NATO: How to synchronize and integrate Multinational Fires?

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NATO at all echelons will operate in a Multinational environment. To provide Commanders the capability to make informed decisions, he/she will need to visualize the battlefield. At the tactical level, in order for the Maneuver Commander to shape the battlefield and support his/her forces with timely and accurate fires, Call For Fires will need to be in the digital arena. This can only be accomplish by having Multinational digital interoperability; providing a Common Operating Picture (COP) for all to see and Allied Nations' Field Artillery Command and Control (FA C2) systems that can share data.

Fires assets will be provided to NATO Response Forces (NRF) from multiple nations. Bottom Line is how will NATO forces shoot, move, and communicate using different Multinational FA C2 in order to provide timely and accurate Fires? Furthermore, how will the Fires section at a Headquarters build a Fires COP across the Area of Operations (AO), providing the Commander situational awareness? This will provide the Commander the capability to make informed decisions and visualize the battlefield, the "so what". Due to the majority of the 28 NATO members' FA C2 systems not being digitally interoperable with each other, how will NATO accomplish the above mentioned tasks?

A solution for Multinational FA C2 interoperability is the Artillery Systems Cooperation Activities (ASCA). ASCA provides a common interface between different FA C2 systems; allows interoperable between only ASCA members (there are only 5 full members at the current time). For this reason, ASCA would not be a workable solution for NATO's current Enhanced NRF Headquarters; NATO Rapid Deployable Corps-Spain (NRDC-SPAIN), there had to be another course of action.

The current solution is to provide Liaison Officer (LNO) packages with their nation's FA C2 system at HQs NRDC-SPAIN. However, LNO packages are manpower and communications equipment intensive. At the VJTF BDE level, the BDE HQs is Spanish with subordinate battalions from Spain, Portugal, UK, Poland, and Belgium with Spanish and British Artillery batteries. Due to no FA C2 interoperability between these forces, the VJTF BDE's Spanish Artillery Battalion provided three LNO/Battalion Fire Support Liaison Team (FSLT) packages (over 15 personnel dedicated to LNO mission) with communication packages. With this course of action, fire mission processing time and the probability of human error is increased, due to the information transfer from one nation's FA C2 system to another nation's FA C2 system.

During exercises Brilliant Jump and Valiant Falcon 2016, NRDC-SPAIN served as NATO's Land Component Command (LCC) with an attached High Mobility Artillery Rocket System (HIMARS) battalion from Fort Bragg, 3rd Battalion, 27th Field Artillery Regiment, and the VJTF BDE. In order to provide timely and accurate fires and a LCC-level Fires COP, NRDC-SPAIN and 3-27 FAR used the Fire Command Web (FCW) interface provided by the Fires Data Server (FDS) from the Advanced Field Artillery Tactical Data System (AFATDS), thus allowing the sharing of data from NRDC-SPAIN and 3-27 FAR. All data was "cut and paste", with no map overlay available on this web based server. The web based server allowed all units the ability to cut and paste data between NRDC-SPAIN, VJTF BDE, and 3-27 FAR; providing the digital capability to conduct digital fire missions, unit locations, Fire Support Coordination Measures across the LCC AO. The test environment with TALOS and AFATDS was conducted on an Unclassified closed network.

Without ASCA, the web based server is the optimal course of action in operating in a Multinational environment. The server provides the Fires section the capability to develop a digital lethal fire chain from LCC level to the executing unit, the ability to C2 Fires elements across the LCC AO, clear airspace in near-real time, and provide the LCC Commander a Fires COP. It is not the ideal solution, but is the start of providing NATO forces timely and accurate Fires.