F-16 IVEWS Suite Completes US Air Force Emulator Testing

By Richard Scott

The AN/ALQ-257 Integrated Viper Electronic Warfare Suite (IVEWS) being developed by Northrop Grumman (Rolling Meadows, IL) for the US Air Force (USAF) has successfully completed Laboratory Intelligence Validated Emulator (LIVE) testing, the company announced.

Designed to upgrade existing USAF F-16 fighters with a new generation internal EW suite so as to keep the aircraft operationally viable beyond 2046, the AN/ALQ-257 IVEWS is being developed under a Middle Tier Acquisition Prototyping Other Transaction Authority contract awarded to Northrop Grumman in September 2019. The IVEWS implementation introduces an ultra-wideband architecture providing a wide instantaneous bandwidth, improved digital radar warning performance and an active jamming capability while retaining capacity for future technology insertions such as a fiber-optic towed decoy, and adaptive/cognitive processing. IVEWS has also been designed to be interoperable with the F-16's AN/APG-83 active electronically scanned array radar.

LIVE is an intelligence validated, closed-loop radio frequency (RF) direct-injection threat radar emulator, based on real threat capabilities and features, which allows for the testing of EW systems in realistic environments. According to Northrop Grumman, the LIVE testing of IVEWS saw simulated air defense radar pulses injected directly into IVEWS to verify the suite's ability to recognize and counter advanced threats. The company added that the system "exceeded multiple benchmarks and demonstrated the ability to counter modern RF threats."

The future of the IVEWS program is not clear, after the Air

Force cut most of the program’s development funding in its FY2024 budget request. A fielding recommendation for IVEWS was previously planned for the end of FY 2024.