

**Testimony for the Record Provided by
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“America Builds: Air Traffic Control System Infrastructure and Staffing”



Chairman Nehls, Ranking Member Cohen, and Members of the Subcommittee, thank you for the opportunity to provide written testimony on behalf of the Air Traffic Control Association (ATCA) regarding the modernization of America's National Airspace System (NAS).

ATCA represents the U.S. industrial base that designs, develops, and maintains the world's largest and most complex air traffic management system. Our members uniquely understand the complexities managed by the Federal Aviation Administration (FAA) as the largest Air Navigation Service Provider (ANSP) in the world - handling over 50,000 daily flights across 29 million square miles of airspace. The magnitude of this system demands not just continual modernization, but rapid modernization with proven, state-of-the-art technologies.

While recent aviation incidents have focused public attention on our air traffic control system, air traffic management professionals have long recognized the critical need for continual modernization. Industry, Members of Congress, administration officials, the Office of Inspector General (OIG), and the GAO have all documented in detail over recent years the extent to which the FAA's investment in modernization and recapitalization of ATM are critically needed.

This testimony identifies and summarizes three challenges and recommends solutions for each challenge identified.

1. Continual Modernization is Essential and ATCA Members are a Key Part of the Solution

- *Continual and rapid modernization of the U.S. air traffic control (ATC) infrastructure must provide state-of-the-art tools for the US ATC system and safely meet the growing demand for air travel, which is increasing at a compounded 6% per year.*
- *We must break the cycle from the last 30 years that has allowed the average age of ATC infrastructure to exceed its service life by 2-3X, and, therefore, requires most federal funds to be spent on sustainment of antiquated systems rather than modernization.*
- *U.S. industry is uniquely qualified to help bring best-in-class U.S. air traffic management (ATM) technology and services to support the rapid modernization of ATC infrastructure, especially given that these same U.S. providers have deployed modern ATM systems and technology abroad to foreign ANSPs.*
- **RECOMMENDED ACTION: The FAA, the Administration, and Congress should set the objective to modernize the air traffic management infrastructure within 5 years, but no later than Fiscal Year 2031, to ensure the average age of the entire system is less than the design life with considerable margin.**
- **RECOMMENDED ACTION: Within 30 days, the FAA, working with expert stakeholders, such as ATCA, should report to Congress on the best technologies already deployed by U.S. providers globally that would provide**

latest generation capabilities and world-leading safety and efficiency here in the United States.

- **RECOMMENDED ACTION:** Within 90 days, the FAA, working with expert stakeholders, such as ATCA, should provide Congress with a roadmap on how to utilize existing state-of-the-art technologies to rapidly modernize the ATM infrastructure with the latest generation commercial technologies. The goal would be to meet the growth in air traffic over the next several decades including the integration of new entrants like unmanned aircraft system (UAS) and electric vertical take-off and landing aircraft (eVTOL) users.

Our current systems, despite being operated by dedicated professionals, are approaching or have exceeded their operational limits as air traffic continues to grow. The time for incremental sustainment and improvement has passed - we need rapid deployment of modern technologies to enhance safety, improve efficiency, and meet increasing demands on our airspace. We appreciate the increased attention this subcommittee, Congress and the new Administration has given to the need for investment and a comprehensive modernization program. ATCA looks forward to being a partner with all stakeholders, providing subject matter expertise, and helping to develop and provide the latest U.S. technologies to improve safety and efficiency.

Recent high-profile incidents, including the NOTAM system (a message that informs pilots of potential hazards to flight) outage, repeated runway incursions and near misses, and the tragic accidents highlight that the current ATC infrastructure is outdated. The FAA currently allocates 92% of the ATC infrastructure budget to sustaining systems designed in the 1990s. This approach to the safety and efficiency of an industry that represents 5 percent of our GDP, falls well below what other developed nations invest in modernization. More importantly, we owe it to the traveling public, flight crews, and air traffic controllers, who have some of the most stressful jobs in the industry, to provide the best, state-of-the-art technologies. We have a duty to ensure the safety of the system and to utilize the best technologies and tools needed to meet the forecasted demand (the FAA forecasts air travel will increase, on average, by 6.2 percent annually¹.)

While continual modernization efforts carry upfront development and deployment costs, those costs pale in comparison to the impact on safety, the reduction in efficiency, and the increased lifecycle sustainment costs of the status quo. We are deeply concerned about the thousands of air traffic management systems that are now operating well beyond their planned service life.

