"THE WILL TO DO IT"

Remarks by
NASA Administrator Daniel S. Goldin
Wernher Von Braun Dinner
Huntsville, Alabama
October 30, 1992

Just as America is wrestling with the Cold War's end, so is NASA. Born in the wake of Sputnik, NASA was created to be a symbol of America's technological superiority. But for a number of years now, NASA has worked to redefine itself and its mission. I believe NASA must not simply attempt to survive the end of the Cold War, but reclaim its place as fulfilling the critical needs and dreams of America.

I came to NASA for one reason: because I believe NASA is uniquely qualified to be a leading light in American society. We have the power to inspire through discovering the unknown, and voyaging through barriers yet unbroken. We have the power to provide hope and opportunity, by reaching out into the future and bring back answers for today. Through our work with other nations, we can be a catalyst for peace, by building the bonds of friendship as we exploring outer space together.

This is why I passionately believe that the future is bright for NASA, if we have a shared vision -- a vision that unites the agency because its various parts are mutually reinforcing. Then we create a system so that all of our scattered resources are united and directed toward making the vision a reality. We empower our workers, give them authority to act, trust them, and then hold them accountable for results.

All across the agency, there are many signs that this new approach is being embraced, and its results are being felt. Some look at the flat projections of the NASA budget -- the lack of funding for new programs -- and wonder where our future will come from. The answer comes from within: by making ourselves more efficient, by continuous improvement, and by delivering on the promise -- delivering things on time and on budget.

Congress expects us to do more with less, but the NASA team is stepping up to the challenge. We're working on reducing shuttle costs while at the same time improving shuttle safety. Otto Getz has a great record of safety with the Space Shuttle Main Engine, and they're going to speed up development of a new wide throat main combustion chamber, and a new turbopump. The productivity gains started by Bob Schwinghamer and continued by Paul Schuerer have generated major savings in the external tank production, as well as savings on the solid rocket booster.

The AXAF team here at Marshall did an outstanding job to save that important astrophysics project by breaking it into two smaller platforms -- preserving the scientific quality while reducing overall cost. And Harry Craft's Spacelab team is generating a

vast amount of world class science while addressing mission productivity. I am proud of all the Marshall employees.

Overall, Phase I of the Red Team/Blue Team effort resulted in cost savings of 17 percent in the out years. That's something that team members and all NASA employees should be very proud of. But that's no reason to stop. We still have a long way to go. There are many more places to improve productivity and have fun at the same time.

NASA can be an inspirational example to America not just of technical brilliance, but managerial excellence. Together, we can do it! By reducing our operating expenses, we'll liberate resources that can be reinvested into cutting edge technology -- dual use technology that will advance space exploration and pay back into the American economy. And we will continue to do in-house work on enabling technologies for future missions. This will allow our employees to exercise their creative abilities and contribute more fully to America's programs.

What does the future hold? Let me sketch you a vision of what I believe NASA and the other space-faring nations of the world could accomplish over the next 20 to 30 years. Each element of the vision is meant to reinforce the others, to bring unity of purpose to the entire NASA program. I present this as a starting point to stimulate discussion.

We begin with Space Station Freedom -- the first international research laboratory in space. Freedom will be an example of how nations can unite and work together on projects of peace, and will revolutionize our way of life in the 21st century the same way the Apollo program did in the 20th century.

The space station will be the place where we learn how to live and work in space -- where we conduct the necessary life science research to protect astronauts' health from the effects of long-term space travel. While these studies are going on, the space station will have dual use lab equipment where scientists can systematically conduct basic research in materials processing, biotechnology, and life sciences in microgravity. And the path to Space Station Freedom marches right through Huntsville.

To increase our knowledge of the solar system, we should send a series of small and medium-sized robotic spacecraft to analyze and bring back samples of all the planets, major moons, significant asteroids and comets. What we learn about these other bodies will give us vital information about the past, present, and future of the solar system and our own planet. Earth itself is a part of space. Mission to Planet Earth -- a massive undertaking to gather data on the interactions of the Earth's atmosphere, oceans, and land -- must also include studying the solar system, including the sun and the unexplored mesosphere, to truly understand how our environment really works. Mission to Planet Earth represents a moral obligation by NASA to the world to provide data to the world's leaders as they make multi-billion dollar decisions about our common environment.

To study the universe beyond our solar system, the Moon is the perfect place for astrophysics. There, we could build telescopes and interferometers that should be orders of magnitude beyond anything on Earth or in orbit. If an interferometer were able to image a blue planet with water, oxygen, $CO_2$, and ozone around a nearby star, such a discovery would alter forever our view of Earth's place in the universe. The Moon should be viewed as the next South Pole: an international research outpost to do unique studies in a variety of scientific disciplines.

And since the Moon is only three days away, it's an ideal place to test the space systems we'll need for the next milestone in human space flight: the exploration of Mars, where we will attempt to answer the age-old question of whether life ever developed there.

America alone cannot complete this vision in the 20 to 30 year time span I believe is possible. But if the space-faring nations of the world -- Japan, Europe, Canada, Russia, and others -- work together, then we can do it.

So as I survey the future, I believe the outlook is extremely bright. My optimism was shared by a man who did so much to put this nation into space -- a man whose memory we honor tonight: Wernher Von Braun.

In many ways, the vision of space exploration he had so long ago is one we still follow today. Back in 1960, he wrote: "We have just opened the door into the limitless reaches of the universe, and we can see just far enough ahead to know that man is at the threshold of a momentous era. Here is opportunity, challenge, adventure so tremendous as to exceed anything which has gone before. Here is the tomorrow which youth wants to embrace, and which we must not deny because of a waning of the frontier spirit which made America great."

When he wrote those words back in 1960, the American people were worried about their future. They were pessimistic, a feeling shared by many Americans in 1992. Well, let me tell you, that mood isn't going to last. It's simply not in our national character.

Rick Chappell had an experience which reminds us of this, and it's a story I've been telling audiences all over the country. Many of you have heard it, but I want to repeat it in his presence tonight.

Rick was jogging by the launch pads in Florida when he saw an armadillo by the trail, and an eagle flying overhead. He thought about how the armadillo never looked up at him, but just kept digging in the dirt for food, while the eagle soared far above, his eyes firmly fixed on the horizon.

Rick wrote, "America is not about armadillos. America is about eagles. America is about broad visions, about ... creating, about doing things because they are hard, ... and about drawing out the best of our talents to accomplish our dreams."

Back in the early days, someone asked Wernher Von Braun what it would take to build a rocket to the Moon. He knew it wasn't a question of money or technology. He answered simply, "The will to do it."

Today in 1992, it's no different. It's not a question of money or technology. It's a question of using our brains, working smarter and better, and like the eagle, having a clear vision of where we're headed.

That's the NASA I want to lead -- one that can provide inspiration, hope, opportunity, and a chance for peace. All we need is the will to do it.

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VON BRAUN DINNER
HUNTSVILLE, ALABAMA
FRIDAY, OCTOBER 30, 1992

Goldin's copy

"THE WILL TO DO IT"

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~~There's no reason we can't aspire to do more.~~

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Thank you very much.

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