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THE HOUSE ARMED SERVICES COMMITTEE  
SUBCOMMITTEE ON TACTICAL AIR AND LAND FORCES

**STATEMENT OF**  
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**BEFORE THE**  
**TACTICAL AIR AND LAND FORCES SUBCOMMITTEE**  
**OF THE**  
**HOUSE ARMED SERVICES COMMITTEE**  
**ON**  
**THE NAVY'S F-35C PROGRAM**

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## **Introduction**

Chairman Turner, Ranking Member Tsongas and distinguished Members of the Subcommittee, it is a distinct pleasure to be here with you today. Thank you for the opportunity to appear and discuss the Navy's progress with integrating the F-35C into our Carrier Air Wings, providing fifth generation capabilities to the warfighter and challenges associated with this new technology. The F-35C will form the backbone of Navy air combat superiority for decades to come complementing the tactical fighter fleet with a dominant, multirole, fifth-generation aircraft capable of projecting U.S. power and deterring potential adversaries.

The Carrier Air Wing of the future must rely on the capacity and capabilities of both fourth and fifth-generation aircraft. The F-35C provides unique capabilities that cannot be matched by modernizing fourth-generation aircraft. Stealth technology and advanced integrated systems enable the F-35C to counter rapidly evolving air-to-air and surface-to-air threats. Whether the mission requires the execution of strike, Close Air Support (CAS), counter air, escort, or electronic warfare (EW), the F-35C is vital to our future as they become a lethal cornerstone of our naval air forces. Delivering this transformational capability to front-line forces as soon as possible remains a top priority.

The Fiscal Year (FY) 2019 President's Budget (PB-19) supports the F-35C procurement to complete System Development and Demonstration (SDD), enter formal Initial Operations Test and Evaluation (IOT&E), Initial Operational Capability (IOC) and to transition the first Navy squadron on a timeline that supports the first operational deployment on USS CARL VINSON (CVN 70) in 2021. The Navy also has a robust sustainment plan that supports operating this new aircraft and properly training maintenance crews and Carrier Air Wing aviators.

The maritime expression of the National Defense Strategy - “The Navy the Nation Needs” - requires the continuous maintenance and modernization of both fourth and fifth-generation aircraft to pace the modern, ever evolving threat. Investing in new aircraft and capabilities while ensuring adequate levels of readiness are both necessary to support current and enduring Naval Aviation requirements. Continuous Capability Development and Delivery (C2D2) of Block 4 capability and weapons integration for the F-35C are critical to the success of the Future Carrier Air Wing.

Two challenges that the program is aggressively addressing are lethality and affordability. The JPO continues to trace Block 4 requirements decomposition to meet the threat environment, while affordability remains a high priority among all the Service Chiefs. Over the past year, the DoD initiated an F-35 Cost Deep Dive to identify, develop and implement cost saving opportunities within the F-35 supply chain. Furthermore, the Navy has chartered an ongoing independent Senior Review Team to assess, make recommendations to improve, and inform the C2D2 acquisition strategy. The Navy is driven to make F-35 costs closer to those of fourth generation fighter aircraft.

Ultimately, with F-35C integrated and interoperable in the Carrier Air Wing, the Carrier Strike Group of the future will be more lethal, survivable and able to accomplish the entire spectrum of mission sets to include immediate response to high-end threats. The Navy remains dedicated to delivering capabilities to outpace the threat as we evolve the Carrier Air Wing and the Carrier Strike Group of the future.

### **Operator’s Perspective**

The past calendar year has seen significant steps taken in the F-35C program. The Navy has reestablished VFA-125 at Naval Air Station Lemoore in California. VFA-125 will serve as

the Fleet Replacement Squadron at our west coast master jet base and is responsible for not only the training of initial naval aviators new to the aircraft, but will also transition fleet squadrons to the F-35C. The first of those squadrons, VFA-147, began their transition in February 2018. VFA-147 is on schedule to complete their transition by October 2018 and will support the first F-35C deployment in 2021.

Progress has been made in the tactical integration of fourth and fifth-generation fighters. Last August, aircraft from VFA-101, VFA-125 and VX-9 detached to Naval Air Station Fallon to support Tactics, Techniques, Training and Procedures events at the Naval Aviation Warfighting Development Center. TOPGUN instructors and squadron pilots conducted mixed division missions with F-35C and F/A-18E/F aircraft to establish a baseline on how the Navy will conduct integrated Strike Fighter operations. Further, development of fourth and fifth-generation integrated tactics continues with every TOPGUN class to ensure there will be improved survivability and lethality across all Carrier Air Wing assets against modern threats.

