

High Mobility Artillery Rocket System (HIMARS) Executive Summary

HIMARS is operationally effective and suitable. It is also survivable against enemy counterfire because it can avoid engagement by that threat. In its current configuration, HIMARS does not provide ballistic crew protection and is vulnerable if engaged by enemy fire.

System Overview

HIMARS is an artillery system that fires the family of Multiple Launch Rocket System (MLRS) rockets and Army Tactical Missile System (ATACMS) missiles. It is the newest weapons system within the MLRS family that includes the M270 and M270A1 tracked launchers. HIMARS units will attack high priority targets such as major command and control nodes; air defense systems; logistics storage facilities; helicopter operating bases; surface-to-surface missile systems; multiple rocket launchers; and major troop assembly areas. The Army designed HIMARS to be C-130-deployable to support Joint contingency and forced entry forces.

The Army currently plans to buy 888 HIMARS launchers to field 45 battalions. The Marine Corps also intends to buy 40 launchers and field two HIMARS battalions. Each HIMARS system consists of a launcher, two resupply vehicles, and two resupply trailers. Each HIMARS battalion will contain three firing batteries, each equipped with six launchers and their associated resupply vehicles and trailers.

Test Adequacy

The operational testing of the HIMARS system, supplemented by data collected during developmental testing, was adequate to support an evaluation of the system's operational effectiveness, operational suitability, and its survivability with regard to its ability to avoid enemy counterfire.

Operational Effectiveness

HIMARS is operationally effective.

- HIMARS is deployable by air (including C-130 aircraft), rail, and sealift. The C-130 deployment capability provides additional options for operational planners to provide long-range rocket and missile fires to early deploying and special operations forces.
- HIMARS units can sustain a realistic tempo to support friendly maneuver forces. They can sustain rapid movements over improved surfaces, but have some cross-country limitations when compared to tracked MLRS launchers.
- HIMARS operates effectively with the Advanced Field Artillery Tactical Data System.
- HIMARS units can responsively and accurately deliver the MLRS family of munitions to attack the types of long-range targets envisioned for HIMARS.
- HIMARS units carry half the munitions that tracked MLRS units carry.

Operational Suitability

HIMARS is operationally suitable.

- HIMARS demonstrated sufficient system reliability during the initial operational test (IOT) to validate that it would be able to accomplish its combat mission.
- HIMARS is maintainable and logistically supportable.
- The HIMARS configuration tested in the IOT had exposed components under its chassis that were vulnerable to flame and high heat, creating a risk to the system and crew. The Army has subsequently installed an interim air line protection kit on its low-rate initial production launchers that are being fielded to the first HIMARS battalion at Fort Bragg, North Carolina.

Survivability

- HIMARS can fire its munitions and depart the firing location fast enough to avoid enemy counterfire. Once a mission is fired, HIMARS can depart the firing point as quickly as the M270A1 and faster than the M270. For these "shoot-and-scoot" tactics to work, the launcher crews must follow established MLRS procedures and avoid returning to locations from which they recently fired.
- If the enemy can target and engage HIMARS, the current configuration is vulnerable to a number of ballistic threats, including artillery and mortar fragmentation, improvised explosive devices, rocket-propelled grenades, and small arms fire.

ANNEX - BLRIP EXECUTIVE SUMMARIES

- The Army recognizes these risks and is pursuing a product improvement to develop and field an armored cab to enhance crew protection and system survivability. The armored cab version of HIMARS is a LFT&E covered program.
- The current munitions in the MLRS family of munitions are not compliant with DoD insensitive munition requirements. This non-compliance poses both safety and survivability risks to the HIMARS launchers, resupply vehicles, and crews.

Recommendations

The Army should:

- Proceed with the armored cab upgrade of the HIMARS to enhance crew protection and system survivability.
- Complete LFT&E testing and include an assessment of system repairability to determine the ability of the crew and maintenance personnel to repair the system and continue the mission once HIMARS is damaged by enemy fire.
- Mitigate the safety and survivability risks posed by the MLRS family of munitions noncompliance with insensitive munitions standards. This effort should include developing insensitive munitions, and reviewing all tactics, techniques, and procedures dealing with tactical operations, commercial and military transportation, resupply, storage, and security.
- Conduct additional follow-on developmental/operational testing to assess the impact of additional weight associated with the armored cab upgrade upon operational effectiveness and suitability.
- Install and test the interim air line protection kits on all currently procured launchers and install a permanent air line protection kit on all future production launchers (per the product manager's plan). The Army should also consider whether the family of medium tactical vehicles requires similar air line protection kits.
- Develop a methodology that will facilitate survivability training and testing by providing effective feedback to vehicle crews that they are in close proximity to simulated incoming artillery.