

➤ MV-22 Osprey

DESCRIPTION

The MV-22 Osprey tiltrotor is a revolutionary, vertical/short takeoff and landing (V/STOL), multi-purpose tactical aircraft that will replace the current fleet of Vietnam-era CH-46E and CH-53D aircraft. The MV-22 will join the AAV and LCAC as an integral part of the amphibious triad necessary to execute Expeditionary Maneuver Warfare. Specific missions include expeditionary assault from land or sea, raid operations, medium cargo lift, tactical recovery of aircraft and personnel (TRAP), fleet logistic support, and special warfare.

The MV-22's design incorporates the advanced but mature technologies of composite materials, fly-by-wire flight controls,

digital cockpits, airfoil design, and manufacturing. The MV-22 Osprey is capable of carrying 24 combat-equipped Marines or a 10,000 pound external load and has a strategic self-deployment capability with a 2,100 nautical mile range with single aerial refueling. The MV-22's 38-foot prop-rotor system and engine/transmission nacelle mounted on each wing tip allow it to operate as a helicopter for takeoff and landing. Once airborne, the nacelles rotate forward 90 degrees, converting the MV-22 into a high-speed, high-altitude, fuel-efficient turbo-prop aircraft. The MV-22 is a multi-mission aircraft designed for use by all the services. Procurement of the Osprey remains the Marine Corps' number one aviation acquisition priority.

OPERATIONAL IMPACT

The MV-22 will be the cornerstone of Marine Corps' assault support, possessing the speed, endurance, and survivability needed to fight and win on tomorrow's battlefield. This combat multiplier represents a quantum improvement in strategic mobility and tactical flexibility for expeditionary and prepositioned maritime forces.



PROGRAM STATUS

Flight testing resumed in May 2002. This evaluation will address the aeromechanical issues raised in the aftermath of the two V-22 mishaps in 2001. It will include the most extensive testing of helicopter flight phenomena ever undertaken and amass an additional 1,800 aircraft flight test hours. Included in the process is a rigorous, strictly regimented inspection regime to verify and validate all modifications and clearances.

The **Production MV-22** aircraft will be produced in three blocks. The **Block A**

series will provide an improved aircraft with which the Marine Corps can train and fight. This includes the software enhancement and nacelle reconfiguration plus additional reliability and maintainability (R&M) improvements.

The **Block B** series aircraft provide further improvements in effectiveness and suitability for operators and maintainers to include improved access to the nacelle for inspection purposes and substantial R&M improvements.

The **Block C** configuration incorporates mission enhancements.

PROCUREMENT PROFILE:	FY03	FY04
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<i>Quantity:</i>	11	9
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DEVELOPER/MANUFACTURER

Bell Helicopter Textron, Fort Worth, TX

The Boeing Company, Philadelphia, PA