

MQ-9 REAPER

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MISSION

The MQ-9 Reaper is an armed, multi-mission, mediumaltitude, long-endurance remotely piloted aircraft primarily employed against high-value assets. Given its significant loiter time, multi-mode communications suite, precision weapons, and a wide array of signals intelligence sensors -- it provides a unique capability to perform strike, coordination, and reconnaissance against top tier, fleeting, and time-sensitive targets.

Reapers perform a multifaceted subset of missions and tasks that include persistent intelligence, surveillance, reconnaissance, close air support, combat search and rescue, precision strike, buddy-lase, convoy/raid overwatch, target development, and terminal air guidance. The MQ-9's capabilities make it uniquely qualified to conduct operations anywhere globally.

FEATURES

The MQ-9 is equipped with a Multi-Spectral Targeting System (MTS) that delivers a robust suite of visual sensors consisting of mid-wave and short-wave infrared sensors, color/monochrome daylight TV camera, image-intensified TV camera, laser range finder/designator, and laser illuminator. The MQ-9 can quickly acquire and disseminate real-time imagery and data to ground users by utilizing beyond line-of-sight communication links. The MQ-9 delivers persistent armed intelligence, surveillance, and reconnaissance to Unified Combatant Commanders by locating, tracking, and eliminating targets through the use of on-board and off-board intelligence. Additionally, it supports a wide range of operations such as coastal and border surveillance, weapons tracking, embargo enforcement, humanitarian/disaster assistance, support of peacekeeping, and counter-narcotic operations.

The primary concept of remote split operations employs a launch-and-recovery ground control station for takeoff and landing operations at the forward operating location. At the same time, the crew based in the continental United States executes command and control of the remainder of the mission via beyond line-of-sight communications. Remote split operations result in a smaller number of personnel deployed to a forward location, consolidate control of the multiple flights at one location, simplify command and control functions, and reduce the logistical supply challenges for the weapons system.

The entire system can be either transported via airlift or flown into its area of responsibility. The MQ-9 can outpace adversary action through movement and maneuver to achieve commander's intent using agile combat employment.









BACKGROUND

The U.S. Air Force proposed the MQ-9 system in response to the Department of Defense request for Global War on Terrorism initiatives. It is larger and more powerful than the retired (MQ-1B Predator) and is designed to go after time-sensitive targets with persistence and precision, and destroy or disable those targets. The "M" is the Department of Defense designation for multi-role and "Q" means unmanned aircraft system. The "9" indicates it is the ninth in the series of purpose-built remotely piloted aircraft systems.



Characteristics

Primary Function: Remotely

Piloted Aircraft

Contractor: General Atomics Aeronautical Systems, Inc.

Power Plant: Honeywell

TPE331-10GD turboprop engine

Thrust: 900 shaft horsepower

maximum

Wingspan: 66 feet (20.1 meters)

Length: 36 feet (11 meters) **Height:** 12.5 feet (3.8 meters)

Weight: 4,900 pounds (2,223

kilograms) empty

Maximum takeoff weight: 10,500 pounds (4,760 kilograms)

Fuel Capacity: 4,000 pounds

(602 gallons)

Payload: 3,750 pounds (1,701

kilograms)

Speed: Cruise speed around 230 miles per hour (200 knots)

Range: 1,150 miles (1,000

nautical miles)

Ceiling: Up to 50,000 feet

(15,240 meters)

Armament: Combination of AGM-114 Hellfire missiles, GBU-12 Paveway II, GBU-49 Enhanced Paveway II, and GBU-38 Joint Direct Attack Munitions

Crew (remote): Two (pilot and sensor operator)

Unit Cost: \$64.2 million (includes four aircraft, sensors, GCSs, and Comm.) (fiscal 2006 dollars)

Initial operating capability: October 2007

Inventory: Approximately 280 (total force)







