REMARKS BY

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PANEL ON
WHERE WE ARE HEADED IN SPACE

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Good afternoon, and thank you for inviting me to join you today.

It is more than 12,000 kilometers from Washington, D.C. to Shanghai. But aviation has made it possible to convert the once unimaginable journey into a scheduled trip. Aviation has proven it can bridge many distances.

And now the rocket has the potential to bring even more wonders within our reach.

So it is a privilege for me to be in the nation that has bridged the distance in time and rockets from the story of the first rocket rider, Wan Hu, to the flight of Fei Junlong and Nie Haisheng.

It is "rocket flight" and "space" – and how we approach them in the United States – that I want to talk about today.

In my country, we recognize three kinds of space flight.

One involves civil science and exploration. That is the role of the National Aeronautics and Space Administration (NASA).

The second area of space flight relates to national defense, an area under the supervision of the United States Air Force.

The third type of space flight is commercial, an area under the Federal Aviation Administration and administered by the Office of Commercial

Space Transportation which was created in 1984, and where I serve as Associate Administrator.

Our role is very straightforward. We regulate and promote commercial space transportation. We are the only office in the United States government that does what we do. We regulate to the extent necessary to protect the public safety and the safety of property.

In October of 2004, private investors, private designers, private engineers and private pilots combined to win the $10 million Ansari X-Prize. The rules required that the same private vehicle reach an altitude of 100 kilometers twice in as many weeks, and that is what they did.

This triumph of the entrepreneurial imagination – a compelling achievement and classic example of the unleashed genius of free and private enterprise producing extraordinary advances – involved launch and reentry operations licensed by the Office of Commercial Space Transportation.

Our role, indeed, our core mission at the Office of Commercial Space Transportation, is ***safety*****.**

To the extent that we take uncompromising care, and improve and advance safe launch and reentry operations, we help advance and enlarge the commercial space industry … not just in the United States, but anywhere rockets fly.

We promote a culture of safety. And that is a positive thing for everyone who works with rockets wherever they are.

We also do all we can to advance the commercial space industry. We know we are doing our job well when the safety record leads to strong and growing confidence in the commercial space sector.

To date, we have licensed 172 launches without casualties or significant property damage to the uninvolved public, a record attributable in no small part to our emphasis on safety and the meticulous preparation it demands. That builds confidence.

We take great pride in that safety record because our industry and its future depend on it. We understand the importance of safety, and are committed to do all we can to help ensure the safety of the U.S. launch industry.

So there you have a brief summary of what we do. But how, exactly, do we **do** it? What is involved?

The Office of Commercial Space Transportation issues licenses for launch operations. We do not license or certify the rocket, because we realize there is an unlimited variety of technical and design combinations to achieve what the launch operators intend. What we are interested in is

whether the planned launch can be done safely without injury to the public or damage to property.

We work closely with the launch operators. Once we are satisfied that all safety and technical requirements have been met we license the launch.

We do other things, of course. We license the operation of reentry vehicles and issue experimental permits for suborbital reusable launch vehicles.

And we license the operation of spaceports. So far we have licensed five, spread geographically from an island off Alaska to the Atlantic coast of Florida. To be more precise, there are spaceports in Alaska, California, Virginia and Florida. There are proposed sites in Oklahoma, Texas, New Mexico and Utah to name a few.

To further illustrate what our operation is like, let me give you a look at the absolute bare bones of the launch licensing process.

First, we sit down with the operator for a pre-application consultation. They tell us what they want to do. We tell them what we need to help them do it.

Second, they submit an application.

Third, we conduct a policy review, a safety evaluation, a payload review, a determination of financial responsibility and an environmental review. By law, we have 180 days to decide.

Obviously each of the steps takes some exacting work. And once the license is approved, we follow up with inspections to make sure regulations are being followed and the operator continues to comply with license terms and conditions.

But that, briefly, is what we do and how we do it.

