

# REMARKS FOR ADMINISTRATOR BOLDEN

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- You only need to follow the news a little bit to be aware of how much is going on in space right now.
- For instance: a successful test launch by Orbital Sciences, NASA's second commercial partner for station resupply. Announcement of a first-ever mission to retrieve and relocate an asteroid. Discovery of two new planetary systems with super-Earth-size planets in the habitable zone of their star. First light from our new Landsat satellite that is observing the Earth in multiple wavelengths.
- And all of that is just in the past few weeks.
- By now most of you have probably had a chance to familiarize yourself with at least a part of President Obama's \$17.7 billion request for NASA for fiscal year 2014.

- It's a budget that ensures the United States will remain the world's leader in space exploration and scientific discovery for years to come, while making critical advances in aerospace and aeronautics to benefit the American people.
- This budget reflects today's fiscal realities while also helping NASA to align the full spectrum of our activities in exploration, technology development and science to meet the many challenges the President wants us to pursue, foremost among them sending humans to an asteroid in 2025 and Mars in the 2030s.
- It should be no surprise that sequestration has required us to take a hard look at realizing savings while minimizing mission impacts. We are doing everything in our power to protect the agency's core priorities, minimize disruptions to employees, and better steward taxpayer dollars.
- That said, perhaps the highest profile part of that budget may be our new asteroid initiative.

- The \$105 million in the budget supports a broad asteroid strategy to identify and find out more about near-Earth asteroids, engage citizen scientists and new partners while we're doing it, and then ultimately send a mission to an asteroid that will relocate it to an orbit closer to Earth where astronauts can visit it.
- I don't use the word bold very often, but I'd say that's a bold venture.
- This mission represents an unprecedented technological challenge -- raising the bar for human exploration and discovery, while helping protect our home planet and bringing us closer to that human mission to one of these mysterious objects.
- The President first announced at the Kennedy Space Center in April 2010 his intention for a mission to send humans to an asteroid by 2025.

- Now, this budget proposes a strategy to leverage human and robotic activities for this first-ever human mission to an asteroid, while also accelerating efforts to improve detection and characterization.
- The asteroid mission itself involves robotically capturing a 7-10-meter diameter near-Earth asteroid with a mass around 500 metric tons and redirecting it safely to a stable lunar orbit where astronauts can visit and explore it. An asteroid of this size does not pose a hazard to Earth.
- The mission complements and aligns our ongoing work, such as scientific investigations and technology demonstrations on the International Space Station, and takes advantage of our hard work on the Space Launch System, *Orion* crew vehicle, near-Earth object detection effort, and Space Technology's solar electric propulsion technology development.

- Speaking of the ISS and our work there, as I mentioned, we recently reached another significant milestone in our efforts to help develop commercial space transportation systems. Orbital Sciences successfully test-launched its *Antares* rocket, demonstrating an additional private space-launch capability for the United States and laying the groundwork for the first *Cygnus* cargo mission to the International Space Station later this year.
- The test flight was the first launch from the pad at the Wallops Flight Facility in Virginia, and was the first flight of *Antares*, which delivered the equivalent mass of a spacecraft into Earth's orbit.
- In addition to providing further evidence that our strategic space exploration plan is moving forward, this test also inaugurates America's newest spaceport capable of launching to the Space Station, opening up additional opportunities for commercial and government users.

- We can truly say that our American industry partners are developing new ways to reach space, creating jobs, and bringing this important work back to the United States where it belongs while enabling NASA to focus on new technologies that benefit all of our missions.
- And now, not even two years after the end of the Space Shuttle Program, SpaceX has begun resupplying the space station with cargo launched from the U.S, and Orbital is poised to come online soon. Under this budget, the American cargo resupply program is funded to keep these operations on track.
- The Administration is also committed to launching American astronauts from U.S soil within the next four years, and this budget provides the necessary resources to achieve this goal. Any reduction to the proposed level of funding for the Commercial Crew Program below the President's \$821M request would result in a delay in bringing these launches back to America and force us to continue paying the Russians millions of dollars to carry our astronauts to space.

- We're pleased with the progress Boeing, Sierra Nevada, and SpaceX are making toward the important goal of launching astronauts from the U.S. again.
- The International Space Station remains the springboard to our next great leap in exploration. It's helping us learn more about living and working in space for the long term and demonstrating new technologies for future missions and to improve life on Earth.
- We're getting ready for a year-long mission to the station next year and Expedition 36/37 crew members will launch to the station in late May.

We're making great progress on the Space Launch System rocket and *Orion* crew vehicle that will take astronauts to deep space. *Orion* will make its first test flight next year, while we're due at the launch pad in 2017 for the first test flight of the integrated SLS and *Orion*.

- Right now we're gearing up for this summer's preliminary design review, or PDR, for the Space Launch System and that's a huge milestone. The Marshall Space Flight Center in Alabama has been hard at work on the design for the rocket's core stage, tanks, and the propulsion systems that are building on what we learned with the Space Shuttle Main Engines. The tools needed to build SLS's massive structure and fuel tanks are being installed at NASA's Michoud Assembly Facility in New Orleans. The process will include one of the largest welding tools ever built.
- New technologies are the underpinning of everything we do.
- The FY14 budget drives development of space technologies such as solar electric propulsion that will power tomorrow's missions, such as the asteroid mission, and help improve life on Earth. Our technology investments increase the capabilities of NASA as well as other government agencies and industry, and our Space Technology Mission Directorate is pursuing breakthroughs in advanced space technologies for future missions and to address national needs.

- This budget continues to build on our nation's record of breathtaking scientific discoveries and achievements in space.
- Right now, spacecraft are speeding to Jupiter and Pluto and the dwarf planet Ceres, roving Mars, orbiting Mercury and Saturn and the moon, and peering beyond our solar system at phenomena we're only just beginning to understand.
- On the heels of *Curiosity*, the most daring mission to Mars in history, the Fiscal Year 2014 budget includes funding for another mission to the Red Planet, continues operations of our rovers and orbiters already there, and makes possible the *MAVEN* mission's launch this November to study the Martian upper atmosphere and *InSight* to launch in 2016.
- The budget will sustain NASA's vital role in helping us understand Earth's systems and climate, and the dynamics between our planet and the sun.

- The FY14 Budget supports 7 new Earth Science missions on course to launch through 2020 after the launch of 4 new Earth science missions in 2014: Global Precipitation Mission (GPM), Orbiting Carbon Observatory-2 (OCO-2), SMAP, and the Stratospheric Aerosol and Gas Experiment III (SAGE III) instrument to be launched to the ISS.
- We continue our steady progress toward our next Great Observatory as we develop and conduct critical tests on the James Webb Space Telescope toward its planned launch in 2018. The Marshall Space Flight Center has tested the Webb Telescope's light-gathering mirrors and the calibration equipment and now is testing the frames to hold those mirrors precisely in place. The first of four instruments to fly with the telescope was delivered last year to the Goddard Space Flight Center.
- NASA engineers and scientists have been making practice runs to ensure the placement of primary mirror segments on the telescope go perfectly when the flight equipment is ready, and have also been doing practice installations with other test equipment.

- We've had to make tough choices with this budget, but NASA is using its resources strategically for a unified, cohesive exploration program that raises the bar of what humans can achieve.
- It's an exciting time to be in exploration, and I know you care about this field, and the benefits it brings the entire world, as much as I do. I'm happy to take your questions.