

Block 4 Joint Strike Fighter

“Block 4” is the title of the most current incremental software upgrade to the F-35 fighter as part of its Continuous Capability Development and Delivery (C2D2). It is important to note that although hundreds of aircraft have been delivered to numerous air forces the F-35 is still in Low Initial Rate Production and is not yet in Full Rate Production. That is, development of the aircraft is not complete and all aircraft produced to date will require “modernization” to bring them up to final standard.

Completion of Block 4 software will enable the F-35 to more fully use its hardware’s capability. For example:

- it will allow better use of the Actively Electronically Scanned Array (ASEA) radar to detect ground targets, map areas of interest for other aircraft and troops on the ground and to jam enemy sensors;
- increase the performance of the Distributed Aperture System (DAS) which fuses the data from all the aircraft sensors and allows both the pilots and other members of the network to see the sensor picture. The DAS provides the pilot with a 360 degree synthetic view projected in his helmet day or night even directly beneath the cockpit;
- improve fuel management;
- carry the modern weapons that have been designed for the aircraft such as the Storm Breaker precision-guided bomb and the Joint Stand-Off Weapon.

The Government Accountability Office (GAO) has reported that cost estimates for Block 4 have increased from \$10.6 billion to \$14.4 billion to 2027 forecast completion. The GAO, however, also reported that this schedule is based on unreliable estimates and is not achievable. The GAO reported stated that there were risks that some Block 4 capabilities would be obsolete by the time they were delivered, costs would be higher, and some capabilities would be delivered to the Air Force with deficiencies. The Congressional Research Office has flagged Block 4 and the C2D2 program to Congress for consideration of additional oversight, including making C2D2 a separate program and budget line item.

Additional information on Block 4 can be found in the Reference List below.

Reference List

Everstine, Brian W. “Kendall: Current F-35 Block 4 Issues Reminiscent of Earlier JSF Problems,” *Air Force Magazine*, 10 August 2021. <https://www.airforcemag.com/kendall-current-f-35-block-4-issues-earlier-jsf-problems/>

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US. Congressional Research Office. *F-35 Joint Strike Fighter (JSF)*. 14 January 2022. <https://crsreports.congress.gov/product/details?prodcode=RL30563>

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