US Navy Seeks Next-Generation Active Expendable Decoy

By John Knowles

The US Navy is planning to develop an RF Countermeasure (RFCM) Active Expendable Decoy (AED) to be deployed from tactical aircraft against RF-guided threats. The "free fall" RF decoy will provide an important end-game countermeasure – especially when used in conjunction with other self-protection EW systems – for tactical aircraft flying against advanced radar threats.

The RFCM AED program is managed by the Naval Surface Warfare Center – Crane (Crane, Ind.) via the Strategic and Spectrum Missions Advanced Resilient Trusted Systems (S^2MARTS) OTA contracting vehicle. A Request for Solutions (RFS) was released on January 30. The Navy's objective is to replace the obsolete Generic Expendable (GEN-X) AEDs that were originally developed by Texas Instruments in the 1980s. According to the RFS, the RT-1489/ALE GEN-X decoy "…is based on 1980s technology that is: obsolete, out of production, limited in its capability, designed against an outdated threat list, not programmable/updateable, and in a 36mm (1.4 in.) round form-factor." The RFS explains that "Advanced Air-to-Air and Surface-to-Air RF guided threats are employing bands of the Electromagnetic Spectrum (EMS) requiring RFCM with expanded frequency coverage and EMS agility." In addition, the Navy has moved to a square format for its ALE-47 dispenser magazines under its Common Carriage Upgrade initiative, meaning that the round format of the GEN-X no longer complies with the Navy's ALE-47 dispensers.

The RFCM AED program aims to develop a decoy that performs the same basic functions as the GEN-X decoy (including battery power, a receiver and a transmitter). But the RFCM AED will cover a wider frequency range and feature a reprogrammable

DRFM capability to counter coherent radars. It also will meet the “square” format requirements of the Navy’s ALE-47 magazines. For reference purposes, the GEN-X decoy was approximately 1.4 in. (diameter) x 5.8 in. (length) and weighed approximately 1 kg per round.

The Navy has been looking to replace or upgrade the GEN-X for more than two decades, but other EW priorities, such as developing a new dual-band towed decoy, superseded the GEN-X replacement. In the meantime, Leonardo in the UK has introduced the BriteCloud decoy, which is likely to be a contender in the RFCM AED competition. It is believed that BAE Systems and Raytheon (which in the 1990s acquired the Texas Instruments business that made the original GEN-X decoy) will also compete for the RFCM AED development contract.

Program officials anticipate a 52-month development schedule for RFCM AED effort. Responses to the RFS are due by March 11. More information is available via the S²MARTS website: www.nstxl.org.