**F-22 Raptor Specifications**

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| **Specifications** | |
| **Official Nickname** | Raptor |
| **User** | [U. S. Air Force](http://www.globalsecurity.org/military/agency/usaf/index.html) |
| **Function** | Air superiority fighter |
| **Contractors** |  Lockheed Martin Aeronautical Systems: F-22 program management, the integrated forebody (nose section) and forward fuselage (including the cockpit and inlets), leading edges of the wings, the fins and stabilators, flaps, ailerons, landing gear and final assembly of the aircraft.   Lockheed Martin Tactical Aircraft Systems: Center fuselage, stores management, integrated navigation and electronic warfare systems (INEWS), the communications, navigation, and identification (CNI) system, and the weapon support system.   Boeing: wings, aft fuselage (including the structures necessary for engine and nozzle installation), radar system development and testing, avionics integration, the training system, and flight-test development and management.   Pratt & Whitney: F119-PW-100 engines that power the Raptor. |
| **Major Subcontractors** |  Approximately 240 firms in 37 states are considered major subcontractors   More than 1,150 firms in 46 states and Puerto Rico, along with firms in seven international countries make up the F-22/F119 subcontractor team.   (partial list):   Northrop Grumman   Texas Instruments   Kidde-Graviner Ltd.   Allied-Signal Aerospace   Hughes Radar Systems   Harris   Fairchild Defense   GEC Avionics   Lockheed Sanders   Kaiser Electronics   Digital Equipment Corp.   Rosemount Aerospace   Curtiss-Wright Flight Systems   Dowty Decoto, EDO Corp.   Lear Astronics Corp.   Parker-Hannifin Corp.   Simmonds Precision   Sterer Engineering   TRW   XAR   Motorola   Hamilton Standard   Sanders/GE Joint Venture   Menasco Aerospace |
| **Projected Employment** | 15,000 in EMD and 27,000 in production |
| **Propulsion** | two Pratt & Whitney F119-PW-100 engines |
| **Thrust** | 35,000 lbst. |
| **Length** | 62.08 feet, 18.90 meters |
| **Height** | 16.67 feet, 5.08 meters |
| **Wingspan** | 44.5 feet, 13.56 meters |
| **Wing Area** | 840 square feet |
| **Horizontal Tailspan** | 29 feet, 8.84 meters |
| **Empty Weight** | 31,670 lb (14,365 kg) |
| **Maximum Takeoff Weight** | 60,000 lb (27,000 kg) |
| **Maximum External Stores** | 5,000 lb (2,270 kg) |
| **Ceiling** | 60,000 feet The F-22 and other fighters can reach this altitude, but only the F-22 can perform tactical maneuvers at this level, which is about twice the altitude at which other jets can perform tactical maneuvers. |
| **Speed** | Mach 1.8 (supercruise: Mach 1.5) |
| **G Limit** | +9 G |
| **Crew** | one pilot |
| **Armament** |  2 [AIM-9 Sidewinders](http://www.globalsecurity.org/military/systems/munitions/aim-9.htm)   6 [AIM-120C Advanced Medium-Range Air-to-Air Missiles (AMRAAM)](http://www.globalsecurity.org/military/systems/munitions/aim-120.htm)   1 M61A2 20mm Gatling gun   2 [1,000-pound GBU-32 Joint Direct Attack Munitions](http://www.globalsecurity.org/military/systems/munitions/jdam.htm) (JDAM)   8 [250-pound GBU-39 Small Diameter Bomb](http://www.globalsecurity.org/military/systems/munitions/sdb.htm) (SDB)   Four external stations can carry additional stores (weapons or fuel tanks) |
| **First flight:** | September 7, 1997 |
| **Flight Test Aircraft:** | Nine |
| **Flight Test Program Length** | 1997 until 2003 (Approximately 2,700 flights covering roughly 4,800 test hours in EMD) |
| **Date Deployed** | deliveries beginning in 2002 |
| **Initial Operational Capability** | December 2005, |
| **Planned Production** | 750 aircraft initial program objective 648 aircraft as of 1991 442 aircraft as of 1993 339 aircraft as of 1997, between 1998 and 2013 275 aircraft as of 2003, under $37.3B budget cap 178 aircraft as of December 2004 183 aircraft as of December 2005 381 aircraft for 10 squadrons @ 24/squadron |