F-35 Lightning II
Northrop Grumman is a proud supplier on the F-35 Lightning II Program. The F-35 is the next generation strike fighter bringing cutting-edge technologies to the battle space of the future. Primed with six decades of composite manufacturing experience, Northrop Grumman provides core technologies key to the F-35’s advanced airframe. Today, Northrop Grumman applies advanced fiber placement technology to fabricate upper wing skins, lower wing skins, strap and nacelle components for all variants of the F-35.

Facts at a Glance
• By structural weight, the F-35 is 38% composite
• Northrop Grumman builds nearly 35% of the composite structures for the F-35
• Northrop Grumman makes the seven-piece upper wing skin, lower wing skins, engine nacelle skins, inlet ducts, and the upper wing strap
**F-22 Raptor**

Northrop Grumman applies its 60 years of composites innovation to flight critical, primary hardware on the F-22 Raptor. Using automated fiber placement technology, Northrop Grumman fabricates the composite pivot shaft which controls the pitch and roll of the aircraft. Advanced hand layup techniques are used to produce the bypass screens and composite pivot shaft sub-assemblies.

![F-22 Pivot Shaft](Image: U.S. Air Force)

**THAAD Radome**

The THAAD Radar is an X-Band active electronically scanned array Radar. It is the world's largest ground/air-transportable X-Band radar. The THAAD Radar and a variant developed as a forward sensor for ICBM missile defense.

Northrop Grumman’s composites innovation was used to field critical hardware such as the THAAD Radome. Northrop Grumman manufactures the radomes for the radar system using advanced hand layup techniques to achieve stringent performance, reliability and maintainability.

**Assemblies and sub-components**

- V-22 Aft Fuselage
- V-22 Sponsons
- SH-60 LAMPS Array
- Global Hawk Wing
- B-2 EHF SATCOM Radome
- Global Hawk Radome
- CNI Antennas
- LPD Enclosure