Multinational Fires in a multi-domain environment

JAGIC chief in Joint Warfighting Assessment 19

By Lt. Col. Nicolas Konieczny

After more than a decade dedicated to counterinsurgency operations, the Western armies are reviewing their structures, organizations and missions and modernizing their equipment to be able to face another kind of threat that can compete with the national capabilities and create strong challenges; especially regarding stand-off and anti-access air denial.

In this new environment, the French Army has issued a new concept, “future land action,” while the U.S. Army is focused on “multi-domain operations (MDO),” both pointing out the requirement to better coordinate their capabilities in the different domains. This also includes the requirement to interact more with the multinational partners in order to provide additional capabilities, authorities and different tactical possibilities on the battlefield to deceive and defeat an enemy that will never be able to adapt to multiple approaches and unexpected combined effects.

Therefore multinational interoperability is key more than ever. For the “Fires” warfighting function it was the opportunity to test it during Joint Warfighting Assessment (JWA) 19, especially within the JAGIC of the 7th Infantry Division commanded by Lt. Col. Nicolas Konieczny, the
French liaison officer to the Fires Center of Excellence with a team composed of the U.S. Army, Marine Corps (1st Anglico), Navy, Air Force, Australian and Singapore officers and NCOs.

1. Joint Warfighting Assessment 19

The JWA is the Army’s capstone, multi-echelon exercise intended to demonstrate and assess future force concepts, capabilities and formations required to operate on the battlefield of the future. JWA 19 incorporated training formations from I Corps, 7th ID, Australia, Canada, New Zealand and the United Kingdom and personnel augmentation from France, Singapore and joint forces operating in a live, virtual and constructive environment to assess the implementation of MDO captured in Training and Doctrine Command Pamphlet 525-3-1.

During this exercise, the 7th ID became a multinational U.S.-led division augmented by French, Australian, Singapore, British and Canadian officers and NCOs and had to fight as a Joint Forces Land Component Command (JFLCC) under a Combined Joint Task Force (CJTF, I Corps).

The JWA 19 operational environment was focused on the 2028 future environment integrating future capabilities (Multi-domain Task Force, hypersonic weapons, strategic long-range cannon, precision-strike missile and extended-range cannon artillery for the U.S. Army, 1st Strike Brigade with Ajax and future equipment for the United Kingdom). The scenario depicted was aimed to challenge a coalition led by the U.S. Army against a peer-threat competitor equipped with a large amount of long-range artillery assets (both field and air defense artillery) and able to use non-lethal Fires (mainly cyber and electronic warfare).

In this multi-domain environment and in close cooperation with the multinational partners, the “Fires Enterprise” was the main pillar to enable freedom of maneuver for the 7th ID commanding general and his subordinates, while contributing to the exploration of new procedures and policies in order to create more lethality and efficiency on the battlefield.

2. Joint Air-Ground Integration Center evolution in a multi-domain environment

The U.S. Army in MDO in 2028 states that no single service component alone can overcome the layered standoff from a peer adversary. Consequently the joint force needs to converge capabilities to generate synergistic effects to counter the enemy’s standoff capability.

Delineation of responsibilities and adaptation of coordination measures

The challenge for the coalition was first to delineate the responsibilities between the operational and tactical commands and define the successive areas of operations in order to attrite the high priority targets at echelon and create the conditions of transition between echelons. Therefore, due to the lack of global air superiority, the Fires Enterprise was in charge of degrading, denying, disrupting and destroying the enemy capabilities to enable the commitment of the maneuver forces.

To enable this delineation, the traditional fire support coordination measures (FSCM) and air control measures (ACM) had to be adapted before and during the exercise. In addition to the fire support coordination line and coordination fire lines, the JFLCC area of operations forward boundary became a FSCM between the JFLCC and CJTF. For the air coordination measures, the coordinating altitude had to be raised up to 35,000/40,000 feet (instead of the 20,000 feet initially planned) to leverage the commitment of multinational long-range Fires assets.

Lethal and nonlethal Fires

The high number of targets (the opposite forces were almost double our forces) and the multinational capabilities/authorities required to process the Fires planning/coordination through the Targeting Decision Board (TDB) led by CJTF commander. This TDB integrated not only the lethal capabilities (surface-to-surface, air-to-surface) but also the nonlethal capabilities (space, cy-
ber, electronic warfare, Military Information Support Operations, Public Affairs/Civil Affairs). At the JFLCC level, the decision was made to adapt the Army targeting cycle into a reviewed joint targeting cycle in order to include these additional capabilities and create multi-domain effects-based operations (MDEBO). These were a combination of effects throughout the use of space, cyber, EW, surface-to-surface Fires, close air support, unmanned aerial system, attack helicopters aimed to deceive/disrupt the enemy capabilities and protect the coalition forces.

