

**Remarks to the Huntsville, Alabama Chamber of Commerce
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Administrator
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I appreciate the opportunity to speak to community and business leaders in the city that houses one of NASA's most important centers, a center that will have a vital role in the accomplishment of our vision to expand America's reach to the Moon, Mars and beyond.

To preface my remarks, let me say as someone who's been privileged to work in the aerospace business for almost 35 years, and has the greatest appreciation for what has been accomplished in the past, that we are nonetheless just beginning a new age of exploration and discovery that will be profoundly important for the future of our country.

The history of space exploration in the past half-century has been nothing short of extraordinary; indeed, we are approaching a watershed moment in that history. This month, if all goes well, we will launch our New Horizons mission to Pluto, an activity that will complete the initial robotic reconnaissance of the nine planets known at the beginning of the space age. We have made huge strides in advancing our fundamental knowledge concerning the origin, nature, and destination of our universe, with missions such as the Hubble Space Telescope, the Chandra Observatory, and Gravity Probe B, which has worked for nearly two years to test one of the cornerstones of modern physics, Einstein's general theory of relativity. Twelve Americans have explored the surface of the Moon. With the Vision for Space Exploration, which recently received the strongest possible Congressional support in both of our NASA Authorization and Appropriations Bills, we are now poised to make that number grow by leaps and bounds.

The members of this audience are entitled to be intensely proud of their community for its role in the accomplishment of all these things, and many more. But, really, the best is yet to come. Indeed, in the century that is just beginning to unfold, we will see human presence begin to spread out into the solar system, perhaps sooner than many people expect. I want America to lead that charge, and the Marshall Space Flight Center will, as it has been in the past, be crucial to our success.

Today, other nations besides our own aspire to leadership on the space frontier. These nations are making excellent progress, and their activities will earn them the respect, which is both sincere and automatic, that is accorded to nations and societies engaged in pioneering activities. Today, as other countries expand their commitment to the space frontier, America has the opportunity, and I would argue the obligation, to maintain our leadership role in space exploration. As other countries develop new systems and technologies to expand into space, we too must remain committed to new advancements. I find it interesting to note, in that regard, that of today's major spacefaring powers only Russia and China have spacecraft – Soyuz and Shenzhou – with which it is feasible to return a crew from a trip to the moon.

So the question before us as a nation is this: when other nations reach the Moon, or Mars, or the worlds beyond, will they be standing with the United States, or will we be watching their exploits on television?

The President has given us his answer. America will lead. Exactly two years ago next week, the President said, “We have undertaken space travel because the desire to explore and understand is part of our character. And that quest has brought tangible benefits that improve our lives in countless ways.” As all of us in this business know, the President's statement is so very true. Space exploration today remains at the very pinnacle of human technological achievement. It is breathtaking difficult to accomplish, riskier than any activity most of us will ever undertake, and very expensive, and is not amenable to the pace of advancement that we see in, say, the computer industry. Yet it is strategically important to our nation's future, and so it is imperative that our commitment to the enterprise transcend any given Administration and any given Congress. Space exploration simply needs to be a part of what it is that America does. The Vision gives us the opportunity to take on the leading role in the exploration of space, not just for this century, but for centuries to come. But we have to seize that opportunity, and make it a reality.

The first essential step is that American leadership in the exploration and development of the space frontier must be an explicit national goal. There must be continued and sustained bipartisan cooperation and agreement on the importance and necessity of American leadership in space, just as we are determined to be leaders in other areas such as defense, education, and scientific research. In so doing, as the President has said, we will advance America's economic,

scientific and security interests. There need not, indeed there must not, be partisan debates over whether to have a vibrant space program or not.

In this regard, the behavior of this state's congressional delegation is most impressive. Alabama's representatives and senators, Democrats like Representative Bud Cramer and Republicans like Congressman Robert Aderholt and Senators Richard Shelby and Jeff Sessions, have been champions for NASA and our new mission. We are most grateful for the entire delegation's wholehearted support, and the good work of this Chamber to bolster that support, during your members' frequent visits to Washington.

