GAOHighlights

Highlights of GAO-25-108162, a testimony before the Subcommittee on Aviation, Committee on Transportation and Infrastructure, House of Representatives

Why GAO Did This Study

FAA is responsible for the safety and efficiency of more than 45,000 flights daily. Critical to that effort are numerous ATC systems that enable air traffic controllers to monitor weather, conduct navigation and surveillance, manage communications, and more. However, ATC systems have been aging, and GAO has long reported that FAA has faced challenges upgrading those systems and implementing its multi-billion-dollar modernization of air traffic management, referred to as NextGen. Addressing these challenges is particularly important given that FAA expects to manage an increasingly congested and complex airspace in the future.

This testimony discusses (1) the sustainability of FAA's air traffic control systems, and FAA's efforts to manage and oversee system modernization; (2) FAA's efforts to implement NextGen; and (3) actions needed for improvement. It draws primarily from GAO's September 2024 report on unsustainable ATC systems and November 2023 report on NextGen.

What GAO Recommends

GAO made nine recommendations to FAA that remain open. These include actions to improve oversight, project baselining, and adherence to program management leading practices. Urgent attention is needed to fully address these and the other remaining recommendations.

View GAO-25-108162. For more information, contact Heather Krause at (202) 512-2834 or krauseh@gao.gov, or Kevin Walsh at (202) 512-6151 or walshk@gao.gov.

March 4, 2025

AIR TRAFFIC CONTROL

FAA Actions Urgently Needed to Modernize Systems

What GAO Found

A shutdown of the national airspace in 2023 due to the outage of an aging air traffic control (ATC) system prompted the Federal Aviation Administration (FAA) to conduct an operational risk assessment to evaluate the sustainability of all ATC systems. Of the 138 systems, 51 (37 percent) were deemed unsustainable by FAA and 54 (39 percent) were potentially unsustainable. Many unsustainable and potentially unsustainable systems have critical operational impacts on the safety and efficiency of the national airspace. In September 2024, GAO found several weaknesses in how FAA manages investments to modernize these systems. FAA's progress has also been slow, taking years to establish cost, schedule, and performance baselines for investments that GAO selected for its review. As of May 2024, completion dates for planned investments for systems that GAO deemed especially concerning were at least 6 to 10 years away. Four such systems did not have associated investments.

Air Traffic Control (ATC) System Sustainability and Operational Impact Ratings

		Number of FAA systems by operational impac			ıl impact	
Sustainability rating		Critical	Moderate	Low	Total	<u>.</u>
А	Unsustainable due to shortages in spares and shortfalls in funding.	13	4	1	18	
В	Unsustainable due to shortfalls in funding or capability.	16	12	5	33	
С	Potentially unsustainable due to possible shortfalls in funding or capability.	29	9	16	54	
Total		58	25	22	105	

Sources: FAA 2023 operational risk assessment; serz72/stock.adobe.com (illustration). | GAO-25-108162

A November 2023 GAO report found that since 2018, FAA had made mixed progress on its multi-decade effort to modernize air traffic management (i.e., the Next Generation Air Transportation System (NextGen)). Across four critical program areas GAO assessed (e.g., navigation and communications), FAA met some milestones for deploying systems but missed others, some by several years. The COVID-19 pandemic, which delayed system testing and other activities, contributed to those missed milestones. GAO found that closer adherence to five of nine program management leading practices, such as those related to life-cycle cost estimates and risk mitigation strategies, could better position FAA to manage the program and realize safety and efficiency benefits.

GAO's 2023 and 2024 reports made recommendations to FAA to help address shortcomings in the agency's management of NextGen and ATC system investments. For example, weaknesses exist in FAA's risk mitigation approach. GAO recommended FAA develop a risk mitigation plan for NextGen and report to Congress on its risk mitigation efforts for all unsustainable and critical systems. Doing so would help FAA systematically examine risk mitigation options and increase transparency. FAA has fully addressed two GAO recommendations: conducting root cause analysis on programs that exceed baselines and managing investments in segments. However, critical risk mitigation recommendations and others remain open.