



Testimony
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and Infrastructure, House of
Representatives

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FEDERAL AVIATION ADMINISTRATION

Key Provisions in the 2024 Reauthorization Act and Related GAO Work

Statement of Derrick Collins, Director,
Physical Infrastructure

GAO Highlights

Highlights of [GAO-25-108502](#), a testimony before the Committee on Transportation and Infrastructure, House of Representatives

Why GAO Did This Study

With over 45,000 flights daily, the U.S. national airspace system is the busiest and most complex in the world. FAA is responsible for regulating and overseeing civil aviation within the U.S. Its primary mission is to ensure the safety and efficiency of air transportation, including air traffic control, aircraft certification, and certain airport operations.

The FAA Reauthorization Act of 2024 was signed into law on May 16, 2024, and authorizes FAA activities through fiscal year 2028. Congress directed FAA to take various actions to maintain and improve the safety and efficiency of air transportation while accommodating new entrants such as drones and commercial space vehicles.

This testimony provides an overview of key areas of the Act, GAO's open recommendations to FAA in these areas, and the work GAO is doing in response to several provisions in the Act. This statement draws from several GAO reports completed since fiscal year 2020.

What GAO Recommends

There are currently 50 open GAO recommendations to FAA from reports that GAO has issued since 2020. These recommendations cut across several FAA activities addressed by the Act including modernization of the NAS, aviation safety, FAA's workforce, and integrating new entrants, such as drones, into the NAS. In most cases, FAA concurred with GAO's recommendations and is taking actions to address them.

For more information, contact Derrick Collins at collinsd@gao.gov.

May 15, 2025

FEDERAL AVIATION ADMINISTRATION

Key Provisions in the 2024 Reauthorization Act and Related GAO Work

What GAO Found

The Federal Aviation Administration (FAA) Reauthorization Act of 2024 (the Act) communicates congressional direction for how FAA should carry out aspects of its mission and helps ensure the safety and efficiency of the U.S. airspace system. The Act is broad and contains provisions on areas including FAA's organizational structure, controller staffing and aviation workforce, modernizing the national airspace system (NAS), and supporting safety and efficiency for both conventional users and new entrants such as drones.



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The Act contains 36 provisions for GAO to study various issues related to FAA and the NAS. In addition, the Act requires FAA to implement various GAO recommendations. GAO has 50 open recommendations to FAA that address, for example:

- Air traffic control modernization delays and challenges and urgent actions needed to address aging legacy IT systems.
- Certifying small aircraft and aviation products, better preventing and detecting fraud and abuse in aircraft registration, and sharing information with law enforcement on persons who intentionally point lasers at aircraft.
- Challenges related to skill gaps and assessing training in critical competencies to ensure FAA's aviation workforce can help it prepare for changes in technology.
- Integrating new operations—such as drones and commercial space vehicles—into the NAS, while ensuring safety and efficiency.

GAO maintains that implementing these recommendations will better position FAA to address the widespread challenges it faces in modernizing the NAS and fulfilling its commitment to ensuring that the U.S. has the safest, most efficient airspace system in the world.

Chairman Graves, Ranking Member Larsen, and Members of the Committee:

I am pleased to participate in today's hearing on the implementation of the Federal Aviation Administration (FAA) Reauthorization Act of 2024 (the Act). As you know, the Act was signed into law on May 16, 2024, and authorizes FAA activities through fiscal year 2028. It communicates congressional direction for how FAA should carry out aspects of its mission and helps ensure the safety and efficiency of the U.S. airspace system. The Act is broad and includes provisions on FAA's organizational structure, air traffic controller staffing and aviation workforce, and modernization of the national airspace system (NAS), and supporting safety and efficiency for both conventional airspace users and new entrants such as drones.¹

FAA has stated that much of this legislation aligns with the agency's existing priorities and approaches and specifies where Congress is most interested in seeing adjustments to resources and timelines for various activities. FAA believes the Act supports the needs of the aviation ecosystem and that its many provisions will help advance aviation into the future. FAA has stated that it is committed to implementing the requirements in the Act as efficiently as possible.

