

F-35B at a glance

Made by Lockheed Martin, the F-35 Joint Strike Fighter was designed in three variants. We take a closer look at some features of the F-35B variant that Singapore is interested in.

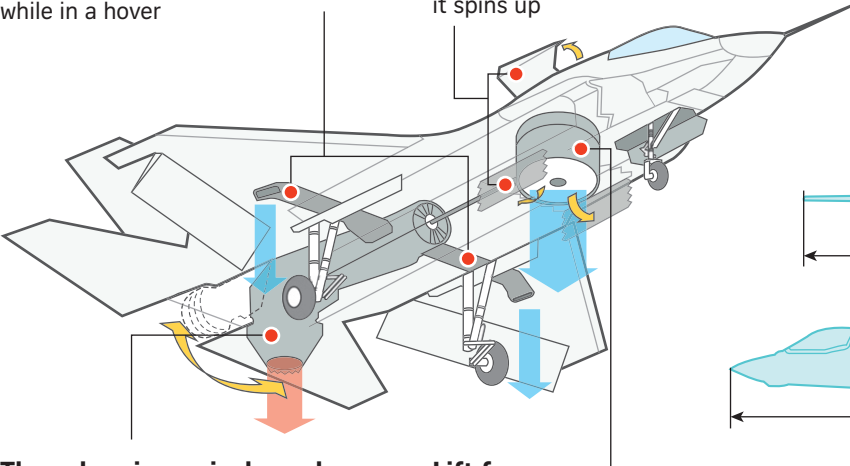
SHORT TAKE-OFF/VERTICAL LANDING (STOVL) CAPABILITY

STOVL allows the plane to take off from shorter runways, hover and land like a helicopter.

Roll posts

Two roll posts force air out through the wings to keep the jet stable while in a hover

Doors open above and below the lift fan as it spins up



Three-bearing swivel nozzle

The exhaust nozzle, provided by Rolls-Royce, swivels 110 degrees downwards from the horizontal to provide vertical thrust

Lift fan

The lift fan system forces air downwards and is driven by a shaft off the main engine

Specifications

Speed: Mach 1.6

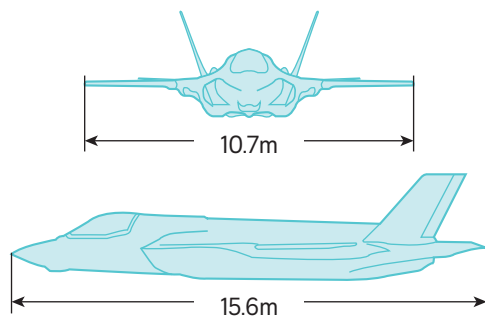
Combat radius: 833km

Range: 1,667km

Internal fuel capacity: 5,942kg

Max g-rating: 7.0

Weapons payload: 6,800kg



STATE-OF-THE-ART HELMET

The Israeli-US-designed augmented-reality helmet is packed with high-tech gadgetry.

Cost: About \$552,000

- Access to six cameras mounted around the plane to give pilots a 360-degree view of the surrounding airspace, including letting them "look through" the floor of the plane

Material: Carbon fibre

- Advanced night-vision capabilities
- Heads-up display projects directly onto the visor, putting information like altitude, speed and location of enemy aircraft or ground weapons right in front of the pilots' eyes

