



UNITED WE LAUNCH

Remarks by
NASA ADMINISTRATOR CHARLES BOLDEN
to the
UNITED LAUNCH ALLIANCE SUPPLIERS

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AS PREPARED FOR DELIVERY

Thanks very much for the invitation to join all of you in this important conference. I consider it a true pleasure to be here and to have the opportunity to share a few of my perspectives on the current state of affairs for all of us on the broader NASA-contractor team.

When President Obama talked about extending humanity's reach in space at the same time we strengthen America's leadership here on Earth back in April of 2010, a big part of what he had in mind, is the work that all of you are doing: the work of space exploration; the work of innovation; the work of job creation.

There's a certain poetic irony in the fact that you've chosen to gather here at the Phoenix Park Hotel – the “phoenix” being that enduring symbol of resiliency, resurgence and human progress.

As we know, the Phoenix is that mythological creature that takes flight from the ashes of previous generations, flapping the wings of time in order to move forward into a new and hopeful future.

I cannot think of a better metaphor for humankind's foray into space, especially today, when I would argue that we are in the midst of an incredible resurgence and upswing. I cannot think of a better time in scientific history to be doing the work that you all are doing. I certainly cannot think of a better time to be doing the work that I am privileged to do alongside the extraordinary women and men of NASA.

It was from the same canvas as the story of the Phoenix that William's Boeings famous words were painted – quote: “Hard work can lick what appear to be insurmountable difficulties.”

If any of you were at the Space Symposium in Colorado recently, you might have heard me talk about my belief that perhaps the most poignant thing that's ever been said about space science and exploration is simply that “space is hard.”

It was just a few short years ago that an independent committee chaired by former Lockheed CEO Norm Augustine determined that quote “The U.S. human spaceflight program appears to be on an unsustainable trajectory.” Today we are on a trajectory that is sustainable, it's affordable, it's enjoying support across parties and sectors, and it has pointed our progress firmly toward Mars.

Back in 2010, while many if not most of us in this room shared the dream of someday going to Mars, the reality was that sending human beings to the Red Planet was nothing more than a vague, horizon goal, if not a fanciful dream for only the most optimistic.

There was no realistic or sustainable plan in place for getting there. There was no timetable. There was nothing close to a consensus on Mars as a destination.

Today, we're closer than ever before in the history of human civilization to sending human beings to Mars. Let me say that again: we're closer to sending human beings to Mars today, than anyone, anywhere, at any time, has ever been – and the United Launch Alliance and you, its suppliers, are a big part of the reason why. But make no mistake – this is going to be very difficult and it is not for the faint of heart or those who like to hedge their bets.

In 2010, when President Obama challenged NASA to send human beings to an asteroid by 2025 and to Mars in the 2030s, he told us to do so in a manner that strengthens our American economy, our environment and our understanding of the universe and place in it.

When it came to transporting cargo and crew to the International Space Station (ISS), he asked us to team with commercial providers – American industry – that's you! Today, we're working with American industry to return launches to American soil, while supporting the building a new commercial market in low-earth orbit.

When it came to deep space, he asked us to work with American entrepreneurs, innovators and inventors on developing the technologies that drive exploration and job creation and that is exactly what we've done.

So much of story of how we've chosen to move forward over these past six years is the story of NASA and the United Launch Alliance's work together to accomplish these mutually reinforcing goals.

Another important story about which I won't speak this morning is the manner in which ULA is teaming with Aerojet Rocketdyne with their AR-1 and Blue Origin with their BE-4 to provide an American-made heavy lift engine to replace the Russian built RD-180 and free us of dependence on our Russian partners for this critical transportation asset.

Now, telling the entire NASA-ULA story would take all day, so let's just run through the Cliff's Notes.

When it comes to building a commercial market in low-earth orbit, Lockheed and Boeing, through the ULA alliance, and you the suppliers are indispensable parts of NASA's strategy for making the Kennedy Space Center a multi-user spaceport.

