

Building a Legal, Interoperable SFAB

Lessons Learned, Shared

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The National Training Center (NTC) recently completed a first-in-a-generation event with 1st Armored Division (AD) executing a combat training center (CTC) rotation with a division as the primary tactical formation. This rotation had multiple enablers to stress command and control, fires capabilities including air defense artillery (ADA), multiple launch rocket systems (MLRS), and a force package from 4th Security Force Assistance Brigade (SFAB).

Each enabler brought their own unique challenges for 1st AD to work through while attempting to integrate them into a single fighting organization. The division fought through these challenges and identified problems that cannot be identified during a warfighter exercise due to the simulated nature; a division CTC in the dirt presents the ability to work through the human dimension not found in the sterility of a War Fighter. Many of these points of friction were directly tied to the interoperability of the Maneuver Battalion Advisor Team (MBAT) 430, of the 3rd Squadron, 4th SFAB.

The Situation

The current SFAB construct was designed during the Global War on Terrorism (GWOT) and has been attempting to develop their revised equipment list and mission set to support the shift to large scale combat operations (LSCO). MBAT 430 identified multiple points in which the SFAB could operate more effectively with both their coalition partner force and any U.S. division they may be operating adjacent to.

The SFAB is equipped with communication equipment originally intended to support advising packages in Afghanistan and Iraq are now being asked to partner with coalition partners that are, in some cases, already functioning at a peer level. Each SFAB will need to be fielded equipment that best supports their efforts in advising modern foreign partners throughout the competition and conflict spectrum. The organization is currently operating with equipment that is sufficient for competition operations where maneuver advisor teams (MATs) and maneuver company advisor teams (MCATs) are operating geographically separated from one another and other U.S. forces. As the SFABs prepare for the next fight, they will need to take a serious look at the communication training and validation that each advisor will perform, modernizing their communication equipment to be lighter and quicker; and how the communication equipment can integrate with the division-level network architecture. The SFABs state that the communi-

cation equipment is their primary weapon system, which is why it is critical for these lessons from the NTC be shared.

Training and Validation

The SFABs have communication equipment throughout every band of the spectrum from high frequency (HF) with the AN/PRC-160 manpack radio to satellite communications (SATCOM) with the Sky-WAN Carry-On User Terminal (SCOUT). Redundancy in communication will be critical for the SFABs as advisors are called to operate in LSCO with a partner force, especially since all peer competitors have jamming capabilities throughout multiple bands of the spectrum. All the communication platforms are critical but have the potential to be overwhelming to the single 25-series noncommissioned officer to simultaneously manage, working at the MATs and MCATs.

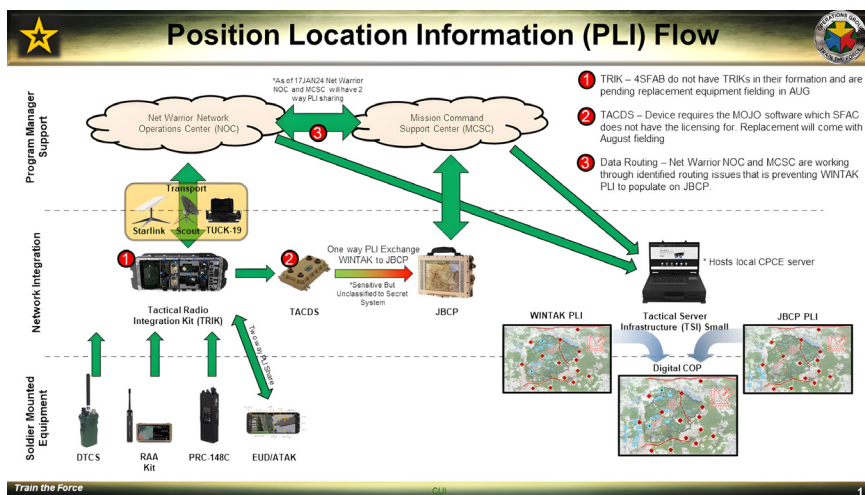
One observation from the recent 24-03 NTC rotation is the reliance on the communication representative, whether they were a 25-series or not, establishing all communication systems by themselves. This delays the MAT's, MCAT's, and MBAT's ability to fully establish and have all capabilities functional in the command post due to the immense number of systems that are required to be set up by one individual.

