

AIM-9X Block II Sidewinder



The AIM-9X Block II is in the process of several hardware (HW) and software (SW) changes. Planning for operational testing is underway for an updated Operational Flight Software (OFS) that includes performance improvements and addresses a previous deficiency. Test planning for a new AIM-9X Block II HW configuration is in process as well. The new HW will be tested with a re-host of the current, fleet-released OFS 9.411 for quick fielding. Future OFS improvements are planned to capitalize on these HW performance upgrades.

SYSTEM DESCRIPTION

AIM-9X Block II is the latest-generation, infrared, short-range, air-intercept missile designed

to detect, acquire, intercept, and destroy a wide range of airborne threats. It is day and night capable, uses a passive infrared seeker, and is capable of large attack angles against a wide variety of enemy aircraft. The designated threshold

platforms are the F-18C/D/E/F and the F-15C/D. Current and future integration efforts also include the F/A-18A/B, E/A-18G, F-15E/EX, F-16C/D, F-22, F-35A/B/C, MQ-9, AV-8B, and AH-1Z.

MISSION

AIM-9X Block II is utilized by the U.S. Navy, Marine Corps, and Air Force, as well as several foreign military forces, to execute short-range offensive and defensive air-to-air combat missions. AIM-9X Block II is also a primary element of the Integrated Air and Missile Defense and Theater Air and Missile Defense Family of Systems.

PROGRAM

AIM-9X Block II is an Acquisition Category IC program. It is a joint program led by the Navy's Air-to-Air Missiles Program Office (PMA-259). The Services are in the process of operational test planning for AIM-9X Block II SW updates and HW obsolescence updates. Operational testing on these upgrades is planned to begin in 2QFY24.

» MAJOR CONTRACTOR

- Raytheon, a subsidiary of RTX (formerly Raytheon Technologies) – Tucson, Arizona

TEST ADEQUACY

The Navy completed FOT&E of the AIM-9X Block II OFS 9.410 in January 2021. OFS 9.411 is the current fielded version, but OFS 9.410 is functionally the same software with the same missile capabilities. Testing was accomplished in accordance with

the DOT&E-approved test plan and DOT&E personnel observed the testing. Testing was adequate to demonstrate the operational effectiveness and suitability of the missile. DOT&E published an AIM-9X Block II OFS 9.410 FOT&E report in September 2021 with the intention of releasing a combined lethality and survivability annex in 2022. The annex was delayed so that the Navy could accredit the cyber test asset. The accreditation letter and report annex are expected to be complete in 2QFY24. Test planning documents, including the Test and Evaluation Master Plan and test plans, for upcoming operational tests still need to be submitted to DOT&E for review and approval.

PERFORMANCE

» EFFECTIVENESS

DOT&E assessed the AIM-9X Block II as operationally effective in an FOT&E report completed in September 2021. AIM-9X remains on oversight and DOT&E will continue to evaluate operational effectiveness in upcoming operational testing beginning in 2QFY24.

» SUITABILITY

DOT&E assessed AIM-9X Block II as suitable in an FOT&E completed in January 2021. AIM-9X remains on oversight and DOT&E will continue to evaluate its operational suitability in an upcoming operational testing beginning in 2QFY24.

» LETHALITY AND SURVIVABILITY

AIM-9X Block II's lethality and cyber survivability evaluation is pending cyber test asset accreditation by the Navy. Details will be available in a published DOT&E classified annex to the September 2021 FOT&E report, expected in 2QFY24.

RECOMMENDATIONS

The Navy should:

1. Submit a Test and Evaluation Master Plan and test plans for upcoming operational testing to DOT&E in accordance with DoD Instruction 5000.89 timelines.
2. Submit an accreditation letter for the cyber survivability test asset to DOT&E.