When Orbital-ATK's Cygnus spacecraft completed its recent, successful resupply mission to the International Space Station, it launched on the ULA Atlas V rocket. ULA is also working with the Sierra Nevada Corporation as they prepare to launch cargo to the Space Station in partnership, of course, with NASA.

What's more, when we return the launches of American astronauts to American soil – and we're on pace to get there soon – many of our NASA astronauts will travel to the aboard Boeing's CST-100 Starliner.

As for creating that commercial market in low-earth orbit, you all are living, breathing examples of the success we've been experiencing. If you look across all our commercial space initiatives, we're supporting jobs across more than 1,000 companies in nearly every state.

When it comes to deep space, I have two words for you ... Orion ... Spacecraft.

Back in 2010, when President Obama laid out what would become NASA's Journey to Mars, he stood in the KSC Operations and Checkout (O&C) building in front of a mock-up of the Orion crew capsule. In December of 2014, a ULA Delta IV

Heavy launched the Lockheed-built Orion spacecraft farther into space than any vehicle designed for human crew has traveled in generations.

Of course saying that is the only example of ULA's role in to NASA's Journey to Mars would be akin to saying that Thriller is the only example of a hit song written by Michael Jackson. Lockheed, Boeing and ULA suppliers are essential to so much of NASA's Journey to Mars; from the work you've already done to send the Curiosity Rover and other spacecraft to Mars to the work you will continue to do in sending robotic explorers to the Red Planet, including the InSight mission in 2018.

Let me leave you with a final thought: we've come a long way in a relatively short period of time, but how far we will continue to go has yet to be determined.

I maintain that President Obama has set us on a visionary course. It will be up for future leaders in government, business, academia and civic life to see it through.

I would likely not have believed you if you had told me six years ago that only a few years after the space community had been unable to even agree on Mars as a destination that I'd be able to look you all in the eye and tell you (with a straight face no less!) that not only does NASA have a plan for sending American astronauts to Mars in the 2030s, but there's a consensus that has started to emerge in the scientific and policy communities around it.

This plan, by the way, is clear, it's affordable, it's sustainable, it's attainable and you don't just have to take my word for it ... we've put it online at NASA.gov/JourneyToMars for all to see!

I'll tell you this, one of the great indicators of progress that I see when it comes to the Journey to Mars is quite frankly that people don't smirk or laugh or look at you like you're from Mars yourself when you tell them that we're headed to the Red Planet.

Less often are folks asking, "Why aren't you doing things my way?" or "Is Mars the right destination?" Rather, they're asking, "How can we be a part of this?" and "What are some areas where we can work together?"

When you download the plan, you'll see that at every stage we envision working with businesses like yours.

It's true in our current 'Earth Reliant' phase, where we're working "off-the-Earth, for-the-Earth" on the International Space Station. It will be true in the 'Proving Ground'

phase, when we work in cis-lunar space, the area around the moon. Furthermore, it will be true in the 'Earth Independent' stage, when our astronauts reach Mars.

We can reach the day when our children and grandchildren view a human presence on Mars as a fact of life – perhaps even akin to the way that a continuous human presence aboard the Space Station has been for the past 15 years and counting ... but we have to choose.

We can continue to build this commercial market in low earth orbit ... we can make launches more affordable and frequent ... and we can unlock even more secrets about the universe and our place in it ... but we have to choose.

I opened my remarks today by quoting the founder of Boeing, so I want to leave you today with the words of Allan Lockheed, quote: "We are coming into a new era of flight, an era in which all past conception of time and distance is changing and changing at a very, very rapid rate."

We, hopefully, can all agree that once again, we're in a new era of flight. It's true when it comes to aviation and it's true when it comes to space exploration.

Therefore, your work matters and so to do the things we will continue to do together as we move forward along our Journey to Mars and continue to strengthen American leadership here at home. You all are key to NASA's ability to turn science fiction into science fact and make the impossible possible. Together, there is no limit to what we can accomplish.

Thank you.