

## Remarks to the National Space Symposium

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By  
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Good morning. It's a real pleasure for me to be here at the National Space Symposium. And I'm very pleased to be able to welcome all of you to Colorado.

It's highly appropriate that you are holding your meeting here in Colorado. It may be a surprise to some of you—as it is to a number of my constituents—but Colorado plays a vital role in the nation's space activities. In fact, Colorado has the second-largest space economy in the nation. It is estimated that more than 170 thousand people are working in space-related jobs in the state. Colorado is deeply involved across-the-board in space activities—civil, commercial, and military. And we have more than 300 aerospace companies scattered throughout the state, including seven major aerospace contractors with significant operations here.

So, in short, and at the risk of sounding boastful, I don't think there's a better place to hold the National Space Symposium than here in Colorado Springs. In turn, we are proud that the National Space Symposium is held here, because we know that it is one of the premier meetings in the world for aerospace professionals. It provides a productive venue for examining an array of important civil, commercial, and military space issues—all in one place—allowing for a lot of cross-fertilization and sharing of perspectives.

As a result, I feel honored to be invited to speak to you today. Thank you for having me here. However, before I begin my formal remarks, I'd just like to take a moment to say a word about one of the speakers who preceded me this morning—my friend and fellow Coloradan Senator Wayne Allard. I think the strong applause that you gave him and his remarks is a reflection of the esteem in which we all hold him—both here in Colorado as well as back in Washington. As you know, he has been a consistent supporter of a strong and vital space sector for America, and I know that he will be missed by all of those here today. So I simply want to add my own vote of thanks for his years of service, and I wish him well in whatever he chooses to do next.

When I was first invited to speak to you, I was struck by the theme of this year's Symposium, namely: "Our Expanding Universe—50 Years of Space Exploration". I commend you on your choice of themes, because I think that it's important that we pause and honor that anniversary.

And as some of you may know, it's not just the 50<sup>th</sup> anniversary of the U.S. Space Program and of NASA—it's also the 50<sup>th</sup> anniversary of the House Science and Technology Committee on which I have the privilege of serving. My Committee—like NASA—was a direct result of the "Sputnik moment" that the nation experienced after the Soviet Union successfully orbited the first artificial Earth satellite in October 1957. A lot has happened over the past half-century, and you can take pride in the role that you and your predecessors have played in achieving many significant aerospace milestones over that period.

However, it's no secret that our nation's civil space program is confronting a number of serious challenges here in 2008, and I'd like to talk about a few of them. But before I do, I think we also need to take a moment to recognize what a fundamentally exciting time it is for space science and exploration—something we too often forget in the midst of the ongoing disputes over budgets, program performance, and all of the other things that need attention.

Let's take a moment in this 50<sup>th</sup> anniversary year to recall that in recent weeks we have witnessed an American astronaut and a Japanese astronaut working together some two hundred miles above the Earth to adjust a European science experiment, while a Canadian robot is being readied for operation and plans are being made for the launch of a Russian resupply vehicle to the ISS. In short, the Space Station is truly becoming the International Space Station—something that is a marvelous achievement—and a compelling model for future international cooperation on space exploration.

Meanwhile, on the surface of Mars the plucky Mars Rovers—like the Energizer bunny—keep rolling along long after they should have ceased operations, continuing to make new discoveries and continuing to capture the public's imagination.

At the same time, a spacecraft in Martian orbit has captured an image of a Martian landslide while it is happening—a phenomenal occurrence and a strong reminder that Mars is a much more interesting place than many scientists had thought it would be after the first grainy images were transmitted back from Mars in the 1960s. The Hubble Space Telescope—truly a national treasure—has detected organic molecules in the atmosphere of a planet orbiting a distant star...a remarkable achievement...In the outer reaches of our own solar system, the Cassini spacecraft has swooped down over the surface of one of the moons of Saturn and flown through geysers erupting from the moon's surface—and if that doesn't sound like science fiction, I don't know what does.

