Standard Scout Platoon
Proof of Principle

Report produced by
TRADOC Capability Manager-Armored Brigade Combat Team and Reconnaissance (TCM-ABCT/Recon),
Capabilities Development and Integration Directorate (CDID), MCoE

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ARMORED BRIGADE COMBAT TEAM (ABCT)
STANDARD SCOUT PLATOON (ABCT) PROOF OF PRINCIPLE (PoP)
FINAL DRAFT REPORT

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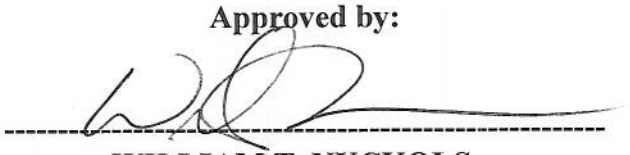

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DATE SIGNED: 16 APR 2014

Table of Contents

Table of Figures

Appendices

Note: The below appendices are available in a separate PDF document and can be requested from the TRADOC Capability Manager, Armored Brigade Combat Team (TCM-ABCT), Fort Benning, Georgia, 31905.

Appendix A – DOTMLPF Recommendations
Appendix B – Operational Findings
Appendix C – Memorandum of Agreement (MOA) between MCoE, 1-7 CAV and NTC
Appendix D – Data Collection Plan Memorandum for 1/1CD "6x36" Force Design Update (FDU) Assessment
Appendix E – 3x5 and 6x36 Formation Charts
Appendix F – Data Collection Management Plan (DCMP)
Appendix G – Reconnaissance Capabilities from Platoon to Squadron Level in Armored Brigade Combat Teams (ABCT).
Appendix H – Armored Brigade Combat Team (ABCT) Cavalry Squadron Trends Info Paper
Appendix I – Armored Brigade Combat Team (ABCT) Standard Scout Platoon (SSP) Proof of Principle (PoP) Update Info Paper
Appendix J – 1-7 CAV Unit Home Station Training After Action Review
Appendix K– 1-7 CAV Sample Military Decision Making Process (MDMP) Products

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1st Squadron, 7th U.S. Cavalry Regiment
Cobra Team, National Training Center
Test and Evaluation Office, Capabilities Development and Integration Directorate

EXECUTIVE SUMMARY
ARMORED BRIGADE COMBAT TEAM
STANDARD SCOUT PLATOON
PROOF OF PRINCIPLE (PoP)

1. **Standard Scout Platoon Proof of Principle Summary**: The Standard Scout Platoon (SSP) Force Design Update (FDU) provides the best organization to ensure scout platoons possess the required leadership, versatility, survivability, protection, mobility and firepower to perform all R&S missions required against any opponent in the future operational environment. This report outlines the performance of the 6x36 formation and addresses methods to mitigate identified DOTMLPF limitations.

2. **SSP Assessment Overview**:

a. The Commanding Generals from the Maneuver Center of Excellence (MCoE), 1st Cavalry Division (1CD) and the National Training Center (NTC) agreed to conduct and participate in a Proof of Principle to determine whether the following hypothesis of the SSP proves correct in a decisive action training environment (DATE) at the NTC, "An ABCT scout platoon equipped and manned using the SSP organization demonstrates increased capabilities to perform R&S missions during combined arms maneuver and wide area security."

b. The CG, MCoE designated the Armor School Commandant as the study lead and the TRADOC Capability Manager, Armored Brigade Combat Team/Recon (TCM-ABCT/Recon) as the executive agent to develop the study plan and conduct the analysis. The analysis team developed a data collection management plan (DCMP) in conjunction with the Office Chief of Armor (OCOA), Directorate of Training and Doctrine (DOTD), MCoE Capabilities Development Integration Directorate, and the Test and Evaluation Office (CDID T&EO) (see Appendix F). These organizations also formed the core of the analysis team. Two learning demands served as the analytical objectives guiding data collection, analysis and planning. The study team conducted analysis in order to determine the effect of the SSP on:

(1) **Learning Demand 1**: Do the dismounted capabilities of the 6x36 FDU design perform as predicted, and what if any DOTMLPF limitations exist?

