

Updated March 12, 2024

The U.S. Army's Strategic Mid-Range Fires (SMRF) System (Formerly Mid-Range Capabilities System)

What Is the Army's Strategic Mid-Range Fires (SMRF) System?

Reported improvements to Russian and Chinese artillery systems present a challenge to the U.S. Army. These improved, longer-ranged artillery systems, new employment techniques employing unmanned aerial vehicles (UAV) for target acquisition, and the proliferation of special munitions (such as precision, thermobaric, loitering, and top-attack munitions) have renewed concerns about the potential impact of Russian and Chinese fires on U.S. combat operations and ground combat systems. In response, the U.S. Army is seeking to improve its ability to deliver what it refers to as long-range precision fires (LRPF) by upgrading current artillery and missile systems, developing new longer-ranged systems and hypersonic weapons, and modifying existing air- and sea-launched missiles for ground launch.

Originally known as the Mid-Range Capabilities (MRC) System, SMRF is part of the Army's LRPF modernization portfolio. It is intended to hit targets at ranges between the Army's Precision Strike Missile (PrSM) and the developmental Long-Range Hypersonic Weapon (LRHW) system. The SMRF Weapon System leverages existing Raytheon-produced SM-6 missiles and Raytheon-produced Tomahawk cruise missiles and modifies them for ground launch. The SMRF system is also known as the "Typhon" missile system (Figure 1).

Figure 1. Typhon Launchers and Battery Operations Center



Source: *The Drive*: <https://www.thedrive.com/the-war-zone/army-fires-tomahawk-missile-from-its-new-typhon-battery-in-major-milestone>, accessed July 6, 2023.

SMRF Weapon System Components

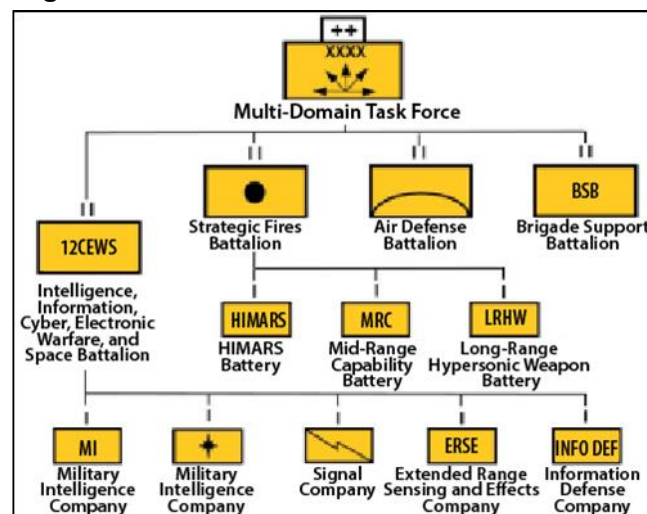
According to the Army, the prototype SMRF battery is planned to consist of four launchers and a battery

operations center (BOC) (Figure 1). Reportedly, a decision has not been made on how many missiles each battery will have. SMRF batteries are to be equipped with a number of prime movers, trailers, generators, and support vehicles. Numbers of soldiers assigned to each battery is presently unknown. The Army originally planned for the first prototype SMRF battery to be fielded no later than the fourth quarter of FY2023 and three additional batteries were to be fielded on an annual basis thereafter. It is not clear at this time if the Army will field more than four SMRF batteries or if any of the batteries will be Army National Guard units.

SMRF Unit Organization

The Army plans to field one SMRF battery in the Strategic Fires Battalion of the Army's regionally aligned Multi-Domain Task Force (MDTF) (Figure 2).

Figure 2. Army Multi-Domain Task Force (MDTF) Organization



Source: Chief of Staff Paper #1 Army Multi-Domain Transformation Ready to Win in Competition and Conflict, March 16, 2021, p. 12.

Note: MRC Battery depicted above is now known as the SMRF Battery.

The Army describes MDTFs as “theater-level maneuver elements designed to synchronize precision effects and precision fires in all domains against adversary anti-access/area denial (A2/AD) networks in all domains, enabling joint forces to execute their operational plan (OPLAN)-directed roles.”

