## REMARKS FOR ADMINISTRATOR BOLDEN FUTURE FORUM - UNIVERSITY OF MARYLAND Aug. 11, 2011

Thank you, Rep. Edwards. NASA is deeply appreciative of the bipartisan work that Congress does to support our nation's space program. The Maryland congressional delegation in particular has been enormously helpful to NASA in ensuring that the Goddard Space Flight Center, the management of the Hubble Space Telescope and other NASA assets in Maryland have been fully supported. I thank the entire delegation for their steadfast support of our agency and the aerospace sector. Thank you also to the University of Maryland and Dr. Pat O'Shea, vice president for research, for hosting us.

These Future Forums are wonderful gatherings, because NASA is, always has been, and always will be, in the future business.

It's been our job to conceive what might be possible, even though it might seem out of reach, and then marshal the human and technological resources to make it reality.

Right now, the agency has completed one enormously effective chapter in our history with the retirement of the space shuttle, and we are writing the next one as we gather here today. The shuttle was an experimental vehicle throughout its lifetime. It stretched the boundaries of what was achievable. For starters, it was critical to assembly of the International Space Station -- the size of a football field with human beings on it 24/7 for more than 10 years now -- which will produce breakthroughs for the next generation of exploration until at least 2020. We'll continue to study what the shuttle taught us as we work with our industry partners to develop the next generation of transportation systems to low Earth orbit and beyond.

NASA is now handing off transport to the space station to American industry so that we can focus on a new series of firsts, like sending humans to an asteroid and eventually to Mars. We have the opportunity to raise the bar, to demonstrate what human beings can do if we are challenged and inspired to reach for something just out of our grasp but not out of our sights.

President Obama has given us a Mission with a capital "M" -- to focus again on the big picture of exploration and the crucial research and technological capabilities that will be required for us to move beyond low Earth orbit.

The President is asking us to harness that American spirit of innovation – the drive to solve problems and create capabilities that is so embedded in our story and has led us to the moon, to great observatories, and to humans living and working in space, possibly indefinitely. That American ingenuity is alive and well. It will fire up our economy and help us create and win the future now, but only if we put aside our differences and come together to work hard, dream big and imagine endless possibilities.

Working together, NASA, academia, and industry will create new technologies, develop new capabilities, and increase the knowledge and understanding of the fragile world on which we live. And that, I think, is the essence of what you will be doing here today.

And it's what's happening right now across the board in NASA's work. Just last week we sent Juno soaring to Jupiter, where unprecedented images of the gas giant's poles and data about its surface and core will be made possible by efficiency advances in solar cell technology pursued by NASA over the past few years. Juno will operate farther from the Sun than any solar powered spacecraft we've previously flown. That's no small feat. This capability advance is applicable to NASA's future robotic and human exploration missions and may also make a difference to our energy future on Earth.

Last month Dawn arrived in orbit around the asteroid Vesta, and what it learns could help inform a planned human mission to such a body.

Tomorrow, reporters down in Florida will be getting a last look at the Mars Science Laboratory, appropriately named Curiosity, before it's mated with its descent stage and we move closer to its November launch. Curiosity will have more high-powered science instruments on Mars than we've ever had before, and is a step along the path to eventual human missions to the Red Planet. Next month sees our return to the moon to understand its gravity field with Grail. The NPOESS Preparatory Project, or NPP, launches in October to help us better understand our home planet. And those are just a sampling of the huge array of missions already in space and coming up.

To reach the destinations of tomorrow, we're working on a new crew capsule and studying the path we want to take for the heavy lift rocket that will take humans into deep space, beyond low Earth orbit where we have operated for the past 30 years. The initial investigation of in-space propulsion, communications, radiation protection and life-support technologies that complement these two deep space systems are being prioritized and worked into the pipeline even now. Looking farther into our space future, are the 30 visionary concepts that our Chief Technologist Bobby Braun's office just selected under the NASA Innovative Advanced Concepts, or NIAC program. The advanced concepts selected for study under NIAC were chosen based on their potential to transform our future space missions, enable new capabilities or significantly alter current approaches to launching, building, and operating space systems. Matched with the 80 graduate fellowships recently awarded for basic and applied research in technology areas aligned with NASA's future space missions, the Agency is beginning to create its future and invest in its future innovators today.

NASA's role has historically been crucial in seeding the technology and innovations that brought our nation's capabilities to the cutting-edge, made America the world's leader in space exploration, and made a difference in our lives everyday.

7

NASA's impact on our nation's technological future, the workforce and the economy are based on investments and innovations that we had the courage to make. These investments have helped us create, galvanize, and strengthen the expertise that has made NASA's achievements possible.

Similarly, today's investments in education, science, innovation and space technology will maintain NASA's position on the cutting-edge while stimulating our economy and global competitiveness and inspiring future generations.

That concept of transformative work to give future generations more capability than we have today is at the core of our work right now. NASA is at the heart of a national strategy to invest in research and development and take these concepts from the drawing board to the launch pad. We can't do this alone. We need your help – your ideas, your energy and your passion. What you're doing here today is very important, and I look forward to hearing more from you. I thank you all for working with NASA and the entire aerospace field as we move forward into a bright future in science, aeronautics and exploration.

Our future is bright and we're ready for the challenges of tomorrow. We hope that you will join us in the journey!

Thank you.