

F-22 Modernization Increment 3.2B

The Air Force's F-22A Raptor is the only operational fifth-generation air-to-air and air-to-ground fighter/attack aircraft. This aircraft integrates stealth; supercruise; and advanced avionics, maneuverability, and weapons in one platform. The Air Force established the F-22A modernization and improvement program in 2003 to add enhanced air-to-ground, information warfare, reconnaissance, and other capabilities and improve the reliability and maintainability of the aircraft. The Air Force is upgrading the F-22A fleet in four increments.



Source: U.S. Air Force.

Current Status

The first F-22A modernization increment has been fielded. Operational testing for the second increment was delayed between March and September 2011 because of the stand-down of the entire F-22 fleet after a fatal crash, test range unavailability, and a technical issue relating to ground support equipment. Increment 3.2A—the third increment—began developing software for electronic protection, combat identification, and Link 16 communication upgrades in November 2011, with fielding planned to begin in 2014. Program officials reported in December 2011 that increment 3.2A was slightly ahead of its current schedule.

The fourth program increment, increment 3.2B, is expected to begin system development as a separate major defense acquisition program in fiscal year 2013. This increment plans to field AIM-9X and AIM-120D missiles and upgrade electronic protection, targeting capabilities, and communication capabilities by 2017. The 3.2B increment will benefit from investments that have already been made in the modernization program, including requirements and risk-reduction analyses and the development of hardware needed to integrate new capabilities.

The Air Force identified three critical technologies for increment 3.2B. The two technologies that will be used to integrate the AIM-9X missile with the aircraft are in the early stages of development and have only been tested in a lab environment. The Air Force expects these technologies to be demonstrated in a relevant environment by the start of system development. The third technology, which is needed to improve the ability to locate ground targets, has already been demonstrated in a relevant environment.

Estimated Total Program Cost: \$1,567.5 million

Research and development: \$1,040.9 million

Procurement: \$526.6 million

Quantity: 143

Note: The program cost is for increment 3.2B. The total cost estimate for all of F-22's modernization increments and improvements is \$12.7 billion.

Next Major Program Event: System development start, December 2012

Program Office Comments: The Air Force provided technical comments, which were incorporated as appropriate.