

**NATO MULTINATIONAL BRIGADE  
INTEROPERABILITY: ISSUES, MITIGATING  
SOLUTIONS AND IS IT TIME FOR A NATO  
MULTINATIONAL BRIGADE DOCTRINE?**

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**ABSTRACT.** Multinational Brigade Operations involving NATO and its European Partners are the norm in the post-Cold War Era. Commonplace today are Multinational Brigades, composed of staffs and subordinate units representing almost every NATO Country and Partner, participating in training exercises or actual operations in both the European and Southwest Asian Theatres. Leadership challenges are prevalent for the Multinational Brigade Commander and his staff, especially those challenges they face in achieving an effective level of brigade interoperability in order to conduct successful operations in NATO's present and future operating environments. The purpose of this paper is twofold: to examine the major interoperability obstacles a multinational brigade commander and his staff are likely to encounter during the planning and execution of brigade operations; and, to recommend actions and measures a multinational brigade commander and his staff can implement to facilitate interoperability in a multinational brigade operating environment. Several key interoperability topics considered integral to effective multinational brigade operations

will be examined and analysed to include understanding partner unit capabilities and limitations facilitated by an integration plan, appropriate command and support relationships, compatible communications, synchronized intelligence and information collection, establishing effective liaison, and fratricide prevention. The paper conclusion will urge for a NATO land brigade doctrine considering doctrine's critical importance to effective brigade command and control interoperability and the expected missions a land brigade will encounter in future NATO operating environments as part of the NATO Very High Readiness Joint Task Force (VJTF).

## **Introduction**

Commonplace today are multinational brigades, composed of staffs and subordinate units representing almost every NATO Country and Partner, participating in training exercises or actual operations. Leadership challenges are prevalent for the multinational brigade commander and his staff, especially the leadership challenges both face in achieving an effective level of brigade interoperability. The purpose of this paper is twofold: to examine the major interoperability obstacles a multinational brigade commander and his staff are likely to encounter during the planning and execution of brigade operations; and, to recommend actions and measures a multinational brigade commander and his staff can implement to facilitate interoperability in a multinational brigade operating environment. Several key interoperability topics considered important to effective multinational brigade interoperability are discussed to include initiating an integration plan to team build and increase understanding of partner-unit capabilities and limitations; establishing appropriate command relationships and compatible communications; synchronizing intelligence and information collection and sharing; establishing effective liaison; and finally, implementing interoperability

measures for fratricide prevention. The paper's conclusion discusses the need for a NATO land brigade doctrine considering doctrine's vital importance to brigade interoperability and the missions a land brigade will likely encounter in future NATO operating environments as part of the NATO Very High Readiness Joint Task Force (VJTF).

### **Integration Plan to Facilitate Understanding Unit Capabilities**

Understanding each unit's capabilities and limitations within a newly formed multinational brigade takes time and the brigade's operating success is contingent on developing good relationships among its partner units; the understanding of each unit's respective weapons systems and equipment; and, familiarization with each unit's doctrine, tactics, and procedures. A multinational brigade can foster interoperability from the moment it is task organized by implementing an integration plan to promote good relationships among the brigade's partner units and to share knowledge of each partner unit's respective capabilities and limitations.

**Integration Plan.** A multinational brigade's leadership should develop an integration plan and set aside time for its execution. The time devoted to integration should be formally planned and structured, supervised by leaders from within the brigade. Integration plans should focus on interoperability challenges like communications, intelligence collection and sharing, and fratricide prevention.

**Integration Working Groups.** To facilitate integration, the multinational brigade can form working groups, drawing personnel from the staff and subordinate units, giving the work groups the task to develop solutions aimed at solving interoperability issues. Solutions are then briefed for approval to the brigade commander and once approved, the solutions are formally implemented

through written orders or standard operating procedures. During the planning and orders process, prior to conducting operations, the multinational brigade commander can implement additional measures to integrate the partner units and staff in order to enhance the brigade's interoperability. For example, the brigade commander should include every partnered nation, regardless of size and contribution, during the brigade's update briefings; conduct face-to-face update briefings, especially during the first few meetings, to build interpersonal relationships; and, emphasize collaborative planning with subordinate, partner units to ensure their input is taken into account during the planning and orders process.

### **Establish Command Relationships**

An initial step to achieving interoperability within a multinational brigade is creating command relationships that are clearly understood by senior and subordinate commanders to facilitate effective operations. The command relationships must define both responsibilities and authorities between the multinational brigade commander and his/her subordinate units.