My testimony today provides an overview of key areas of the Act, our open recommendations to FAA in these areas, and the work we are doing in response to several provisions in the Act. The Act contains 36 provisions for GAO to undertake various studies. It also requires FAA to implement various GAO recommendations from several of our past reports.

This statement focuses on key statutory provisions, our related work, and our prior recommendations in the following areas: airspace modernization, aviation safety improvements, air traffic controller staffing and aviation workforce, airport infrastructure, and new entrants to the

¹The NAS is a shared network of U.S. airspace; air navigation facilities, equipment, and services; airports or landing areas; aeronautical charts, information, and services; rules, regulations, and procedures; technical information; and manpower and material.

NAS—drones, advanced air mobility (AAM), and commercial space aircraft.²

We conducted the work on which this statement is based in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Airspace Modernization

FAA's primary mission is to ensure the safety and efficiency of more than 45,000 flights operating daily in the NAS—the busiest and most complex airspace in the world. Critical to this effort are numerous air traffic control systems that enable air traffic controllers to monitor weather, conduct navigation and surveillance, manage communications, and more.

The Next Generation Air Transportation System (NextGen) is FAA's multi-decade program to modernize the NAS and increase the safety and efficiency of air travel. In November 2023, we reported that FAA had spent over \$14 billion on NextGen from fiscal year 2007 through fiscal year 2022.³ FAA projected in 2018 that, in total, NextGen would cost the federal government and industry at least \$35 billion through 2030.

The Act directs FAA to sunset the NextGen office, which has been overseeing airspace modernization efforts over the past 15 years, at the end of 2025. In its place, the Act calls for the establishment of an Airspace Modernization Office responsible for continuous modernization of the NAS, development of a future information-centric NAS, and more.

²AAM is a transportation system that is comprised of urban air mobility and regional air mobility using manned or unmanned aircraft. Urban air mobility and regional air mobility use an airworthy aircraft that (A) has advanced technologies, such as distributed propulsion, vertical takeoff and landing, powered lift, nontraditional power systems, or autonomous technologies; and (B) has a maximum takeoff weight of greater than 1,320 pounds. FAA Reauthorization Act of 2024, Pub. L. No. 118-63, § 951, 138 Stat. 1025, 1375.

³GAO, *Air Traffic Control Modernization: Program Management Improvements Could Help FAA Address NextGen Delays and Challenges*, [GAO-24-105254](#) (Washington, D.C.: Nov. 9, 2023). The \$14 billion reflects FAA's actual budget for NextGen from fiscal year 2007 through fiscal year 2022, as reported in its Congressional Budget Justification. However, this amount may not account for all NextGen activities during those years. For example, FAA officials noted that pre-2008, the agency did not identify individual programs and activities as NextGen in its budget documents. FAA estimated in 2018 that NextGen would cost FAA about \$22 billion and industry about \$13 billion by 2030.

According to FAA, an information-centric NAS will focus on leveraging information technology and data to create a more flexible, collaborative, and efficient airspace. According to the Act, the office will also develop a plan ensuring that the national airspace system meets the future safety, security, mobility, efficiency, and capacity needs of a diverse and growing set of airspace users.

Our work related to airspace modernization in recent years has focused on the condition of legacy IT systems and NextGen implementation. In September 2024, we reported that 76 percent of FAA's 138 air traffic control systems were unsustainable or potentially unsustainable.⁴ However, we found that FAA had been slow to modernize these systems. For the selected systems we reviewed, FAA planned to take, on average, a decade to modernize them, with some taking over 12 years or more. Our November 2023 report on the status of NextGen modernization efforts found that since 2018, FAA had made mixed progress across NextGen programs.⁵

We made a total of 11 recommendations in these two reports to help FAA address modernization delays and challenges and modernize aging systems. Of these, nine have not been fully implemented; however FAA has some actions underway to address them.