(2) **Learning Demand 2**: How does the proposed R&S architecture (Force Design) enable the commander to conduct effective reconnaissance and security operations during combined arms maneuver and wide area security?

c. Data collection occurred primarily through the use of field observations, interviews, surveys and panel discussions with the Soldiers, non-commissioned officers (NCOs) and officers assigned to the test unit (1st Squadron, 7th Cavalry Regiment, 1st Brigade Combat Team, 1CD). The analysis team also used personal observations of home-station training events and operations at the NTC. These observations were augmented by interviews and surveys conducted with the Observer Coach Trainers (OC/Ts) assigned to 1-7 CAV during NTC Rotation 14-04. The analysis team collected data during three pre-rotation training events occurring from SEP-DEC

13 at Fort Hood, Texas; during DATE missions in NTC Rotation 14-04 (FEB 14) at Fort Irwin, California and finally with a post-NTC rotation event upon the units return to home-station in MAR 14.

d. The current ABCT scout platoon is configured with 36 Soldiers operating off of three Bradley Fighting Vehicles (BFVs) and five up-armored HMMWVs (UAHs). Vehicle manning obligates 24 of the 36 Soldiers to vehicle crews leaving the remaining 12 Soldiers for dismounted operations. NCO manning in this organization requires the platoon leader (PL) to determine how to employ his staff sergeants (SSGs), either remaining on the vehicles or leading dismount elements. The number of scouts available to man observation posts (OPs) under this organization is insufficient to sustain long duration observation of multiple named areas of interest (NAIs). The UAH provides insufficient mobility, lethality, and protection to operate effectively. The SSP addresses these issues by replacing all UAH with three additional BFVs effectively increasing the platoons mounted capability and the platoons dismount squad strength by 50% to 18 personnel. The table of organizational equipment (TO&E) also increases SSG allocations to ensure appropriate leadership is available at all times on mounted platforms and in dismounted squads.

3. **SSP Operational Assessment**: The SSP improved the commander's ability to accomplish R&S tasks required during combined arms maneuver and wide area security. Additional Bradleys and dismounted Soldiers enabled the platoon to better apply the fundamentals of reconnaissance through improved versatility, survivability, protection, mobility and firepower. The organizational structure provided an increased capability for the platoon to rapidly develop the situation, fight for information as required and conduct/maintain continuous reconnaissance. SSP organized platoons also demonstrated the ability to maintain contact with the enemy to provide freedom of action for the supported maneuver commander and provide real-time information of the enemy's composition, disposition, strength, and actions to allow staffs to analyze and make recommendations to the commander. The increased leader to led ratio, dismounted manning available and firepower improved the formation's ability to contribute across all of the warfighting functions: movement and maneuver, intelligence, fires, sustainment, mission command and protection.

a. **Improved Versatility**: The 6x36 formation demonstrated an increase in versatility when compared to the 3x5 formation for both wide area security and combined arms maneuver operations. On several occasions, the increased manning enabled the platoon to effectively destroy enemy combat vehicles and dismounted scouts and provide increased long duration OPs and patrols. Many OC/Ts stated that the 3x5 formation did not provide the versatility to successfully accomplish all required R&S tasks. One Troop primary OC/T with 14 NTC rotations said this is the first unit able to accomplish isolation of Ujen, and attributed the success to six Bradleys and 18 dismounts on the ground to handle ~ 100 intentionally displaced persons (IDP).

b. **Increased Survivability**: The addition of three Bradleys and six dismounted Soldiers increased the survivability of the scout platoon. ATP 3-90.28 (Reconnaissance Platoon) lists survivability as a limitation of the 3x5 formation. A pure Bradley formation mitigates this limitation in the platoon by providing platforms of equal survivability as the current Bradley