Multi-domain and multinational integration

The multi-domain environment determined the JAGIC:
- To operate more with the foreign liaison officers within the JFLCC in order to synchronize the Fires support with the different steps of the multinational brigades operations (forward passage of lines, wet-gap crossing);
- To engage directly with the Multi-domain Task Force and adapt if required by the MDEBOs according to dynamic targeting processes.

More than ever the multinational JAGIC became the central core of the coordination and execution of all the Fires, lethal and nonlethal. The JFLCC was in charge, in close coordination with G2 and G3, to assess the Go/No Go conditions and then the applicability of the MDEBOs to support the maneuver units. It also muted to become a larger entity integrating some aspects of a NATO joint fire support element or a French fire support coordination cell (designation of a deputy to the JAGIC chief, JAGIC commitment in the Targeting Working Groups) and more important synchronizing the MDEBOs throughout the entire exercise. This adaptation was made possible thanks to the experience of all the joint and multinational actors and created the conditions of success for the JFLCC.

3. Interoperability with multinational partners

During the whole exercise, the main challenge was to get the appropriate level of interoperability between all the joint and multinational entities throughout the Multi-domain Command and Control tools in order to operate between the JAGIC and the subordinate commands. In order to harmonize the processes, the decision was made to use the U.S. procedures primarily even if every country had to comply with its own national Fires doctrines and rules of engagement.

Technical interoperability

In a NATO environment, the Digital Fires Systems rely mainly on Artillery Systems Cooperation Activities (ASCA) to enable
a full compatibility between the multi-national partners, like in Dynamic Front or Joint Warfighting Assessment 18.1 with the French 7th Armored Brigade and the German 23rd Mountain Infantry Brigade under the 1st ID.

During JWA 19, the Digital Fires Systems used at the JAGIC level with the multinational brigades were mainly U.S.: Advanced Field Artillery Tactical Data System (AFATDS), Tactical Airspace Integration System and Air and Missile Defense Workstation. The 1st Strike Brigade tried to connect Fire Control Battlefield Information System Application to AFATDS via ASCA but unfortunately the connectivity was not permanent. Some technical difficulties appeared as well with the Australia and New Zealand Brigade due to a different version of AFATDS. Finally almost all the countries got U.S. Army Digital Liaison Detachments to operate the three systems.

In the future, Defender 20 in Germany will demonstrate the requirement to enhance the use of ASCA and possibly message format to get a full compatibility between the different national Fires systems. For airspace control and air and missile defense systems, there is still room for improvement to get a full interaction between NATO and other systems as pointed out during this exercise.

**Procedural interoperability**

As mentioned previously the procedures were mainly connected to U.S. standards but the multi-domain environment and the requirement to experiment the MDO concept allowed the JAGIC to develop additional tactics, techniques and procedures in order to cover the nonlethal Fires applicability as well as a deeper involvement in the planning phase. The NATO and ABCANZ (America, Britain, Canada, Australia, New Zealand, also known as Five Eyes) procedures and standards were used to develop new approaches like the targeting process, which – from the initial Army targeting cycle – became more joint and even almost NATO (question on the redefinition of the target to include the “key leaders”).

One major point to be covered at the JAGIC level with multinational partners is related to the rules of engagement and caveats. Every country was in charge to identify a “Red Card Holder” within their own headquarters but it never happened during the exercise that he had to intervene due to the fact that the CJTF and JFLCC rules of engagement were very clear and there was always a constant dialogue between the key leaders (ABCANZ) and within the Fires Enterprise.

**Human interoperability**

More than fully compatible systems and well managed standard operating procedures, JWA 19 success relied primarily on the excellent human interaction. The integration of a French officer as the JAGIC chief of a multinational division was initially a gamble but proved to be an overall success emphasized by Maj. Gen. Willard M. Burleson, 7th ID commanding general, at the end of the exercise. This multinationality triggered a lot of discussions in order to adapt and review the structures, organizations and missions in a new operational environment. It also facilitated the exchange of information in the G3 and JAGIC with a better understanding of the operations conducted by the multinational brigades according to their doctrine and rules of engagement and then an appropriate Fires support fitting their requirements.

As NATO Secretary Gen. Jens Stoltenberg mentioned at the NATO summit in Brussels, July 2018, the Alliance is “stronger together.” This applies perfectly to the MDO concept and the new threats which require enhanced interoperability, to mutualize the efforts, to combine the capabilities and to share different approaches in order to more efficiently degrade, deny, disrupt and destroy the potential adversaries.

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