FACT SHEET

U.S. Air Force Fact Sheet
MQ-1B PREDATOR

Mission

The MQ-1B Predator is a medium-altitude, long-endurance, unmanned aircraft system. The Predator's primary missions are close air support, air interdiction, and intelligence, surveillance and reconnaissance, or ISR. It acts as a Joint Forces Air Component Commander-owned theater asset for reconnaissance, surveillance and target acquisition in support of the Joint Forces Commander.

Features

The MQ-1B Predator is a system, not just an aircraft. A fully operational system consists of four aircraft (with sensors and weapons), a ground control station, or GCS, a Predator Primary Satellite Link, or PPSL, and spare equipment along with operations and maintenance crews for deployed 24-hour operations.

The basic crew for the Predator is a rated pilot to control the aircraft and command the mission and an enlisted aircrew member to operate sensors and weapons plus a mission coordinator, when required. The crew employs the aircraft from inside the GCS via a line-of-sight data link or a satellite data link for beyond line-of-sight operations.

The MQ-1B Predator carries the Multi-spectral Targeting System, or MTS-A, which integrates an infrared sensor, a color/monochrome daylight TV camera, an image-intensified TV camera, a laser designator and a laser illuminator into a single package. The full motion video from each of the imaging sensors can be viewed as separate video streams or fused together. The aircraft can employ two laser-guided AGM-114 Hellfire missiles which possess a highly accurate, low collateral damage, and anti-armor and anti-personnel engagement capability.

The system can be deployed for worldwide operations. The Predator aircraft can be disassembled and loaded into a container for travel. The ground control system and PPSL are transportable in a C-130 Hercules (or larger) transport aircraft. The Predator can operate on a 5,000 by 75 foot (1,524 meters by 23 meters) hard surface runway with clear line-of-sight to the ground data terminal antenna. The antenna provides line-of-sight communications for takeoff and landing. The PPSL provides over-the-horizon communications for the aircraft and sensors.

An alternate method of employment, Remote Split Operations, employs a GCS for takeoff and landing operations at the forward operating location while the

CONUS based crew executes the mission via beyond-line-of-sight links.

The aircraft has an ARC-210 radio, an APX-100 IFF/SIF with Mode 4, and an upgraded turbocharged engine. The latest upgrades, which enhance maintenance and performance, include notched tails, split engine cowlings, braided steel hoses and improved engine blocks.

Background
The Predator system was designed in response to a Department of Defense requirement to provide persistent intelligence, surveillance and reconnaissance information combined with a kill capability to the warfighter.

In April 1996, the secretary of defense selected the U.S. Air Force as the operating service for the RQ-1 Predator system. The "R" is the Department of Defense designation for reconnaissance aircraft. The "M" is the DOD designation for multi-role, and "Q" means unmanned aircraft system. The "1" refers to the aircraft being the first of the series of remotely piloted aircraft systems.

A change in designation from "RQ-1" to "MQ-1" occurred in 2002 with the addition of the AGM-114 Hellfire missiles, enabling reaction against ISR, CAS and interdiction targets.

Active-duty operational squadrons are the 15th and 17th Reconnaissance Squadrons at Creech Air Force Base, Nev. Another unit at Creech AFB, the 11th RS, is the formal training unit and provides initial training for MQ-1B crews. The 6th RS is standing up as a second FTU at Holloman AFB, N. M. Air Force Reserve Command operates the 78th RS also from Creech AFB. The Air National Guard operates the 111th RS in Texas, the 178th RS in North Dakota, the 196th RS in California and the 214th RS in Arizona.

General Characteristics
Primary Function: Armed reconnaissance, airborne surveillance and target acquisition
Contractor: General Atomics Aeronautical Systems Inc.
Power Plant: Rotax 914F four cylinder engine
Thrust: 115 horsepower
Wingspan: 55 feet (16.8 meters)
Length: 27 feet (8.22 meters)
Height: 6.9 feet (2.1 meters)
Weight: 1,130 pounds (512 kilograms) empty
Maximum takeoff weight: 2,250 pounds (1,020 kilograms)
Fuel Capacity: 665 pounds (100 gallons)
Payload: 450 pounds (204 kilograms)
Speed: Cruise speed around 84 mph (70 knots), up to 135 mph
Range: Up to 770 miles (675 nautical miles)
Ceiling: Up to 25,000 feet (7,620 meters)
Armament: Two laser-guided AGM-114 Hellfire missiles
Crew (remote): Two (pilot and sensor operator)
Initial operational capability: March 2005
Unit Cost: $20 million (fiscal 2009 dollars) (includes four aircraft, a ground control station and a Predator Primary Satellite Link)
Inventory: Active force, 130; ANG, 8; Reserve, 0

Point of Contact

Air Combat Command, Public Affairs Office; 130 Andrews St., Suite 202; Langley AFB, VA 23665-1987; DSN 574-5007 or 757-764-5007; e-mail: accpa.operations@langley.af.mil