Fighting Vehicle (BFV). The increased dismount manning provides more observers to increase survivability. Cavalry formations must possess the capability to survive chance contact; the organization provides an increased level of protection while simultaneously providing the best configuration of mounted and dismounted maneuver elements to reduce the likelihood of chance contact.

c. **Improved Protection**: The 6x36 formation improved mobile protected fire power for the scout platoons. Protection levels were increased for mounted and dismounted Soldiers through improvements to armor, security, observation, mutual direct fire support and CASEVAC capabilities.

d. **Improved Mobility**: The 6x36 formation improved the mobility of the scout platoon to effectively perform all R&S missions in all terrain. R&S missions for the BCT were unconstrained by the mobility of the Bradley. The squadron was able to emplace vehicles in restrictive terrain that allowed observation that would not been possible with the 3x5 formation. Mounted reconnaissance was improved as the platoon was able to cover a large area quickly at the required operational tempo. Platoons made maximum use of the optics, firepower, communications, and protection provided by Bradleys; a significant improvement over the timid pace of the unsurvivable and mobility challenged UAH on the same terrain.

e. **Improved Lethality**: The 6x36 formation increased the ability for the platoon to fight for information by providing twice as many stabilized weapons systems and 50% more Soldiers in the dismount squads. The UAH is not equipped with a stabilized weapon system to accurately engage targets while moving and does not have the capability to provide effective direct fires against a near pear threat at standoff distances comparable to the Bradley. The Bradley's stabilized 25mm canon provides direct fires while on the move at ranges up to 3,000 meters. In addition to the 25mm the Bradley TOW Missile can destroy armored targets at ranges well beyond that. The UAH does not have an armor defeating capability and must call for a Bradley to reposition to engage identified threat targets. On every occasion where the unit utilized the increased capability of the dismounts at NTC the results were spectacular. The Bradleys provide a common platform with long-range optics and precision long-range firepower that provide mutual support and facilitate reconnaissance and security (R&S) handover when operating in conjunction with OPs. Together the mounted and dismounted maneuver elements of the SSP increase the R&S capabilities of the squadron and add operational depth.

f. **Improved Mission Command**: The new SSP organization increases the leadership experience and proficiency across the formation; it also improves the leader to led ratio and greatly enhances the ability of the ABCT scout platoon to conduct effective simultaneous mounted and dismounted R&S missions. The SSP force structure solves the dilemma of platoon leaders having to decide whether to place a staff sergeant on the Bradley or with the dismount element by providing SSGs in both positions throughout the platoon.

g. **Improved Dismount Capability**: The SSP formation provided additional dismounts that increased the scout platoon's firepower, mobility, versatility, and survivability required to conduct effective reconnaissance and security operations during combined arms maneuver and wide area security. The additional dismounts were available by the FDU reorganizing the

platoon from three Bradleys and five UAHs to a six Bradley platoon. This configuration required fewer vehicle crewmembers, creating six additional positions for dismounted operations, and utilized the remaining NCOs to train and lead the squads without adding Soldiers. The unit accomplished tasks during every mission at the NTC that would not have been possible in the 3x5 formation. Platoon leadership felt more confident with NCOs on the ground operating at extended ranges, another benefit of increased SSG presence throughout the organization.

h. **Improved Sustainment**: The Sustainment Center of Excellence (SCoE) reviewed the SSP force design update (FDU) and recommended the inclusion of an additional HEMTT fueler and associated personnel. Units transitioning to SSP organizations should consider modifying standard stockage list (SSL) to reflect decrease in UAH parts and increase in BFV class IX parts in order to reflect the consumption rate of doubling the number of Bradleys and the loss of 10 UAHs per troop. TCM-ABCT will continue to assess sustainment support for the SSP with the SCoE preliminary findings indicate that the FDU sustainment changes are sufficient to support the organization. The SSP formation provided a more effective platform from which to conduct Casualty Evacuation (CASEVAC), when compared to UAH's which lack the survivability, protection and lethality to perform CASEVAC. UAHs also lack adequate space to evacuate and treat casualties while en route to the next level of medical care. The common platforms provided under the SSP formation improved the unit's ability to forecast and conduct sustainment operations through commonality of repair parts and like vehicles for recovery operations.

