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Thank you, Deputy Administrator Wang¹. It is an honor to be here in Beijing. Before joining the FAA as Deputy Administrator, I worked in the U.S. airline industry for 20 years, primarily with United Airlines. I remember when we launched non-stop service from San Francisco to Beijing and Shanghai. That was in the year 2000². Flying passengers from one side of the world to the other within one day marked a major feat in expanding connectivity between the East and the West. And it still does.

As aviation professionals, we agree that air connectivity³ is what drives business. We have an opportunity to shape aviation in our respective countries, and around the world, for decades to come. Aviation is a

¹ Wang is the CAAC Deputy Administrator

² "Air route authority between the United States and China."

https://en.wikipedia.org/wiki/Air_route_authority_between_the_United_States_and_China

³ This is a reference to the conference theme: "Strategic Cooperation of Silk Road Economies through Improved Air Connectivity."

\$2.4 trillion global industry,⁴ and international aviation is where the growth and opportunity is occurring. At U.S. airports, for instance, international traffic has been the overwhelming driver of growth over the past 12 years. And over the next 20 years, Boeing plans to deliver about 80 percent of its new aircraft to airlines outside North America.⁵

In addition, we're seeing more international partnering of manufacturers and suppliers. Airline route structures, alliances and partnerships are spanning the globe. And we're seeing a large increase in foreign repair stations⁶. These trends require us to partner even more effectively with other nations to address emerging safety and security issues. At the same time, we also need to balance safety with efficiency.

For both of our nations, changing airspace systems is not easy, especially ones that have served us so well for

⁴ Aviation Benefits Beyond Borders, Air Transport Action Group, April 2014.

⁵ Boeing Current Market Outlook, 2014-2033, http://www.boeing.com/boeing/commercial/cmo/new_airplanes.page; Carl Burleson, October 20, 2014.

⁶ The number of foreign repair stations has grown from 344 to 726 between the years 2003 to 2013, according to *FAA Strategic Initiatives 2014-2018, February 19, 2014*.

many years. But by making intelligent choices, we can help aviation prosper.

China is in a natural position to lead aviation in the Asia-Pacific region and across the globe. Beijing and Shanghai make for ideal hubs connecting the East and the West. China's airports serve more than 830 million passengers a year⁷, and Beijing airport continues to be the second busiest airport in the world.⁸

In recent years, Chinese airlines have taken their place among the most important and reliable customers for the major aircraft manufacturers, ordering billions of dollars in jetliners of all sizes. In 2005, six Chinese airlines stepped to the forefront of international aviation by joining a select group of launch customers for Boeing's 787 Dreamliner. For the first time, this gave Chinese airlines a seat at the table in helping Boeing develop a major international aircraft that suited the needs of their customers.

⁷ [CAAC Issues Chinese Airports Performance Statistics For 2014, Shanghai Airport Authority.](#)

⁸ 2nd largest airport in terms of passengers, next to Atlanta. CNN, June 8, 2015.

At the same time, your General Aviation market has grown tremendously. Today, two of the most recognized names in General Aviation – Cirrus Aircraft Corp. and Continental Motors – are owned by Chinese interests. Your partnership with Cessna Aircraft Company to build airplanes in China is yet another building block in this important area of aviation.

Continued access and expansion of low altitude airspace for General Aviation will enable advances in search and rescue operations, flight training, and other valuable services that support the aviation industry while fueling local economic growth.

Indeed, Chinese aviation is making great progress. I congratulate Dr. Fang Liu, who was named ICAO Secretary General earlier this year. Her appointment signifies China's potential in shaping international aviation.

By partnering together, by leading together, the U.S. and China can make aviation safer, more efficient and more environmentally friendly.

Today, I'd like to focus on two areas that are important to this effort: safety and modernization.

With respect to safety, the FAA utilizes a risk-based decision making approach. We collect safety data from many sources, analyze the data to identify unsafe trends and precursors to accidents, and then direct our safety resources toward addressing those high risk areas.

We believe in extending these safety practices to the global level.

As I mentioned earlier, the aviation industry is becoming more complex and globalized. Product supply chains often include many different countries. The FAA relies on its bilateral partners to provide this oversight in their countries, and we, in turn, reciprocate. For instance, we're providing technical assistance for certification activities at U.S. suppliers to support China's C919 jet program.

We're moving forward in these areas, and we want to build on this work together.