**Use NATO Doctrine.** The multinational brigade must decide what command and support relationships to use prior to task organizing its forces. The recommendation is to exclusively use NATO Command Relationships (Figure 1) because most NATO members and partners have been exposed to and employed it during both training exercises and operations (Department of the Army 2014, p. 2-6). However, a challenge still remains familiarizing all of NATO and its partners with the responsibilities and authorities involved in NATO Command and Support Relationships. Not fully understanding the differences has the potential to create command and control issues between

commanders because the authority and responsibility of the command relationships are not mutually understood.

Authority	Least Control				
	Most Control	FULL CMD	NATO OPCOM	NATO OPCON	NATO TACOM
Direct authority to deal with nations, diplomatic missions, and agencies	X				
Granted to a command	X	X			
Delegated to a command			X	X	X
Set chain of command to forces	X				
Assign mission/designate objective	X	X			
Assign tasks	X	X		X	
Direct/Employ forces	X	X	X		
Establish maneuver control measures	X	X	X	X	X
Reassign forces	X				
Retain OPCON	X	X			
Delegate OPCON	X	X	X		
Assign TACOM	X				
Delegate TACON	X	X	X		
Retain TACON	X	X	X		
Deploy forces (information/within theater)	X	X	X		
Local direction/control designated forces	X				X
Assign separate employment of unit components	X	X			
Directive authority for logistics	X				
Direct joint training	X				
Assign/Reassign subordinate commanders/officers	X				
Conduct internal discipline/training	X				

The national authority always retains FULL COMMAND by Allied doctrine.

- has this authority

- denied authority or not specifically granted

**LEGEND**

OPCON - Operational Control  
 OPCOM - Operational Command  
 TACOM - Tactical Command  
 TACON - Tactical Control

Figure 1. NATO Command Relationships.

For example, note below the distinct differences in the respective definitions for NATO and U.S. Operational Control (OPCON). The NATO OPCON definition is much more prescriptive in terms of assigning “separate employment of components” and addressing administrative and logistical control.

**NATO OPCON.** The authority delegated to a commander to direct forces assigned so that the commander may accomplish specific missions or tasks which are usually limited by function, time, or location; to deploy units concerned; and to retain or assign tactical control to those units. It does not include authority to assign separate employment of components of the units concerned. Neither does it, of itself, include administrative or logistic control (AAP-6 2014, p. 2-0-3).

**U.S. OPCON.** The authority to perform those functions of command over subordinate forces involving organizing and employing commands and forces, assigning tasks, designating objectives, and giving authoritative direction necessary to accomplish the mission (JP 1-02 2014, p.183).

**Command Relationship Restrictions/Limitations.** The multinational brigade commander and subordinate commanders, during the early stages of forming the brigade, must set aside time to discuss limitations and restrictions involved in the command relationships. Some of discussion points may involve national caveats affecting the assignment of certain types of missions, Rules of Engagement (ROE), and working with other nations within the coalition. Some nations may have restrictions or limitations involving certain unique operations like Detainee Operations, Humanitarian Assistance, and Civil-Military Operations. For example there may be national restrictions against a participating nation using its military assets for support to nongovernmental or international organizations providing humanitarian assistance (ABCA 2010, p. 3-4).

## Communications

Multinational brigade communications planners have additional hurdles to overcome when integrating multinational partners into the brigade's communications network. There are potential differences and disparities in communications technology, equipment, security, procedures, and language all presenting communications interoperability planning and execution challenges for the brigade.

**Communications Network Integration.** A multinational brigade's ideal objective is to integrate its partner units into a functional and secure communications network that can seamlessly share operational information. To achieve this objective, communications planning among partner units has to commence as early as possible within the multinational brigade.

**Common Operational Picture (COP).** One of primary goals of multinational brigade communication planning in the brigade is that each of its subordinate headquarters shares a common operational picture (COP). A common operational picture is a single identical display of relevant, operational information facilitating collaborative planning and assists all echelons to achieve situational awareness (JP 1-02 2014, p. 42). A multinational brigade finds it difficult to maintain an identical COP throughout the brigade because of the analog and digital disparities between the brigade and its subordinate headquarters. For example, the brigade may employ a digital COP while its subordinate units are only resourced for analog communications. In this situation, battalion operations and intelligence officers are likely to be totally dependent for their information through frequency modulated (FM) communications, not having access to the same digital systems employed by the brigade, thus creating an analog and digital interoperability gap. One possible solution is for the multinational brigade headquarters to mandate a digital COP for its subordinate units; however, this requires prior planning for it

usually requires the brigade to send a communications liaison team, with the appropriate digital communication equipment, to each subordinate battalion enabling it to gain digital access to the Brigade's network. Or, the brigade could choose to revert to exclusively analog communications to maintain situational awareness throughout the brigade. Other COP considerations brigade communication planners should address are the operational information to be displayed on the COP and the primary, alternate, contingency and emergency communication means of maintaining a COP (ABCA 2010, p. 5-3).

