NASA AND NOAA FUNDING FOR FY13

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Subcommittee on Commerce, Justice, Science, and Related Agencies

House Committee on Appropriations

March 22, 2012

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Introduction

Chairman Wolf, Ranking Member Fattah, and distinguished members of the Subcommittee: AIA appreciates the opportunity to testify today, and to discuss critical aerospace programs in the FY13 budget request – those involving the National Aeronautics and Space Administration (NASA) and the National Oceanic and Atmospheric Administration (NOAA).

The Aerospace Industries Association (AIA) represents over 350 aerospace manufacturing companies and their highly-skilled employees. These companies make the spacecraft, launch vehicles, sensors, and ground support systems employed by NASA, NOAA, the Department of Defense, the National Reconnaissance Office (NRO), and other civil, military and intelligence space organizations. This industry sustains nearly 11 million jobs, including much of the high-technology work that keeps this nation on the cutting edge of science and innovation. The U.S. aerospace manufacturing industry remains the single largest contributor to the nation's balance of trade, exporting $89.6 billion and importing $47.5 billion in relevant products, for a net surplus of $42.1 billion.[1]

I am here today to request your support for the administration's proposed budget of $17.8 billion for NASA and $2.0 billion for NOAA's National Environmental Satellite, Data, and Information Service (NESDIS). These programs are critical to maintaining our global leadership in space science and technology that directly contribute to our modern quality of life.

NASA Budget

AIA understands the significant long-term budget pressures facing our nation. However, we cannot solve those problems by savagely reducing our discretionary spending programs. NASA's top line request for FY13 -- $17.8 billion – is the same amount as appropriated four years ago, in FY09[2]. Not many agencies across the government are trying to manage with the same level of resources they had four years ago. NASA has already paid its fair share toward deficit reduction. AIA believes the current request represents a bare minimum for NASA's most critical programs. When allocating this funding, AIA's position is that the funding distribution should reflect the policy priorities as outlined in the NASA Authorization Act of 2010 as closely as possible.

Mr. Chairman, after much debate, the NASA Authorization Act of 2010 was signed into law in October 2010. This Act provides a comprehensive, bi-partisan plan to keep NASA on the cutting edge of exploration, aeronautics and science. The budget request changes some of these programs due to budget constraints, but remains faithful to the overall framework of the Act. AIA believes the FY13 Appropriation should seek to adequately fund all of the important programs agreed to by Congress and the White House in this important compromise legislation.

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1 "The Aerospace and Defense Industry in the United States: A Financial and Economic Impact Study", Deloitte, March 2012.

2 Total appropriations for NASA in FY2009 were $17.78 billion.

With many nations rapidly developing space capabilities today, U.S. leadership in space is once again being challenged – and at a time when our national reliance on space – for national security, economic growth and new technology is greater than ever..

With that in mind, we believe continuing to make progress on the Space Launch System (SLS) and the Orion Multi-Purpose Crew Vehicle (MPCV) is critical to keeping the United States at the leading edge of human spaceflight. SLS will lift human crews and cargo to new destinations like the Moon, Mars, and asteroids. Orion will be launched on the SLS as the crew capsule. Bringing the SLS and Orion MPCV online will put U.S. human spaceflight on new frontiers for the first time in over three decades.

AIA supports the continued development of new American human spaceflight systems to support the International Space Station (ISS) - ending the flow of millions of dollars to Russia, and simultaneously having the potential to open new markets. NASA's plan is for the Commercial Crew Program to end U.S. dependence on Russia's Soyuz vehicle to transport astronauts to the ISS. With major construction of the ISS now complete, the time has come to fully utilize the station as a premier scientific National Lab – a platform that already is pioneering important research on vaccines, molecular biology, and energy management research.

Another critical element of NASA's budget involves Space Science. NASA's science programs have been an awe-inspiring success story, rewriting textbooks and inspiring thousands of students to go into mathematics, science, and engineering fields. In fact, NASA's space science programs contributed an astonishing 7.3% of all peer-reviewed, published discoveries in *Science News* worldwide in 2010.[3] NASA's highest priority space science project—the James Webb Space Telescope, the next great space telescope, promises to improve on that legacy. It is critically important for the United States to maintain its leadership position in this globally recognized, groundbreaking area of scientific research. When the U. S. government leads international cooperative space science missions, we demonstrate our expertise, ingenuity -- and statesmanship -- on the world's stage. These missions continue to help attract the world's best and brightest scientific talent to the United States in a way that no other program can. They are simply invaluable.

We recognize the difficult choices made by the administration in re-thinking the Mars Exploration Program within the Planetary Science budget, and we applaud NASA's plan to quickly re-plan for a new approach which preserves science as the primary goal but also informs future plans for human exploration of Mars. AIA is hopeful this re-plan will continue to be guided by the Decadal Survey for planetary science.

