

**STATEMENT OF
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**HEARING BEFORE THE COMMITTEE ON APPROPRIATIONS, SUBCOMMITTEE
ON TRANSPORTATION, HOUSING AND URBAN DEVELOPMENT, AND RELATED
AGENCIES: THE FISCAL YEAR 2017 BUDGET REQUEST FOR THE FEDERAL
AVIATION ADMINISTRATION**

MARCH 2, 2016

Good morning, Chairman Diaz-Balart, Ranking Member Price, and Members of the Subcommittee. Thank you for the opportunity to discuss the Administration's Fiscal Year (FY) 2017 budget request for the Federal Aviation Administration (FAA).

The Federal Aviation Administration operates the safest and most complex aerospace system in the world. We have proudly delivered on this promise since 1958, providing the world's leading aviation system and setting an unparalleled standard for safety and efficiency that is emulated globally.

Maintaining our leadership position means we have to always think about doing our work smarter and more effectively. For the FAA, this means focusing on four strategic initiatives: making aviation safer and smarter; delivering benefits through technology and infrastructure; enhancing global leadership; and empowering and innovating with the FAA's people.

Our strategic initiatives serve as the framework for transforming the FAA and the aerospace system. By focusing on risk-based decision making, we will build on safety management principles to proactively address emerging safety risks at a system level. We are laying the foundation for the National Airspace System (NAS) of the future by achieving prioritized Next Generation Air Transportation System (NextGen) benefits, integrating new user entrants, and delivering more efficient, streamlined services. We will improve safety, efficiency, and environment sustainability across the globe through an approach that shapes global standards, enhances collaboration and better targets FAA resources. And lastly, we are preparing for the future by identifying, recruiting and training a workforce with the leadership, technical and functional skills to ensure the United States has the safest and most productive aviation sector.

While these strategic initiatives are important to us, they also play a large role in the long-term health of our nation's economy, which is highly dependent on the aviation industry. Civil aviation contributes roughly \$1.5 trillion annually to the national economy and constitutes 5.4 percent of the gross domestic product. Aviation also generates 12 million jobs, with annual earnings of \$459 billion. Aviation has become the international language of commerce, and runways have enabled inland cities to become vibrant ports. It has helped foster an intellectual and economic prosperity that is unparalleled in human history. As the stewards of this remarkable industry, we share an enormous responsibility to protect this mode of travel and to shape and nurture its bright future. At the FAA, we take this responsibility very seriously.

Ten years ago we embarked on our ambitious transformation program while supporting an already aging legacy infrastructure. The FAA began the process of reinventing the NAS, replacing legacy tools, procedures, capabilities and technologies to more efficiently and safely move air traffic using modern systems and methods.

Over the intervening years and given the tight funding environments, FAA has refocused our efforts on achieving some near-term NextGen benefits while delaying others, and making targeted investments to extend the lifecycle of certain systems and equipment. We deferred maintenance on other existing infrastructure, causing the maintenance backlog to grow.

Despite these challenges, the FAA has proven that we can deliver. We have completed the foundations of NextGen and we are already building on our achievement by delivering near-term NextGen benefits to our users. We are working in partnership with industry stakeholders through the NextGen Advisory Committee (NAC), and this collaborative process is driving the prioritization of NextGen benefits. We have completed 99 percent of our established milestones. We are on target to continue meeting our commitments to deliver the next wave of benefits from the systems, technologies and procedures that will provide enhanced levels of safety and tangible efficiencies for the traveling public.

The increased F&E funding provided in FY 2016 is having a meaningful impact on our ability to deliver these benefits and restore our infrastructure. We are continuing to fund the renovation of facilities that have not been modernized in 50 years, replacing obsolete plant equipment that

provides environmental controls for employees and NAS equipment, replacing and upgrading power systems and the fuel sources that supply them, and remediating asbestos, mold, and fire risks to employees. The FAA's FY 2017 budget request will continue the funding levels necessary to make broad investments in our infrastructure while realizing benefits of NextGen. The NextGen investments will reduce delays, expand air traffic system capacity, and mitigate aviation's impact on the environment, while ensuring the highest levels of safety.

