



F-35B Short Takeoff and Vertical Landing

The Cutting Edge of Fighter Technology



Requiring only about 500 feet for takeoff and having the ability to accelerate to supersonic speeds in level flight and return to austere bases or ships by landing vertically, the F-35B offers a combination of capabilities never before seen in a multirole fighter. Using radar-evading stealth, rugged expeditionary features, a large weapons payload and the ability to operate from bases near the front lines, the F-35B provides rapid response and battlefield persistence in support of ground forces.

Interoperability

In the battlespace of the future, knowledge is power, and the F-35 will be the smartest of them all. The F-35 is the first fighter in history specifically designed to be a key node in a “system of systems” – a lethal transmission-and-reception node in a vast information network. Its tremendous processing power, open architecture, powerful sensors and flexible communications links will make the F-35 an indispensable information tool in future homeland defense and joint/coalition warfare scenarios.

Joint/Coalition Interoperability



More than 90 information exchange requirements ensure interoperability across U.S. and coalition forces.

Manufacturing

The JSF team is employing advanced assembly methods and highly accurate manufacturing machines to help the F-35 achieve its goals of affordability, quality and assembly speed. New milling machines, accurate to less than the width of a human hair, ensure that the F-35’s outer shape is exact and meets its low-observability (stealth) requirements. Assembly time for an F-35 is planned to be less than half that of current-generation fighters.



Control-surface parts come together at BAE SYSTEMS in England.

Long-Term Affordability

Daily operation and support activities account for two-thirds of a fighter aircraft’s lifetime costs. To reduce the F-35 operations costs throughout its service life, the JSF team focused on two broad areas.

The first, Autonomic Logistics (a term that refers to the F-35’s ability to monitor and report its own health automatically),

begins with a smart and reliable aircraft and ends with an information infrastructure that continuously captures and analyzes the F-35’s overall condition. The result: streamlined day-to-day maintenance that keeps the F-35 in the air.

The second area, Global Support, ensures that the F-35 receives efficient support throughout its life cycle, anywhere in the world. Through modernized supply-chain management and better utilization of resources, Global Sustainment will bring substantial cost savings and greatly improved availability.

**Enhancing capability.
Maintaining affordability.
Becoming reality.**



F-35B STOVL

Span (ft)	35
Length (ft)	51.2
Wing Area (ft ²)	460
Combat Radius (n.mi)	> 450