

GAO Highlights

Highlights of [GAO-20-665T](#), a testimony to the Committee on Oversight and Reform, House of Representatives

Why GAO Did This Study

The F-35 Lightning II is DOD's most ambitious and costly weapon system in history, with total acquisition and sustainment costs for the three U.S. military services who fly the aircraft estimated at over \$1.6 trillion. Central to F-35 sustainment is ALIS—a complex system that supports operations, mission planning, supply-chain management, maintenance, and other processes. A fully functional ALIS is critical to the more than 3,300 F-35 aircraft that the U.S. military services and foreign nations plan to purchase. Earlier this year, DOD stated that it intends to replace ALIS with a new logistics system.

This statement highlights (1) current user challenges with ALIS and (2) key technical and programmatic uncertainties facing DOD as it re-designs the F-35's logistics system.

This statement is largely based on GAO's March 2020 report on ALIS ([GAO-20-316](#)), as well as previous F-35 sustainment work.

What GAO Recommends

GAO previously recommended that DOD develop a performance-measurement process for ALIS, track how ALIS is affecting F-35 fleet readiness, and develop a strategy for re-designing the F-35's logistics system. GAO also suggested that Congress consider requiring DOD to develop a performance-measurement process for its logistics system. DOD concurred with GAO's recommendations and is taking actions to address them.

View [GAO-20-665T](#). For more information, contact Diana C. Maurer at (202) 512-9627 or maurerd@gao.gov.

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F-35 SUSTAINMENT

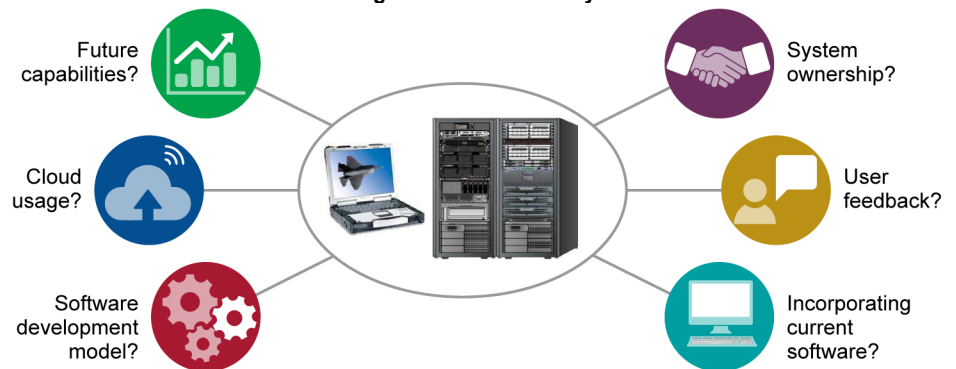
DOD Needs to Address Key Uncertainties as It Re-Designs the Aircraft's Logistics System

What GAO Found

The Autonomic Logistics Information System (ALIS) is integral to supporting F-35 aircraft operations and maintenance. However, F-35 personnel at 5 locations GAO visited for its March 2020 report cited several challenges. For example, users at all 5 locations we visited stated that electronic records of F-35 parts in ALIS are frequently incorrect, corrupt, or missing, resulting in the system signaling that an aircraft should be grounded in cases where personnel know that parts have been correctly installed and are safe for flight. At times, F-35 squadron leaders have decided to fly an aircraft when ALIS has signaled not to, thus assuming operational risk to meet mission requirements. GAO found that DOD had not (1) developed a performance-measurement process for ALIS to define how the system should perform or (2) determined how ALIS issues were affecting overall F-35 fleet readiness, which remains below warfighter requirements.

DOD recognizes that ALIS needs improvement and plans to leverage ongoing re-design efforts to eventually replace ALIS with a new logistics system. However, as DOD embarks on this effort, it faces key technical and programmatic uncertainties (see figure).

Uncertainties about the Future F-35 Logistics Information System



Source: GAO analysis of Department of Defense and Lockheed Martin information; F-35 Joint Program Office (ALIS hardware images). | [GAO-20-665T](#)

These uncertainties are complicated and will require significant planning and coordination with the F-35 program office, military services, international partners, and the prime contractor. For example, GAO reported in March 2020 that DOD had not determined the roles of DOD and the prime contractor in future system development and management. DOD had also not made decisions about the extent to which the new system will be hosted in the cloud as opposed to onsite servers at the squadron level.

More broadly, DOD has experienced significant challenges sustaining a growing F-35 fleet. GAO has made over 20 recommendations to address problems associated with ALIS, spare parts shortages, limited repair capabilities, and inadequate planning. DOD has an opportunity to re-imagine the F-35's logistics system and improve operations, but it must approach this planning deliberately and thoroughly. Continued attention to these challenges will help ensure that DOD can effectively sustain the F-35 and meet warfighter requirements.