

Congress of the United States
House of Representatives

COMMITTEE ON OVERSIGHT AND REFORM

2157 RAYBURN HOUSE OFFICE BUILDING

WASHINGTON, DC 20515-6143

MAJORITY (202) 225-5051
MINORITY (202) 225-5074
<https://oversight.house.gov>

September 21, 2020

The Honorable Ellen M. Lord
Under Secretary for Acquisitions and Sustainment
Department of Defense
3030 Defense Pentagon
Washington, D.C. 20301

Dear Under Secretary Lord:

We are writing to follow up on our July 22, 2020, bipartisan hearing on the F-35 Joint Strike Fighter program. Failures by both DOD and the program's prime contractor, Lockheed Martin, have created significant challenges and impeded the cost-effective sustainment of the F-35 program. DOD must address these challenges to avoid wasting more taxpayer money.

The F-35 program is DOD's largest and most costly acquisition program, estimated at more than \$1 trillion over a 60-year life cycle. The F-35 fleet is expected to exceed 1,000 aircraft across the military services. The U.S. military will grow increasingly reliant on its capabilities to conduct military operations. If DOD does not take immediate action to rectify these problems, they will be compounded with the growth of the fleet.

During the July 22 hearing, the Committee heard troubling testimony confirming severe inadequacies with the Autonomic Logistics Information System, also known as "ALIS," which serves as the central information technology system supporting the F-35. Witnesses from the Office of Inspector General and the Government Accountability Office detailed how deficiencies in ALIS create considerable pain points for military personnel maintaining the F-35 fleet. Both you and Lt. Gen. Eric Fick acknowledged that ALIS is underperforming. Gregory Ulmer, the Vice President and General Manager of the F-35 Lightning II Program for Lockheed Martin, also testified that ALIS is "not meeting our customer or warfighting requirement" and is "an antiquated hardware-software system." This testimony confirmed the findings of Committee staff who took multiple staff delegations to F-35 bases and interviewed maintenance commanders and personnel about deficiencies with F-35 sustainment.¹

¹ Committee on Oversight and Reform, *Hearing on F-35 Joint Strike Fighter: Ensuring Safety and Accountability in the Government's Trillion Dollar Investment* (July 22, 2020) (online at <https://oversight.house.gov/legislation/hearings/f-35-joint-strike-fighter-ensuring-safety-and-accountability-in-the-government>).

In January 2020, you informed the House Committee on Armed Services that Lockheed Martin, in coordination with DOD, would seek to rebuild ALIS into a new cloud-based system called the Operational Data Integrated Network (ODIN).² On July 10, 2020, DOD awarded Lockheed Martin an \$88 million-dollar contract to improve ALIS and support the transition to ODIN. DOD did not compete the contract.³ On July 14, 2020, DOD officials told Committee staff that they are “building the strategy as they go.”⁴

After spending decades to develop ALIS, DOD again is contracting with Lockheed Martin to build an IT system for the F-35 that provides the functionality and reliability Lockheed Martin has failed to deliver over the last two decades. As DOD transitions to a new information technology system for the F-35, it must address the shortcomings of ALIS and ensure these shortcomings do not carry over to the new system.

Establish a Performance-Measurement Process for F-35 Information Technology System

DOD has not developed a performance-measurement process for ALIS. As a result, DOD is unable to effectively negotiate contracts, reduce sustainment costs, and hold Lockheed Martin accountable for its failure to perform.⁵ GAO has been recommending since 2014 that DOD implement a performance-measurement process that includes metrics and targets to determine and address the most significant performance issues with ALIS, and although DOD concurred with GAO’s recommendations, it failed to fully implement the process.⁶ A successful performance-measurement process for the F-35’s logistics system must:

- Develop objective and quantifiable performance metrics and targets based on the intended behavior of the system in actual operations and tie system performance to warfighter requirements;
- Collect and analyze data to determine whether targeted levels of performance have been achieved;
- Address gaps between desired and actual performance; and

² *Scrapping Pentagon F-35 Office an Option to Cut Upkeep Costs*, Bloomberg News (Jan. 14, 2020) (online at www.bloomberg.com/news/articles/2020-01-14/scrapping-pentagon-s-f-35-office-an-option-to-cut-upkeep-costs).