Safety standardization is a key ingredient in moving us forward together. The more we operate from a common set of safety standards, and uniformly apply these standards across applicable processes and procedures, the more easily we can rely on one another to ensure safety compliance. This results in more rapid approvals of aviation products, and enables more seamless transfer of aviation products from one regulatory system to another. So it benefits both of us, and the world.

We look forward to working more closely together to develop a more standardized approach to aviation safety, just as we've worked closely with other partners around the world. I want to thank the CAAC for hosting the FAA's annual Asia Pacific Bilateral Partner's meeting in Shanghai next year. This meeting will give us a good chance to discuss best practices in aircraft certification.

Just as safety standardization is a key component to

expanding connectivity, so is the harmonization of air traffic systems. I'd like to share with you some of the key principles and practices we've found helpful to our NextGen modernization effort.

As you know, NextGen is our plan to modernize the United States airspace system. We're moving from a radar-based air traffic system to a satellite-based system.

We realized that NextGen's advanced capabilities would rely on multiple technologies, all of which need to be properly aligned. This means we have to take the whole airspace system into account. Only if all of our systems are integrated and working seamlessly throughout our entire airspace, can we achieve the full benefits of modernization.

We also realized that NextGen would require us to work in collaboration with all those who have a stake in our decisions. This includes all offices and directorates within the FAA, along with our labor unions, the aviation industry, and the U.S. military. This approach helps to ensure that NextGen capabilities are delivered on time, within budget

and embraced by air traffic controllers, pilots and aircraft operators.

System-wide focus and stakeholder collaboration make a difference. Let me give you an example. Earlier this year, we finalized the deployment of automation upgrades at 20 high altitude air traffic control centers across the continental United States. This effort is called En Route Automation Modernization, or ERAM. It was no easy task. It was one of the largest technology changeovers in the history of the FAA.

ERAM was successful because we developed the same system for the 20 en route centers where it was deployed. It was also successful because we had a lot of early participation from the people who would be using and maintaining it – the air traffic controllers and technicians. Their input helped us identify issues early in the development cycle, so the vendor could make the right fixes in the most cost-effective way.

We're taking the same approach with our automation upgrades for our terminal air traffic control facilities. These upgrades set us up to deliver greater NextGen benefits including through ADS-B – the core technology that moves us from a radar-based system to a satellite-based system. This technology enables more efficient separation of aircraft and provides coverage where radar is lacking, like in the mountains and over water. Last year, we completed the installation of 634 ground transceivers that make up the infrastructure for ADS-B. Now we're working with industry to ensure that the U.S. fleet is equipped with ADS-B avionics, in accordance with the FAA's 2020 deadline.

As we lay the foundation for the long-term, we're working with industry to deliver benefits in the near-term. For instance, the FAA's Metroplex initiative is a plan to decrease congestion in busy metropolitan areas. As part of this effort, we've implemented scores of new satellite-based procedures in the Houston, North Texas, Northern California, and Washington D.C. metro areas. For example,

in Houston, we put in place 60 new satellite-based procedures, and results show an annual savings of \$6 million from reduced fuel consumption⁹.

In addition, we've safely reduced wake separation standards at many U.S. airports including in Atlanta, Louisville, Charlotte, Houston, and New York. Because of this change, Atlanta's Hartsfield-Jackson airport has increased the number of planes that can land by up to 5 percent, which translates into about five more planes per hour.

As other States look to modernize their airspace systems, we continue to rely on the work of ICAO in the Global Air Navigation Plan to provide a roadmap for States and industry to do so in a coordinated, standardized and seamless manner. The FAA stands ready to work with the CAAC and other partners to address issues and establish mutually beneficial agreements.

⁹ The \$6.2M savings is a result of reduced track miles, fewer level offs, and less cost of carrying reserve fuel. These savings are available to any aircraft that flies the OPDs. The results were calculated from the numbers of aircraft using the new procedures regardless of carrier affiliation. Source: Mike Barnhart, National Metroplex Program Manager, April 9, 2015.

In closing, let me reiterate the points I have made. If our safety standards are the same, our aviation systems will make more rapid progress. And if our air traffic technologies and procedures are harmonized, we'll make more rapid progress as well. This should be our focus.

Fifteen years ago, we were celebrating the expansion of United Airlines non-stop service to Beijing and Shanghai – marking another big step in air connectivity. Today, our ability to expand connectivity requires us to partner effectively, and harmonize our safety standards, technologies and procedures. In doing so, we'll strengthen global aviation for decades to come.

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