The needs of the NAS and the aviation community it serves continue to evolve. New users such as Unmanned Aircraft Systems (UAS) and commercial space vehicles are entering our nation's airspace with increasing frequency. As we build the NAS of the future, we must ensure that it can accommodate these new entrants. This is also causing us to think critically about what parts of our existing infrastructure need to be sustained. With the introduction of satellite-based surveillance and other technologies, we are evaluating the elements of NAS infrastructure that will need to be maintained.

The FAA's total FY 2017 budget request of \$15.9 billion will support our ongoing mission and a continued, but measured, transition to the future while honoring the spending limits enacted in the Bipartisan Budget Act of 2015. This budget request supports today's infrastructure and allows us to continue deploying key NextGen benefits to our stakeholders. It supports our critical safety programs while allowing the FAA to safely integrate new entrants such as UAS and increasing numbers of commercial space launches into the NAS. The proposal will increase capital investments while decreasing the FAA's overall budget by reshaping the airport financing system. This transformation provides for increased investment in airport infrastructure. It concentrates federal grant dollars on airports that need it most, while empowering larger airports with increased funding and local control.

Last month, the House Transportation & Infrastructure Committee unveiled a proposal for how air traffic control services could be provided in the future. We acknowledge the hard work the Committee put in to developing a plan to restructure the FAA, and are open to having this discussion. There is broad agreement that there are opportunities through FAA reauthorization to ensure that the U.S. continues to lead the world in aviation safety and efficiency. We encourage Congress to work in a bipartisan way on FAA reauthorization, consistent with recent approaches

on other transportation issues. FAA reauthorization will impact a broad and diverse array of stakeholders, and we want to make sure they are all heard throughout this process.

We continue to believe that any proposal should support our core reauthorization principles. These principles include maintaining the safest aerospace system in the world, modernizing the FAA's air traffic control system, and enabling the integration of new users into the NAS. Other principles include allowing better alignment of resources with the needs of the NAS and securing appropriate funding for the nation's airports. These principles are intended to guide reauthorization to improve safety, make the NAS more efficient, and improve service for air travelers and other stakeholders.

In light of the important debate to come, the FAA's FY 2017 budget request maintains current law while proposing an important modification. The FAA requests additional budget transfer flexibility. When the FY 2013 sequestration forced the FAA to implement employee furloughs that resulted in air traffic delays, Congress needed to enact special legislation granting the budget flexibility required to minimize the disruption to the airspace system. This new authority requested in the budget would allow the FAA to request to reprogram up to 10 percent between appropriations, provided that no account is increased by more than 10 percent. Such a transfer would be subject to approval by both Congressional Committees on Appropriations.

In times of constrained budgets, we need to prioritize our responsibilities to focus our resources on ensuring the safety and efficiency of the existing aviation system. We must deliver new technology and capabilities, and respond nimbly to evolving challenges such as new external cyber security threats. We cannot risk being left behind as the aerospace industry becomes more complex, diverse, and globalized.

NextGen

NextGen is arguably the most ambitious project we have embarked on since the days when our system of airways was initially established. NextGen is an all-encompassing transformation of the world's largest and most complex air traffic control system. The FAA has embraced this commitment with energy and with enthusiasm. NextGen is no longer some nebulous and futuristic aspiration. It is happening today.

We have successfully implemented the foundation of NextGen, which can be seen in our en route centers, where tens of thousands of high-altitude flights are coordinated every day. Last year, we completed deployment of the En Route Automation Modernization system, or ERAM, in all of our centers in the continental United States. ERAM is the backbone of our NexGen transformation. It is a faster computer platform that replaces our legacy system, which had its roots in the 1960s. ERAM provides a much bigger, richer picture of our nation's air traffic and allows controllers to better manage flights from gate to gate.

The benefits of ERAM cannot be understated. This powerful computer system can enable many of our other critical NextGen technologies as they come online. For instance, ERAM links seamlessly with Automatic Dependent Surveillance-Broadcast (ADS-B). ADS-B is the core technology that moves us from a radar-based air traffic system to a satellite-based system. Last year, we completed our coast to coast installation of 634 ground transceivers that comprise the ADS-B network. ADS-B is now integrated at all of our en route centers, allowing controllers to instantaneously capture the exact GPS location, speed and altitude of a growing number of aircraft equipped with this latest technology. All over the country, our controllers are monitoring measurable increases of aircraft equipped with ADS-B in advance of the 2020 deadline. ADS-B also brings free weather and traffic updates to the cockpit, allowing pilots to make more informed decisions.