³ Department of Defense, *Contracts for July 10, 2020* (July 10, 2020) (online at www.defense.gov/Newsroom/Contracts/Contract/Article/2270757/).

⁴ Department of Defense, *F-35 EELs & ALIS to ODIN Transition* (July 14, 2020).

⁵ Government Accountability Office, *Priority Open Recommendations: Department of Defense* (May 4, 2020) (online at www.gao.gov/assets/710/706807.pdf).

⁶ Government Accountability Office, *F-35 Sustainment: Need for Affordable Strategy, Greater Attention to Risks, and Improved Cost Estimates* (Sept. 23, 2014) (online at www.gao.gov/assets/670/666042.pdf).

- Update and revise performance metrics to better assess behavior of the system in actual operations and the extent to which the system addresses warfighter requirements.

Although DOD plans to replace ALIS with a new system, ALIS will continue to operate for several years, and it is critical that DOD establish a performance-measurement process for ALIS and its replacement. As DOD develops ODIN, it is imperative that it establish performance measures to effectively evaluate the system's performance and make necessary modifications in the future, thus avoiding mistakes DOD made with ALIS.

Develop and Implement an Intellectual Property Strategy

DOD needs to sufficiently plan for the long-term sustainment of the F-35 program. Critical to this planning is the establishment of an intellectual property (IP) strategy that identifies and manages the full spectrum of IP and related issues, such as technical data, and describes how program management will assess IP-related needs.

In 2014, GAO recommended that DOD develop a long-term IP strategy for the F-35 program. To date, DOD has failed to proactively identify its technical data needs or associated costs and has not fully assessed the current levels of technical data rights owned by the federal government.⁷ As a result, DOD is limited in its ability to promote competition and address affordability issues.⁸

For example, during staff delegations, maintenance personnel told Committee staff that they are forced to rely heavily on Lockheed Martin to fix deficiencies in ALIS. This could include waiting for Lockheed Martin to address problems or implementing manual workarounds, such as tracking critical aircraft data outside of ALIS.

As DOD begins the redesign or replacement of ALIS, it is critical that DOD become better positioned with respect to technical data rights. At our July 22 hearing, you stated, "DOD will own all of the data rights in the government for ODIN versus ALIS." Lt. Gen. Fick also stated there was "no question" that the federal government would own the intellectual property for the ALIS replacement.⁹

In addition to these commitments, it is imperative that DOD develop and implement an IP strategy for the F-35 program that includes ODIN. This strategy should inform any contracts for the redesign or replacement of ALIS. Future contracts should explicitly identify what

⁷ Government Accountability Office, *Priority Open Recommendations: Department of Defense* (May 4, 2020) (online at www.gao.gov/assets/710/706807.pdf).

⁸ Government Accountability Office, *F-35 Sustainment: DOD Faces Challenges in Sustaining a Growing Fleet* (Nov. 13, 2019) (online at www.gao.gov/assets/710/702614.pdf).

⁹ Committee on Oversight and Reform, *Hearing on F-35 Joint Strike Fighter: Ensuring Safety and Accountability in the Government's Trillion Dollar Investment* (July 22, 2020) (online at <https://oversight.house.gov/legislation/hearings/f-35-joint-strike-fighter-ensuring-safety-and-accountability-in-the-government>).

technical data rights will be owned by the contractor or original equipment manufacturers and what technical data rights will be owned by the federal government, as well as the associated costs.

A documented IP strategy will promote competition, address affordability challenges, and protect DOD's investment. In the absence of an effective and well-executed IP strategy, DOD will continue to be at the mercy of its contractors.

Prepare a Cost Estimate in Alignment with Best Practices

As DOD moves forward with replacing ALIS, it is vital that both DOD and Congress have accurate and reliable information on the estimated lifecycle costs. DOD has provided insufficient information on how much it has spent for the development and maintenance of ALIS.

