

# Strengthening light HIMARS for multi-domain operations

By Capt. Brennan Deveraux, 1st Lt. Sean Skelly and Staff Sgt. Evan Fowler

It is not just destructive power that makes artillery king. Throughout time the artillery has been an adaptable force, able to rapidly adjust to changes in mission and stay relevant. The uniqueness of indirect fire forces the artillery community to have an in-depth understanding of the battlefield as fire missions can range from support to an infantry squad through a corps headquarters. Increased battlefield situational awareness allows the artillery community to adapt to assume a pivotal role in the continuous development of combined arms warfare. As the military continues to develop doctrine to support multi-domain operations (MDO) it is no surprise that artillery, especially the High Mobility Artillery Rocket System (HIMARS), is at the forefront. A properly equipped light HIMARS package (LHP) provides an early entry option for a multi-domain task force (MDTF) to build combat power. When followed by the Air Defense and Airspace Management (ADAM) cell the combined capabilities create a Fires cell crucial to the success of the establishment of the MDTF. This article outlines the role of the LHP in support of the MDTF, as well as discusses the integration of the ADAM cell and the complementary communication capabilities it presents. The article is based on the experiences of B Battery, 1st Battalion, 94th Field Artillery Regiment as the LHP during the MDTF validation exercise, Rim of the Pacific (RIMPAC) 18.

## **Light HIMARS package**

The LHP is designed for rapid deployment in order to provide a combatant commander a range of indirect fire options across an area of responsibility. The standard package for a C-17 aircraft has four vehicles: two launchers, a fire direction center (FDC) vehicle, and a command HMMWV with a generator trailer. The package is ready to shoot rockets or missiles, depending on the mission set, within 10 minutes of unloading the aircraft. For RIMPAC, B/1-94th FAR loaded four vehicles onto a C-17 and flew to the Pacific Missile Range Facility on the island of Kauai, Hawaii. Within one hour of downloading the aircraft, the

element was on the firing point and in position ready to fire.

HIMARS loaded onto a plane equipped with the Joint Precision Airdrop System allows the panel inside the launcher to maintain its Global Positioning System while in transit; the launcher can then shoot guided munitions almost immediately upon landing. Once the plane lands the launchers are unchained and set a minimum of 500 meters from the exit point where the mission can be executed. After conducting the reconnaissance, selection and occupation of position at RIMPAC, the LHP established a hide site that allowed the simulation of exiting a C-17, ingress to a firing point and egress as if it was getting on a plane. During the exercise the LHP was able to execute a fire mission in under three minutes from the time of receipt of mission, to the time of the rockets fired, while simulating the exit of an aircraft.

Fire missions were one aspect of the role of the LHP during RIMPAC. The FDC was involved in more than just the prosecution of the two fire missions for the exercise. It acted as the MDTF tactical action center (TAC) due to enhanced communication systems. Outside of the normal FDC communication platforms, the LHP utilized the Command Post Node from the brigade signal company. This allowed the FDC to communicate digitally with the MDTF headquarters on Oahu. This capability enhancement provided a necessary role as a TAC, and not just the FDC for the LHP. Although the LHP was able to establish operations and prepare for follow on forces, it was the combination with the adjacent ADAM cell that allowed the full realization of the MDTF Fires cell.

## **Integrating the ADAM cell**

The ADAM cell is a brigade-level asset and it is uncommon for it to be directly linked with a small battery level element like the LHP. The ADAM cell established operations adjacent to the FDC vehicle at RIMPAC, and once both elements understood how they complemented each other, a strong team was formed. Tactical Satellite (TACSAT) radios and LINK-16, a military

tactical data exchange network, became instant combat multipliers. The arrival of these systems at the TAC location gave the MDTF the communication linkage, as well as necessary situational awareness of the battlefield. Once operational the LHP and ADAM cell became a cohesive team, rather than separate entities, and were thrust into a role as the Fires coordination center/TAC for the MDTF. This was primarily due to the capability to communicate with aerial systems that the headquarters on Oahu could not. The linkage and interoperability is vital to the fire cell. This was validated on the last day of the live fire when the Advanced Field Artillery Tactical Data System (AFATDS) and LINK-16 were directly connected. As this integration develops further it is imperative to continue to work the connectivity and training of these systems together, with a goal of sending fire missions straight through LINK-16 to the FDC, expediting fire mission processing.

LINK-16 is an integral part of a Fires cell for the MDTF. The system provides a constantly updating 360 degree view of the battlefield, and up-to-the-minute information on friendly and enemy forces in the region. This makes the ADAM cell the perfect partner for the LHP in order to conduct operations while building initial combat power. The 25th Division Artillery ADAM cell did this excellently at RIMPAC. The early integration and partnership gave the MDTF the ability to receive targets via aerial assets and send them direct to an AFATDS via LINK-16. The rapid relay of information available via LINK-16 allowed a real time update of the battlefield for the operation which created a high level of situational awareness in the TAC. Giving the FDC the ability to connect to LINK-16 is paramount for the MDTF in order to be relevant in future engagements. With the other military services already using the system, integration by Army assets would enhance situational awareness and allow for a more cohesive information flow throughout the force. TACSAT radios, coupled with the live LINK-16, allows for the successful and rapid integration of HIMARS. The LHP



*Soldiers from B Battery, 1st Battalion, 94th Field Artillery Regiment, load a High Mobility Artillery Rocket System onto a C-17 Globemaster in support of the Rim of the Pacific 2018 exercise. (Courtesy photo)*

can be thousands of miles from the MDTF headquarters and still receive digital fire missions with the use of TACSAT radios, greatly enhancing the range of the weapon system and the influence of the MDTF on the battlefield.

The methods of conducting warfare are forever changing, adapting to both updates in technological capabilities and emerging doctrine. As the doctrine for the employment of the MDTF begins to develop, two things are key for the artillery community: the LHP stays a pivotal role as an early entry asset, and the relationship with the ADAM cell is codified. Independently the LHP is not equipped to handle the communication systems necessary to maintain the fight

long term, but combined with the ADAM cell it is clear the pairing has the potential to be the future of the MDTF. The LHP is rapidly deployable and provides an initial fighting force capable of basic mission command and Fires capability. If habitual associations are established with the ADAM cell to build and develop tactics, techniques and procedures for fighting in MDO then the combined capabilities will create a Fires cell critical to the success of the MDTF.

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