ESM System on Navy E-2 Aircraft Set for Digital Upgrade in 2022

WASHINGTON — Lockheed Martin is developing a digital upgrade of the analog electronic surveillance measures (ESM) system installed on the Navy's E-2D Advanced Hawkeye carrier-based early warning aircraft and plans to complete development by 2022.

The current ALQ-217 is the analog ESM system that alerts operators to radar activity and identifies the emitter.

Under a \$65 million contract awarded in June, Lockheed Martin Rotary and Mission Systems is developing the digital upgrade and is scheduled to complete the engineering and manufacturing development phase — including design, qualification testing, acceptance testing and flight testing by 2022, Max Pelifian, Lockheed Martin's program manager for Advanced Airborne Electronic Warfare, told reporters Nov. 27 at the Association of Old Crows International Symposium. The next phase will bring the digital system to initial operational capability.

The ALQ-217 includes eight line-replaceable assemblies — antennas, antenna front ends and a receiver/processor — of which five will be upgraded under the contract.

Lockheed has been providing the analog ALQ-217 to the E-2 aircraft since 1999. Lockheed Martin has delivered 28 ALQ-217 analog sets for the E-2C Hawkeye and 46 sets for the E-2D Advanced Hawkeye. The company has 29 more on order for the E-2D, some of which could receive the digital upgrade on the production line if the timing permits.

The company completed the Navy's system requirements review for the digital upgrade this month. The critical design review is anticipated by the end of 2019.