Even as we build the foundation for the future, we are already delivering powerful NextGen benefits today. Our Metroplex initiative has transformed the airspace around some of our busiest cities, replacing inefficient ground-based routes. We now have scores of new satellite-based air traffic procedures in Houston, North Texas, Washington, DC metro and Northern California. In 2017, we will complete Metroplexes in Cleveland-Detroit, Phoenix and Southern California. We will also design a regional network of high altitude PBN routes on the eastern seaboard.

In fact, we now have more satellite-based procedures in our skies nationwide than radar-based procedures. In sheer numbers, we have developed over 7,000 satellite based procedures that have already resulted in millions of dollars in fuel savings for the airlines, with corresponding reductions in emissions of greenhouse gases.

Now is the time to build on what we have already achieved. Continued collaboration with all stakeholders, including the aviation industry, our union members, and Congress, is key to our success. We continue to work in partnership with industry stakeholders through the NextGen Advisory Committee (NAC). The FAA and the NAC reached agreement on a joint implementation plan consisting of capabilities within four focus areas: Data Communications, surface operations, multiple runway operations, and Performance Based Navigation. Our FY 2017 budget supports this shared vision by focusing funding on the four areas that will achieve the maximum benefits in the next fiscal year, leveraging equipment that operators have already invested in for other capabilities.

The FY 2017 budget includes \$1 billion for NextGen, of which \$877 million is in the Facilities and Equipment account, \$63 million is in the Research program, and \$60 million is in Operations. This investment portfolio represents an increase of \$20 million over FY 2016 enacted levels. The majority of this \$20 million increase is in the F&E account, allowing us to advance the Data Communications, Terminal Flight Data Manager, Time Based Flow Management, and NextGen Weather Processor programs.

Data Communications (Data Comm) streamlines communications between air traffic controllers and pilots, allowing them to transmit flight plans and other essential messages with the touch of a button instead of multiple verbal communications. This switch from voice to text enhances airspace capacity, reduces flight delays, and enhances safety by reducing the chance of a read-back error while relaying information. It also helps aircraft fly more direct routes, which saves time and fuel while reducing aviation's impact on the environment. Data Comm is already delivering great results in Newark, Memphis, Salt Lake City, and Houston, and we have just recently gone live in Austin and New Orleans. By the end of 2016, Data Comm will be used in more than 50 of our air traffic control towers, and we expect Data Comm to be in our large en route centers starting in 2019. Data Comm is just one example of the FAA's larger shift toward eliminating risk in our aviation system.

Another significant gain in efficiency will come from Terminal Flight Data Manager. A key component of this is the transition from paper flight strips to electronic flight data. This will improve airport sequencing and scheduling, as well as the exchange of flight data across our

various air traffic jurisdictions. FY 2017 funding will allow us to design and develop the system, as well as deploy new technology at 24 of 39 sites.

Time Based Flow Management (TBFM) is already making a difference in the en route centers, with supporting equipment in most major TRACONS and the airports served by those centers. TBFM maximizes capacity by getting the right aircraft to the right runway, in the right order at the right time. Analyzing flights from hundreds of miles away, TBFM calculates scheduled arrival times to reduce low altitude delays and holding. This improves the flow of arrival traffic by efficiently using available capacity, saving fuel and reducing emissions.

NextGen Weather Processor will functionally replace existing weather processor systems and host new capabilities that better meet real time needs. The program achieved a Final Investment Decision last March, awarded its prime contract in April, and is now working to complete Critical Design Review in FY 2017.

These new tools will enable our air traffic controllers to guide planes more safely and efficiently through congested airways and around dangerous weather. This means that everyone enjoys the benefit of more reliable, predictable airline schedules. We are very proud of our progress in making NextGen a reality. We will continue to work closely with industry to implement new technologies and procedures that are sustainable. And we will work with other nations to establish a new global standard.

NextGen technologies offer our nation a worthy opportunity for investment in safety and innovation. NextGen technologies ensure aviation's continued viability, and will produce lasting economic benefits far beyond the cost of our investment. Our nation and airline industry are already yielding measurable financial returns that will bolster America's continued economic stability and growth.