4. **SSP DOTMLPF Assessment Summary**: The scout platoons organized under the SSP FDU design performed exceedingly well during home-station training events and the NTC rotation; however, there are doctrine, organization, training, material, leader development, personnel, and facilities (DOTMLPF) implications that must be considered to ensure the formation and its Soldiers are equipped with the material, knowledge, skills and attributes necessary to accomplish all R&S tasks required for combined arms maneuver and wide area security. The actions laid out in following paragraphs are recommendations based upon report findings and should not be construed as directed actions.

a. **Doctrine:** Doctrine does not describe the 6x36 formation specifically because it does not currently exist as an MTOE formation. However, ATP 3-20.98 (Reconnaissance Platoon) and ATTP 3-20.97 (Dismounted Reconnaissance Troop) detail dismounted reconnaissance. Revise doctrine from platoon to squadron level in order to capture the difference in capabilities, limitations, duties, responsibilities and training requirements. Capture naming convention changes throughout doctrinal publications (i.e., change section to squad, RECCE to scout platoon, etc). Review and revise 19D Soldier Training Publication Skill Level 1-4 tasks and determine improved delivery/availability for Soldiers. Update gunnery doctrine (Standards in Weapons Training) to reflect training ammunition and scenarios based on the SSP equipment assigned. The training strategy needs to capture simultaneous mounted and dismounted individual, team, squad and platoon events. Survey respondents across the formation echelons are unsatisfied with current levels of fidelity in those publications designed to assist development of training events. Respondents state that we need to return to the level of detail contained in legacy Army Training and Evaluation Plan (ARTEP) manuals and the Fort Knox

Supplemental Manual (FKSM). Sustain and continue to publish doctrine governing 3x5 organizations until this organization no longer exists.

b. **Organization:** Rapidly implement the organizational changes identified for both personnel and equipment to form SSPs as quickly as possible. Assess conversion of dismount elements in those scout platoons that will remain equipped with a 3x5 platform configuration from 12 personnel to 2x6 man scout squads led by SSGs. Assess the feasibility of trading two UAH for a 3rd six man squad (3 BFVs x 3 UAH x 3 six man squads, i.e. 3x3x3), until all scout platoons can be converted to the 6x36 formation.

c. **Training and Leadership Development**: Increase dismounted scout squad training and SSP mounted/dismounted integration in all MCoE courses. The manning and capability provided by the SSP increases the need for maneuver leaders to fully understand how to employ the new organization. The Armor School must standardize training for mounted and dismounted Soldiers and those who lead them. Rotation 14-04 once again validated that mounted/dismounted integration, Bradley skills, air ground integration, reporting, HF/FBCB2 training, CBRN, land navigation, Javelin, and call for fire task/skills need improved training in the schoolhouse and sustained training at home-station; these are perishable skill sets. Soldiers assigned to a SSP require greater proficiency on these skills due to increased responsibility at the squad level and leaders will face increased training requirements to improve and sustain R&S skills. Common platforms will simplify training impacts; however, the systemic lack of assignment oriented platform training must be solved. 19Ds assigned as Bradley crewmen will double; these Soldiers must be trained on the platform prior to arrival at the unit. The MCoE must address strategies to ensure functional training occurs in conjunction with PME, and en route to formations. Implement the reconnaissance career model as soon as possible and modify POIs to ensure all courses are nested in accordance with career progression regardless of formation. Increase vehicle proficiency in leadership training for NCOs and officers, and realign Reconnaissance and Surveillance Leaders Course (RSLC), Army Reconnaissance Course (ARC) and Cavalry Leaders Course (CLC) as career progression gates for Cavalry organization leaders.

