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**TCM-ABCT & RECON SITREP [week of 16 May] 17 May 2016**

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**1. ABCT**

**a. Abrams.**

1) Team Abrams participated in the Abrams Program Management Review (PMR) 10-11 May 2016. Robert Hay briefed the PMR on behalf of TCM ABCT as the Abrams user representative covering TCM ABCT organization and mission, formation capability gaps applicable to the main battle tank, provided a synopsis of Abrams user testing conducted over the past year and upcoming user tests.

2) The Abrams Technical Advisor attended the quarterly Abrams Field Problem Review Board (FPRB). The FPRB is a review and monitoring reports from the field and test sites to identify any problems affecting safety, reliability, availability, maintainability and performance. This system allows us to identify trends and major problems impacting the Abrams fleet. There were no major problems identified over the past quarter however, they have seen reports of previously identified problems that could have been prevented if there was better information flow to the field down to the user level beyond the LARS and SOUM messages currently used. TCM ABCT will work with PdM Abrams to include a section in our quarterly Newsletter to assist in information flow to the field.

**b. Bradley.**

1) Mr. George Moore provided SME support to 4ID for the CVTESS for an upcoming training event. During training with the CVTESS crews were having trouble getting the TOW to fire. The TASC contacted TCM ABCT telephonically for troubleshooting assistance, but issues remained.

Mr George Moore (TCM) and Mr. Will Freeman (PEOSTRI) traveled to FT Carson and had access to the vehicles with the issue. The initial assessment of the vehicle was the turret was fully functional and once that was agreed upon they installed the CVTESS system. During installation it was noted that an excess of dirt was packed into the connectors on the training device port which lead the team to this as the cause of failure but installed the CVTESS to validate thoughts: All weapons fired except for the TOW just as reported. The team removed the CVTESS cleaned all connections re-installed and system functioned properly. Two other vehicles were checked that had the same issue and once CVTESS was installed and power applied properly all systems functioned.

There are four areas that must be monitored when installing the CVTESS.

a) The External Training Device interface Port (ETDIP) connectors must be cleaned and maintained to ensure proper connections.

b) When installing the connectors, the crew must ensure they are properly installed. This can be verified by feeling the base of the connector to verify it is fully seated without a gap.

c) Power up sequence must be “CVTESS first” then vehicle power. If the crew has to manually turn on the MCD power in the turret the TOW will not fire and they will not be able to hit targets using the 25mm because super elevation will not be suppressed when lasing a target.

d) When applying power to the turret there are two messages that indicate MILES is ready and live fire is not allowed. If these messages are not received CVTESS is not properly installed.

1. “Single Laser MILES Training Device is ready”

2. “Training Device indicates LIVE FIRE NOT ALLOWED”

2) Mr. Dave Rogers and other key stakeholders; PM AFV, BAE Systems, OSD, DOT&E, and ATEC participated in a 2 day Test Readiness Review (TRR) for Bradley FoV Engineering Change Proposal 2 (ECP2) at Sterling Heights, MI. The purpose of the meeting was to conduct a detailed review of the 27 TRR entrance criteria requirements along with their associated status. Of the 27 total Entrance Criteria, 20 are complete and 7 were not complete by the TRR suspense of 03 May 2016. The 7 TRR Requirements not met were;

- Draft TMs or IETMs in place (82% complete)

- Diagnostics software sufficiently integrated in system software to support maintainers and operators (software fixes won’t be verified until after SQT currently scheduled for FEB 2017)

- Workaround for IPRs (additional Technical Briefs are being developed to address other IPRs and fault conditions and will be approved by Systems Engineering Integration Team)

- Contractor Testing complete and IPRs resolved (Fully “train/educate” the testers and FSR’s 10 days behind schedule– 5/13/16)

- LRUs Qualified (Power Allocation Transfer Hub still waiting to be qualified)

- Test vehicle(s) configuration (PTO Upgrade for Performance Test Vehicle will be not be applied until 11/28/16)

- Shakedown complete (only 4 0f 6 vehicles have completed the 1000 miles of shakedown testing)

At the conclusion of the TRR, the government collectively made the decision to delay entrance into formal government testing (DT) until after the Delta TRR which is now tentatively scheduled for early June 2016.