Right now, the FAA spends nearly all of our annual federal funding on sustaining outdated systems rather than investing in new ones. As a result, *deferring ATM modernization doesn't reduce costs – it actually increases the costs to taxpayers and the industry.* There is a clear cost to inaction and deferred modernization, and this manifests itself in the

¹ <https://www.gao.gov/products/gao-25-107917>

decrease in safety, efficiency and global competitiveness of this strategically important sector of our economy.

Despite the deferrals in FAA's ATM modernization, our member companies have made and are making substantial investments in research and development, creating innovative technologies that are already proven and deployed in air traffic systems worldwide. Many of these U.S.-developed technologies already revolutionize ATM in foreign markets, while their capabilities remain largely unrealized in our own airspace system. They are also fielding solutions for emerging technologies include artificial intelligence, machine learning and systems to safely integrate UAS and eVTOL aircraft. These technologies aren't just the future - we can integrate them into our airspace system now, with appropriate safety controls.

Our members bring proven experience from FAA, DOD, NASA, and global aviation entities, making us ideally positioned to assemble the expert teams necessary to help the FAA develop a comprehensive roadmap to rapidly and continually modernize the ATM system. ATCA members are globally recognized leaders in Communication, Navigation, Surveillance, Automation, Weather systems, the safe introduction of AI and Machine Learning into ATC systems, and technologies for managing new entrants into the National Airspace System. We stand ready to collaborate not only with traditional aviation stakeholders but also with experts from other industries who can bring innovative perspectives and solutions to this critical field.

2. Obstacles Must be Removed for Rapid Modernization:

- *Congress gave the FAA flexible acquisition authorities in the 1990s to “go fast” on latest technology acquisition but the FAA has not used these authorities.²*
- *Over the years, a myriad of procedural barriers has been created in the FAA's Acquisition Management System (AMS) that prevent the FAA's full use of the procurement authorities and flexibilities granted by Congress.*
- *Those procedural barriers in the FAA's AMS must be removed in order to allow technology to be implemented starting in Fiscal Year 2026.*
- *It goes without saying, but these procedural obstacles must be removed while maintaining rigorous safety standards.*
- *ATCA members stand ready to work with the Administration and the FAA to address the procedural barriers and allow full utilization of AMS's flexibility and to accelerate the deployment of proven ATM systems and technologies.*
- **RECOMMENDED ACTION: Within 90 days, the FAA, working with expert stakeholders, such as ATCA and the FAA controller workforce, should provide Congress and the Administration with a plan to use its existing procurement**

² See *Department of Transportation and Related Agencies Appropriations Act of 1996*, P.L. 104-50; and 49 U.S.C. 106(l)(6) (added by the *Air Traffic Management System Performance Improvement Act of 1996*.)

authorities to rapidly contract, test and deploy the latest generation commercial ATM systems and technologies.

Safety remains the foundation of everything we do, but it cannot become a barrier to progress. Our members understand that continual ATC modernization must enhance, not compromise, the multiple layers of safety built into our system. Through careful collaboration with the FAA, the air traffic controllers, the airlines, general aviation, airports, and other stakeholders, these modern technologies can be incorporated into the U.S. National Airspace System (NAS) safely, effectively, and with the speed required to meet growing demands. The aviation system is critical infrastructure--a weak or outdated system makes us vulnerable to cyber threats, increases operational risks, and leads to inefficiencies. Disruptions, delays, and cancellations caused by outdated aviation infrastructure costs businesses and consumers billions of dollars annually.

The current infrastructure modernization cycle is fundamentally broken. FAA operates more than 300 ATC facilities that are between 30 and 60 years old, with many exceeding their useful life. Similarly, NAS systems are operating far beyond their intended design life, in some cases using technology that's three decades old. This aging infrastructure directly impacts safety – system reliability fundamentally drives safety.

Without rapid acceleration of modernization, we face escalating costs, parts obsolescence, increasing outages, and degraded navigational services. We need a fresh approach to create a more sustainable and agile technological roadmap for the U.S. ATC system - one that includes re-architecture options and operational improvements that can generate efficiencies while maintaining state-of-the-art capabilities (continual modernization).

Many may be surprised to learn that unlike other parts of government, for nearly three decades the FAA has had flexible and rapid acquisition authorities available to them in statute. These authorities were explicitly provided to the FAA in the 1990s to allow for better and faster procurement and deployment of latest generation ATM systems and technologies. The FAA's AMS was specifically designed to provide flexibility for rapid technology adoption - flexibility that surpasses traditional Federal Acquisition Regulations. However, this intended agility is often constrained by agency and administration procedural barriers that slow implementation. As an example, ATCA members suggest that the FAA streamlines modernization programs by: a) significantly streamlining the requirements for investment analysis documentation and reviews, b) leveraging more incremental investments for prototyping and iterative development, and c) simplifying the many layers of approvals required to secure the funding needed for modernization programs. It is critical to have clear, open, and timely communications with industry if the government is to achieve best value from a healthy ATM industry.