d. **Material**: The SSP formation exceeded expectations. Primary material limitations included: man portable extended range day/night optics and hand held mission command systems. The dismount squad does not have a light-weight, man portable long range optic that provides observation overmatch outside of threat direct fires. The AN/PED-5 provided the capability for the dismount squad to identify targets during the day and night, however observation range was limited. In order to provide observation overmatch, dismounts called for vehicles to reposition to positively identify targets outside of the AN/PED-5 range. The platoon did not have the ability to outfit six simultaneous OPs with mission command equipment capable of communicating beyond line of sight in all terrain. On average, only two dismount radios were assigned to each platoon and the radios could not effectively communicate in restrictive terrain beyond 300-500 meters from the vehicles. In the 3x5 formation, dismounts are not assigned specific positions as machine gunners or anti-armor specialists. Standardize equipment sets to reflect the assignment of an M240B and one Javelin weapon system per dismount scout squad and code a Soldier in each of these squads with the 2C additional skill identifier (ASI) (Anti-Armor Specialist). Leaders involved in the study preferred M240Bs over

the M249 squad automatic weapon (SAW) based on improved lethality and range. The current squad/platoon basis of issue plan (BOIP) for Javelin command launch units (CLUs) must be increased from two to three to support this initiative.

6. **Capability Gap Mitigation**: This report confirms the hypothesis that an ABCT scout platoon equipped and manned using the SSP organization demonstrates increased capabilities to perform R&S missions during combined arms maneuver and wide area security. Scout platoons equipped under the SSP organization provide increased survivability, protected mobility, and firepower to fight and survive to collect information or to conduct assigned tactical missions in order to provide the supported maneuver commander freedom of action during operations. The organization best suited to compare the SSP organization with the current 3x5 configuration are the Cobra OC/Ts at the NTC who have observed both formations operating in DATE rotations. One OC/T respondent described the SSP as "unfair to the threat"; this is exactly the type of overmatch we desire. In the words of the Cobra Team Command Sergeant Major, "We need to get into the 6x36 formation as quickly as possible."

7. POC for this report is John W. Miller III at john.w.miller.civ@mail.mil.

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CHAPTER 1
ASSESSMENT STRATEGY/OVERVIEW

1. **Background**. The Maneuver Center of Excellence (MCoE) Commanding General (CG) provided a briefing to the Armored Warfighters' Forum (AWfF) Senior Mentor Symposium on the Standard Scout Platoon (SSP) initiative in the April 2013. There was consensus across the community of purpose that further study was required. A memorandum of agreement (MOA) was established in June 2013 to outline requirements between the MCoE CG, 1st Cavalry Division (1CD) CG, National Training Center (NTC) CG and the Tank-Automotive and Armaments Command (TACOM) CG to outline the justification, responsibilities, and implementation process for evaluating scout platoons in 1st Brigade, 1CD (see Annex A). This MOA laid the foundations for a cavalry squadron to convert its organization to the SSP configuration, conduct home station training, and demonstrate capabilities during a focused rotation at the NTC. The MCoE would provide the data collection plan and methodology as well as the Proof of Principle (PoP) assessment team.

2. **Standard Scout Platoon Defined**.

a. **Current Capability Gaps**: The Movement & Maneuver Formation Based Assessment (M&M FbA) and Army Techniques and Procedures (ATP) 3-20.98 (Reconnaissance Platoon, April 2013) augment several previous studies outlining scout platoon capability gaps. ABCT scout platoons organized in the 3 Bradley x 5 up-armored HMMWV (UAH) (3x5) construct have significant operational deficiencies to conduct effective reconnaissance and security operations during combined arms maneuver and wide area security. The definitions for the operational assessment criteria below were created by combining SSP characteristics with the terminology outlined in *Joint Publication 1-02, Department of Defense, Dictionary of Military & Associated Terms.*

(1) **Versatility** is defined as the Scout Platoon's ability to conduct simultaneous R&S tasks while mitigating risk to survivability and force protection while increasing its ability to accomplish those tasks.

