STATEMENT OF MICHAEL P. HUERTA, ADMINISTRATOR, FEDERAL AVIATION ADMINISTRATION, BEFORE THE SENATE COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION, ON FEDERAL AVIATION ADMINISTRATION (FAA) REAUTHORIZATION: AIR TRAFFIC CONTROL MODERNIZATION AND REFORM, MAY 19, 2015.

Chairman Thune, Ranking Member Nelson, Members of the Committee:

Thank you for inviting me to speak with you today on the future direction of the FAA. The FAA has a tremendous opportunity to make a difference for stakeholders by laying the foundation for the National Airspace System (NAS) of the future. We are focusing our accomplishments on well-defined strategic priorities, including achieving the benefits of the Next Generation Air Transportation System (NextGen).

In the context of FAA reauthorization and the future direction of the FAA, some members of the aviation community and of Congress have discussed making governance changes at the agency. The Administration welcomes the opportunity to evaluate any governance-related proposals and we look forward to having those discussions with Congress and stakeholders. We would anticipate, however, that any such proposal that might include a fundamental shift in current policy would need to be very clear in its identification of both the issue to be solved and a proposed mechanism to resolve it. While we would not support a fundamental change for the sake of change alone, we remain open-minded and welcome the chance to further engage with you on that subject.

Further, with respect to reauthorization, some of the major challenges facing the FAA involve funding levels, funding stability, and flexibility. We believe that any governance-related

proposals would need to address these issues while ensuring that our nation continues to maintain the safest and most efficient airspace system today and in the future.

The needs of the system and the aviation community it serves are evolving. New users, such as operators of unmanned aircraft systems and commercial space vehicles, are entering our nation's airspace with increasing frequency. As we invest in long-term modernization and recapitalization projects and build on the successes of NextGen, we also have to think about sustaining critical parts of our existing infrastructure, much of which is beyond its projected useful life. We have to address these challenges in a budget environment with a great degree of uncertainty. We are increasingly being asked to do more with less.

In recent years, funding uncertainties resulting from sequestration, government shutdowns, and short-term reauthorization extensions have hindered the FAA's ability to efficiently perform our mission and have impeded our ability to commit to long-term investments. The FAA has grappled with funding challenges by focusing and prioritizing its work, knowing that we cannot continue to provide all of the services we have in the past and understanding that safety cannot be compromised. We're having discussions with our stakeholders about what we might be able to consider no longer doing, or do differently, through innovative business methods and technologies. We look forward to working with the aviation community and Congress to form consensus on the appropriate path for the future direction of the FAA.

Looking ahead, the benefits that we continue to deliver through NextGen will enable a safe and efficient NAS of the future that will meet the needs of its users. NextGen is increasingly

delivering benefits to system users, such as reduced fuel costs, reduced delays, reduced environmental impacts, and increased safety. In the midst of funding challenges, the agency has focused resources on leveraging available technologies to deliver near-term NextGen benefits. This strategy has paid off. For example, the FAA's Metroplex program improves airspace efficiencies in major metropolitan areas, simplifying air traffic flows. In collaboration with the aviation industry, the FAA is working with 11 busy metropolitan areas where improved air traffic performance could benefit not only the region but the entire national airspace. The FAA works with collaborative teams of air traffic controllers, airport officials, airline representatives, general aviation operators, other industry stakeholders, and community representatives to study, design, and implement comprehensive approaches for each Metroplex. Metroplex solutions include Performance-Based Navigation (PBN) procedures that enable aircraft to fly more directly from departure to destination by using satellite signals and airspace redesign. The FAA has introduced into the NAS more than 7,000 PBN procedures.

A recent example of the success of Metroplex is the 60 new routes into and out of Houston Metroplex airports that were launched last year. The initiative improved merging techniques that begin aligning planes hundreds of miles away. The preliminary data from the analysis of the Houston Metroplex implementation identified $6 million in annual savings and a reduction of 400,000 fewer nautical miles flown each year, reducing carbon emissions by 20,000 metric tons and saving operators 2 million gallons of fuel. That's like taking more than 4,000 cars off the streets.

In addition to focusing on near-term benefits, we continue to invest in new infrastructure to support precision satellite navigation; digital, networked communications; integrated weather information; and more. When the next generation transformation was in its infancy, the Government Accountability Office described the effort as "staggering." When I joined the FAA team in 2010 as Deputy Administrator, I experienced that the program was already on its way to new levels. Today, I am proud to report the completion of a major milestone that will enable NextGen solutions. We've finished installing our new high altitude air traffic control system known as En Route Automation Modernization (ERAM), one of the largest automation changeovers in the history of the FAA. ERAM is fully operational at the 20 FAA en-route centers across the continental United States. This network replaces the HOST computer system that had its roots in the 1960s.

ERAM is the backbone of the nation's airspace system. More than simply a faster computer, this new system is a network of computers designed to know about your flight, where you plan to go and how you plan to get there, from the moment you enter the national airspace from anywhere in the country. ERAM's flexible and expandable system design will accommodate en-route processing necessary for NextGen technologies such as Automatic Dependent Surveillance Broadcast (ADS-B) services, System Wide Information Management, and Data Communications. ERAM processes data from nearly three times the number of sensors as the legacy system. With this system in place, we're able to make available new tools for our air traffic controllers including the ability to track more high altitude flights, which will result in more efficient routing, reducing fuel burn and improving the predictability of airline schedules.

