don’t want to work on facilities, they want to work on spaceships,” noted one NASA employee who “said putting money into KSC without a spaceship is like having a fancy showroom with no cars to sell.”²⁴ The \$2 billion upgrade should be canceled.

Ending bonus payments and award fees for over budget and behind schedule projects

NASA should reward success and, in some cases, continue to support priority projects that may take longer or cost more than projected. The agency should not, however, provide bonuses and other financial rewards for delayed or over budget projects. NASA paid Boeing a bonus of

²⁰ “NASA; Constellation Program Cost and Schedule Will Remain Uncertain Until a Sound Business Case Is Established,” Government Accountability Office, Report GAO-09-844, August 2009; <http://www.gao.gov/new.items/d09844.pdf>.

²¹ Edmond Lococco, “Alliant Techsystems Wins \$1.8 billion Contract with NASA”, Bloomberg, <http://www.bloomberg.com/apps/news?pid=newsarchive&sid=a4CDLXMEbpes&refer=home>

²² “Seeking A Human Spaceflight Program Worthy of a Great Nation,” U.S. Human Spaceflight Plans Committee, October 2009; http://legislative.nasa.gov/396093main_HSF_Cmte_FinalReport.pdf.

²³ Joel Achenbach, “Final NASA shuttle mission clouded by rancor,” *The Washington Post*, page A13, July 3, 2011; http://www.washingtonpost.com/national/health-science/us-space-program-approaches-end-of-an-era-what-next/2011/06/29/AGeBAWtH_story_3.html.

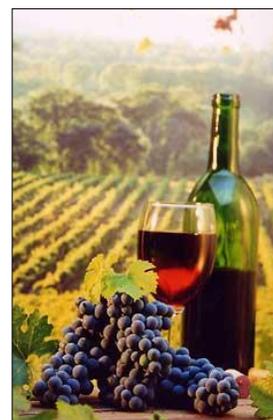
²⁴ Joel Achenbach, “NASA’s \$500 million launcher missing just one thing: the rocket it was made for,” *The Washington Post*, March 28, 2010, page 1; <http://www.washingtonpost.com/wp-dyn/content/article/2010/03/27/AR2010032702810.html>.

\$425.3 million for work on the space station that ran eight years late and cost more than twice what was expected. NASA paid Raytheon a \$103.2 million bonus for the Earth Observing System Data and Information System, despite the project costing \$430 million more than projected and taking two years longer to complete than planned. Lockheed collected a \$17 million bonus from NASA for the Landsat-7 satellite even though the project was delayed nine months and the costs were 20 percent higher than planned.²⁵ The bonuses paid to contractors in just these three instances total more than half a billion dollars that would be saved by ending award fees for over-budget and overdue projects.

Close redundant space center and reassign its vital mission

The Ames Research Center, which is projected to have a budget of \$754.6 million next year,²⁶ is located in California and is one of NASA's ten field installations.²⁷ The research being conducted at Ames is duplicative of research being done elsewhere. In some cases, such as viticulture research, the projects are wholly unrelated to NASA's central mission.

Researchers at Ames are "using images taken from airplanes and satellites to map vineyard leaf area to help vintners measure ripening rate, disease incidence, soil drainage and fruit quality" to improve the quality of local wines.²⁸ NASA and the Mondavi winery, for example, teamed up "in an experiment named CRUSH (Canopy Remote sensing for Uniformly Segmented Harvest) to test whether remote sensing could delineate the plants by their vigor and ultimately by the quality and characteristics of the grapes the vines produce."²⁹ Ames Center staff have also worked "a booth at the Mountain View Art & Wine Festival."³⁰



NASA's Ames Research Center is collaborating with California vintners to improve the quality of local wines.

Apollo astronaut Harrison Schmitt recently wrote that "the sadly, now largely redundant Ames Research Center should be auctioned to the highest domestic bidder as its land and facilities have significant value to nearby commercial enterprises. These actions would force, once again, consideration of aeronautical research and technology development as a critical but independent national objective of great economic and strategic importance."³¹ The Ames Research Center should be closed and each of its essential missions related to space exploration should be reassigned to each of the nine other space centers as appropriate.

²⁵ "NASA PROCUREMENT; Use of Award Fees for Achieving Program Outcomes Should Be Improved," Government Accountability Office, Report GAO-07-58, January 2007; <http://www.gao.gov/new.items/d0758.pdf>.

²⁶ NASA Fiscal Year 2012 budget estimates, NASA website, accessed June 6, 2011; http://www.nasa.gov/pdf/516664main_NASAFY12_Budget_Estimates-Other-508.pdf.