Operations

The FY 2017 request of \$10.0 billion for Operations represents a 1 percent increase above the FY 2016 enacted level. The requested funding includes \$113 million for pay increases consistent with government-wide inflationary factors, as well as other non-pay inflationary costs and base

adjustments. The base adjustments include \$37.3 million to fund support costs for systems transitioning from Facilities and Equipment. These include System-Wide Information Management (SWIM) Segment 2A, System Approach for Safety Oversight (SASO), Integrated Display System Replacement (IDSR), Runway Status Lights (RWSL) and other various programs.

The budget also requests \$15.3 million of program increases to support the safe integration of unmanned aircraft and commercial space transportation into the NAS, to implement security recommendations for critical operational facilities, and fund 147 new FTE in the safety and security program areas.

For the Aviation Safety Office (AVS), an increase of \$2.9 million will provide for sixteen new safety inspectors, engineers, and safety critical staff for the integration of Unmanned Aircraft Systems (UAS). The budget also requests \$250 thousand for Policy, International Affairs, and Environment (APL) to develop in-house capability to generate a forecast of future UAS activity. For the Office of Commercial Space Transportation (AST), the budget includes an additional \$723 thousand for thirteen new personnel to support regulatory, safety, and airspace integration for this rapidly growing industry without curtailing innovation.

The Office of Security and Hazardous Materials Safety (ASH) request includes \$1.7 million increase to reevaluate and improve the security of our most critical NAS facilities and to implementing new personnel investigative standards. The request also includes \$1.8 million to support our capability to protect the FAA from malicious insider activity. These activities are the result of the comprehensive security review conducted after the Chicago Air Route Traffic Control Center fire incident on September 26, 2014. These reviews have resulted in numerous recommendations aimed at preventing similar events and improving our ability to sustain on-going operations if they do occur. We will continue making these changes over the next several years to minimize the risk of such events in our operation and our facilities. Given the need to improve the FAA's cybersecurity detection, response, and recovery capabilities, this budget requests \$4 million and two new FTEs in the Office of Finance and Management (AFN) to address this growing area of critical need.

Cost savings initiatives will reduce the Operations budget request for FY 2017 by \$46.9 million. The request includes \$2.8 million to support the Lean Maintenance and Revalidation Program (LMRP). LMRP analyzes cost and performance data, maintenance activities, and sustainment and support requirements, and from this, identifies cost savings/avoidance opportunities. The FAA anticipates this activity could yield \$6.5 million in cost savings. In addition, the FAA will achieve administrative efficiencies of \$40 million through cost reductions and avoidance in various areas such as contractual services and supplies.

Facilities and Equipment (F&E)

The FY 2017 budget request includes \$2.8 billion for Facilities & Equipment. This request includes funding for critical system and facility infrastructure, and provides for the near-term priorities that were identified working in cooperation with the NextGen Advisory Committee. In recent years, sequestration, government shutdowns, short-term reauthorization extensions, and declining budget levels forced the FAA to reduce or defer capital investment. The agency had to choose between sustaining current infrastructure and keeping NextGen progress on track. As we work with our industry partners to usher in the aviation into the future, it is vital that we inspire confidence in the FAA's ability to deliver on investments. In developing the FY 2017 budget, we have focused on those items which will inspire industry confidence, garner the associated industry investments that make NextGen viable, and provide near term benefits to users.

Approximately \$1.9 billion of this request keeps the current airspace infrastructure maintained and operational. Notably, this provides \$464 million, a \$4 million increase over FY 2016 enacted levels, for facility-related maintenance. After years of underinvestment in sustainment, this funding is a down payment on our maintenance backlog, helping assure that systems remain operational and that our employees are safe. Further reducing our backlog will require continued sustained support over several years, complemented by divestiture and decommissioning of infrastructure where feasible.

Additionally, the FY 2017 request proposes initial funding for Next Generation Surveillance and Weather Radar Capability and Back-up Surveillance Capability. This program will replace NAS radars that are twenty to forty years of age. New systems are necessary to both reduce operations

and maintenance costs and to incorporate new technology that detects and tracks UAS and other non-cooperative aircraft.

