

GAO Highlights

Highlights of [GAO-18-177](#), a report to congressional committees

Why GAO Did This Study

DOD has until January 1, 2020, to equip its aircraft with ADS-B Out technology that would provide DOD, FAA, and private citizens the ability to track their flights in real-time and track flight patterns over time. This technology is a component of NextGen, a broader FAA initiative that seeks to modernize the current radar-driven, ground-based air transportation system into a satellite-driven space-based system.

Senate Report 114-255 included a provision for GAO to assess the national defense implications of FAA's implementation of ADS-B. This report assesses the extent to which (1) DOD and FAA have identified operations and security risks and approved solutions to address these risks to ADS-B Out -equipped military aircraft; and (2) DOD has implemented key tasks in the 2007 memorandum on implementing NextGen.

GAO analyzed risks identified by DOD and FAA related to ADS-B vulnerabilities, and how they could affect current and future air defense and air traffic missions. GAO also reviewed the tasks in the 2007 NextGen Memorandum and assessed whether the eight tasks specifically related to ADS-B were implemented.

What GAO Recommends

GAO is recommending that DOD and FAA approve one or more solutions to address ADS-B -related security risks; and that DOD implement key tasks to facilitate consistent, long-term planning and implementation of NextGen. DOD and the Department of Transportation generally concurred and described planned actions to implement the recommendations.

View [GAO-18-177](#). For more information, contact Joseph Kirschbaum at (202) 512-9971 or kirschbaumj@gao.gov.

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HOMELAND DEFENSE

Urgent Need for DOD and FAA to Address Risks and Improve Planning for Technology That Tracks Military Aircraft

What GAO Found

Since 2008, the Department of Defense (DOD) and the Department of Transportation's Federal Aviation Administration (FAA) have identified a variety of risks related to Automatic Dependent Surveillance-Broadcast (ADS-B) Out technology that could adversely affect DOD security and missions. However, they have not approved any solutions to address these risks. Compared with other tracking technology, ADS-B Out provides more information, such as an aircraft's precise location, velocity, and airframe dimensions, and better enables real-time and historical flight tracking. Individuals—including adversaries—could track military aircraft equipped with ADS-B Out technology, presenting risks to physical security and operations. This readily available public information allowed GAO to track various kinds of military aircraft. ADS-B Out is also vulnerable to electronic warfare and cyber-attacks. Since FAA is planning to divest radars as part of ADS-B implementation, homeland defense could also be at risk, since the North American Aerospace Defense Command relies on information from FAA radars to monitor air traffic. DOD and FAA have drafted a memorandum of agreement that focuses on equipping aircraft with ADS-B Out but does not address specific security risks. Unless DOD and FAA focus on these risks and approve one or more solutions in a timely manner, they may not have time to plan and execute actions that may be needed before January 1, 2020—when all aircraft are required to be equipped with ADS-B Out technology.

Of the eight tasks associated with the implementation of ADS-B Out technology in the 2007 DOD NextGen memorandum—issued by the Deputy Secretary of Defense to ensure that the NextGen vision for the future national airspace system met DOD's requirements and the appropriate management of DOD's resources—DOD has implemented two, has partially implemented four, and has not implemented two. DOD has established a joint program office and identified a lead service, but it has only partially validated ADS-B Out requirements, developed a directive, issued an implementation plan, and incorporated NextGen into the planning, budgeting, and programming process. DOD has not taken significant action to integrate the needs and requirements of DOD components related to ADS-B into cohesive plans and policies for inclusion in NextGen joint planning and development, and has not provided periodic and recurring NextGen progress reports to the Deputy Secretary of Defense. As a result of DOD not fully implementing the 2007 NextGen memorandum, DOD components have lacked direction and cohesion while trying to address FAA's requirement to equip military aircraft.

This is a public version of a classified report GAO issued in January 2018.