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The U.S. Army's Long-Range Hypersonic Weapon (LRHW): Dark Eagle

What Is the Army's Long-Range Hypersonic Weapon?

The Army's Long-Range Hypersonic Weapon (LRHW), also known as Dark Eagle (**Figure 1**), with a reported range of 1,725 miles, consists of a ground-launched missile equipped with a hypersonic glide body and associated transport, support, and fire control equipment.

Figure 1. LRHW Transporter Erector Launcher (TEL)



Source. Army News, "1st Multi-Domain Task Force Deploys the Army's First Long-Range Hypersonic Weapon System," March 30, 2023.

The Army further notes,

The LRHW system provides the Army a strategic attack weapon system to defeat Anti-Access/Area Denial (A2/AD) capabilities, suppress adversary long-range fires, and engage other high payoff/time critical targets. The Army is working closely with the Navy in the development of the LRHW. LRHW is comprised of the Common Hypersonic Glide Body (C-HGB), and the Navy 34.5-inch booster.

On April 24, 2025, the Army formally designated the LRHW as the Dark Eagle.

LRHW Components

Missile

The missile component of the LRHW is reportedly being developed by Lockheed Martin and Northrop Grumman. When the hypersonic glide body is attached, it is referred to as the Navy-Army All Up Round plus Canister (AUR+C). The missile component serves as the common two-stage booster for the Army's LRHW and the Navy's Conventional Prompt Strike (CPS) system, which can be fired from both surface vessels and submarines.

Common Hypersonic Glide Body (C-HGB)

The C-HGB is reportedly based on the Alternate Re-Entry System developed by the Army and Sandia National Laboratories. Dynetics, a subsidiary of Leidos, is currently under contract to produce C-HGB prototypes for the Army and Navy. The C-HGB uses a booster rocket motor to accelerate to well above hypersonic speeds and then jettisons the expended rocket booster. The C-HGB, which can travel at Mach 5 or higher on its own, is planned to be maneuverable, potentially making it more difficult to detect and intercept.

LRHW Organization and Units

The LRHW is organized into batteries. According to the Army "a LRHW battery consists of four Transporter Erector Launchers (TELs) on modified M870A4 trailers, each equipped with two AUR+Cs (eight in total), one Battery Operations Center (BOC) for command and control, and a BOC support vehicle."

The 5th Battalion, 3rd Field Artillery Regiment at Joint Base Lewis-McChord, WA, was designated to operate the first battery of eight LRHW missiles. The battalion, also referred to as the Long-Range Fires Battalion, is part of the Army's 1st Multi-Domain Task Force (MDTF), a unit in the Indo-Pacific-oriented I Corps stationed at Joint Base Lewis-McChord, WA. Other LRHW batteries are planned for Long-Range Fires Battalions in the remaining MDTFs scheduled for activation.

LRHW Testing and Program Activities

According to a 2023 Congressional Budget Office (CBO) Study, "U.S. Hypersonic Weapons and Alternatives," "Extensive flight testing is necessary to shield hypersonic missiles' sensitive electronics, to understand how various materials perform, and predict aerodynamics at sustained temperatures as high as 3,000° Fahrenheit." The Army originally planned for three flight tests of the LRHW before the first battery fielding in FY2023. On October 21, 2021, the booster rocket carrying the C-HGB vehicle reportedly failed a test flight, resulting in what defense officials characterized as a "no test" as the C-HGB had no chance to deploy. Reportedly, a June 2022 test of the entire LRHW missile also resulted in failure.

Flight Test Delays

In October 2022, it was reported the Department of Defense (DOD) delayed a scheduled LRHW test in order to "assess the root cause of the June [2022] failure." Reportedly, the delayed test would be rescheduled to the first quarter of FY2023.

March 2023 LRHW Test Scrubbed

On March 10, 2023, it was reported,

On March 5, DOD was preparing to execute Joint Flight Campaign-2 featuring the Army version of the prototype weapon launched at Cape Canaveral Space Force Station, FL, when the countdown was halted.... As a result of pre-flight checks during that event, the test did not occur.

