



Testimony  
Before the Committee on Armed  
Services, U.S. Senate

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# F-35 JOINT STRIKE FIGHTER

## Development of New Capabilities Requires Continued Oversight

Statement of Michael J. Sullivan, Director  
Acquisition and Sourcing Management

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Chairman McCain, Ranking Member Reed, and Members of the Committee:

Thank you for the opportunity to discuss our recently completed work on the F-35 Joint Strike Fighter (F-35), also known as the Lightning II. With estimated acquisition costs approaching \$400 billion, the F-35 is the Department of Defense's (DOD) most costly acquisition program. Through this program, DOD is developing and fielding a family of strike fighter aircraft, integrating low observable (stealth) technologies with advanced sensors and computer networking capabilities for the United States Air Force, Navy, and Marine Corps, as well as eight international partners.<sup>1</sup> The F-35 family is comprised of the F-35A conventional takeoff and landing variant, the F-35B short takeoff and vertical landing variant, and the F-35C carrier-suitable variant. Over time, the program has made a number of changes affecting the planned quantities and associated costs. According to current projections, the U.S. portion of the program will require acquisition funding of \$12 billion a year, on average, from now through 2038 to complete development and procurement of 2,457 aircraft. DOD also estimates that the F-35 fleet will cost over \$1 trillion to operate and support over its lifetime, which poses significant long-term affordability challenges for the department.

As we have previously reported, the F-35 program has had significant cost, schedule, and performance problems over its life that can largely be traced to (1) decisions made at key junctures without adequate product knowledge; and (2) a highly concurrent acquisition strategy with significant overlap among development activities, flight testing, and production.<sup>2</sup> This written statement summarizes key aspects of our most recent report, issued on April 14, 2016.<sup>3</sup> Our work was conducted in

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<sup>1</sup> The international partners are the United Kingdom, Italy, the Netherlands, Turkey, Canada, Australia, Denmark, and Norway. These nations contributed funds for system development and all but Canada and Denmark have signed agreements to procure aircraft. In addition, Israel, Japan, and South Korea have signed on as foreign military sales customers.

<sup>2</sup> GAO, *Joint Strike Fighter: DOD Actions Needed to Further Enhance Restructuring and Address Affordability Risks*, [GAO-12-437](#) (Washington, D.C.: June 14, 2012); *Joint Strike Fighter: Current Outlook Is Improved, but Long-Term Affordability is a Major Concern*, [GAO-13-309](#) (Washington, DC.: Mar. 11, 2013)

<sup>3</sup> GAO, *F-35 Joint Strike Fighter: Continued Oversight Needed as Program Plans to Begin Development of New Capabilities*, [GAO-16-390](#) (Washington, D.C.: April 14, 2016)

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response to a provision of the National Defense Authorization Act for Fiscal Year 2015, for GAO to review the F-35 acquisition program annually until the program reaches full-rate production. For this review we assessed program (1) affordability, remaining development, and ongoing manufacturing, and (2) future modernization.

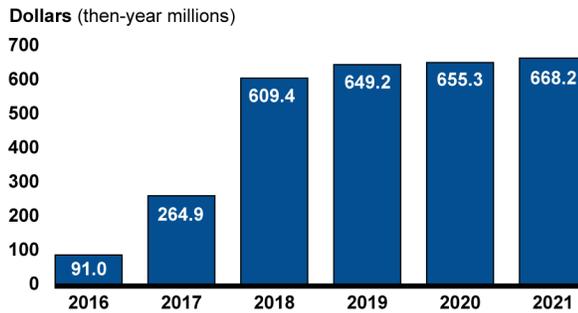
For our April 2016 report, we analyzed total program funding requirements. We analyzed program documentation including management reports, test data and results, and internal DOD program analyses. We also collected and analyzed production and supply chain performance data, and interviewed DOD, program, and contractor officials. We reviewed budget documents to identify costs associated with the modernization effort and collected and analyzed information regarding capability and oversight plans. We also compared and contrasted DOD's F-35 acquisition and modernization plans with best practices identified by GAO and as well as relevant DOD policies and statutes. Further details on our scope and methodology can be found in the full report. The work upon which this statement is based was conducted in accordance with generally accepted government auditing standards.

In brief, although the estimated F-35 Joint Strike Fighter (F-35) program acquisition costs have decreased since 2014, the program continues to face significant affordability challenges. DOD plans to begin increasing production and expects to spend more than \$14 billion annually for nearly a decade on procurement of F-35 aircraft. Currently, the program has around 20 percent of development testing remaining, including complex mission systems software testing, which will be challenging. At the same time, the contractors that build the F-35 airframes and engines continue to report improved manufacturing efficiency and supply chain performance.

DOD plans to manage F-35 modernization as part of the existing program baseline, which has oversight implications. DOD has begun planning and funding significant new development work to add to the F-35's capabilities, known as Block 4. The funding needed for this effort is projected to be nearly \$3 billion over the next 6 years (see figure below), which would qualify it as a major defense acquisition program in its own right.

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### F-35 Joint Strike Fighter Block 4 Development Costs Increase Near-Term Funding Needs



Source: GAO analysis of Department of Defense data. | GAO-16-634T

DOD does not currently plan to manage Block 4 as a separate program with its own acquisition program baseline but rather as part of the existing baseline. As a result, Block 4 will not be subject to key statutory and regulatory oversight requirements, such as providing Congress with regular, formal reports on program cost and schedule performance. A similar approach was initially followed on the F-22 Raptor modernization program, making it difficult to separate the performance and cost of the modernization from the baseline program. Best practices recommend an incremental approach in which new development efforts are structured and managed as separate acquisition programs with their own requirements and acquisition program baselines. The F-22 program eventually adopted this approach. If the Block 4 effort is not established as a separate acquisition program, transparency will be limited. Therefore, it will be difficult for Congress to hold it accountable for achieving its cost, schedule, and performance requirements.

Given that congressional oversight challenges are presented by DOD's plan to manage Block 4 under the current acquisition program baseline, in our April 2016 report, we recommended that the Secretary of Defense hold a Milestone B review and manage F-35 Block 4 as a separate and distinct major defense acquisition program with its own acquisition program baseline and regular cost, schedule, and performance reports to Congress. DOD did not concur with our recommendation citing that it views Block 4 as a continuation of the existing F-35 acquisition program and it is exploring ways to provide further transparency by establishing separate budget lines, instituting contract cost reporting, and developing an independent cost estimate. We continue to believe that our recommendation is valid. Therefore, in our April 2016 report, we made a matter for congressional consideration suggesting that Congress direct

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DOD to manage F-35 follow-on modernization, Block 4, as a separate and distinct acquisition program.

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Chairman McCain, Ranking Member Reed, and members of the Committee, this completes my prepared statement. I would be pleased to respond to any questions you may have. We look forward to continuing to work with the Congress as we continue to monitor and report on the progress of the F-35 program.

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## GAO Contacts and Staff Acknowledgement

For further information on this statement, please contact Michael Sullivan at (202) 512-4841 or [sullivanm@gao.gov](mailto:sullivanm@gao.gov). Contact points for our Office of Congressional Relations and Public Affairs may be found on the last page of this statement. Individuals making key contributions to this statement are Travis Masters, Peter Anderson, Jillena Roberts, and Megan Setser.

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