²⁷ "Ames Research Center Overview," NASA website, accessed June 3, 2011, page SD-2; <http://www.nasa.gov/centers/ames/about/overview.html>.

²⁸ "NASA Scans Vineyards From Above To Help Growers," ScienceDaily, September 3, 2001; <http://www.sciencedaily.com/releases/2001/09/010903092914.htm>.

²⁹ "Using Remote Sensing to Determine Vine Vigor," NASA Earth Observatory website, accessed June 21, 2011; http://earthobservatory.nasa.gov/Features/Grapes/grapes_3.php.

³⁰ NASA Ames Center website, accessed June 21, 2011; http://www.nasa.gov/centers/ames/events/2006/mtview_artwine.html

³¹ Harrison Schmitt, "Former Senator Schmitt Proposes Dismantling of NASA and Creation of a New, National Space Exploration Administration (NSEA)," AmericasUncommonSense.com, May 25, 2011; <http://americasuncommonsense.com/blog/2011/05/25/46-space-policy-and-the-constitution-4/>.

Other vital scientific initiatives should be consolidated with the Federal Aviation Administration (FAA), NSF and other relevant federal agencies.

End NASA participation in small business programs that duplicate other federal efforts and waste millions of dollars a year

Eleven federal agencies, including NASA, participate in the Small Business Innovation Research (SBIR) program. NASA awards approximately \$112 million annually through the program, which is intended to help small, innovative high-technology firms win federal work.³²

Unfortunately, according to a recent NASA Office of Inspector General (OIG) audit, “NASA has not implemented appropriate internal controls to prevent fraud and abuse in contract awards. Consequently, some SBIR award recipients may have received multiple SBIR awards from different Federal agencies for the same research or NASA may have received highly questionable research products for its contract money.”³³ A stunning 25 percent of NASA SBIR contracts reviewed by the OIG “included unallowable or unsupported costs.” NASA also participates in the Small Business Technology Transfer (STTR) program.

NASA spent a combined \$147.7 million through these two programs in Fiscal Year 2010.³⁴ Due to the agency’s failure to safeguard taxpayers’ dollars for these efforts, their unrelated mission to NASA, and their duplicative nature, NASA’s participation in these programs should be ended.

Terminate Space Art Program

Photographs taken by NASA satellites of Earth and other worlds as well as those taken by American astronauts on the moon are some of the most recognizable and fascinating images ever taken. Yet, NASA has a separate program, dating from 1962 that commissions artists “to document and capture on canvas the drama of [NASA’s] missions.” The agency’s own website concedes “the concept of NASA commissioning pieces of art may seem far-fetched.”³⁵ “In FY2009 and FY2010, four NASA organizations (Dryden Flight Research Center, Jet Propulsion Laboratory, Marshall Space Flight Center, and Headquarters) commissioned a total of eight works of art, all original paintings, at a combined cost of \$97,000,” according to the Congressional Research Service.³⁶



Chakaia Booker commemorates the Columbia crew in this rubber sculpture

The program boasts works by iconic artists such as Norman Rockwell and Andy Warhol, famed photographer Annie Leibovitz,³⁷ and singer Patti LaBelle, who performed a song commissioned

³² “REVIEW OF NASA’S MANAGEMENT OF ITS SMALL BUSINESS INNOVATION RESEARCH PROGRAM,” Report No. IG-11-010-R, NASA Office of the Inspector General, January 12, 2011; <http://oig.nasa.gov/audits/reports/FY11/IG-11-010-R.pdf>.

³³ “REVIEW OF NASA’S MANAGEMENT OF ITS SMALL BUSINESS INNOVATION RESEARCH PROGRAM,” Report No. IG-11-010-R, NASA Office of the Inspector General, January 12, 2011; <http://oig.nasa.gov/audits/reports/FY11/IG-11-010-R.pdf>.

³⁴ Congressional Research Service communication with the office of Senator Tom Coburn, June 7, 2011.

³⁵ Bert Ulrich, “NASA and the Arts,” NASA website, accessed June 2, 2011; http://www.nasa.gov/50th/50th_magazine/arts.html.

³⁶ Congressional Research Service communication with the office of Senator Tom Coburn, June 20, 2011.

by NASA.³⁸ These artists captured their impressions of NASA missions from Mercury to Apollo to Gemini, to the space shuttle. But with the conclusion of the shuttle program, the era of NASA's manned spaced programs is on hold, perhaps for a decade or even more. NASA's budget, therefore, should go back to returning Americans to space and leave the artists endeavors to the numerous other federal agencies, such as the Smithsonian, and private benefactors.