3) The Bradley Senior Technical Advisor participated in the Systems Requirement Review (SRR) for Bradley tie down, towing, and recovery capabilities upgrade. The objective of Bradley STS Work Directive SBV 114 is to upgrade the Bradley to meet MIL-STD-209 tie-down requirements, and provide improved robust towing and recovery capabilities that meet the user’s requirement of “Like Vehicle” recovery (Bradley towing another Bradley with tow bar). The upgrade will consist of a new tow pintle, and interfaces on front and rear, which provide for tie down and towing. The improvements will be applied to the current Bradley Family of Vehicles (FoV). An Engineering Change Proposal (ECP) shall be developed to incorporate these changes into the Technical Data Packages (TDPs). A Modification Work Order (MWO) and Modification Kits shall be submitted via Engineering Change Proposal (ECP) followed by the Engineering Release Record (ERR). This work directive will be considered complete upon final approval of ERR. Structural improvements consist of replacing existing hollow ramp with structurally sound solid ramp; replacing existing ramp hinges & lugs with high strength hinges and lugs design and add a 3rd middle hinge. Front/Rear tie-down improvements; replace front tie-downs with high strength tie-down design to improve towing capacity and replace existing 40K pintle with 100K pintle. Fielding is scheduled to begin in June 2017.

**c. AMPV.**

1) The AMPV Team participated in the AMPV Variants IPRs at Sterling Height, MI. 9-13 May. These events established the final engineering designs of the five variants of the AMPV program, prior to the program’s Critical Design Review (CDR) in 20-24 June 16. Areas discussed included specification compliance, contract deliverables prior to CDR and vehicle load plans. Several “side-bar” discussions were conducted as well. These included antenna co-site analysis, average procurement unit costs and weight reduction initiatives. No significant issues were identified during the IPR's that affect current AMPV program timelines. Based on our input, we will provide soldiers for a user jury on 1-2 June to assess soldier-software interfaces for all AMPV variants.

**d. Formation and DOTLPF Integration:**

1. **Doctrine, Organization, Personnel and MC-Network (DOP/MC-Net):**

a) Phil Tiemeyer observed the employment of the Mid-Tier Networking Vehicle Radio (MNVR), and the Command Post Computing Environment (CP CE) during the Network Integration Evaluation (NIE 16.2) at Fort Bliss.

(1) MNVR. All systems were issued based an IBCT Basis of Issue Plan (BOIP) with 1-6 IN operating without its Abrams and Bradleys. MNVR density for an IBCT is greater than an ABCT, with two retrains vehicles verses the one in a Combined Arms Battalion (CAB). The MNVR generally achieved the throughput and range projected with planning ranges almost doubled in some instances. However, the software tool Phil observed may not have had sufficient fidelity to determine if other MNVR radios in the vicinity aided in achieving these measured ranges. When the Blue Force Tracker and Warfighter Information Tactical (WIN-T), were turned off, the MNVR became the only network transport for data and no significant decrease in throughput was observed, although the duration of this condition was very short.

(2) CP CE. CP CE experienced some initial challenges with latency and identification of Staff (S2/S6) roles and responsibilities. Roles and responsibilities for administration and assigning permissions to Soldiers were not clearly defined and/or understood. This resulted is some units using their GFE mission command systems vice CP CE installed widgets. The Distributed Common Ground Station Army (DCGS-A) CP CE still requires a 35T Intelligence Soldier from BDE to perform administrative functions and permissions at the BN/SQDN echelon. At the BN/SQDN echelon CP CE replaces the single Intelligence Fusion Server (IFS), with two, Tactical Server Infrastructure (TSI) stacks which doubles the current IFS form factor. The TSI provides a significant increase in capabilities to the BN/SQDN but, all of these capabilities may not be required at these echelons. Further analysis is ongoing to determine if the increased capability justifies an increased SWAP burden.

(3) Additional details are not releasable due to a Non-Disclosure agreement. BMC will publish a detailed final report with all observations and findings..