Cancelled September 2023 LRHW Test and Program Delay

On September 6, 2023, it was reported,

The DOD planned to conduct a flight test at the Cape Canaveral Space Force Station, Florida, to inform hypersonic technology development. As a result of pre-flight checks, the test did not occur.

On September 14, 2023, in an Army statement to Bloomberg News, the Army reportedly acknowledged it would not be able to meet its goal of deploying the LRHW by the end of FY2023.

Successful LRHW Flight Test

On June 28, 2024, DOD announced,

The U.S. Navy and U.S. Army recently completed an end-to-end flight test of a hypersonic missile from the Pacific Missile Range Facility, Kauai, HI.

Reportedly, the two-stage missile was launched from a ground stand in Hawaii across the Pacific Ocean more than 2,000 miles to a test range in the Marshall Islands, with the missile flying its intended course and releasing the C-HGB, which flew to the target.

December 2024 LRHW Flight Test

On December 12, 2024, DOD announced,

The U.S. Army's Rapid Capabilities and Critical Technologies Office, in collaboration with the U.S. Navy Strategic Systems Programs, recently completed a successful end-to-end flight test of a conventional hypersonic missile from Cape Canaveral Space Force Station, Florida.

This is the second successful end-to-end flight test of the All Up Round (AUR) this year and was the first live-fire event for the Long-Range Hypersonic Weapon system using a Battery Operations Center and a Transporter Erector Launcher.

Reportedly as of February 2025, the Army intended to field the LRHW missile to the first unit by the end of FY2025.

Government Accountability Office (GAO) 2025 Weapons System Annual Assessment

According to GAO's June 11, 2025 Weapons System Annual Assessment,

The estimated cost of fielding the first LRHW battery also increased by \$150 million since last year. According to the Army, the cost growth was attributed to increases in the cost of the missiles and testing issues that resulted in investigations and retests.

Program officials stated that the second battery, which is part of the rapid fielding MTA (Middle Tier Acquisition) effort, is on schedule to be fielded in the fourth quarter of FY2026. This effort includes a missile with minor modifications, which the Army plans to flight test for the first time in the fourth quarter of FY2025. The Army also stated that the planned award date for Battery 3 ground support equipment slipped from the first quarter of FY2024 to the third quarter of FY2025 due to funding delays.

LRHW Procurement and Estimated Missile Cost

The Army's FY2025 budget request requested \$744 million for "the production of LRHW Battery 3 Ground Support Equipment (GSE) and the basic load of eight All-Up Round + Canister (AUR+C) [missiles]." According to a January 2023 CBO study, "U.S. Hypersonic Weapons and Alternatives," purchasing 300 Intermediate-Range Hypersonic Boost-Glide Missiles (similar to the LRHW) was estimated to cost \$41 million per missile (in 2023 dollars). In recent CRS discussions with Army program officials, the Army stated that the "fly away cost" for the eight missiles requested in the Army's FY2025 budget request would exceed CBO's 2023 per missile cost estimate, but future missile costs could likely decrease as order quantities increased.

During June 4 and 5, 2025, Army Posture testimony to the House and Senate Armed Services Committees, Chief of Staff of the Army General Randy George stated regarding the LRHW,

We are getting ready to do some tests this summer, with long-range missiles that are a tenth of the price. And when you start talking about "magazine depth" ... we can invest in things that are much more cost-effective.

Additional Operational Testing

In recent CRS discussions with Army program officials, the Army stated that after the delivery of the first eight LRHW missiles, additional operational testing would continue but missile costs and the sufficiency of missile test ranges would be a factor in the number of operational tests the Army could conduct.

Oversight Consideration for Congress

A possible oversight consideration for Congress could include the following:

LRHW Missile Costs, Operational Testing, and Stockpile

Congress has expressed its concern regarding the cost of LRHW missiles as well operational testing and missile stockpile requirements. As the Army begins procurement of its first eight missiles, continues fielding LRHW batteries, conducts additional operational tests, and builds missile stockpiles, Congress might decide to require more frequent updates from Army program officials. Enhanced oversight of the LRHW program as it attempts to achieve full operational capability could better inform future congressional budgetary decisions and the program's overall direction.

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