Meanwhile, back where we live, measurements taken from spacecraft orbiting our own planet are helping us better understand all of the complexities of climate change—and even helping us to be able to estimate something as staggering as the amount of ice that is melting in Antarctica! And, as we heard at a field hearing that I held yesterday here in Colorado Springs, remote sensing satellites are providing data that are allowing state and local governments to do better land use planning, resource management, and emergency preparedness planning.

Last but not least, across America entrepreneurs are busy building commercial passenger-carrying spacecraft in the firm belief that we are finally at the dawn of a real era of space tourism...and the idea of ordinary citizens—albeit very wealthy ones—being able to go into space on a routine basis seems much closer to reality than it was even a few years ago.

In short, it is an exciting time to be involved in space activities. Yet, in the midst of all that is happening in space exploration and utilization, we mustn't forget that we are facing some serious—even daunting—challenges. And they are challenges that we ignore at our peril. If we don't properly address them, I fear that we are on a path that over time will lead America to lose its preeminent position in space exploration and utilization. And that's not something I want to see happen.

What are some of the challenges that I am talking about? At the risk of sounding like a broken record to those of you who have heard me speak over the last few years, I remain very concerned about the mismatch that has developed over the last 8 years between what our civil space program is being asked to do and the resources that are being given to it. When the funding being requested for an agency like NASA is consistently less than what is generally acknowledged to be needed to carry out its missions, we shouldn't be surprised to see stresses develop. And in fact we are seeing those stresses.

We have a NASA Aeronautics program that continues on a downward trajectory despite congressional efforts to turn the funding outlook around. We have an Earth science program at NASA that until recently had no money for any of the important new climate research missions recommended by the National Academies.

And now that some money has been provided for the first few of those new missions, we find out that the additional money to carry out those missions is simply the result of money being shifted away from other important NASA science activities—essentially “robbing Peter to pay Paul”. And the Administration's signature civil space initiative—the “Vision for Space Exploration”—is underfunded to the point that a “once-in-a-generation” development of a new human space transportation system essentially has had to be “shoehorned” into the agency's existing budget.

As you may know, the Space and Aeronautics Subcommittee held a hearing last week on NASA's exploration initiative. It was sobering to hear all of the witnesses identify the lack of stable and adequate funding as one of the greatest challenges facing NASA's exploration efforts. And I agree with them. And there are many other examples within NASA that one could point to. For example, despite long being one of the federal government's premier R&D agencies, the amount of funding for long-term technology research at NASA continues to dwindle every year. I think that is a scandal. Such cuts go to the core of what NASA should be doing.

Thus, I and a number of my colleagues in the House and Senate will try again this year to increase NASA's budget. We were successful in doing so in both the House and Senate last year, but

unfortunately all of those gains were undone in the final negotiations with the White House over the Omnibus appropriation. I hope we can avoid such a fate for NASA this year, but at this point in the process it's impossible to tell how things will work out. It is clear that NASA needs more money if it is to successfully carry out the robust and vital programs that the nation has tasked it with.

In addition, I believe that we need to convince the next President—whoever he or she turns out to be—of the value of investing in NASA and the civil space program. It is a challenge to all of us here to help make both of those things happen, but we need to try our best—because the stakes are high.

Yet in addition to seeking more money for our civil space programs, I am equally committed to seeing that NASA and the other agencies of the government involved in civil or military space activities carry out their programs in a cost-efficient manner with whatever level of funding they have been given. To me, that should go without saying. Our space agencies need to be good stewards of the taxpayers' dollars. Unfortunately, after 50 years of government space activities, the record remains mixed.

NASA has a number of projects that have recently exceeded statutory cost and schedule growth thresholds, and I remain concerned that there may be "other shoes ready to drop". I hope not, because in a budgetary environment as tightly constrained as the one NASA finds itself in, the agency doesn't have the margins to deal with much cost growth—it's going to need to do better cost estimating and cost control, and I intend to pursue oversight in this area over the coming months.