1. **Training, Leader Development, and Safety Integration (TLS):**

a) The III Corps ABCT Warfighters' Forum Senior Mentor Symposium is tomorrow, 18 May from 1000-1200 (East) at NIPR URL: <https://conference.apps.mil/webconf/AWfF> TCM-ABCT will host and facilitate the event for Fort Benning in Building 70, Room 1020.

b) Team TLS has developed several electronic surveys aimed at collecting operational feedback from key leaders in ABCTs addressing challenges faced by infantrymen who perform crew duties on the Bradley Fighting Vehicle. Upon gaining III Corps approval, the surveys will be distributed on May 19th with a request to have them completed by July 1st.

c) Derek McCrea and Mark Granen are on the ground at JMRC (Hohenfels) this week observing the training activities of 5-7 CAV, 1st Brigade, 3d Infantry Division during Combined Resolve VI. Combined Resolve is a U.S. Army Europe-directed, joint Multinational Training Command conducted battalion-level multinational exercise designed to train the US Army's regionally allocated forces to the U.S. European Command.

d) The Mission Command Digital Master Gunner (MCDMG) is a subject matter expert who can configure, operate, maintain and coordinate the connectivity of mission command information systems. The purpose is to generate a common operational picture that enables the staff to analyze information, make recommendations and integrate and synchronize resources. Learn more here: <https://www.army.mil/standto/archive_2016-05-17/?s_cid=standto>

**e. Large Caliber Ammo:**

1) Mr. Kuamoo is working a response to a Request for Variation (RFV) and an Engineer Change Proposal (ECP) from the Joint Munitions Command (JMC). RFV R16T8003 pertains to the use of a propellant which cannot meet high and low temperature requirements simultaneously, as required by the government standards. This propellant has been used in a previous ammunition lots with no issues, and no impact on the field is anticipated. ECP R16T5036 pertains to the marking procedure applied to the base of the cartridge case for 120mm tank ammunition, and changes from spray-on stencils to a roll-on procedure.

**f. Futures Integration:**

1) This week Mr. Griner is participating in the Dominating Mobility through Terrain Shaping and Engagement (DMTTS&E) Increment I (Gator mine replacement) AoA at White Sands Missile Range, NM. The intent for the DMTTS&E Increment I AoA is to develop and assess a range of terrain shaping and area denial alternatives for the Joint Force that meet new operational and landmine policy requirements, specifically intended for use in long-range military operations.

**g. Systems, Sustainment and Logistics Integration.**

1) MAJ Polak participated in the kick off meeting for the Mobility in Complex Urban Environments (MCUE) working group. Edgewood Research, Development and Engineering Center (ERDEC) hosted the meeting and briefed their concept of utilizing an Unmanned Aerial Vehicle (UAV) to provide a near real-time driver warning system that is controlled by the ground vehicle. Although this proof of principle capability is being scoped for logistical wheeled platforms, the concept can be applied to any ground vehicle system to provide increased mobility and OPTEMPO. The increased situational awareness MCUE is designed to provide would enable Soldiers to avoid impassible obstacles, detect constricted or closed roads, collapsed culverts, and other obstacles in near-real time reporting these locations to the driver/operator. Other driver assist systems are currently being developed for military vehicles, but these systems fail to address mobility related obstacles beyond the vehicle's local field of view. There are currently no non-line-of-sight sensing solutions for mobile ground vehicles. This concept is driven by AWFC 12: Conduct Joint Expeditionary Maneuver and Entry Operations, AWFC 15: Conduct Joint Combined Arms Maneuver, and AWFC 16: Set the Theater, Sustain Operations, and Maintain Freedom of Movement. Although this capability is intended to use Commercial Off-the-self systems (COTS), some technologies need to be matured and integrated with three culminating demonstrations in FY19, FY20, and FY21.

2) The Systems and Abrams team participated in a transportability and recovery IPT hosted by HQDA G8 in order to discuss a future Army Requirements Oversight Council (AROC) which will discuss the Abrams Armor and the impacts on transportability/recovery. Other participants included CASCOM, PdM Abrams, PdM M88 Recovery systems, and PdM HTVs with the intent to pull in key players early and ensure the team builds a comprehensive vision and integrated strategy outlining 2nd and 3rd level issues for the ARCOM briefing this coming fall (~September 2016). TCM ABCT will coordinate closely with its counterparts to ensure all operational impacts are communicated with regards to the weight of the Abrams.

