Backgrounder

Integrated Defense Systems
P.O. Box 516
St. Louis, MO 63166
www.boeing.com

Boeing P-8A Poseidon

Description & Purpose:

The P-8A Poseidon is a long-range anti-submarine warfare, anti-surface warfare, intelligence, surveillance and reconnaissance aircraft capable of broad-area, maritime and littoral operations.

A derivative of the Next-Generation 737-800, the P-8A combines superior performance and reliability with an advanced mission system that ensures maximum interoperability in the future battle space.

Customers:

The P-8A is being developed for the U.S. Navy by a Boeing-led industry team that consists of CFM International, Northrop Grumman, Raytheon, GE Aviation and Spirit AeroSystems.

The U.S. Navy plans to purchase 108 P-8As to replace its fleet of P-3C aircraft. The first aircraft will begin formal flight test in 2009 and initial operational capability is slated for 2013.

On Jan. 1, 2009 Boeing signed a contract with the Government of India to provide eight P-8I long-range maritime reconnaissance and anti-submarine warfare aircraft to the Indian navy. The P-8I is a derivative of the P-8A designed specifically for the Indian navy.

General Characteristics:

Propulsion:	Two CFM56-7 engines providing 27,000 pounds thrust each
Length:	129.5 feet (39.47 meters)
Wing Span:	123.6 feet (37.64 meters)
Height:	42.1 feet (12.83 meters)
Maximum Takeoff Gross Weight:	187,700 pounds (85,139 kilograms)
Speed:	490 knots (564 mi/h, 789 km/h)
Range:	1,200+ nautical miles, with 4 hours on station

	(1,381 miles, 2,222 kilometers)
Ceiling:	41,000 feet (12,496 meters)
Crew:	9

Boeing is building the P-8A at its production facility in Renton, Wash. The 737 fuselage is built in Wichita, Kan., and then sent to Renton where all aircraft structural features unique to the P-8A are incorporated in sequence during fabrication and assembly. Aircraft quality and performance acceptance flight testing will be conducted from Renton Field and final installation and checkout of the mission system and special flight test instrumentation will be conducted at Boeing Field. The aircraft will begin formal flight testing at Boeing Field and later ferry to Naval Air Station Patuxent River, Md., for completion of flight test.

Background:
Boeing was awarded a $3.89 billion contract for the system development and demonstration (SDD) phase of the program on June 14, 2004. SDD activities include developing and integrating all the necessary software and onboard mission systems and developing training systems. The P-8A is expected to significantly transform how the Navy's maritime patrol and reconnaissance force will train, operate and deploy.

In November 2005 the Navy announced that the P-8A preliminary design review (PDR) conducted Oct. 31 through Nov. 4 was the best major weapons system PDR it had ever reviewed. A successful critical design review was completed in July 2007.

The team started production on the first of five test aircraft December 11, 2007 at industry partner Spirit AeroSystems' Wichita, Kan., facility. Fuselage assemblies come together on Spirit's existing Next-Generation 737 production line. Spirit delivered the first fuselage to Boeing in late March 2008 and final assembly of the aircraft began the same day in Renton, Wash. On-schedule assembly milestones that followed included wing-to-body join and the start of a moving line in May, completion of "power on" and engine installation in June and completion of final assembly in July. The P-8A made its first flight on April 25, 2009.

Miscellaneous:
Boeing and its industry partners provide unrivaled expertise in both large-scale systems integration and network centric operations, plus unquestioned leadership in developing and customizing military and commercial products for maritime forces.

CFM International, a 50/50 joint company of Snecma Moteurs and General Electric Company, provides the CFM56-7 engines that will power the P-8A. The two engines will each provide 27,300 pounds of takeoff thrust. The CFM56-7 is one of the world's most reliable engines. This fleet of engines has logged more than 30 million flight hours while maintaining an industry-leading .002 percent in-flight shut down rate per 1,000 hours of flight.

Northrop Grumman's Electronic Systems sector will provide the directional infrared countermeasures system, and the electronic support measures system. Northrop Grumman's Mission Systems sector will develop data links for P-8A. The company's Integrated Systems sector will support the mission planning effort.

Raytheon will provide an upgraded APS-137 Maritime Surveillance Radar and Signals Intelligence (SIGINT) solutions. Raytheon is also offering its revolutionary GPS Anti-Jam, Integrated Friend or Foe, and Towed Decoy Self-Protection suites, and the aircraft's Broadcast Info System (BIS) and secure UHF Satcom capability.

GE Aviation will supply both the Flight Management and Stores Management systems on the P-8A. The Flight Management System provides a truly integrated open architecture that is CNS/ATM compatible along with an inherent growth path for upgrades. The Stores Management System provides a comprehensive system for the electronic control of integrated weapons management.

Spirit AeroSystems will build the 737 aircraft's fuselage and airframe tail sections and struts in Wichita, Kan. Spirit supplies large component parts and assemblies for a number of Boeing's commercial aircraft.

# # #

May 2009

Contacts: Chick Ramey, ASW/ISR Communications, +1(253) 657-5636, charles.b.ramey@boeing.com
Ellen LeMond, ASW/ISR Communications, +1(314) 777-0669, ellen.j.lemond@boeing.com