Prior to our hearing, DOD did not respond to the Committee's questions on how much had been spent on the development and maintenance of ALIS. On August 27, in response to questions from Committee members, DOD said that \$833 million had been spent. DOD stated that there are some additional costs that are "not readily separated from other O&M [operations and maintenance] F-35 costs." DOD's lack of specificity on how much has been spent on ALIS is troubling.

In 2016, DOD told GAO that ALIS would cost an estimated \$17 billion. However, GAO found that the estimate was "not fully credible" because DOD failed to perform a full analysis of the costs. For example, GAO found that DOD did not include historical cost data and did not include a sensitivity analysis to examine how changes to individual assumptions and inputs affect the cost estimate as a whole. GAO recommended that DOD develop a cost estimate that relies on historical cost data and includes a sensitivity analysis.¹⁰

DOD has failed to address the significant concerns raised by GAO. As a result, the recommendation has remained open for more than four years. GAO noted in its recent status update that current DOD guidance for Cost Estimation and Program Evaluation does not require a sensitivity analysis. Despite estimated costs of \$17 billion, ALIS does not meet DOD thresholds for what is considered to be a "major cost driver."¹¹

It is critical that DOD prepare a cost estimate for ALIS and its replacement that aligns with best practices, such as GAO's Cost Estimating and Assessment Guide.¹² GAO has been recommending for four years that DOD conduct a sensitivity analysis for ALIS "to examine how

¹⁰ Government Accountability Office, *F-35 Sustainment: DOD Needs a Plan to Address Risks Related to Its Central Logistics System* (Apr. 14, 2016) (online at www.gao.gov/assets/680/676576.pdf).

¹¹ *Id.*

¹² Government Accountability Office, *Cost Estimating and Assessment Guide: Best Practices for Developing and Managing Program Costs* (Mar. 12, 2020) (online at www.gao.gov/assets/710/705312.pdf).

changes to individual assumptions and inputs affect the estimate as a whole.”¹³ In the absence of a comprehensive sensitivity analysis, DOD and Congress will not have sufficient and reliable information on the potential range of costs for ALIS or its replacement—information that is critical for effective decision-making.

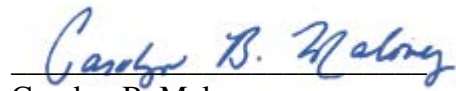
For all of these reasons, the Committee requests that DOD affirm its commitment to take timely action on the steps outlined above to ensure the future effectiveness and affordability of the F-35 program. The Committee also requests responses to the following questions by October 5, 2020:

1. Will DOD implement a performance-measurement process that evaluates both ALIS and any system that replaces ALIS?
2. How and when will DOD complete the implementation of this process, and what performance measurements will be included?
3. What actions has DOD taken to assess the current levels of technical data rights owned by the federal government for the F-35 program?
4. How will DOD ensure that the government maintains full ownership of all intellectual property associated with a replacement for ALIS?
5. Why is DOD unable to readily separate costs for ALIS from other costs related to the F-35?
6. What steps will DOD implement to ensure costs for ALIS or its replacement can be tracked separately in the future?
7. Does DOD plan to update or modify its cost estimation guidance to include ALIS or its replacement in future sensitivity analyses? How and when will DOD update or modify its cost estimation guidance?

The Committee on Oversight and Reform is the principal oversight committee of the House of Representatives and has broad authority to investigate “any matter” at “any time” under House Rule X. If you have any questions regarding this request, please contact Committee staff at (202) 512-5051.

¹³ Government Accountability Office, *F-35 Sustainment: DOD Needs a Plan to Address Risks Related to Its Central Logistics System* (Apr. 14, 2016) (online at www.gao.gov/assets/680/676576.pdf).

Sincerely,



Carolyn B. Maloney
Chairwoman
Committee on Oversight and Reform



Stephen F. Lynch
Chairman
Subcommittee on National Security



Jackie Speier
Member
Committee on Oversight and Reform



Ro Khanna
Member
Committee on Oversight and Reform



Katie Porter
Member
Committee on Oversight and Reform

cc: The Honorable James R. Comer, Ranking Member
Committee on Oversight and Reform

The Honorable Glenn Grothman, Ranking Member
Subcommittee on National Security