Aviation Safety Improvements

FAA has stated its priority is to advance the safety of the nation's airspace system. The Act directs FAA to take action in a number of areas related to aviation safety. For example, the Act requires reviews of aircraft type certification processes and FAA use of aviation safety data. The Act clarifies that FAA has the exclusive authority to impose regulations to assure the cybersecurity of civilian aircraft, engines, propellers, and appliances. In addition, the Act calls for new qualification requirements for aircraft maintenance staff and mandates new ethics training for employees in units of aircraft manufacturers that are delegated certain FAA authorities, such as issuing aircraft certification.

Our recent work on aviation safety has highlighted the need for action in several areas. For example, we have:

⁴GAO, *Air Traffic Control: FAA Actions Are Urgently Needed to Modernize Aging Systems*, [GAO-24-107001](#) (Washington, D.C.: Sept. 23, 2024).

⁵[GAO-24-105254](#).

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- Two open recommendations to FAA related to certifying small aircraft to help improve safety, reduce regulatory cost burden, and spur innovation and technology.⁶
 - Four open recommendations on the effectiveness of international agreements for certifications of aviation products, to help FAA evaluate the effectiveness of the agreements.⁷
 - One open recommendation and one matter for congressional consideration related to drone detection and mitigation technology.⁸
 - One open recommendation to help FAA collect and share information with law enforcement for investigating incidents of persons intentionally aiming lasers at aircraft.⁹

FAA concurred with these recommendations and has various actions underway to implement them. Fully implementing our recommendations in these areas will improve safety in the NAS. In response to provisions in the Act, we have ongoing studies of FAA's comprehensive and strategic framework for aircraft cybersecurity, and funding for FAA safety research and development.

Air Traffic Controller Staffing and Aviation Workforce

The aviation industry relies on a highly skilled workforce, which includes air traffic controllers, pilots, and aircraft mechanics. The Act contains several provisions related to air traffic controller staffing and enhancing the aviation workforce.

For example, the Act directs FAA to maximize hiring of air traffic controllers (subject to the availability of appropriations), identify limiting factors on the ability to hire and retain air traffic controllers, and conduct a study on instructor recruitment, hiring, and retention. It also requires FAA

⁶GAO, *Aviation Certification: FAA Needs to Strengthen Its Design Review Process for Small Airplanes*, [GAO-21-85](#) (Washington, D.C.: Nov. 16, 2020).

⁷GAO, *Aviation Certification: FAA Should Evaluate Effectiveness of the International Validation Process*, [GAO-24-106040](#) (Washington, D.C.: Jan. 10, 2024). We use the term drone detection technology when referring only to technology capable of detecting, identifying, monitoring, or tracking an unmanned aircraft, and the term drone mitigation technology when referring only to technology capable of deterring, preventing, responding to, and minimizing the immediate consequences of safety and security threats posed by drone operations.

⁸GAO, *Aviation Safety: Federal Efforts to Address Unauthorized Drone Flights Near Airports*, [GAO-24-107195](#) (Washington, D.C.: Mar. 18, 2024).

⁹GAO, *Aviation Safety: FAA Should Strengthen Efforts to Address the Illegal Practice of Intentionally Aiming Lasers at Aircraft*, [GAO-22-104664](#) (Washington, D.C.: Aug. 26, 2022).

to make simulation technologies more accessible and improve these technologies. The Act calls for the Transportation Research Board to study and report on which staffing models and methodologies best account for the operational staffing needs of the air traffic control system.

In addition, the Act expands an existing aviation workforce development grant program for training future pilots and directs FAA to establish a program to allow qualified air carriers to provide enhanced training for first officer prospects. The Act also expands an existing grant program related to aviation maintenance technical careers and establishes a new workforce development program focused on the aviation manufacturing technical workforce. Further, the Act directs FAA to revise regulations related to aviation maintenance technician certification for applicants with relevant military experience.

We have three open recommendations related to skill gaps and assessing training in critical competencies,¹⁰ and related to using quantitative information about gaps in critical skills across mission-critical occupations.¹¹ These recommendations aim to ensure FAA's workforce has the needed skills and to help FAA prepare for changes in technology. FAA concurred with these recommendations and has various actions underway to implement them.