**Other Communication Considerations in the Multinational Brigade.** There are other communication considerations planners have to take into account to effect interoperable communications. What combat radio networks are going to be used by the multinational brigade and are the combat radios within the brigade used by partner units interoperable? Do adjustments need to be made to normal operating parameters such as using a single frequency mode instead of frequency hopping or operating in a non-secure mode as opposed to encryption? Another key consideration is frequency spectrum management. Are all the frequency emitting devices known in the brigade and does a plan exist for their management? Does the multinational brigade have a process in place for resolving frequency interference issues (ABCA 2010, p. 5-4)?

**Communications Workgroup.** Prior to commencement of operations, communication planners from each of the participating units should form a workgroup, led by the Brigade Communications Officer, to exchange information regarding communication equipment, encryption capability, and networks partner units employ to communicate information. An output of the workgroup should be a product depicting both compatible and non-compatible communication systems so solutions can be developed to overcome known communication gaps between



systems. To validate communications interoperability in the multinational brigade, the brigade communications officer, should plan and execute both a communication and digital rehearsal exercise prior to operations.

### **Intelligence and Information Collection**

A well-planned and executable intelligence plan gives the multinational brigade a tactical advantage over any adversary it encounters. The multinational brigade commander's most important information requirements ultimately are what guide intelligence collection and its subsequent analysis and dissemination. Some of the key considerations for a multinational brigade commander and staff when assessing the intelligence capabilities and limitations of the brigade are: who will be designated as the lead nation in the multinational brigade for providing intelligence support; which assets will remain as brigade and/or national task controlled assets; and how will intelligence be shared between multinational units (ABCA 2010, p. 17-2)? As indicated integrating and synchronizing a multinational brigade's intelligence function is difficult but not an insurmountable task. Fundamentally, if the brigade can agree to a method to conduct information collection, synchronization and dissemination; and, agree on a classification level that enables adequate sharing and dissemination of information, then the multinational brigade is apt to achieve an acceptable level of intelligence operability.

**Information Collection and Synchronization.** Collection capabilities from partner nations are typically the battalion intelligence officers and their staffs, Unmanned Aerial Surveillance (UAS) systems, Voice Intercept Teams, Human Intelligence Collection Teams and reconnaissance units. A useful technique during the planning process is having both the brigade and battalion intelligence officers brief their respective collection

capabilities and how these capabilities can best support the brigade's operational plan. Once all the collection assets are identified and integrated into the brigade's overall collection plan, the brigade intelligence officer should facilitate an information collection rehearsal, with the active participation of the partner battalion intelligence officers, to further synchronize the brigade collection plan.

**Classification.** Intelligence professionals have a natural tendency to over classify information for fear of releasing of information that they feel may be construed as “sensitive” to a national interest. While it is prudent to protect national information, multinational brigade intelligence personnel must jointly collaborate to classify operational intelligence products at the lowest level enabling effective information and intelligence sharing to enhance brigade operations (ABCA 2010, p. 17-2).

### **Establishing Effective Liaison**

Liaison Officers (LNO) are taking on increasingly significant importance in multinational operations to enhance interoperability between a multinational brigade's lower and adjacent units. Effective liaison within a multinational brigade is characterized by liaison reciprocity, the use of liaison teams, and employing competent, mature LNOs.

**Liaison Reciprocity.** Establishing reciprocal liaison or liaison exchange between the coalition brigade HQ and its subordinate battalions is especially important and is a proven, necessary component of coalition brigade interoperability. Liaison reciprocity contributes to the operational mutual confidence by facilitating mission essential, operational communication, through the liaisons, between the multinational brigade and its battalions (ABCA Handbook 2010, p. 2-9).

**Liaison Teams.** Experience shows that Liaison Teams usually operate better than using a single, liaison officer. A liaison team has more expertise to facilitate liaison, especially if it has representation for operations, logistics, and other key operational functions; and, a team usually has the capability to operate for 24 hours.

**Competent and Mature LNOs.** LNO personnel have to be operationally competent. They help the commander understand the doctrine, capabilities and limitations, and national caveats of the unit they represent. In addition to knowing the sending unit's mission, current and future operations, logistics and unit doctrine and capabilities, an LNO has to understand the same regarding the receiving unit he/she will liaison to.

## **Fratricide**

Fratricide is defined as "The employment of friendly weapons and munitions with the intent to kill the enemy or destroy his equipment or facilities; which results in unforeseen and unintentional death or injury to friendly personnel (Department of the Army 1992, p.4)." The potential for fratricide in multinational operations is magnified due to variations between nations' equipment and uniforms and doctrinal procedures to include important ones like command and control measures, battle tracking, and clearance of direct and indirect fire procedures.