**ARNG LNO:**

1) 1/34th ABCT (MN ARNG) in final stages of NTC 16-07 rotation (box dates 11-24 June) Rail Operations begin 14 May with BCT Torch arriving 23 May. Advon is scheduled to arrive 30 May. The three Main body lifts will begin arriving 03 June with RSOI 06-10 June. Mission Operations are scheduled 11-24 June. Highlights for the week of 13-21June; rotating 6 day Force on Force/ 3 day CALFEX beginning with TF 1-145 AR, TF 1-194 AR, & TF 2-136 IN. 22-24 June BDE FoF. Recovery OPs 25-28 June with 3 Phase Main body departure ending 28 June. Trail Recovery will remain until 08 July and final rail download is scheduled for 9-17 July in MN.

2) The ARNG M1A1 Master Gunner ASI add on course is approved. The new course is an ATTRS stand-alone 10 day course funded by NGB and taught at the Warrior Training Center, FBGA. The course will immediately follow the M1A2 MG course which will be a prerequisite. This additional course will give ARNG MG both A8 M1A1 and K8 M1A2 MG ASIs. ARNG MG in M1A1 units track will be 2 week ATAC (Abrams Training Assessment Course or pre-MG course) taught at the WTC, followed by the M1A2 MG course, then returning to the WTC for the 10 day M1A1 course. Annual throughput is expected to be 10 Soldiers.

**2. RECON.**

1. R&S Concepts and Analysis:
2. R&S BCT Implementation: NO CHANGE: TCM-Stryker leads the 1/4 SBCT R&S BCT Excursion. We will continue to collaborate with TCM-Stryker and 1/4 SBCT to complete mission analysis and begin development of the MCoE support plan for the R&S BCT Excursion.
3. Standard Scout PLT O&O: Standard Scout Platoon O&O completed DOTD editorial review and will begin staffing after final coordination with USAARMS on 17 MAY.
4. Cav Troop O&O: Topic outline completed, writing to occur MAY-JUN 2016, editing, staffing and approval (T) JUL-SEP 2016.
5. R&S CBA: The Functional Solutions Analysis (FSA) submitted to ARCIC on 11 April 16. TCM-Recon received ARCIC validation review Comment Resolution Matrix (CRM) on 4 May – no major issues, continuing to update the FSA EXSUM and Report to return to ARCIC by 25 May suspense. After ARCIC approval, TCM-Recon conducts follow-on effort to update Capabilities Needs Analysis (CNA) database with R&S CBA gaps and solutions.
6. Support to Unified Quest 5-13 May. TCM Recon provided two action officers who served as the OIC for the R&S Syndicate Cell and the SME for the R&S BCT and the Cavalry Group O&O efforts. Based on the scenario wargame, future adversaries will challenge our use of space, cyber, and aerial technologies to generate situational understanding. The requirement to maintain a robust air-ground R&S capability will be critical in providing commanders a means to develop the situation and provide time and space to enable maneuvering to positions of relative advantage. The analysis of UQ begins this week in preparation for the final report to be published in the coming months.
7. Support to Unified Challenge 16.2: NO CHANGE: TCM-Recon participated in the UC 16.2 Initial Planning Conference (IPC) on 28 April 16. UC 16.2, 1-12 Aug, is the 2nd of 3 GAMEXs designed to help refine O & O development and drive analysis of the A2020 force. TCM Recon’s anticipated support requirements are still TBD at this time.
8. MCoE Focused Assessment (FA) – Scout Section, 16-20 MAY (FBGA): NO CHANGE: TCM Recon will observe the Scout FA focused on demonstrating a scout section employing ground sensors, ground surveillance radar, and Soldier Borne UAS. The event includes two system training days with vendors, two days of mission sets employing the sensors, and AAR on the final day.
9. 2025 BCT O&O SIMEX. Level of participation TBD for 1-2 JUN TTX, 11-15 JUL SBCT SIMEX, 18-22 JUL IBCT SIMEX, and 25-29 JUL ABCT SIMEX.
10. Scout Sensor Strategy: Scout Sensor Strategy will have a dismounted component and a mounted component. TCM Recon participated in the 12 MAY EOIR Recon Sensor Performance Analysis Workgroup.
11. Senior Leader Updates. Next Update to Deputy Chief of Armor is scheduled for 17 MAY; topics include staffing Scout Platoon O&O and draft outline for Cavalry Troop O&O.
12. CATR:TCM-Recon, DOTD, and PdM GS continue development of lesson plans in support of CATR NET and Fielding. We are preparing for a tentative CATR Synch Meeting with PdM GS on 26 MAY 16 to discuss the training development process and review way forward to enable the upcoming AUG 16 fielding decision.
    1. 16-20 MAY conducting unit visits at JBLM and FHTX to review draft CATR POI option and collect informal unit CATR POIs in support of training development.
    2. 16-20 MAY participating in CATR Staff and Analyst Training Development with CATR SMEs / Trainers at Clarksville TN
    3. CATR O&O: NO CHANGE: Review of the initial draft of CATR O&O continues. The O&O will support the development of the training strategy and efforts with PdM.
    4. CATR Lesson Plans: NO CHANGE: Continuing to support the development of CATR overview and tagging tracking and locating lessons plans. Continuing review of proposed device lesson plans.
    5. CATR Task List: NO CHANGE: ICW DoTD, developing CATR new equipment training critical tasks to inform the NET Plan, DTT Plan, and facilitate the upcoming teleconference.
    6. CATR BOIP**:** NO CHANGE: Tentatively scheduled to complete staffing process 25 MAY 16.
    7. CATR Program Documents: NO CHANGE: Reviewing the material fielding plan and life-cycle sustainment plan.