### **System Development and Demonstration (SDD)**

After eleven years and over 16,000 flight hours, the full Block 3F SDD developmental test phase is quickly approaching an end. We estimate completion to be March/April 2018. The program can now proceed into IOT&E. IOT&E is critical to the Navy because we have linked the successful demonstration of 3F capabilities in IOT&E to our IOC declaration for the F-35C. Our IOC criteria states that the aircraft will be in a 3F configuration with the ability to conduct assigned operational missions utilizing SDD program of record weapons, mission systems, sensors and performance envelopes as outlined in the Operational Requirements Document V3 19 Aug 2008. IOC is capability and event driven, not calendar driven. The Navy understands that the threshold and objective dates, August 2018 and February 2019, are at risk due to a delay

in the IOT&E schedule. Once full 3F capability has been demonstrated in IOT&E, and all other IOC criteria have been met, the Navy will declare that the F-35C has achieved Initial Operational Capability. We are on track to send the F-35C on deployment aboard USS CARL VINSON in 2021.

A key component of the F-35 system is the Autonomic Logistics Information System (ALIS). The ALIS development effort has three priorities, the correction of deficiencies, cyber vulnerability and system resiliency. ALIS 3.5 will help correct on going software deficiencies and ALIS 3.6 will focus on cyber security compliance and stabilize end-of-life software.

Through cooperation with our industry partners, three deficiencies mentioned in the 2017 testimony have positive corrective actions in place as we look to close out SDD and transition to IOT&E. We are currently modifying our fleet to correct the outboard weapons station overloading condition discovered with the external carriage of AIM-9X. The F-35 Joint Program Office (JPO) in coordination with Lockheed Martin has resolved the Nz oscillation issue during catapult ride. Plus, we have identified an engineering solution for the Helmet Mounted Display system problems that had posed issues for night shipboard operations that had adversely affected pilot safety in the carrier environment. The Navy is actively engaged with the JPO and other Services to close out SDD and proceed into IOT&E.

## **Procurement**

The PB-19 procurement ramp optimizes the transition timeline for Navy F-35C squadrons based on current force structure and future deployment schedules. The Navy is committed to procuring F-35Cs to achieve essential fifth-generation capability for “what it takes to win” across all deployed Carrier Air Wings. As additional aircraft arrive to the Fleet, a

commensurate expansion of training throughput for both maintainers and pilots is necessary, as well as the appropriate military construction to support operations and training.

## **Operations and Sustainment**

The Navy recognizes that the Operations and Sustainment costs associated with a 5<sup>th</sup> generation aircraft are going to exceed those of our current 4<sup>th</sup> generation strike fighters. However, we are dedicated to making the F-35C operationally affordable. By partnering with the JPO, we are aggressively pursuing efforts to reduce O&S Costs by 30% over the next 10 years. One of the areas that we see potential cost savings is to reduce the amount of Contractor Logistics Support (CLS). As our knowledge of the aircraft and support systems like ALIS increases, we are diligently educating Navy personnel to assume responsibilities we have relied on industry support for up to this point. Leveraging our experience within the Naval Aviation Enterprise and partnering with the USAF we are constructing lab facilities to take on a greater role in the sustainment of the software required to operate the F-35. In FY19 we have funded the initial effort to break from the Operational to Depot level maintenance construct the program has operated under to this point and stand up an organic Intermediate Level (I-Level) maintenance capability to be first deployed aboard our carriers and amphibious assault ships to support deployed operations. Additionally, we will expand this capability to our fleet concentration areas ashore. This I-Level repair capability of 29 critical components projects to a cost avoidance of \$450 million over a 20 year life cycle while to reducing reliance on contractor support and time to repair.

## **C2D2**

The Department is restructuring the original Block 4 Follow-on Modernization acquisition strategy into the C2D2 model. The C2D2 approach leverages commercial practices, develops capability in smaller, more easily managed increments, and accelerates delivery of warfighting capability. The approach also advances Departmental goals of reducing C2D2 risk and lowering cost. For the Carrier Air Wing of the future to pace a rapidly evolving threat, C2D2 must deliver Block 4 capabilities and weapons on schedule. It is not enough to just evolve the significant capabilities of the F-35C, but equally important to ensure those capabilities are integrated and interoperable with existing ships and Carrier Air Wing aircraft within the Carrier Strike Group. The Navy has aggressively pulled F-35C Link 16 (CMN-4) capability to the left to ensure that information is disseminated across ships and aircraft throughout the strike group. Several critical enablers to Naval Integrated Fire Control advanced kill chains exist in Block 4 technologies, and the Navy's ability to conduct integrated fires in the future is instrumental to how the future Carrier Strike Group will fight. Weapons integration, radar improvements, electronic warfare capabilities, interoperability, and real-time information dissemination must also continue to progress in order to guarantee mission success in the future high-end threat environment.

## **Closing**

The future of the Carrier Air Wing relies on the F-35C. More than just the next fighter, the Lightning II brings unprecedented low observable technology, modern weaponry, and electronic warfare capability to the Carrier Strike Group. The ability of the Carrier Strike Group to maneuver and the F-35C's stealth will be a lethal force capable of projecting power in an ever increasing anti access area denial environment.