NAVAIR Starts Search for Advanced Emission Suppression Missile

By Richard Scott

The US Navy is exploring options for the accelerated acquisition of an advanced air-launched anti-radiation missile (ARM) that would outrange the service's current ARM inventory and be able to engage both ground and airborne targets.

In an Advanced Emission Suppression Missile (AESM) – Enhanced Capabilities Request for Information (RFI) issued on February 18, the Naval Air Systems Command's (NAVAIR's) Program Executive Office for Unmanned Aviation and Strike Weapons said it was seeking an All Up Round (AUR) compatible with existing launch platforms (F/A-18E/F, EA-18G and F-35) and infrastructure currently supporting US Navy and US Air Force existing inventory of anti-radiation guided missiles.

Production demand is expected to be on the order of up to 300 AURs per year, with the goal of having a fieldable weapon ready within a two-year time period. Capability statements developed in response to the RFI were required by March 18.

The US Navy is currently in the process of introducing the **Northrop Grumman** AGM-88G Advanced Anti-Radiation Guided Missile Extended Range (AARGM-ER) missile into service. AARGM-ER marries electronics and software from the AGM-88E2 AARGM missile with an all-new airframe incorporating aero-strakes for increased lift, a larger diameter solid fuel rocket motor and a new tail-controlled control actuation system. While the US Navy has never officially disclosed the range of the AGM-88G weapon, the new airframe and propulsion stack is thought to double range to about 160 nautical miles (300 km).

Following a successful January 2026 live-fire test in a GPS-denied environment, AARGM-ER is planned to achieve Initial Operational Capability (IOC) later this year. An evolution of AARGM-ER, known as the Stand-in Attack Weapon (SiAW), is being developed for the US Air Force.

According to NAVAIR's market research solicitation, the nascent AESM should offer US Navy aircraft an enhanced ability to destroy advanced, relocatable integrated air defense systems. "This effort aims to identify and potentially acquire a weapon system that provides similar or improved capabilities compared to its current weapons inventory, focusing on extended range, advanced targeting, counter-countermeasures, and integration with existing and future platforms," according to the RFI.

Interested vendors have been requested to provide information regarding a full weapon system, or key subsystems, at TRL 7 with the following key performance characteristics: extended range to enable the engagement of targets at significant stand-off distances; an advanced anti-radiation seeker with broad frequency coverage offering the ability to target modern and advanced radar systems; precision navigation and guidance system (e.g., GPS/INS with anti-jamming capabilities and alternative navigation means); robust electronic counter-countermeasures capabilities to defeat enemy countermeasures, including chaff, flares, jamming and anti-ARM techniques; and a high probability of kill against a wide range of radar targets.

Significantly, the RFI asks vendors to outline potential pre-emptive targeting capabilities, and the ability to engage both air-to-air and air-to-ground targets. Interest in an air-to-air capability reflects interest in an extended range missile able to target Chinese airborne early warning and control aircraft, such as the Xian KJ-500, the Xian KJ-3000 and the aircraft carrier-based Xian KJ-600.

One technology vector with potential application to the nascent AESM is Solid Fuel Ramjet technology being matured by the Naval Air Warfare Center Weapons Division through its Capacity High Altitude Naval Strike Weapon (CHAINSW) initiative. NAWCDW has already conducted air-launched tests of a testbed Solid Fuel Integral Rocket Ramjet as part of CHAINSW.