**Upcoming Events**.

a. ABCT

* 13-25 May - Unit Visit to 1/3ID(-) @ Combined Resolve VI (Hohenfels)
* 15-27 May - Abrams SW 4.6 Beta Test (APG, MD)
* 16-20 May - Synthetic Training Environment Working Group (FLWKS)
* 30 May - 03 Jun - PROTECTOR User Working Group (Interlaken, Switzerland)
* 01-02 Jun - AMPV User Jury (SJCA)
* 05-10 Jun - CVTESS SME Support to 1/34 ABCT MNARNG (FICA)
* 05-16 Jun - Unit Visit to 1/3ID @ Anakonda 16 (Drawsko Pomorski, Poland)
* 06-17 Jun - Abrams SW 4.6 Beta Test (APG, MD)
* 07-08 Jun - M88 PMR (TACOM)
* 15-24 Jun - Force on Force Coverage of NTC 16-07 (1/34 MNARNG) (FICA)
* 15-24 Jun - LP CROWS Technical Manual VAL/VER (Picatinny Arsenal)
* 20-24 Jun - AMPV CDR (SHMI)

b. RECON

* 16-20 MAY: MCoE Focused Assessment – Scout Section (FBGA)
* 16-20 MAY: CATR Analyst Course Development (Clarksville, TN)
* 16-20 MAY: Unit Visit (JBLM and FHTX)
* 26 MAY CATR Synchronization Meeting with PdM GS
* 31 MAY – 2 JUN: MCoE Focused Assessment – Micro-Doppler Radar (FBGA)
* 1-2 JUL BCT O&O TTX, MBL (FBGA)
* 6-16 JUN: CATR Operators Course (FBNC)
* 16 JUN: UC 16.2 Mid Planning Conference
* 11-15 JUL SBCT O&O SIMEX, MBL (FBGA)
* 13 JUL: UC 16.2 Final Planning Conference
* (T) 13 JUL: RECON Council
* 18-22 JUL IBCT SIMEX, MBL (FBGA)
* 19-21 JUL: 16.2 Rehearsal of Concept, MBL (FBGA)
* 25-29 JUL ABCT SIMEX, MBL (FBGA)
* 01-12 AUG: UC 16.2 Execution

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