The integration of both UAS and commercial space transportation into the NAS requires additional resources to address emerging and expanding responsibilities in these areas and develop policies and procedures that support their integration into the NAS. \$9 million is requested for UAS under the Separation Management Portfolio to ensure the unique operational implications are well understood and necessary infrastructure changes are implemented to allow UAS integration into the NAS. \$2 million is included under the Air Traffic Management budget line item for commercial space integration into the NAS and that will allow commercial space launches and reentries to occur without significant disruptions to both space and air operators.

Research, Engineering and Development (RE&D)

The FY 2017 Research, Engineering & Development budget request of \$167.5 million is a \$1.5 million increase over the FY 2016 enacted level. This allows us to increase funding for Continuous Low Energy, Emission and Noise (CLEEN) to support the President's Climate Change Action Plan. Commercial space transportation research is increased by almost \$1.0 million, and \$1.0 million is requested for NextGen information security research. NextGen Information Security is a new budget item for FY 2017 that supports research to help prevent disruptive cyber incidents that may affect the Air Traffic Control mission. This research will be performed in coordination with the FAA Cyber Security Steering Committee.

The RE&D NextGen portfolio of \$62.6 million supports NextGen-specific research in wake turbulence, human factors, clean aircraft technologies, unmanned aircraft systems and information security. The \$5.8 million requested for our NextGen Alternative Fuels for General Aviation program supports the transition from the current aviation 100 low lead fuel to an unleaded replacement fuel that will have the least impact on the general aviation fleet. The NextGen Environmental Research request of \$26.2 million supports a range of activities, including research to mature certifiable clean and quiet aircraft technologies, the development of sustainable fuels, and the CLEEN program.

The FAA's RE&D request continues to support the safe integration of UAS technologies into the NAS, requesting \$8.4 million to conduct research on UAS technologies. The program is focused on sense and avoid and command and control requirements that will support the safe integration of UAS in the NAS within the 14 Code of Federal Regulations regulatory framework.

Airport Improvement Program (AIP)

Airports remain a critical part of the aviation system infrastructure. The FAA's FY 2017 request provides the funding needed to ensure safety, capacity, and efficiency at our nation's airports through a combination of grant funding and revenue generated through Passenger Facility Charges (PFCs). Our \$2.9 billion request for Grants-in-Aid for Airports is \$450 million (13.4 percent) below FY 2016. This funding level will support our continued focus on safety-related development projects, including runway safety area improvements, runway incursion reduction, aviation safety management, and improving infrastructure conditions.

The FY 2017 budget request proposes to eliminate passenger and cargo entitlement funding for large hub airports. At the same time, the budget would allow commercial service airports to increase non-Federal Passenger Facility Charges (PFC) from the current maximum of \$4.50 to \$8. The PFC level has not been increased in more than 15 years. Our analysis shows that, due to inflation, this higher PFC level is needed just to provide an equivalent amount of buying power from 15 years ago. If all eligible airports were to increase PFC collections to \$8, they could generate an additional \$2.3 billion for airport projects. This means that large hub airports will enjoy the benefit of more direct and local control over their funding, while managing their own improvements.

The FAA requests \$107.7 million for Personnel & Related Expenses, an increase of \$591 thousand from the FY 2016 enacted level. The request also provides \$31.3 million for Airport Technology Research, an increase of 1.2 percent from FY 2016. The additional funding will continue to support enhanced safety and pavement research efforts as well as increased studies for noise abatement and environment impacts. The budget continues to provide \$15 million for the Airport Cooperative Research program.

Conclusion

Aviation enables the economic benefits of tourism, shipping and travel for business or pleasure. The FAA's FY 2017 budget request enables us to continue to protect and expand this vital economic engine, while moving forward with our transformation and fulfilling our mission of providing the safest and most efficient aerospace system in the world.

In today's world of global competition, America has a clear opportunity to invest now in our future as we prepare our world class aviation system to meet increasing demands. Aviation as a growth industry is worthy of that investment, representing a cornerstone of our country's economy that accounts for more than 5 percent of our nation's gross domestic product. The FAA will continue to deliver on the promise of tomorrow, and we are grateful that Congress continues to recognize our ongoing mission of safety and modernization as a national priority.

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