We have ongoing work on challenges FAA may face in recruiting, hiring, and training new air traffic controllers and how, if at all, FAA has assessed the effectiveness of its processes for doing so. In response to the Act, we also have ongoing work related to airport service workers, the regional airline pilot workforce, the FAA National Simulator Program, and high school aviation training.

Airport Infrastructure

U.S. airports are important contributors to the U.S. economy, providing mobility for people and goods, both domestically and internationally. About 3,300 airports in the U.S. are part of the national airport system and eligible to receive federal Airport Improvement Program (AIP) grants to fund infrastructure projects. The Act expands eligible projects and authorizes additional funding. Airport infrastructure provisions in the Act address a range of issues including conducting a study of regional airport

¹⁰GAO, *Aviation Safety: FAA's Office of Aviation Safety Should Take Additional Actions to Ensure Its Workforce Has Needed Skills*, [GAO-21-94](#) (Washington, D.C.: Nov. 9, 2020).

¹¹GAO, *FAA Workforce: Better Assessing Employees' Skill Gaps Could Help FAA Prepare for Changes in Technology*, [GAO-21-310](#) (Washington, D.C.: May 13, 2021).

capacity and the establishing of grant pilot programs for regional airport accessibility and increasing usable runway length.

Our prior work related to modernizing airport infrastructure has focused on funding and financing planned infrastructure projects and airports' efforts to enhance the resilience of their electrical power systems.¹² Among other things, this work identified the roles and funding sources available for improving airport infrastructure. In response to provisions in the Act, we have ongoing studies related to air cargo infrastructure and operations, air cargo in Puerto Rico, airport transit access and transportation, airport financial reporting, and airport power generation. We also plan to begin work on state block grants for the AIP, fixed base operators' commitment to online transparency of prices and fees, and grants to airports in the Republics of the Marshall Islands and Palau, and the Federated states of Micronesia.¹³ This work will help inform efforts related to airport infrastructure.

New Entrants to the National Airspace System

New entrants to the NAS include drones, AAM aircraft, and commercial space vehicles. FAA is actively working to integrate these new operations into the NAS while ensuring safety and efficiency with conventional airspace users.

Among several provisions related to new entrants, the Act directs FAA to develop regulations allowing for routine operations of drones beyond visual line of sight, which could expand advanced operations such as package delivery and infrastructure inspections. The Act also requires FAA to establish a process to approve third party vendors, including those providing air traffic management services for drone operations. Further, the Act extends a program to study integration of drones into the NAS and establishes new grant programs for drone infrastructure inspection and drone education and workforce training.

¹²GAO, *Airport Infrastructure: Information on Funding and Financing for Planned Projects*, [GAO-20-298](#) (Washington, D.C.: Feb. 13, 2020); and GAO, *Airport Infrastructure: Selected Airports' Efforts to Enhance Electrical Resilience*, [GAO-23-105203](#) (Washington, D.C.: Aug. 29, 2023).

¹³According to FAA, a fixed base operator is a business granted the right by the airport to operate fueling facilities, hangars, aircraft tie-downs, aircraft rental, aircraft maintenance, flight instruction, and other aeronautical services at an airport.

The Act also directs FAA to finalize rules regarding pilot training requirements for vertical lift aircraft used in AAM applications and directs FAA to take necessary steps to integrate such aircraft into the NAS.

Our recent work in this area has focused on drone integration and commercial space infrastructure, where we have several open recommendations to FAA. These recommendations include the need for FAA to:

- Plan and share information on the development of drone traffic management systems,¹⁴
- Align FAA's drone integration strategy with elements of a comprehensive strategy and develop lessons learned from FAA's drone research programs,¹⁵
- Better communicate with applicants for FAA waivers from certain regulations.¹⁶
- Better communicate with law enforcement and coordinate with federal partners.¹⁷
- Improve FAA's efforts related to counter-drone technologies at airports.¹⁸

Related to commercial space, we have open recommendations related to providing Congress with information on the range of options to support space transportation infrastructure and the mishap investigation process. These recommendations, if implemented, would better position the

¹⁴GAO, *Unmanned Aircraft Systems: FAA Could Strengthen Its Implementation of a Drone Traffic Management System by Improving Communication and Measuring Performance*, [GAO-21-165](#) (Washington, D.C.: Jan. 28, 2021).

