

## **TCM ABCT Executive Summary (14 JUL 16)**

**SUBJECT:** TCM ABCT attendance to the D3SOE GOSC on 12 JUL 16

**Purpose:** On 12 July 2016 TCM-ABCT participated in the Army Lessons Learned Forum (ALLF) General Officer Steering Committee (GOSC). TCM-ABCT continues to support the MCoE CDID Test and Analysis Office (TAO) in conducting the DOTMLPF-P assessment for the Denied Degraded Disrupted Space Operational Environment (D3SOE). Over 2,500 pieces of position, navigation and timing (PNT) enabled equipment are potentially effected in a D3SOE environment, and over 250 pieces of SATCOM enabled equipment. Note slide 35 of the ALLF GOSC for the scope of this challenge.

**Attendants:** LTG Lundy (CAC CDR); COL Reese (CALL); COL Stone (TCM-IBCT); Selby Rollinson (TCM-SBCT); Mr. Hamlin/Mr. Berry (TRADOC G2); III Corps G6 (COL Haynes); LTC Ybarra (MCoE, SMDC); SMDC (LTC Ullrich); AMC; TRADOC G3/5/7; Bruce Moore (DOTD); Derek McCrea (TCM-ABCT).

### **Briefings Included:**

Army Lessons Learned Program Review: COL Reese  
Russian Electronic Warfare In The Ukraine: TRADOC G-2  
Current Threats posed by D3SOE: TRADOC G2  
D3SOE Issues: SMDC/LTC Ullrich  
DOTMLPF Implications: MCOE, TCM-IBCT (COL Stone)

### **Summary:**

#### **1. Army Lessons Learned Program Review:**

- a. FY17 goal to move all lessons learned data to JLLIS.

Note 1: TCM-ABCT completed an RFI from CAC to provide feedback on recommended changes to JLLIS by 20 JUL 16. Our office provided four recommended changes to JLLIS with the intent to make the site more user friendly for average users at BCT and below levels and Observer Coach Trainers (OC/Ts). Currently the site works well for advanced users but needs improvement to serve as the portal for Joint data sharing. The current open list of requested changes is posted at the ALLP COP under title JLLIS Open Change Requests 30 Jun 2016 at:

<https://www.jllis.mil/apps/?copid=100&do=cops.view>.

Note 2: TCM-ABCT has created a JLLIS binder for our products at <https://www.jllis.mil/apps/index.cfm?do=binders:binder.summary&binderid=23346>, in line with the Army's goal for JLLIS to serve as the system of record for the Army.

- b. DA is expediting the revision AR 11-33. Changes in the AR include:

(1) Expands proponent roles in the Army Lessons Learned Program to drive DOTMLPF change.

(2) Directs use of the JLLIS as the system of record for the Army.

(3) Adds the ALLF process.

(4) Directs the publishing of an Army Lessons Learned Annual Plan to focus / synchronize lessons learned activities across the Army.

## 2. **Russian Electronic Warfare in The Ukraine & Current Threats posed by**

**D3SOE:** Located on SIPR, search for COP 684.

### 3. **D3SOE Issues:**

a. US Army Space and Mission Command (SMDC) briefed trends that reinforce TCM-ABCT's observations at CTCs:

- (1) Over Reliance on GPS and SATCOM enabled devices
- (2) Lack of maps/compasses
- (3) Failure to encrypt DAGRs
- (4) Knowledge/Cables/Discipline
- (5) Unfamiliar process; No jamming devices at installation TSCs
- (6) Limited ability to replicate D3SOE
- (7) D3SOE PME at institutional level is not required by TRADOC

b. SMDC Recommends:

- (1) Army needs a GPS Jamming device for HST.

**LTG Lundy Feedback** → Recommended a Home Station Training (HST) Training Device goes thru SMDC, Cyber CoE, CAC-T, TCM-Live or TCM-Virtual/Gaming, and then thru the TGOSC.

(2) Army needs a D3SOE Simulation tool for WFXs and Joint exercises (effects on GPS and SATCOM signals).

(3) Army needs to establish the condition of training in a D3SOE as a requirement.

(4) Army must systematically institutionalize D3SOE instruction within common core courses and select MOS specific courses at CoE.

**LTG Lundy Feedback** → Not just a problem that the Cyber Center needs to integrate into POIs, but all CoEs need to integrate. CAC determines what common core is so they are a venue that can establish D3SOE in PME at all CoEs.

NOTE 1: TCM-ABCT has provided white papers and/or newsletters to ABCTs on the process to encrypt DAGRs. In order to reduce the risk of loss of digital navigation capabilities units need to install COMSEC in their DAGRs. To enable automatic DAGR COMSEC updates via satellite follow the instructions found in the April 2016 of PS Magazine at <https://www.milsuite.mil/book/docs/DOC-273771>. Over-the-air key distribution (OTAD), limits the requirement to key COMSEC to only once per year. The OTAD software release is part of MWO 11-5820-1172-23-1. Units can get a copy of the MWO and the software at the PNT website <https://www.pmpnt.army.mil> For details on DAGR encryption see our milsuite at <https://www.milsuite.mil/book/docs/DOC-273771>.