However, the challenge is not NASA's alone. One only has to look at recent Government Accountability Office (GAO) reports to know that DOD is still facing significant challenges in its military space acquisitions. And of course, the Next Generation Polar Orbiting Environmental Satellite System is constant reminder of a satellite acquisition that got badly off-track. So, none of the federal agencies with space activities should feel too smug. There are enough problems to go around, and we've got to get them taken care of.

Now 2008 is the year that the current NASA Authorization expires, and we will be seeking to reauthorize NASA before the end of this Congress. Since we are still at a relatively early stage in the process, I'm not going to go into specifics today on what provisions we are considering for inclusion in the reauthorization. However, based on the oversight hearings we have held up to this point, my discussions with other Members, and my interactions with the public, a number of themes and issues have tended to recur.

One is the strong belief that the nation's civil space and aeronautics activities *are* relevant to the nation's needs, whether it be the impact that NASA's aeronautics programs have on our economic vitality and our quality of life...the impact that NASA's Earth science programs have in addressing climate research questions of critical importance to our policymaking options...Or even the impact our human space flight programs have had, whether being a very visible means of demonstrating America's technological prowess, of encouraging cooperation to achieve challenging scientific and technical goals, or of inspiring successive generations of young people.

The nation benefits from a strong and balanced set of space and aeronautics activities, and those activities are worth investing in—even in tough economic times. Human exploration beyond low Earth orbit was a significant area of emphasis in the NASA Authorization Act of 2005, and it was endorsed on a bipartisan basis as an important component of a balanced NASA portfolio. Since then, I haven't seen any real diminution of support for the broad goal of human and robotic exploration of the solar system.

However, I have seen a growing concern that the resources that the Administration has been providing for exploration are inadequate to achieve the objectives it has set for NASA. And I have seen a growing interest in ensuring that NASA's exploration initiative is structured in a way that will maximize the return on whatever budgetary resources future Administrations and Congresses decide to allocate to it.

Finally, one of the most significant achievements of the last 50 years in space has been the growth—albeit uneven and halting at times—of significant capabilities in the commercial space sector. Those capabilities provide potential engines for innovation and cost savings that can be of great benefit both to NASA in carrying out its missions and to the nation as a whole.

We need to be constantly looking for ways to both encourage the growth of that commercial space sector and harness its potential. As I see it, that's just good common sense. I intend to keep all of these issues in mind as I work with my colleagues on both sides of the aisle to craft what I hope will be a reauthorization bill for NASA that is constructive and worthy of bipartisan support.

Before I end my remarks today, I like to share one additional thought with you. As many of you know, Arthur C. Clarke, a remarkable writer and personality whose name will always be linked with space exploration, passed away recently. What you may not know is that Arthur C. Clarke testified before the House Science and Technology Committee back in 1975. His testimony was fascinating and worth reading, and I commend it to you. From the vantage point of 33 years ago, he discussed a wide range of potential space initiatives that the United States could be expected to undertake in the [then] coming decades.

However, I'm afraid that his expectations for what America would accomplish in space in the aftermath of Apollo in many cases were not matched by actual achievements on the part of the U.S. space program. Yet, I think one of his closing statements to the Committee is worth repeating here today. Namely, his statement that *"The greatest lesson that we can draw from space is one of hope."* I agree with him. Our efforts in space *are* about hope, because our space activities are about the future—whether it be in advancing knowledge, delivering benefits to society, exploring new realms, or inspiring the next generation—and thus they are worth supporting.

I hope that all of you today will take his words to heart. You are engaged in a worthwhile undertaking, and I intend to work with you to ensure that our nation continues to invest in and benefit from our space activities, because they are an investment in our future.

Thank you for being here and for hosting me, and I want to wish you a successful and productive Symposium.