(2) **Survivability** is defined as the ability of the Scout vehicle to continue to operate following initial contact while increasing the probability of Soldier survival when engaged by enemy forces.

(3) **Force Protection** is defined as the preservation of the effectiveness and survivability of the force so the commander can maximize Reconnaissance and Security assets to accomplish the mission.

(4) **Mobility** is defined as the capability of a unit which permits them to move from place to place while retaining the ability to fulfill their primary mission.

(5) **Lethality** is defined as the capacity for physical destruction of enemy vehicles and equipment and the capability for the lawful and expert application of lethal force against threat combatants under all operating conditions.

The cavalry squadron proved unable to develop the situation out of contact in all cases. The squadron had to fight for information to answer the commander's Priority Intelligence Requirement (PIR) and enemy long range precision fire systems inflicted unacceptable losses on the squadron in all cases. *Heavy Brigade Combat Team, A Reconnaissance Squadron Experiment SEP 2007*

Seek fundamental improvements to Soldier and unit system lethality, survivability, mobility, and network functionality to ensure that the American Soldier remains the most discriminately lethal force on the battlefield. *CSA Strategic Priorities, OCT 2013*

The SSP supports the MCoE's Maneuver Warfighting Challenges:

MWfC #3: How to conduct maneuver and integrate all arms and joint capabilities to seize and retain the initiative and defeat capable, determined enemy organizations in all types of terrain including dense urban areas (includes offense and defense).

MWfC #4: How to conduct security operations across wide areas to secure the force, critical infrastructure, or critical activities (e.g. development of indigenous security forces or establishment of legitimate governance/rule of law).

b. **Gap Mitigation Strategy**: The MCoE developed a SSP organization that mitigates or closes the operational capability gaps. The ABCT Force Design Update (FDU) 13-01 reorganizes the platoon by replacing the UAH with three (3) additional BFVs and creates three (3) six (6) man scout squads (see Figures 1.1 and 1.2).

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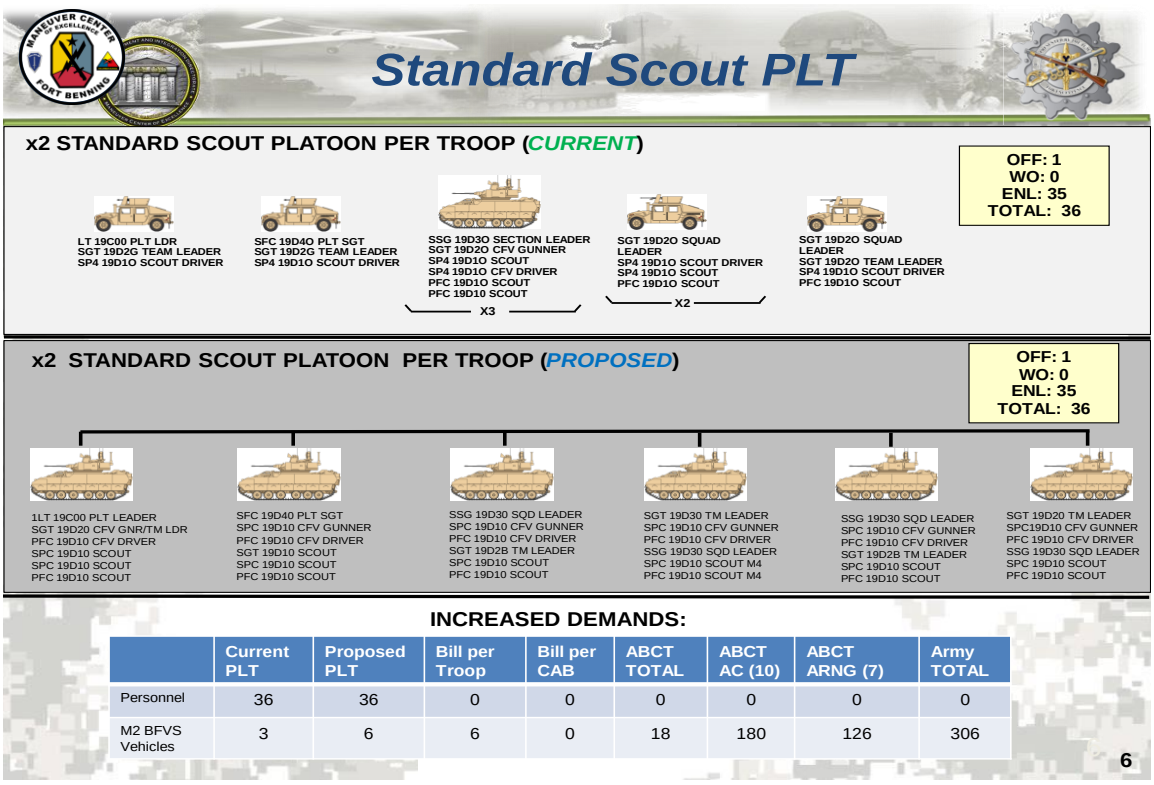