In addition to needing a sustaining national agreement on the importance of American leadership in space, we need to extend this commitment from generation to generation. Here in Huntsville, by supporting institutions such as Space Camp, you have already helped to inspire a future generation of explorers. Among them is Dottie Metcalf-Lindenburger, the first Space Camp alumnus to be selected for the astronaut corps. I am also quite impressed by the Huntsville community's commitment to the Cummings Research Park, an entity capable of supporting the Marshall Space Flight Center's work for decades to come through its development of expertise in software design, engineering services, computers and electronics, and research, development and testing.

I believe that to ensure the success of the space program across a wide spectrum of political thought and down the generations, it is essential to have simple but compelling goals. Therefore, the space community has an obligation to communicate its plans to the country in clear and compelling ways. And we now have goals that people can understand and support – moving our activities in space beyond low Earth orbit, returning to the Moon, and then going on to Mars and other destinations, such as the near-Earth asteroids.

Broad support for these goals is certainly there. A recent Gallup poll indicated that, with funding levels at or below 1% of the federal budget, three-quarters of Americans are supportive of the Vision for Space Exploration. This is amazingly strong support for any government initiative, and I believe it provides a firm foundation upon which to build in the years ahead. The first step might be to explain that, actually, we're spending only 0.7% of the federal budget, which represents an expenditure of \$55 per citizen per year.

Our immediate objectives in implementing the Vision for Space Exploration are to use our space shuttles to complete assembly of the International Space Station by 2010, fly a new Crew Exploration Vehicle by 2012, and to return an astronaut crew to the moon by 2018.

Last year, we took some major steps to enable the achievement of these objectives. First, we safely flew the shuttle on the STS-114 Discovery mission. The team at Marshall deserves great credit for its contributions to return-to-flight, including safety improvements made to the shuttle's external tank and the redesign of the bolt-catcher assembly on the shuttle's solid rocket boosters. And the Marshall team continues to support the effort to ensure that our next shuttle mission, STS-121, flies safely.

Also in 2005, a team led by some of NASA's top scientists and engineers developed a comprehensive plan for moving forward on the development of our future space exploration architecture. This plan will help NASA return to the moon with the high margins of safety, at the soonest possible time, within the budget we plan to live with for the foreseeable future. If 2005 was the year in which we made the key decisions concerning how we will return to the Moon, then 2006 will be the year in which we focus on what we are going to do when we get there, and with whom. Then, in 2007, we will begin the effort to determine how we can best leverage the lunar program to head further out, onward to Mars.

The spacecraft and systems we will use to establish beachheads in our corner of the cosmos will build upon the foundation of proven designs and technologies used in the Apollo and space shuttle programs, while having far greater capacity and capability. Even on our first return to the lunar surface, we will have four times the lunar exploration capability of the most ambitious Apollo mission, at 55 percent of the development cost through Apollo 11. We have a good plan, and the support of both the White House and the Congress on that plan. Now it is up to us to execute our plans efficiently and effectively.

With this in mind, we will be counting on the Marshall Space Flight Center to help us realize key objectives of the Vision, through its work to design and develop the Crew Launch Vehicle and the Heavy Lift Launch Vehicle. Already the Marshall team is quickly moving from the plans on paper to hardware development, with testing under way this month on shuttle main engines that will play a prominent role in the Crew Launch Vehicle and Heavy Lift Launch configurations. And this summer, we will release an acquisition strategy for the Crew Launch Vehicle upper stage, leading to further industry involvement in this project.

We at NASA understand that we have a unique privilege to be able to carry out a visionary and exciting program of exploration and discovery on behalf of the American people. Our plan underscores our commitment to advance the nation's exploration agenda in a responsible and practical manner. These new capabilities that are being developed right here in Huntsville will allow astronaut pioneers to explore new places, expand understanding of the universe we live in, and to develop new territory and new resources when it becomes possible to do so.

With these reasons in mind, we believe that, with a modest investment of our national resources, we can continue the exploration activities that help fuel the growth of human creativity, innovation and technology development.

We're convinced that in the ways NASA is meeting the challenges of the Vision, here in Huntsville, and elsewhere, we are setting the stage for a space program that will increase the opportunities we will all share to fuel the growth of human creativity, innovation and technology development, and that will strengthen American leadership in the world. The opportunity is here, and now is the time to seize it. There will not be a better one.

Once again, I thank you for the Huntsville community's great support of the space program and I looking forward to working with you in the future as we continue this great journey.