Eliminate Space Flight Awareness Program

The Space Flight Awareness (SFA) Program is motivation program which includes conferences, dinners, and awards. NASA spends as much as \$4 million annually on its Space Flight Awareness Honoree Launch Conference Events (SFA Conference). A single conference held in December 2007 was estimated to cost \$1,010,003.³⁹ These extravagant gatherings include “fancy receptions” for hundreds of honorees and their guests at four star hotels and resorts. “And most of the honorees? They're not NASA employees. They're from Boeing and other billion-dollar contractors that aren't picking up the tab.”⁴⁰ Congress prohibited NASA from funding SFA Conference events in 2009.⁴¹ The budget for the program is expected to be \$1.6 million in 2011.⁴² Outstanding performance should continue to be recognized, but the SFA program is excessive and extravagant and should be terminated.

The Silver Snoopy Award is one of the awards presented by the NASA Space Flight Awareness program.⁴³



Reduce NASA Public Relations Budget

NASA is expected to spend about \$45 million on public relations this year and this amount is expected to grow to \$50 million within five years. Public relations activities include “dissemination of information about NASA programs to the news media and the general public”⁴⁴ such as “NASA TV” which provides coverage of “on-orbit video of Earth captured by astronauts aboard the International Space Station, and rocket launches of advanced scientific spacecraft.”⁴⁵ It also includes over \$100,000 spent annually for billboard advertising space, \$15,000 for “sky balls,” more than \$11,000 for yo-yos—including light up yo-yos—since 2009, and more than \$8,000 spent this year for 5,000 polar bear stress balls.⁴⁶ These may seem

³⁷ “Andy Warhol, Annie Leibovitz, Norman Rockwell Featured in NASA|ART,” Smithsonian.com, May 31, 2011; <http://blogs.smithsonianmag.com/aroundthmall/2011/05/andy-warhol-annie-leibovitz-norman-rockwell-featured-in-nasaart/> .

³⁸ Bert Ulrich, “NASA and the Arts,” NASA website, accessed June 2, 2011; http://www.nasa.gov/50th/50th_magazine/arts.html

³⁹ “Opportunities to Improve the Management of the Space Flight Awareness Honoree Launch Conference Event (Report No. IG-09-017, Assignment No. S-08-008-00),” NASA Office of Inspector General, July 27, 2009, <http://oig.nasa.gov/audits/reports/FY09/IG-09-017.pdf> .

⁴⁰ Sharyl Attkisson, “NASA’S Luxury, At Your Expense,” CBS Evening News, November 9, 2007; http://www.cbsnews.com/stories/2007/11/09/eveningnews/main3481918.shtml?source=mostpop_story .

⁴¹ “Opportunities to Improve the Management of the Space Flight Awareness Honoree Launch Conference Event (Report No. IG-09-017, Assignment No. S-08-008-00),” NASA Office of Inspector General, July 27, 2009, <http://oig.nasa.gov/audits/reports/FY09/IG-09-017.pdf> .

⁴² Congressional Research Service correspondence with the office of Senator Tom Coburn, June 24, 2011.

⁴³ NASA Space Flight Awareness Awards, NASA website, accessed July 16, 2011, <http://sfa.nasa.gov/sfaawards.cfm>

⁴⁴ NASA Fiscal Year 2012 budget estimates, NASA website, accessed June 6, 2011, page SD-15; http://www.nasa.gov/pdf/516664main_NASAFY12_Budget_Estimates-Other-508.pdf .

⁴⁵ “NASA TV,” NASA website, accessed June 6, 2011; <http://www.nasa.gov/multimedia/nasatv/index.html> .

⁴⁶ <http://www.usaspending.gov>, accessed June 6, 2011.

like relatively small amounts compared to the NASA projects that are billions of dollars over budget, but they are also non-essential and difficult to justify. NASA's PR budget should be reduced to \$25 million to allow the agency to focus on dissemination of scientific and educational information while eliminating unnecessary expenses.



NASA purchased 5,000 polar bear stress balls in April 2011.

Permanently Eliminate Hollywood Liaison

NASA has a “Hollywood liaison” who works with the entertainment industry including screenwriters and directors to better portray the agency, its work, and issues related to the space. Recently, NASA worked with the producers of “Transformers 3.”⁴⁷ Currently, only a single “multimedia manager” coordinates film and television entertainment projects for NASA, but this role is only one aspect of that employee’s duties. The multimedia manager’s time is spent coordinating exhibits and “NASA’s large art collection.” The multimedia manager is a highly paid senior official,⁴⁸ with a salary of more than \$100,000 annually.⁴⁹ Bobbie Faye Ferguson, a former Hollywood liaison for NASA who worked on Space Cowboys, Armageddon and Apollo 13, says “people in Hollywood or New York or London are going to make movies and TV programs with us or without us.”⁵⁰ That being the case, this position should be permanently eliminated while allowing Hollywood producers access to the same information from NASA as the general public and educators.