	Current PLT	Proposed PLT	Bill per Troop	Bill per CAB	ABCT TOTAL	ABCT AC (10)	ABCT ARNG (7)	Army TOTAL
Personnel	36	36	0	0	0	0	0	0
M2 BFVS Vehicles	3	6	6	0	18	180	126	306

Figure 1.1 ABCT Scout Platoon Comparisons

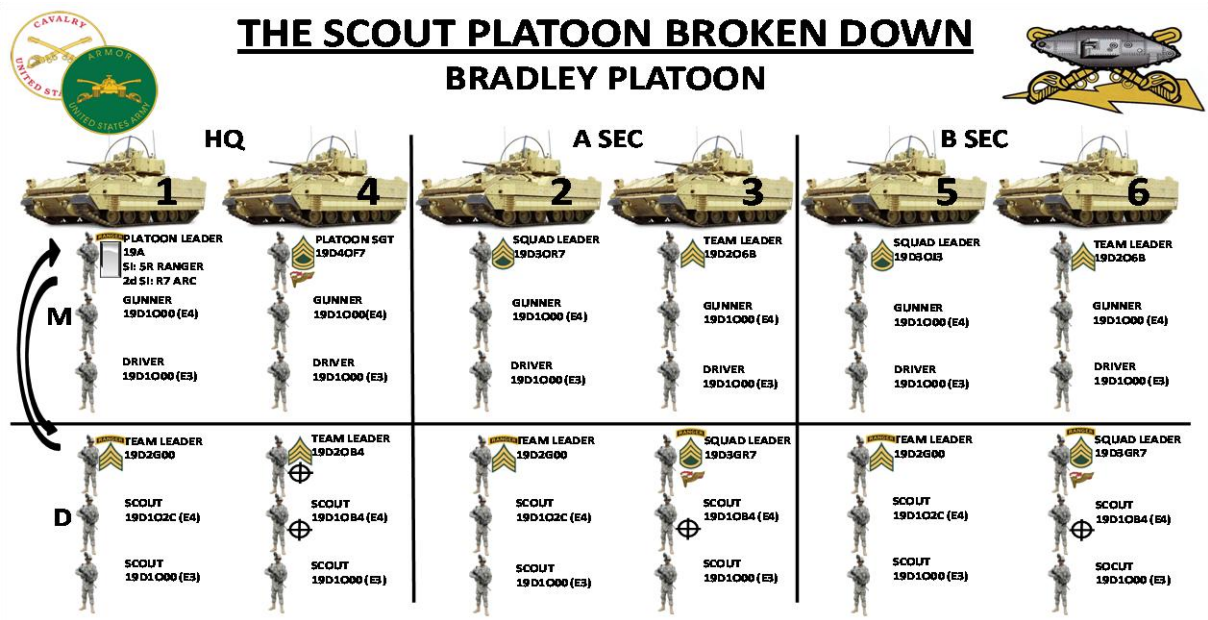

Figure 1.2 ABCT Standard Scout Platoon Dismount Positions

3. **Study Plan:**

a. **Development**: In JUN 2013 the MCoE CG directed the Armor School to lead efforts to analyze the 1CD SSP configuration with the Capabilities Development Integration Directorate (CDID) in support. TRADOC Capability Manager Armored Brigade Combat Team – Reconnaissance (TCM-ABCT/Recon) led the analysis and the Proof of Principle (PoP) study with support from the Office Chief of Armor (OCOA), Directorate of Training Development (DOTD), and the Capabilities Development Integration Directorate (CDID) Test and Evaluation Office (T&EO). The data collection team created a Data Collection Management Plan (DCMP) derived from Armor Commandant guidance. This plan was approved in AUG 13 prior to the first unit visit.

Two Learning Demands (LDs) served as analytic objectives, which guided data collection and analysis planning. Analysts examined each LD, using the extensive qualitative observations of unit performance and feedback from Soldiers throughout the analysis; the technical and operational performance of each platform; in order to generate insights, findings, and recommendations. This report summary is organized around the LDs and their associated essential elements of analysis (EEAs) and further into measures of merit (MoMs) in order to provide clarity and organization to the chartered objectives. The full DCMP is contained in Annex F. The two LDs are shown below:

(3) **Learning Demand 1**: Do the dismounted capabilities of the 6x36 FDU design perform as predicted, and what if any DOTMLPF limitations exist?

(4) **Learning Demand 2**: How does the proposed R&S architecture (Force Design) enable the commander to conduct effective reconnaissance and security operations during combined arms maneuver and wide area security?