¹⁵GAO, *Drones: FAA Should Improve Its Approach to Integrating Drones into the National Airspace System*, [GAO-23-105189](#) (Washington, D.C.: Jan. 26, 2023).

¹⁶ [GAO-23-105189](#)

¹⁷GAO, *Drones: Actions Needed to Better Support Remote Identification in the National Airspace*, [GAO-24-106158](#) (Washington, D.C.: June 6, 2024).

¹⁸GAO, *Aviation Safety: Federal Efforts to Address Unauthorized Drone Flights Near Airports*, [GAO-24-107195](#) (Washington, D.C.: Mar. 18, 2024).

federal government and Congress to make well-informed commercial space investment decisions and to protect public safety.¹⁹

These recommendations collectively are intended to help FAA integrate these new operations while ensuring safety and efficiency. FAA concurred with most of our recommendations related to new entrants and has various actions underway to implement them. In response to a provision in the Act, we have initiated studies on drone detect and avoid technology and electric propulsion aircraft operations.

Implementation of GAO Recommendations

The Act contains provisions directing FAA to implement our recommendations from several recently issued reports. In particular:

- The Act directs FAA to establish a mechanism by January 2026 to make helicopter noise complaint data accessible to FAA, helicopter operators, and the public on an FAA website, based on a recommendation we made in 2021.²⁰
- The Act also directs FAA to implement our 2021 recommendations to improve FAA's outreach to local communities impacted by aircraft noise. For example, we recommended that FAA identify supplemental metrics on the effects of noise on these communities.²¹
- The Act directs FAA to implement our recommendations related to its strategy for drone integration, mentioned earlier.²²
- The Act directs FAA to implement our 2020 recommendations related to better preventing, detecting, and responding to fraud and abuse risks in aircraft registration.²³

¹⁹ GAO, *Commercial Space Transportation: FAA Should Examine a Range of Options to Support U.S. Launch Infrastructure*, [GAO-21-154](#) (Washington, D.C.: Dec. 22, 2020); and GAO, *Commercial Space Transportation: FAA Should Improve Its Mishap Investigation Process*, [GAO-24-105561](#) (Washington, D.C.: Dec. 7, 2023).

²⁰ GAO, *Aircraft Noise: Better Information Sharing Could Improve Responses to Washington, D.C. Area Helicopter Noise Concerns* [GAO-21-200](#) (Washington, D.C.: Jan. 7, 2021).

²¹ GAO, *Aircraft Noise: FAA Could Improve Outreach Through Enhanced Noise Metrics, Communication, and Support to Communities*, [GAO-21-103933](#) (Washington, D.C.: Sept. 28, 2021).

²² [GAO-23-105189](#)

²³ GAO, *Aviation: FAA Needs to Better Prevent, Detect, and Respond to Fraud and Abuse Risks in Aircraft Registration*, [GAO-20-164](#) (Washington, D.C.: Mar. 25, 2020).

We urge FAA to implement these and other open GAO recommendations, including those I highlighted earlier. In total, we currently have 50 open recommendations to FAA from reports that we have issued since fiscal year 2020. Implementing these recommendations will better position FAA to address the widespread challenges it faces in modernizing the NAS, and to fulfill its commitment to ensuring that the United States has the safest, most efficient airspace system in the world.

We look forward to continuing to work with this Committee to ensure implementation of the important provisions in the Act and to provide support through the work we have underway in response to the Act.

Chairman Graves, Ranking Member Larsen, and Members of the Committee, this concludes my prepared statement. I would be pleased to respond to any questions that you may have at this time.

GAO Contacts and Staff Acknowledgments

If you or your staff have any questions about this testimony, please contact Derrick Collins, Director of Physical Infrastructure at collinsd@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this statement.

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