

Boeing Defense, Space & Security  
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## V-22 Osprey

### Description and Purpose:

The V-22 Osprey is a joint service multi-role combat aircraft utilizing tiltrotor technology to combine the vertical performance of a helicopter with the speed and range of a fixed wing aircraft. With its engine nacelles and rotors in vertical position, it can take off, land and hover like a helicopter. Once airborne, its engine nacelles can be rotated to convert the aircraft to a turboprop airplane capable of high-speed, high-altitude flight. This combination allows the V-22 to fill an operational niche no other aircraft can approach.



The Osprey can carry 24 combat troops, or up to 20,000 pounds of internal cargo or 15,000 pounds of external cargo, at twice the speed of a helicopter. It features a cross-coupled drive system so either engine can power the rotors if one engine fails. For shipboard compatibility, the rotors fold and the wing rotates to minimize the aircraft's footprint for storage. The V-22 is the only vertical lift platform capable of rapid self-deployment to any theater of operation, worldwide.

### Customers:

The U.S. Marine Corps has a current requirement for 360 MV-22s to perform combat assault and assault support missions. The U.S. Air Force Special Operations Command has a requirement for 50 CV-22s configured for terrain-following, low-level, high-speed flight for long range special operations.

More than 200 Osprey tiltrotors are currently in operation across 10 Marine Corps and two Air Force Special Operations Command Osprey squadrons. The two services have together logged 16 successful combat, humanitarian, ship-based or Special Operations deployments since 2007. The worldwide Osprey fleet has amassed more than 190,000 flight hours, with more than half of those hours logged in the past two years.

Safety, survivability and mission efficiency have become hallmarks of the operational fleet. According to Naval Safety Center records, the MV-22 has one of the lowest Class A mishap rates of any tactical rotorcraft in the Marine Corps during the past decade. Navy flight-hour cost data also show that the Osprey has the lowest cost per seat-mile (cost to transport one person over a distance of one mile) of any U.S. naval transport rotorcraft in each of the last two years.



# Backgrounder

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Marine Corps MV-22s are currently deployed in Afghanistan supporting Operation Enduring Freedom and with the 22nd Marine Expeditionary Unit supporting contingency operations, while AFSOC CV-22s are deployed in support of ongoing Special Operations missions.

## General Characteristics:

<b>Propulsion:</b>	Two Rolls-Royce AE1107C, 6,150 shp (4,586 kW) each
<b>Length:</b>	Fuselage: 57.3 ft. (17.48.20 m); Stowed: 63.0 ft. (19.20 m)
<b>Width</b>	Rotors turning: 84.6 ft. (25.78 m); Stowed: 18.4 ft. (5.61 m)
<b>Height:</b>	Nacelles vertical: 22.1 ft. (6.73 m); Stabilizer: 17.9 ft. (5.46 m)
<b>Rotor Diameter:</b>	38.1 ft (11.6 m)
<b>Vertical Takeoff Max</b>	52,600 lbs. (23,859 kg)
<b>Gross Weight:</b>	
<b>Max Cruise Speed:</b>	280 kts (443 km/h) SL
<b>Mission Radius:</b>	600 nm - MV-22 Blk B with 24 troops, ramp mounted weapon system, SL STD, 15 min loiter time
<b>Cockpit - crew seats:</b>	2 MV / 3 CV

## Production:

Boeing Military Aircraft's Mobility division is responsible for the fuselage, empennage, and all subsystems, digital avionics, and fly-by-wire flight-control systems. Boeing partner Bell Helicopter Textron Inc., is responsible for the wing, transmissions, rotor systems, engine installation, and final assembly at its completion facility in Amarillo, Texas. 34 V-22 Ospreys were delivered in 2011 and 39 aircraft were delivered in 2012.

## Multiyear Contract Details:

The Bell Boeing V-22 program was awarded a second V-22 Multiyear Procurement (MYP II) contract agreement to provide a total of 99 aircraft for the Marine Corps and Air Force Special Operations Command over five years with a substantial savings to the DOD and American taxpayers of nearly \$1 billion.

The multiyear proposal will bring the fleet near to the full program of record: 360 MV-22s for the Marines and 50 CV-22s for the Air Force. 48 V-22s for the Navy remain part of the program of 459 but are currently unfunded.

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