⁴⁷ The Kennedy Space Center was reimbursed \$60,000 by the producers of Transformers 3 for use of its facilities, support personnel, and for security services to ensure the safety of the film crew and agency employees, according to information provided by NASA to the Congressional Research Service, June 15, 2011.

⁴⁸ Congressional Research Service communication with the office of Senator Tom Coburn, June 15, 2011.

⁴⁹ “Salary Table 2011-GS,” U.S. Office of Personnel Management website, accessed June 21, 2011; <http://www.opm.gov/oca/11tables/html/gs.asp>.

⁵⁰ Mimi Hall, “Hollywood, Pentagon share rich past,” USA Today, March 7, 2005; http://www.usatoday.com/news/washington/2005-03-07-hollywood-pentagon_x.htm.



NASA recently made Kennedy Space Center available to the producers for filming of the movie “Transformers 3.”

Improving Management to Control Costs and Prevent Waste and Fraud

When it comes to managing taxpayers funds, NASA has been a fixture on GAO’s “high risk” list since 1990.⁵¹ “For 20 years, NASA acquisition management has been on GAO’s list of federal programs and operations at high risk and vulnerable to fraud, waste, abuse, and mismanagement.”⁵² NASA projects have exceeded the agency’s own budget estimates by well over \$1 billion and the NASA Office of Inspectors General has done little to try to identify savings or prevent waste, fraud, and abuse within its programs.

Many of NASA’s projects are over budget, behind schedule, or both. Combined, the cost overruns for just nine NASA projects exceed \$1.2 billion.⁵³

⁵¹ “NASA; Lack of Disciplined Cost-Estimating Processes Hinders Effective Program Management,” Government Accountability Office, Report GAO-04-642, <http://www.gao.gov/new.items/d04642.pdf> .

⁵² Statement of Cristina Chaplain, GAO Director Acquisition and Sourcing Management, “NASA; Key Management and Program Challenges,” Testimony before the Subcommittee on Space and Aeronautics, Committee on Science and Technology, House of Representatives, February 3, 2010; <http://www.gao.gov/new.items/d10387t.pdf> .

⁵³ “NASA; Assessments of Selected Large-Scale Projects,” Government Accountability Office, Report GAO-10-227SP, February 2010; <http://www.gao.gov/new.items/d10227sp.pdf> .

Cost and Schedule Growth of Selected NASA Projects in the Implementation Phase

Project	Baseline (FY)	Development cost growth (\$ in millions)	Percent cost growth	Launch delay (Months)
Aquarius	2008	\$15.9	8.3	10
Glory	2009	\$37.0	14.3	16
Herschel	2007	\$9.7	8.3	21
Kepler	2007	\$77.5	24.8	9
LRO	2008	\$52.3	12.4	8
MSL	2008	\$662.4	68.4	25
NPP	2007	\$132.1	22.3	33
SDO	2007	\$58.9	9.4	18
SOFIA	2007	\$162.3	17.7	12
WISE	2008	\$2.8	1.5	1
Average		\$121.1	18.7	15
Total cost growth		\$1,210.9		

Source: GAO analysis of NASA project data.

Note: Shading indicates projects that exceeded their cost and/or schedule baselines.

NASA projects are over budget, behind, schedule, or both, according to a GAO analysis. Just nine projects account for over \$1.2 billion in cost overruns.⁵⁴

Inspectors General (IG) exist within federal departments and agencies, including NASA, to detect waste, fraud, abuse and mismanagement of government funds and property. As outlined above, NASA has no shortage of duplication, mismanagement, and over budget projects. Yet, NASA's IG is doing little to find wasteful spending by NASA or its contractors, according to a 2008 Government Accountability Office (GAO) report. Only one audit report out of 153 investigations conducted over a two year period "included recommendations for improving NASA's economy and efficiency with potential cost savings," GAO found.⁵⁵ GAO concluded the NASA IG saved only 36 cents for every dollar spent compared to an average of \$9.49 saved per dollar spent by the IGs of other agencies.

