

Long Range Hypersonic Weapon (LRHW) – Dark Eagle



In December 2024, the Army and Navy completed the first successful end-to-end flight test for the Long Range Hypersonic Weapon (LRHW) (Dark Eagle) using a battery operations center (BOC) and a transporter-erector-launcher (TEL). In October 2025, DOT&E approved the Army's LRHW (Dark Eagle) Master Test Strategy. The Army intends to field two additional batteries of LRHW to complete the Middle Tier of Acquisition (MTA) rapid fielding phase by FY28. The Army also intends to complete an operational assessment (OA) in 4QFY26. DOT&E will publish a classified OA report once analysis is complete.

SYSTEM DESCRIPTION

The LRHW (Dark Eagle) is a prototype surface-to-surface long range strategic fires system composed of Army ground support equipment and eight

All-Up-Round (AUR) missiles (designed by the Navy) packaged in Army AUR canisters (AUR+C). The Army ground support equipment is comprised of a BOC, a BOC Support Vehicle (BSV) and four TELs. The MTA rapid fielding effort only consists of the BOC, BSV, and TELs.

The AUR is composed of the Common Hypersonic Glide Body and a Navy-developed two-stage rocket booster in a canister designed for the Army's LRHW TEL. The Navy, under the Conventional Prompt Strike (CPS) program, is producing the same AUR and placing it in

Navy canisters for launch from *Zumwalt*-class destroyers and *Virginia*-class submarines.

MISSION

Army commanders will use the LRHW (Dark Eagle) to engage adversary high-payoff, theater and national strategic targets in support of multi-domain operations. Theater combatant commands, in coordination with U.S. Strategic Command, will execute mission planning and target engagement at the theater-level through the joint targeting cycle.

PROGRAM

The Army Rapid Capabilities and Critical Technologies Office was responsible for developing and fielding prototype LRHW equipment to the first unit equipped. In August 2023, the Army determined the LRHW program would use the MTA rapid fielding pathway and transferred the program, consisting of the Army ground support equipment, to Program Executive Office Missiles and Space.

The Army developed the LRHW Master Test Strategy and submitted it for DOT&E approval in August 2025, addressing a longstanding DOT&E recommendation. In October 2025, DOT&E approved the LRHW Master Test Strategy. The Army intends to field two additional batteries of LRHW to complete the MTA rapid fielding phase by 4QFY28.

The LFT&E Strategy, written by the Navy and addressing hypersonic targets, is captured in the Navy's current draft TEMP and is expected to be submitted for DOT&E approval in FY26.

The Navy's CPS program is the design authority for the common AUR, which will be employed by Navy *Zumwalt*-class destroyers and *Virginia*-class submarines, and will be employed by the Army's Dark Eagle system. The Army integrated AUR+C into LRHW in 3QFY25.

» MAJOR CONTRACTORS

- Lockheed Martin Corporation – Huntsville, Alabama (BOC and TEL, system integration prototype)
- Dynetics, a subsidiary of Leidos – Huntsville, Alabama (TEL trailer and Common Hypersonic Glide Body)

TEST ADEQUACY

The first successful end-to-end flight test for the LRHW (Dark Eagle) using a BOC and a TEL was conducted in December 2024. As it was not an operational test, it did not require a DOT&E-approved test plan. However, the flight test data will help inform future operational test plan development.

The Army continues to collaborate with the Navy in their development of the Navy's LFT&E strategy for the AUR that will support the Army's program. The Navy's LFT&E Strategy includes representative targets. However, it is understood that the Army's threat environment is different than that of the Navy. The Army should continue to

collaborate with the Navy and Air Force to identify and leverage common practices, test corridors and infrastructure, test data, and modeling and simulation (M&S) capability across the family of hypersonic weapon systems.

The initial CPS sled and flight tests the Navy conducted in FY24 did not include operationally representative targets and consequently provided no direct validation of the weapon's lethal effects. The Navy continues to investigate methods to obtain effectiveness and lethality data by incorporating representative targets into the CPS flight tests. Until the Navy characterizes AUR lethality, uncertainty in weaponeering tools could result in excessive employment requirements or failure to meet warfighter objectives.

The Army has not yet evaluated the effects of a full-spectrum (kinetic, electromagnetic, cyber) threat-contested environment on the performance of the AUR, TEL, or BOC. This should include an end-to-end cyber survivability testing with both a cooperative vulnerability and penetration assessment and an adversarial assessment. The Army intends to conduct this testing from 1QFY26 to 2QFY27. The Army is relying on the Navy's use of a combination of M&S, component testing, and hardware-in-the-loop evaluations to evaluate full-spectrum survivability of the AUR in the representative threat environment.

The Army plans to conduct an OA beginning in 4QFY26. Upon completion of the OA, DOT&E will publish a classified OA report.

PERFORMANCE

» EFFECTIVENESS, SUITABILITY, AND SURVIVABILITY

Insufficient data are available at this time to evaluate the operational effectiveness, suitability, and survivability of the LRHW system. Sufficient data for a full evaluation are not expected until completion of operational tests in 2QFY27. Following the completion of the OA, DOT&E will publish a classified report to assess LRHW progress toward operational effectiveness, suitability, and survivability.

evaluation of operational effectiveness and survivability.

5. Continue collaboration with the Navy and Air Force to identify and leverage common practices, test corridors and infrastructure, test data, and M&S capabilities across the family of hypersonic weapon systems.

RECOMMENDATIONS

The Army should:

1. Continue collaboration with the Navy on the LFT&E Strategy and ensure that it captures adequately verifying and validating the required M&S tools to create credible weaponeering and mission planning tools in support of the proposed operational fielding dates.
2. Test for full-spectrum survivability in a contested environment during the OA.
3. Conduct end-to-end cyber survivability testing to include a cooperative vulnerability and penetration assessment and adversarial assessment.
4. Coordinate with the Navy to ensure M&S outputs have been validated and combine with ground test data to support design of experiments and