The best way to ensure rapid displacement and emplacement of the command post is to identify a primary, alternate, and contingency operator for each piece of equipment. Operators must train and qualify on each of their assigned communication equipment with a Go/No-Go checklist to determine proficiency. These checklists should be developed by communication system and modeled off the Training and Evaluation Outline (T&EO) model, as described in Field Manual (FM) 7-0: Training, to provide a clear validation of the operator. This will be a significant event since there are currently no T&EOs broken down for communication equipment. The return on this investment will make it worth the effort. Once each operator is validated in each piece of communication equipment, the MATs and MCATs can then begin the collective training of establishing and operating the command post.

Modernization

MBAT 430 identified equipment that either needed to be modernized or replaced to better facilitate their mission during LSCO. Two critical assets that were unable to be used due to a software licensing issue is the Tactical Radio Integration Kit (TRIK) and the associated equipment, the Tactical Cross Domain Solution (TACDS). These devices have the capability to publish a locally federated Position Location Information (PLI) data from the SFAB Windows

Tactical Assault Kit (WinTAK)/Android Team Awareness Kit (ATAK) to Joint Battle Command – Platform (JBC-P) to increase situational awareness across the battlefield. This integral tool to producing a singular digital common operating picture (COP) was not able to be used due to an expired software license in the



PLI flow chart describing some of the challenges outlined in the article.

TRIK. This capability will need to be updated or repaired to allow MATs, MCATs, or MBATs the ability to publish their end-user device (EUD) PLI to JBC-P without an upper tactical internet (TI) connection.

Starshield was leveraged with great success by MBAT 430, however, it was only with the unit for testing and not officially fielded to the unit. The unit was able to establish their command post and support their coalition partners and 1st AD within 20 minutes when using Starshield. In contrast, the same crew of proficient operators would take over an hour to be able to pull services when using the SCOUT. The ability to quickly establish a link with a satellite with an untrained operator makes the Starshield a necessity for the SFAB due to the rapid tempo of LSCO and high bandwidth required to support multiple enclaves at once. This higher bandwidth requirement will be needed to support the WinTAK/ATAK network which runs on Sensitive but Unclassified-Encrypted (SBU-E), any services they are running in support of their partners on Mission Partner Environment (MPE), and any reporting or collection done over Secured Internet Protocol Router (SIPR) with higher and adjacent units.

The last point for modernization is to reduce the number of management laptops that are used to create plans for the different communication equipment. The SFAB must be lighter and faster. One easy solution is to have one single device that can run virtual machines for different planning tools. The most efficient way to do this would be to field the SFABs a Tactical Server Infrastructure (TSI) Small which has the capability of hosting multiple servers and running the virtual machines for the planning tools. This would also give the SFABs the ability to host their own Command Post Computing Environment (CPCE) server where they could produce and publish the green COP for units they are providing advise, support, *laissez faire*, assess (ASLA) support to.

Integration With Divisions and Above

One of the biggest lessons learned during the 1st AD rotation was the need to have all systems that produce

a digital COP capable of communicating with one another. The SFABs are authorized WinTAK/ATAK across the formation, so it makes logical sense that would be where advisors could put their operational graphics. However, that system does not share those graphics with JBC-P or CPCE. WinTAK/ATAK is

also not able to receive graphics from either JBC-P or CPCE. The solution for this rotation was for the SFAB liaison officer (LNO) team to populate updated graphics from one system to the other. The SFABs are not the only units that will deal with this integration problem since any Integrated Tactical Network (ITN) based organization will have similar issues with a primarily armored formation. There should be a consolidated effort to have PLI, graphics, and chat rooms that can be shared across WinTAK/ATAK, JBC-P, and CPCE.

The final lesson to take away from this historic rotation is just how far in advance the networks should begin to be configured and tested to work together. The MBATs network infrastructure was prepared for the exercise before arriving to the NTC, however, there were still configurations that needed to be worked through once all systems were online. The 1st AD had a similar result with their own internal equipment and network, which only delayed being able to integrate their enablers. The SFAB S6 can mitigate this friction point in the future by leaning forward and beginning network integration prep once an advisor package has been identified for support.

Conclusion

The SFAB has a unique challenge in balancing ASLA with partner forces during competition and supporting those same partners during conflict while informing adjacent units of their actions and capabilities. The lessons learned by MBAT 430 during NTC Rotation 24-03 are going to shape the future of the SFABs as they continue to develop their standard operating procedures around LSCO.

This amazing rotation set the foundation for the SFAB and how divisions will train as the unit of action for years to come. NTC will continue to execute training in the most realistic environment the Army has to offer and share the hard lessons learned in the dirt with the force to ensure the Army is ready to win the first battle of the next war.