

# F117-PW-100

## Turbofan Engine

### Exclusive Power for the C-17 Globemaster III Transport



Pratt & Whitney's F117-PW-100 engine is the military version of the PW2000 commercial engine. Certified at 40,400 pounds of thrust, the F117 was selected by the U.S. Air Force as the exclusive power plant for the C-17 Globemaster III, an advanced four-engine transport.

The PW2000 powers the C-32A twinjet, which is the military version of the 757 aircraft.

Unique to the C-17, the F117 engines are equipped with a directed-flow thrust reverser capable of being deployed in flight. On the ground, the thrust reverser can back a fully loaded aircraft up a two-degree slope. Also noteworthy, the F117-powered C-17 set 22 world records during qualification testing before initial operating capability (IOC).

Today's F117 engine—the reduced temperature configuration (RTC)—uses technical and material advancements such as second-generation single-crystal turbine materials, improved cooling management and thermal barrier coatings to lower operating temperatures. These enhancements contribute to the F117's excellent reliability, durability and long time on-wing. A Full-Authority Digital Electronic Control (FADEC) with greater capacity delivers higher operational performance, lower fuel burn and improved maintenance diagnostics. Also, since the F117 is derived from a commercial application, it meets all current and anticipated commercial engine requirements for low noise and exhaust emissions.



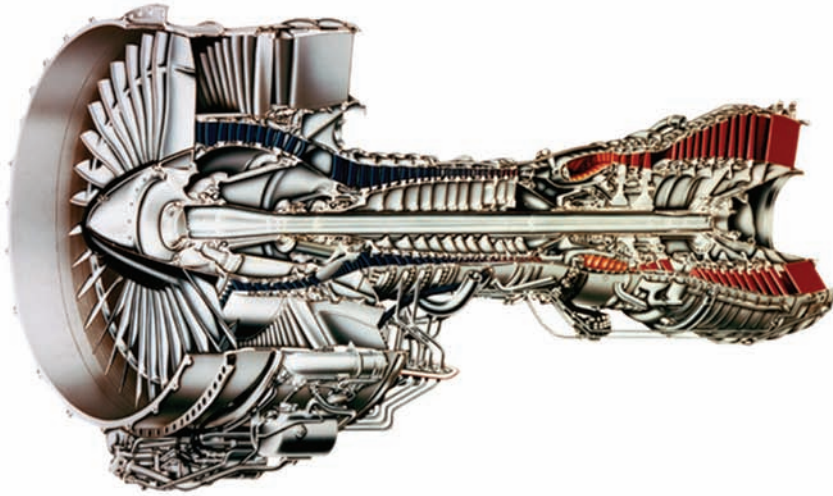
The F117 engine is clearly a solid performer by any measure and complements its commercial counterpart's reputation as the world's leading midrange-thrust engine.

Pratt & Whitney. **Powering Freedom.**™



# F117-PW-100 Turbofan Engine

*Exclusive Power for the C-17 Globemaster III Transport*



- Robust fan blades
- Supercharged low-pressure compressor
- Full-authority Digital Electronic Control (FADEC)
- Advanced superalloy turbine materials and cooling



**Pratt & Whitney**

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## Product Facts

### Program Milestones

1983	PW2037 FAA Certification
1984	PW2037 Begins Commercial Service on Boeing 757
1987	PW2040 FAA Certification
1987	PW2040 Begins Commercial Service on B757PF
1988	Deliver F117 Ground Test Engine
1989	Deliver First F117 Flight Test Engine
1991	F117 First Flight in U.S. Air Force/McDonnell Douglas C-17
1993	First C-17 for Operational Service Delivered
1995	C-17/F117 Initial Operating Capability
2001	UK C-17 Leases
2002	500th F117 Engine
2006	4 Million Engine Flight Hours
2006	Australia Receives First C-17
2007	5 Million Engine Flight Hours
2007	Canada Receives First C-17

### Characteristics

Thrust	40,440 pounds (179.9 kN)
Weight	7,100 pounds (3,220 kg)
Length	146.8 inches (3.73 m)
Inlet Diameter	78.5 inches (1.99 m)
Maximum Diameter	84.5 inches (2.15 m)
Bypass Ratio	5.9 to 1
Overall Pressure Ratio	30.8 to 1

### Military Applications

U.S. Air Force	C-17
United Kingdom	C-17
Australia	C-17
Canada	C-17