Our organization, the Office of Commercial Space Transportation, is the measuring standard of safety in commercial space transportation. We are deeply determined to work with our industry as the designers, the architects, and the enablers of the space transportation system of the future. No one has done what we have done in commercial space flight. We are in the forefront.

We will continue working day and night to make certain that when people anywhere in the world have questions about the best safety practices in commercial space flight, we will have the answers.

The government of the United States has taken an unequivocally strong position in support of the increased involvement of private enterprise in the world of space flight.

Allow me to present some examples.

A commission appointed by the President of the United States reported in June of 2004 that the "commercialization of space should become a primary focus" of a new American space vision.

Next, in December of 2004, the President approved a new United States Space Transportation Policy. It says, in part, "The United States Government must capitalize on the entrepreneurial spirit of the U.S. private sector, which offers … opportunities to open new commercial markets, including public space travel …"

Then, on December 23, 2004, the Commercial Space Launch Amendments Act of 2004 became law in the United States. In the new law, the Secretary of Transportation, leader of one of the key departments in the executive branch of the United States government, was assigned responsibility for regulating commercial human space flight.

The Federal Aviation Administration and the Office of Commercial Space Transportation work within the Department of Transportation and are, therefore, directly involved in carrying out the requirements of the new law.

Consequently, we released guidelines for the experimental reusable launch vehicle, or RLVs. These permits will be available for RLV operators to, (1) conduct research, development and testing; (2) show compliance with requirements for a launch license, and: (3) for crew training prior to obtaining a license.

Permits will be granted in a 120-day period, making them easier to obtain than a license. The permits will be modeled to some degree after the Experimental Airworthiness Certificate commonly used in aviation research and development.

We have streamlined each prong of our safety strategy for licensing in recognition of the unique needs of experimental flight-testing.

Having said that, with ***safety*** as our top consideration, these permits as well as launch licenses, will be issued ***only*** when it's clear that the proposed activities will not compromise public health and safety. These guidelines represent the FAA's commitment to recognize the launch industry's changing needs, and to regulate accordingly.

In May, we released guidelines for operators of Reusable Launch Vehicles with flight crew and with "passengers."

Without question, commercial, private human space flight is the topic currently making the news in our industry.

But right this minute, the ongoing commercial space story is the mainstay, workaday launch business, primarily of commercial satellites. Over the years, this industry, operating in the finest traditions of a free enterprise system, has consistently delivered quality products while building an invaluable history of space flight experience.

The Federal Aviation Administration forecasts an average annual demand of roughly 23 commercial launches worldwide from 2005 to 2014. That translates into a relatively steady demand in the coming years.

So while commercial human space flight is an area of high promise, it is an ***addition*** – not a replacement, an addition – to the field of commercial business possibilities and a reasonable next step for the industry to take. The Office of Commercial Space Transportation will fully support those efforts just as we have supported the work in commercial space among the workhorse rockets and launch operators over the last twenty years.

I have no doubt that private human space flight will permanently expand the reach of commercial space transportation. The key word there is "permanently." It has yet to establish its full presence, but when it does, private human space flight will be here to stay.

What we seem to have right now is a rising capacity among a growing number of entrepreneurs with the potential for achieving subortbital and

eventually orbital flight for human passengers. What is happening, is not … ***is NOT*** … that space is changing hands.

There are simply more hands.

They are the hands of a growing number of private launch operators, private builders, entrepreneurs and private citizens determined to go into space.

And those people who make the trip will do it, not because they are part of the military, or because they are test pilots, or because they are trained in a special science.

They will be able to do it because a private company built a rocket, a private business sold a ticket, and a private citizen decided to go for a ride.

It is a dream about to come true in our lifetimes.

But we must remember that it is only recently that private companies have gotten involved in human space flight.

For them, for all of us, this is still the commercial frontier where we all need to be sure of our footing and certain of our direction because the goals are irresistible … going into space, a place that belongs to ***all*** of us, to ***none*** of us, and to every tomorrow ***any*** of us can imagine.

Thank you.