Note 2: Based upon the Degraded Space Mitigation Strategy from 2013 it has been our belief there may be limitations regarding mass printing of maps for units. Multiple sections in the report address potential issues, i.e. "*The National Geospatial-Intelligence Agency (NGA) has announced its intent to reduce/eliminate reproduction of hardcopy maps; degraded conditions will create a surge requirement for hardcopy maps that may exceed current production capabilities and logistical planning factors. NGA has announced its intent to reduce/eliminate reproduction of hardcopy maps. This mitigation requires the capability to produce and/or reproduce maps in bulk quantities. Tactical Geospatial Engineers do not have this capability.*"

During visits to ABCTs, S2s have articulated knowledge and confidence in ordering maps for local training areas and ranges, but have expressed concern over whether or not they would be able to acquire enough maps thru ordering to equip every vehicle and team across the BDE, especially for an ABCT working off several map sheets on the offense. BCTs currently possess map production capabilities with plotters, however, not of the magnitude to provide maps across the BCT. The capability is more limited to imagery, etc.

**Update:** After the GOSC, we contacted the Defense Logistics Agency (DLA) Inventory Branch Chief and clarified the current situation regarding U.S. map print production capabilities. After CAC published the Degraded Space Mitigation Strategy in 2013, the NGA did cease printing maps for units. In 2014, the DLA took the lead on printing maps for the U.S. military. Following this update, there are no foreseen challenges with providing printed maps of worldwide locations to Army and Joint forces in mass on short notice. The DLA possesses the capability to provide mass printing at locations in the U.S. and continental United States (OCONUS), with more robust and increased printing efficiency. One example: They recently provided 12,000 maps in only nine hours. DLA distributes a monthly newsletter that contains ordering processes and tips for customers. We will follow-up with DLA and share the newsletter to help educate the force on this capability.

Note 3: FORSCOM Training Guidance for FY17 on our milsuite page at <https://www.milsuite.mil/book/docs/DOC-289553> outlines D3SOE--> Commanders train to fight in a degraded cyber environment. Critical to cyber readiness is the mastery of the tools available to conduct defensive cyber operations such as Assured Compliance Assessment Solution, Host Based Security System, and Enterprise Security Manager. WFXs and CTC rotations include contested cyber and electromagnetic spectrum

environments. Senior commanders prepare to provide an update on CEMA training as a backup topic during their MTBs and report cyber readiness in the Commander's Comments in their USR.

#### 4. **DOTMLPF Implications** – COL Stone from TCM-IBCT led the discussion:

a. Army forces will likely execute land campaigns (not just individual, short duration tasks) in D3SOE.

b. TCM-IBCT observed the same trends as TCM-ABCT regarding loss of basic analog skills of navigation and communication. Units have become reliant on GPS and digital technology. We have to get back to the basics with the map and compass, and Soldiers must be proficient with operating their equipment in any environment.

c. Position, navigation, and timing require an approach. In a degraded environment, we have more control over the timing, but even timing is affected.

d. Training must include D3SOE as a condition. The forum agreed this is an institutional and operational training need. There were several ways mentioned to address this including a standardized POI from CAC for all PME. This strategy will educate the force on D3SOE common to all. It is important to note that CoEs and units also address degraded conditions in classroom and field training, and ensure basic skills are trained at the appropriate course by skill level.

**LTG Lundy feedback** → We are almost complete with reviewing T&EOs now and we need to have some T&EOs add degraded conditions. Update: Following the GOSC, TCM-ABCT informed the DOTD Collective Training Branch of this recommendation. TCMs are also integrated with DOTD on reviewing the collective task training and evaluation outlines (T&EOs) that would contain these degraded conditions.

#### e. MCoE Recommendations

- (1) Incorporate in M&M concept and maneuver doctrine-CDD, DOTD
- (2) Add space ASIs to select positions in BCTs and consider adding FA40 positions-CDD/Maneuver TCMs
- (3) Assess equipment required to demo degraded effects on maneuver
- (4) Access BCT map production requirements/capability-Maneuver TCMs (Currently ongoing with DLA; see prior note in this EXSUM)
- (5) Emphasize traditional navigation, encryption, analog systems in training and POIs-DOTD
- (6) Add D3SOE as a condition in training/learning events-DOTD/CDID

- (7) Add D3SOE to PME (include SECRET/NF)-DOTD
- (8) Develop electronic range fans to allow for jamming –Range Control

The next ALLF GOSC is scheduled for 23 SEP 16.

For more products related to our DOTMLPF-P assessment in the D3SOE working group view our JLLIS site at - <https://www.jllis.mil/apps/index.cfm?do=cops.view&copid=1038>.

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