What Is Anti-Access/Area Denial (A2/AD)?

Anti-Access (A2) is an action, activity, or capability, usually long-range, designed to prevent an advancing enemy force from entering an operational area.

Area Denial (AD) is an action, activity, or capability, usually short-range, designed to limit an enemy force's freedom of action within an operational area.

Source: Department of Defense Dictionary of Military and Associated Terms, November 2021.

Program Status

Reportedly, Lockheed Martin delivered the first of four prototype Typhon systems to the Army on December 2, 2022. The Army originally planned to field its first prototype SMRF battery no later than the fourth quarter of FY2023.

SMRF Test Launches and Full Operational Capability

On June 27, 2023, the Army reported

The Army's Rapid Capabilities and Critical Technologies Office's Mid-Range Capability Project Office, in conjunction with soldiers from 1st MDTF and the U.S. Navy Program Executive Office Unmanned Aviation and Strike Weapons, successfully demonstrated the launch of a Tomahawk missile from the Army's prototype Mid-Range Capability system. Soldiers assigned to the 1st MDTF conducted this live-fire event in which successful communications from the Battery Operations Center to the Launcher resulted in the launch of a Tomahawk missile. This test follows the successful launch of an SM-6 missile from the Mid-Range Capability system earlier this year, confirming the full operational capability of the system.

Plans to Deploy SMRF in 2024

Reportedly, in November 2023, U.S. Army Pacific Commander General Charles Flynn noted

We have tested [Typhon] and we have a battery or two of them today. In 2024, we intend to deploy that system in the region. I'm not going to say where and when, but I will just say that we will deploy them in the region.

SMRF Battery Activation

Reportedly, the Army activated its second SMRF battery—D Battery, 5th Battalion, 3rd Field Artillery Regiment—as part of Joint Base Lewis-McChord's 1st MDTF in January 2024. The article notes that “while no statement can be found on the creation of the first battery,” it is assumed that “the second battery activated was part of the Army's 1st Long-Range Fires Battalion, implying that that the 1st MDTF now has at least two Typhon batteries.”

FY2025 SMRF Budgetary Information

Table 1. FY2025 SMRF Budget Request

Funding Category	Total Request (\$ Million)	Total Request (Qty.)
RDT&E	\$183	—
Procurement	\$233	—

Source: Assistant Secretary of the Army (Financial Management and Comptroller), FY2025 President's Budget Highlights, March 2024. p. 33.

Notes: RDT&E = Research, Development, Test & Evaluation; Qty. = FY2025 procurement quantities.

According to the *Army's FY2025 President's Budget Highlights*,

Base funding also allows for purchasing and receiving hardware and materials to implement prototype fabrication, and to support component-level and system-level qualification, adding additional capabilities to the batteries. Procures thirty-two Tactical Tomahawks (TACTOMs) and MK14 cannisters It also supports the procurement of a MRC Battery, Ground Support Equipment to include one Battery Operations Center (BOC), four launcher Payload Deployment Systems (PDS), one Reload Capability, and one BOC Support Vehicle, [and] associated Government Furnished Equipment, and program management costs.

Potential Issues for Congress

Planned SMRF Units

The Army's original plans called for fielding four SMRF batteries. The Army, however, plans for five MDTFs, with each MDTF having one organic SMRF battery. Reports suggest the 1st MDTF now has two SMRC batteries instead of one. The Army has reportedly stated that while “each [MDTF] is supposed to have one battery,” that “MDTFs can be adjusted to their combatant commander's requirements with more or fewer units.” If this is the case, it suggests the Army may eventually field more than the originally planned four SMRF batteries. Congress might seek clarification on the Army's current plans for total number of SMRF batteries, including if any batteries will be fielded in the Army National Guard.

Overseas Stationing of SMRF Units

As previously noted, the Army reportedly planned to deploy SMRF in 2024 in support of U.S. Army Pacific at undisclosed locations in the Pacific region. Furthermore, it is possible that SMRF units may be deployed elsewhere overseas. Given the importance and issues that often affect securing overseas basing, Congress might examine ongoing efforts to secure Army long-range precision fires unit basing in the Indo-Pacific region as well as other overseas regions.

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