What we've achieved with ERAM was facilitated by introducing increased discipline and structure to the way we do business at the FAA. In 2012, we created a Program Management Organization to better manage the deployment of this and other technology. We also worked closely with our air traffic controllers, who provided feedback throughout the system development phases. The fact that we turned ERAM around, and that it is now operating nationwide, is a testament to what the FAA can accomplish as an agency when it sets milestones and pulls together to make fundamental changes.

ERAM links with ADS-B, a more precise and efficient satellite-based alternative to radar that will revolutionize how we manage our nation's air traffic. ADS-B opens up new routes to air carriers and increases capacity. Last year, we completed nationwide deployment of the ADS-B ground stations. The FAA is currently providing nationwide broadcast services to equipped users. We are working closely with the entire aviation community, including general aviation operators, to work toward the mandatory ADS-B Out equipage by January 1, 2020 deadline. For aircraft with the additional equipment, which is not required by the 2020 deadline, ADS-B delivers traffic and weather information directly to the cockpit, giving the pilots more information and awareness.

The success of NextGen is not the FAA's alone. Collaboration with all stakeholders, including the aviation industry, our union members, and Congress, is key to its success and we can continue to leverage one another's commitments to produce benefits. Last year, subject matter experts from the FAA met with aviation industry representatives to determine what high-benefit, high-readiness NextGen capabilities the FAA will be able to accomplish in the next one to three years, and what industry commitments are necessary for those activities to be successful. The

FAA and the NextGen Advisory Committee (NAC) worked together to reach agreement on a joint implementation plan consisting of capabilities within four focus areas. Taken together, this plan will advance our navigation capabilities through PBN, increase capacity on parallel runways through Multiple Runway Operations, enhance airport surface operations through data sharing, and introduce Data Communications between cockpit and air traffic control. The plan identifies timelines, specific locations, and costs for each priority. These priorities leverage equipment that operators have already invested in for other capabilities.

We hope the benefits that stakeholders are realizing in these areas will incentivize them to make larger NextGen investments. A prime example of the benefits already being achieved through this focused collaboration with industry is the more narrowly tailored and safely defined wake turbulence separation standards, which are based on the performance characteristics of aircraft and have been implemented at several major airports across the nation. This Re-categorization of Wake Turbulence Separation Minima (RECAT) updates and decreases separation standards, which are primarily based on aircraft weight classes. Because of wake RECAT, FedEx can take advantage of a 13 percent increase in departure capacity at Memphis. Passenger carriers are seeing the benefit, too. At Atlanta's Hartsfield-Jackson airport, Delta Airlines and FAA have found a one and one-half minute reduction in departure queue delays. Delta projects to save $14-19 million dollars in operating costs over a one-year period.

The FAA will rely on the same high degree of collaboration with industry as we monitor our progress against the milestones in the plan. The agency is conducting internal meetings at least monthly to monitor progress against the plan, while the NAC will work with industry

stakeholders to ensure their commitments are funded and met. Progress reports are provided publically through the NAC, and the FAA is reporting progress against the milestones on its NextGen Performance Snapshot website. To date the FAA has completed 17 of the plan's milestones, including two that were finished ahead of schedule. Industry has also met its commitments. This is a significant beginning that demonstrates the great potential for future partnerships between the FAA and industry to move the NAS forward.

Last year the FAA convened a call to action to engage the aviation industry in meeting the January 1, 2020 deadline to equip aircraft with ADS-B Out. FAA experts and industry leaders identified barriers delaying operators from equipping and formed the Equip 2020 working group to collaboratively resolve those issues. The goal of Equip 2020 is to ensure the fleet is equipped with technology to utilize the benefits of the ground ADS-B infrastructure. The collaborative aspect of the Equip 2020 working group put the right stakeholders together to solve one of the general aviation (GA) community's biggest barriers: cost of equipment. Low-cost equipment options are now available from manufacturers; those products and other available avionics are tracked in a database with suppliers' equipment data and air carriers' purchasing data. Analysis of these equipage trends will indicate potential risks to achieving compliance by the deadline so that we may adjust our efforts as necessary. To further assist GA owners determine their compliance options, the FAA has created an easy to navigate Equip ADS-B website[1] and will host information sessions across the country this year. We need to continue to ensure that users of the system make timely and necessary equipage investments to maximize the widespread deployment of NextGen. Government and industry have a shared responsibility to create the aviation system that will carry this nation well into the 21st century.

[1] https://www.faa.gov/nextgen/equipadsb/

If you look objectively over the last five years, the FAA has made major progress on both completing NextGen's foundation and expanding the delivery of NextGen benefits to the users of the system. Continuing to build the NAS of the future and accommodating new services will require difficult decisions. The aviation community is diverse and does not always see eye-to-eye. Nevertheless, I believe consensus on the future direction of the FAA is absolutely critical if we are going to resolve our long-term funding challenges. We need stable, predictable funding to effectively operate our air traffic control system, build on our investments in NextGen, and efficiently recapitalize our aging facilities. This would best be achieved with the passage of a long-term reauthorization bill.

Chairman Thune, Ranking Member Nelson, I look forward to working with you and the Committee as we move forward toward a reauthorization bill.