NASA's science programs also provide an important pipeline for our nation's Science, Technology, Engineering and Math (STEM) education efforts. The wonder of our universe captures the imagination at a very young age, and in many cases can lead to a lifelong career in technology or scientific fields. And it was a little easier to capture this imagination, Mr. Chairman, in 1965, when 25% of our non-defense discretionary budget went into R&D. Currently, the figure is closer to 10%. We need these programs to

[3] 2011 *Science News Metric*

serve as a bulkhead against the steady erosion of our best scientific minds, a problem that is getting worse as emerging nations increase their R&D expenditures and provide more attractive employment opportunities than we saw only a few years ago.

NOAA Budget

Mr. Chairman, environmental observations from space are vital to our nation's health and safety. Natural disasters including hurricanes, floods, wildfires, tornadoes, tsunamis, and earthquakes are complex and difficult to predict. Much of our prediction and forecasting capability today comes from satellite programs in NOAA's National Environmental Satellite, Data, and Information Service (NESDIS). NOAA's Geostationary Operational Environmental Satellite – R Series (GOES-R) and the Joint Polar Satellite System (JPSS) provide critical weather monitoring capabilities for all Americans.

Weather forecasts with data from satellites allow us time to prepare for deadly storms offering immediate insights to first responders and supporting research to improve our forecasting models. Weather satellite data also provides important situational awareness for the private sector – over $400 billion in annual economic activity is affected by weather variability.[4]

Thankfully, the FY13 budget includes an increase of $186.4 million for GOES-R next year. This returns the program to its required budget profile after the FY12 reduction made possible by NASA's delayed program startup. The requested level of $802 million is essential to preserve the late calendar year 2015 launch date, which is required to assure continuity of operations for this critical program. The JPSS program requests $916 million next year, a decrease of $8 million. These funds are needed to support the planned launch of the first JPSS satellite in 2017 and minimize the risk from a polar orbit coverage gap as we transition to the JPSS constellation.

We are concerned, however, that the budget for the National Weather Service (NWS), NOAA's warning and forecasting arm, has been reduced. Reducing the terrestrial component of the severe weather warning system, including funding for the Wind Profiler Network, appears premature in light of the increased tornadic activity we are experiencing across the country.

In short, Mr. Chairman, NOAA's environmental satellites provide vital services every day to the American public, services they count on without even thinking about it. AIA believes the FY13 President's budget wisely invests in these programs, and we urge Congress to fully fund the $2.0 billion requested for NESDIS programs, including GOES-R and JPSS.

[4] Lazo, Lawson, et al. U.S. Economic Sensitivity to Weather Variability

The Devastating Impact of a Sequester

Finally, Mr. Chairman, I want to leave the Subcommittee with a few thoughts about how a domestic discretionary budget sequester could impact the civil space program. While industry is creating new capabilities - commercial crew vehicles to reach the International Space Station, the Orion Crew Exploration Vehicle and Space Launch System to go beyond Earth orbit, new weather satellites and space telescopes - our nation's leadership risks allowing a new budget crisis to develop, one that may prove to be more difficult to resolve in the throes of a national election campaign.

As you know, without action by the current President and Congress to resolve the deadlock over spending and revenues, NASA and NOAA's ability to execute their demanding and ambitious civil space program plans will be imperiled by a federal budget sequester starting on January 2, 2013.

Last year's Budget Control Act requires across-the-board cuts beginning in January 2013 – just 285 days from now. Any notion that sequestration is a problem only for the Defense Department is a serious mistake; CBO estimates that non-defense programs would be cut by 7.8% while the Center for Budget and Policy Priorities estimates the cuts to be even higher - 9.1%. A cut of 9.1% to NASA next year would immediately eliminate $1.6 billion from the agency's budget. NOAA's weather satellite programs would be cut by $182 million. And many of these programs are already absorbing reductions from previous budget plans.

As an example, an estimate released last year by this committee's ranking member, Congressman Norm Dicks, stated that sequestration would result in a 2 to 4 year period in which weather data from NOAA's polar-orbiting satellite would be unavailable, and up to 10% of staffing and resources for local weather warnings and forecasts would be eliminated. As he put it, this would be "putting American communities at greater risk from tornadoes, hurricanes and other major weather events".[5]

In short, Mr. Chairman, sequestration would hit space programs like a tidal wave, making the President's budget request cuts in programs seem inconsequential. AIA urges this Subcommittee to do everything in its power to prevent sequestration from taking place.

Conclusion

Mr. Chairman, the future of U.S. space leadership is threatened by our constrained fiscal environment. AIA strongly supports the top line budget request for NASA and NOAA. While cutting the federal deficit is essential, cutting back on space investments or weather monitoring is a penny-wise but pound-foolish approach that will have an infinitesimal impact on the budget deficit. Further cuts in these areas threaten our national technical leadership — even as emerging world powers increase theirs.
I thank you for this opportunity to provide the views of the US aerospace industry and I will be pleased to answer any questions.

[5] Letter of Congressman Norm Dicks, Ranking Member, House Committee on Appropriations, to the Joint Select Committee on Deficit Reduction, October 13, 2011.