To do more with less, NASA management must begin emphasizing cost savings and demonstrating the ability to properly manage and accurately estimate project costs. This must include increasing IG financial audits to identify cost savings

Additionally, President Obama has proposed cutting \$142 million in NASA's administrative budget next year. The Office of Management and Budget (OMB) notes "the Federal Government spends extensive amounts on services or products that may be characterized as administrative or overhead. Over the past five years, spending on certain of these activities has grown substantially." The Obama Administration has directed each agency to cut unnecessary spending and, according to OMB, "agencies are busy putting in place the processes and policies

⁵⁴ "NASA; Assessments of Selected Large-Scale Projects," Government Accountability Office, Report GAO-10-227SP, February 2010; <http://www.gao.gov/new.items/d10227sp.pdf>.

⁵⁵ "Inspectors General; Actions Needed to Improve Audit Coverage of NASA," Government Accountability Office, Report GAO-09-88, December 2008; <http://www.gao.gov/new.items/d0988.pdf>.

during 2011 that will enable them to realize these savings in 2012.”⁵⁶ This presidential recommendation should be enacted.

Adding Admission Fees

NASA’s ten space centers, located across the country, attract millions of visitors every year. The Kennedy Space Center in Florida and the Johnson Space Center in Texas charge admission fees for tours but other centers do not. Admission for an adult at Kennedy Space Center is \$45.45 while admission for a child is \$34.98.⁵⁷

Even if school groups were exempted, a small fee of \$5 or less per visitor at some of NASA’s other popular space centers could generate millions of dollars every year. By asking visitors to pay a nominal fee, some of the costs of maintaining visitors’ services at the centers would be offset.

\$51.2 Billion in Savings over the Next Decade

By enacting these reforms, which include eliminating at least 15 programs or initiatives, consolidating more than 20 science and education programs, and cutting the agency’s public relations budget, \$51.2 billion could be saved over the next decade. Additionally, by refocusing NASA on space exploration, NASA can better prepare for the eventual return of a U.S. manned space fleet.

PROGRAMS ELIMINATED

- Upgrade of Kennedy Space Center
- Ames Research Center
- Constellation program
- [NASA art program](#)
- Hollywood liaison office
- End bonus payments to contractors for projects that are behind schedule and over budget
- NASA Small Business Innovation Research program
- Small Business Technology Transfer program
- [Space Flight Awareness Awards program](#)
- [NASA education programs](#), including [Aerospace Education Services Project](#), [Airborne Research Experiences for Educators Project](#), [Exploration Infusion program](#), [Global Climate Change Education Project](#), [High Schools United with NASA to Create Hardware \(HUNCH\)](#), [Middle School Aerospace Scholars program](#), and the [Spaceward Bound program](#)

ADDITIONAL SAVINGS

President Obama’s recommended reduction in administrative spending

⁵⁶ “REDUCTION: ADMINISTRATIVE EFFICIENCY INITIATIVE,” Fiscal Year 2012 Terminations, Reductions, and Savings; Budget of the U.S. Government, Office of Management and Budget, page 88; <http://www.whitehouse.gov/sites/default/files/omb/budget/fy2012/assets/trs.pdf> .

⁵⁷ “Admission Tickets,” Kennedy Space Center Visitors Center, accessed June 6, 2011; <https://websales.omniticket.com/ksc/index.cfm?action=1> .

PROGRAMS CONSOLIDATED:

- [NASA science grant program](#)
- [Achieving Competence in Computing, Engineering and Space Science program](#)
- [Applied Physics Laboratory Internship Project](#)
- [Caltech Postdoctoral Scholars at the Jet Propulsion Laboratory](#)
- [Community College Aerospace Scholars](#)
- [Curriculum Improvements Partnership Award for the Integration of Research](#)
- [Digital Learning Network](#)
- [Dropping In a Microgravity Environment program](#)
- [Education Associates program](#)
- [Endeavor Science Teaching Certificate Project](#)
- [Exploration Systems Mission Directorate Space Grant Faculty Project](#)
- [Faculty Student Teams Project](#)
- [Minority University Research and Education Programs Small Projects](#)
- [NASA Electronic Professional Development Network](#)
- [NASA Explorer Schools](#)
- [Pre-Service Teacher Institutes](#)
- [Reduced Gravity Student Flight Opportunities Project](#)
- [Teaching From Space program](#)
- [Tribal Colleges and University Project -- Summer Research Experience program](#)
- [University Research Centers](#)
- [University Student Launch Initiative](#)
- [Workforce Coalition: Education Task Force](#)

NASA TEN YEAR SAVINGS
Discretionary: \$51.15 billion
Total: \$51.15 billion