Recently, ATCA members, working with the FAA, have shown this is possible by the rapid implementation of commercial-off-the-shelf technologies through an accelerated program to provide air traffic controllers tools to improve runway safety. In fact, data released this

month shows that there was a drop in the number of runway incursion incidents in 2024 relative to prior years following the rapid deployment of these technologies.

There are plenty of other examples of technologies developed in the U.S. that are currently in operation around the world, such as electronic flight strips, remote and digital towers, and space-based technologies, arrival and departure management systems, advanced surface movement guidance systems, cloud-based flight data processing systems, and integrated air-ground data communications platforms. Further example of technologies developed in the U.S. that are currently in operations around the world include collaborative decision-making tools, digital aeronautical information management systems, virtual control centers, and advanced wake turbulence monitoring systems.

ATCA Members propose that the FAA take an agile, “move-fast-and-innovate” approach to acquisitions while maintaining safety as the north star. Focus should be on removing the procedural obstacles that prevent the U.S. from rapidly and safely adopting modern ATM systems and technologies into the national airspace. In addition, we encourage the FAA, Congress, and aviation stakeholders to work with experts from outside the industry, especially with those who have experience implementing disruptive, emerging technologies that can make the U.S. ATM system the leader now and in the future.

3. Consistent Funding and Expert Industry Oversight are Critical:

- *The current discretionary Facilities & Equipment funding structure is subject to regular disruptions, making it difficult to plan and execute long-term modernization projects effectively. This in turn makes it difficult to drive down long-term operating costs. If this is not addressed, the U.S. risks having this same problem occur again in 10-20 years.*
- **RECOMMENDED ACTION:** Congress should provide surge funding in addition to discretionary annual funding of at least \$5 billion per year for up to the next 5 years to support rapid modernization and re-baseline the ATC infrastructure, with state-of-the-art and maintainable systems and facilities. This must be additive to the annual appropriated amounts from the Airport and Airway Trust Fund (AATF) for facilities and equipment.
- **RECOMMENDED ACTION:** Congress, the Administration, and the FAA should set a goal to reduce the average service age of ground-based aviation infrastructure below their respective design lives by Fiscal Year 2031.
- **RECOMMENDED ACTION:** This goal should include clear and concise annual performance targets and metrics, incorporate transparency and oversight on progress, and ensure accountability by the implementing agencies and contractors.

Continual modernization of the ATM system is not possible without adequate and consistent funding. The rapid modernization of the air traffic infrastructure will be a complex endeavor that will entail the implementation of new and advanced ATM

technologies in all 50 States and U.S. territories. It will require extensive engagement with all stakeholders, including the airlines, air traffic controllers, general aviation, airports, new entrants, safety regulators, and other parts of the Executive Branch, and Congress. Dedicated and consistent funding is essential during this surge to ensure the implementation is done safely, efficiently, and rapidly.

Continuing Resolutions, government shutdowns, and inconsistent capital investment levels disrupt and delay air traffic system modernization. These unpredictable funding levels and disruptions result in re-planning and re-prioritizing requirements that can add between \$50M to \$100M in costs to programs and significantly delay their implementation. FAA should be exempted from government shutdowns.

ATCA believes any ATM modernization investment must be accompanied by clear results-oriented objectives and annual performance targets and metrics; incorporate oversight; and ensure transparency and accountability by the implementing agencies and contractors.

The goal should be to fundamentally reverse the current spending ratio—shifting from 92% of F&E funding spent on sustainment to a more balanced approach where eventually greater than 60% of F&E spending can be dedicated to continuous modernization and only the remainder to sustainment. This transformation will ultimately save money through lower maintenance costs and improved operational efficiency. ATCA members understand the potential for efficiencies and rationalization of infrastructure, and we have the expertise to support the needed steps for rapid and continuous modernization. The cost of inaction is simply too high.

ATCA Member Commitment

We understand the complexities of the Nation's ATM system and the challenges ahead. Our members have the expertise, the technologies, and the global implementation experience needed to help transform our national airspace system. We are committed to sharing our experience and expertise, to working with the FAA and all aerospace stakeholders to achieve the goals and objectives as directed by Congress and the Administration, and to assisting in the rapid and continual modernization of the Nation's critical ATM system.

Thank you for your attention to these crucial matters. I look forward to your questions about how ATCA, on behalf of our industry, can support the transformation of our national airspace system.
