Redefining the Multirole Fighter

The 5th generation F-35 Lightning II integrates advanced stealth technology into a highly agile, supersonic aircraft that provides the pilot with unprecedented situational awareness and unmatched lethality and survivability. As new threats emerge, it is more important than ever for U.S. and allied fighter fleets to fly the F-35 stealth fighter, the world’s only 5th generation international aircraft. While each aircraft is uniquely designed to operate from different environments, all three variants set new standards in network-enabled mission systems, sensor fusion and supportability. The F-35 redefines the multirole fighter.

The World’s Only 5th Generation Multirole Stealth Fighter

The conventional takeoff and landing (CTOL) F-35A is a multirole, supersonic, stealth fighter that has extraordinary acceleration, agility and 9-g maneuverability.

In the battlespace of the future, knowledge is power, and the F-35’s advanced sensor package will gather and distribute more information than any fighter in history. The F-35 is designed to be a key net-enabling node in a system of systems – an information gatherer and transmitter in a vast network. Its tremendous processing power, open architecture, powerful sensors, information fusion and flexible communications links will make the F-35 an indispensable tool in future homeland defense, joint/coalition irregular warfare and major combat operations.

Global Partnerships

The F-35’s world-class supplier network helps develop high-technology skills and create jobs throughout the world. This interconnected group of global industries enables each company to grow substantially – both in work volume and technical expertise – as the program continues toward full-rate production of the most revolutionary multirole fighter in aviation history.

F-35 Global Partnership Benefits

• Strategic commitments
• Long-term stability
• 5th generation capability
• Affordable sustainment
• Industrial participation
• Improved interoperability
• Joint coalition warfighting capabilities

Reduced Operation and Support Costs

The F-35 establishes new levels of operational availability. With simplicity and ease of maintenance designed-in, the aircraft brings unprecedented reliability and maintainability, along with a reduced deployment footprint. The need for support equipment has been reduced, and logistics are streamlined and automated. The F-35 will provide unequaled multimission capability with a fraction of the support required by legacy fighters.

F-35A CTOL

Length .................................. 51.4 ft / 15.7 m
Speed ...................................... Mach 1.6
Wingspan .................................. 35 ft / 10.7 m
Wing area .................................. 460 ft² / 42.7 m²
Combat radius (internal fuel) .................................. >590 n.mi / 1,093 km
Range (internal fuel) .................................. >2,200 km
Internal fuel capacity .......................... 18,250 lb / 8,278 kg
Max g-rating .................................. 9.0
Weapons payload .................. 18,000 lb / 8,160 kg
Propulsion .................................. F135-PW-100
Thrust* .................. 40,000 lb Max / 25,000 lb Mil

*Maximum Power (Max) = with afterburner
Military Power (Mil) = without afterburner