

Lockheed Martin's Multi-Mission Maritime Aircraft Offers Latest Mission System Technologies For The U.S. Navy

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Lockheed Martin today unveiled its offering for the Navy's Multi-mission Maritime Aircraft (MMA) program at the Navy League of the United States trade show. Designated Orion21, the company's design brings together the latest network centric mission system technologies while offering the Navy a low risk, proven military capability.

The U.S. Navy has designated MMA as its long-term maritime patrol and reconnaissance system solution for the 21st century. MMA missions include antisubmarine warfare (ASW), antisurface warfare (ASuW), and maritime intelligence, surveillance, and reconnaissance (ISR).

Lockheed Martin's offering reflects six decades of Maritime Patrol and Reconnaissance experience that comes from having hundreds of P-3 Orion aircraft in operation with 14 countries. Orion21 is backed by a Logistics Partnership that leverages strengths from both the Navy and industry.

"We are dedicated to providing a platform that will be fully weaponized, missionized and supported at initial operational capability," said Jack Crisler, director of MMA Business Development for Lockheed Martin. "We have taken the world's most proficient and proven sub-hunter and transformed it into a weapon system with unmatched capability, performance and availability."

Lockheed Martin's MMA provides a true multi-mission capability to meet both current and future weapon and sensor requirements, Crisler said, adding that Orion21 provides unprecedented performance in all primary mission areas, with significant growth capability at reduced operational and support costs.

Lockheed Martin is offering a rugged, all new-production weapon system based on the proven P-3 airframe. The entire weapon system meets or exceeds all U.S. Navy requirements and includes an advanced commercial-derivative propulsion system, open system avionics architecture, and a logistics program focused on real-time fleet health assessments and global supply chain management. Orion21 will provide over 50% increase in mission range and endurance over legacy systems. All established features of the P-3 that have enabled crews to successfully operate it in the harsh, corrosive marine environment are carried forward and further improved with Orion21. These features will enable austere basing and provide high availability rates, particularly in a wartime environment.

Orion21 features a fully digitized all-glass cockpit and a propulsion system that includes the Pratt & Whitney PW150 engine and Hamilton Sundstrand NP2000 propeller. The PW150 is part of the highly successful PW100 engine family. Pratt & Whitney's PW100 family is a global leader in the regional airline turboprop market that produces 99.96 percent dispatch reliability with more than 80 million operating hours on more than 1,900 aircraft. The Hamilton Sundstrand NP2000 propeller is currently in production for the Navy's E-2C Hawkeye and C-2 aircraft retrofit programs. The NP2000 includes eight all-composite blades with individual blade replacement capability for a reduced logistics footprint. It operates more quietly than the current P-3C propeller.

Lockheed Martin made a deliberate design decision to select a turboprop engine based configuration because it optimizes ASW mission profile performance. The turboprop engines will give the aircraft 25 percent more power, 60 percent more thrust and burn 27 percent less fuel than a turbofan, while providing 50 percent faster thrust response under key ASW low altitude loiter conditions. These characteristics are important when flying at heavy weights, slow speeds and very low altitudes, which is how the Navy will operate this aircraft. The selection of this advanced engine and propeller combination allows the Lockheed Martin MMA solution to exceed all performance-based requirements with an unprecedented level of persistence and availability. This propulsion system brings a balanced capability to all required missions. MMA will have to be flown high, low, fast and slow and remain on-station for very long periods of time while carrying a variety of weapon and

sensor packages.

Lockheed Martin's MMA open avionics architecture is designed to the principles established by the DoD Open-System Joint Task Force. Modular hardware and software components permit interchangeability while providing information protection. Module interfaces based on open standards provide technical refreshes more affordably which adds to system robustness. The increased availability of computer processing power, when applied in combination with the MMA sensors and workstations, provides unprecedented warfighter capability and growth.

Lockheed Martin's Orion21 assures U.S. Navy blue water and littoral dominance and unparalleled force protection for the next 40 years.

Lockheed Martin was awarded MMA Component Advanced Development Phase I and II contracts by the U.S. Navy in September 2002 and February 2003, respectively. The contract for the next phase, System Development and Demonstration (SDD), is scheduled for contract award in June 2004. MMA is expected to enter service no later than 2013 and the Navy forecasts a need for up to 150 aircraft.

Lockheed Martin has built 759 P-3s, of which 251 are operated by the U.S. Navy.

BACKGROUND INFORMATION

Lockheed Martin Aeronautics Co., a business area of Lockheed Martin, is a leader in the design, research and development, systems integration, production and support of advanced military aircraft and related technologies. Its customers include the military services of the United States and allied countries throughout the world. Products include the F-16, F/A-22, F-35 JSF, F-117, C-5, C-130, C-130J, P-3, S-3 and U-2. The company produces major components for the F-2 fighter, and is a co-developer of the C-27J tactical transport and T-50 advanced jet trainer.

Headquartered in Bethesda, Md., Lockheed Martin employs about 130,000 people worldwide and is principally engaged in the research, design, development, manufacture and integration of advanced technology systems, products and services. The corporation reported 2003 sales of \$31.8 billion.

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