**Effects of Fratricide.** A fratricide incident can diminish trust between units damaging unit cohesiveness and morale. After a fratricide incident, units tend to operate in an over cautious manner affecting the unit's initiative and tempo.

**Fratricide Causes.** One of the primary causes of fratricide is combat identification which is the positive identification of a target as either friend or foe. In combat or training multinational

environments where Soldiers and units operate with a mix of unfamiliar vehicles, aircraft and weapon systems, the chances of a fratricide incident are increased unless the units and their soldiers have received extensive combat and target identification training beforehand. Other causes of fratricide during multinational brigade exercises and operations are inadequate battle tracking and reporting procedures, ineffective manoeuvre and direct/indirect fire control measures, and adjacent unit coordination.

**Fratricide Prevention.** To improve combat identification, a multinational brigade collaborating with its member units, can implement a day and night vehicle marking system compatible with all units in the brigade. Leaders usually have to give additional consideration for night operations because not all the units may have night vision capabilities. Units should conduct vehicle and equipment displays and vehicle capability demonstrations for all units within the brigade to familiarize all Soldiers with the vehicles and weapon systems in the brigade that they will encounter during operations. Units should also conduct formal combat identification training for its soldiers, supplementing it with a publication highlighting the weapons and equipment of the various units within the brigade. A multinational brigade and its member units should also establish standard operating procedures for the command and control of units to prevent fratricide. The procedures must at a minimum clearly articulate the following: how the brigade will conduct its battle tracking and reporting; what control measures the brigade will use to command and control units; how the brigade will coordinate and clear both direct and indirect fires; and, how the brigade's units and Soldiers execute positive target identification. Rehearsals and brief backs are an excellent tool a commander can use to reinforce understanding and application of command and control procedures among subordinate units. Also, the reciprocal exchange of Liaison Teams between higher and lower units further facilitates the

communication and implementation of command and control procedures preventing fratricide.

### **A Common Doctrine Promotes Brigade Command and Control Interoperability**

Establishing a NATO multinational brigade doctrine would enhance a brigade's command and control interoperability by providing the brigade with doctrinal principles as to how it would employ its planning and orders process, organize its command and staff, and conduct command post operations to facilitate effective mission or battle command.

**Planning and Orders Process.** A doctrinal brigade planning and orders process would serve two very critical purposes for a multinational brigade: provide the commander's guidance on how to integrate the staff's activities; and, how to synchronize the functions the brigade performs during the course of its operations (Department of the Army 2010, p. 1-16). For example the staff personnel activities of operations, intelligence, and fire support have to be integrated in order that these three staffs can collectively synchronize targeting, fire and manoeuvre. A newly formed multinational brigade, with a relatively new multinational brigade staff, experiences a learning curve understanding and employing its planning and orders process. A multinational brigade doctrine would help minimize this learning curve by establishing common orders and planning process those units could train with during training at home station in preparation for future multinational brigade training exercises and operations.

**Staff Organization and Responsibilities.** A multinational brigade doctrine would provide baseline guidance to a commander on how to organize a multinational brigade staff and prescribe what functions each respective staff section performs. Guidance in particular would stipulate what coordinating, personal, and special

staff is required, their respective staff functions, and their appropriate location and integration in the brigade's command posts to optimize the brigade's coordination, command and control (Department of the Army 2010, p. 1-20).

**Command Posts & Functions.** Command posts provide vital functions for the brigade in terms of collecting, analysing, storing, displaying and disseminating information to facilitate the execution of orders through effective command and control. Doctrine would prescribe command post organization, its primary responsibilities, and the manning and their staff functions in each respective command post (Department of the Army 2010, p.1-18).

For example, doctrine would give guidance on the employment of main, forward, and rear command posts, their manning, and requisite functions to enhance the brigade's command and control.

### **Conclusion: VJTF and the Need for a Multinational Brigade Doctrine**

NATO's decision to create a Very High Readiness Joint Task Force (VJTF) on 5 Feb 2015 indicates the time has arrived for the development and implementation of a NATO Multinational Brigade Doctrine (NATO, 2015). The VJTF serves as a so-called "spearhead force" of "significantly increased readiness and highly capable and flexible multinational forces (NATO, 2015)." The VJTF's core element, besides its air and naval components and Special Forces, is a multinational land brigade task force, with as many as 5000 soldiers assigned and task organized with up to 5 manoeuvre battalions (NATO, 2015). The VJTF must be prepared on a moment's notice to conduct operations in very complex and dynamic operating environments characterized by both symmetric and asymmetric threats. Interoperability, that the doctrine facilitates, will obviously be paramount to successful VJTF land brigade operations especially with the increased number of

battalions under its command and control, the missions it will likely undertake, and the stringent readiness and time constraints under which the VJTF will operate.

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