

GAO Highlights

Highlights of [GAO-25-107917](#), a testimony before the Subcommittee on Aviation Safety, Operations, and Innovation, Committee on Commerce, Science, and Transportation, U.S. Senate

Why GAO Did This Study

The FAA, within the Department of Transportation, is responsible for the safety and efficiency of over 50,000 flights daily. Air traffic controllers use numerous systems to, among other things, monitor weather, conduct navigation and surveillance, and manage communications. However, over the past several decades, FAA has had challenges with aging ATC systems. These systems will face increased demand given that FAA forecasts air travel will increase, on average, by 6.2 percent annually.

GAO was asked to testify on its September 2024 [report](#) on aging ATC systems. This testimony (1) identifies unsustainable and potentially unsustainable ATC systems, (2) determines the extent to which FAA has ongoing investments to modernize these systems, and (3) determines the progress FAA has made in baselining and implementing selected modernization investments. GAO reviewed FAA's inventory of systems and the results of an FAA 2023 assessment of system sustainability. Additionally, GAO selected 20 modernization investments to assess baselining.

What GAO Recommends

GAO made seven recommendations to FAA. Transportation concurred with six of them and partially concurred with one, which GAO subsequently clarified. In December 2024, FAA officials stated that they do not have any updates on actions to address GAO's recommendations. They plan to provide an update in March 2025.

View [GAO-25-107917](#). For more information, contact Kevin Walsh at (202) 512-6151 or walshk@gao.gov or Heather Krause at (202) 512-2834 or krauseh@gao.gov.

AIR TRAFFIC CONTROL

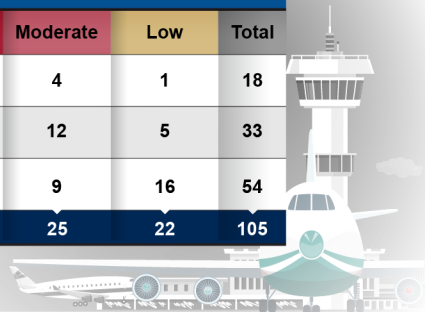
Urgent FAA Actions Are Needed to Modernize Aging Systems

What GAO Found

After a shutdown of the national airspace in 2023 due to an aging air traffic control (ATC) system outage, the Federal Aviation Administration (FAA) conducted an operational risk assessment to evaluate the sustainability of all ATC systems. The assessment determined that of FAA's 138 systems, 51 (37 percent) were unsustainable and 54 (39 percent) were potentially unsustainable. Of the 105 unsustainable and potentially unsustainable systems, 58 (29 unsustainable and 29 potentially unsustainable systems) have critical operational impacts on the safety and efficiency of the national airspace (see figure).

Federal Aviation Administration (FAA) Air Traffic Control (ATC) System Safety and Efficiency Operational Impact Categories by Sustainability Rating

Sustainability rating		Number of FAA systems by operational impact			
		Critical	Moderate	Low	Total
A	Unsustainable due to shortages in spares and shortfalls in funding.	13	4	1	18
B	Unsustainable due to shortfalls in funding or capability.	16	12	5	33
C	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-25-107917

FAA had 64 ongoing investments aimed at modernizing 90 of the 105 unsustainable and potentially unsustainable systems; however, the agency has been slow to modernize the most critical and at-risk systems. Specifically, when considering age, sustainability ratings, operational impact level, and expected date of modernization for each system, as of May 2024, FAA had 17 systems that were especially concerning. The investments intended to modernize these systems were not planned to be completed for at least 6 years. In some cases, they were not to be completed for at least 10 years. In addition, FAA did not have ongoing investments associated with four of these critical systems.

Selected ATC modernization investments took years to baseline and progressed slowly. Specifically, as of May 2024, nine of the 11 applicable investments established baselines, and eight of them took over 4 years to do so. The other two investments were initiated over 6 years ago, but had not yet established their baselines. In addition, the nine investments plan to take on average 12 years and 8 months to complete all deployment activities—with some taking as many as 15 to 19 years. A contributing factor to the lengthy implementation schedules is that FAA does not always ensure that investments are organized in manageable segments. This is counter to the Office of Management and Budget and FAA policies that require this approach.

Until FAA takes urgent action to reduce the time frames to replace critical and at-risk ATC systems, it will continue to rely on a large percentage of unsustainable systems to perform critical functions for safe air travel. This reliance occurs at a time when air traffic is expected to increase each year.