b. **Methodology**:

(1) **Data Collection Instruments**: Upon approval of the DCMP the team developed a strategy to collect data utilizing field observations, interviews, surveys and panel discussions from the unit identified to be the subject of the study and the NTC observer coach trainers (OC/Ts). The collection instruments focused on collecting data on individual and collective skills, specific duty positions and operational performance of the SSP in order to identify doctrine, organization, training, material, leader development, personnel and facilities (DOTMLPF) integration requirements.

(2) **Study Group Population**: The study group population consisted of Soldiers, non-commissioned officers and officers assigned to 1st Squadron, 7th Cavalry Regiment, 1st Armored Brigade Combat Team, 1st Cavalry Division at Fort Hood, Texas. Study group demographics are shown in Figure 1.3.

Standard Scout Platoon Surveys, Interviews and Panel Discussion Demographic									
Category Rank		Platoon STX Unit Leader Interviews SEP 13	Post Home Station Unit Surveys DEC 13	Post Home Station Unit Panel Discussion DEC 13	Pre-NTC Observer Coach Trainer Interviews DEC 13	Post-NTC Observer Coach Trainer Surveys FEB 14	Post NTC Unit Panel Discussion MAR 14	Post NTC Unit Surveys MAR 14	Total
Officers	LTC	1	1	1	1		1	1	5
	MAJ	2	1	1	3	1	2		8
	CPT	3	7	7	3	2	5	5	29
	LT	6	15	6			10	11	42
NCOs	SGM/CSM	1			1		1		2
	MSG/1SG	1	2	3	1		3	1	10
	SFC	2	6	7	6	3	9	9	40
	SSG	6	11	13	6	1	13	13	57
	SGT	2	17	15			18	21	71
	CPL		4				1	5	10
Enlisted	SPC		40	10			23	57	130
	PVT/PFC		58	43			42	66	209
Totals		24	162	106	21	7	128	189	637

Figure 1.3 Study Group Demographics

Note: Although not a part of the study population, feedback was collected from NTC OC/Ts in the form of surveys and interviews during and after NTC rotation 14-04.

(3) **Study Events**: The MCoE team collected data at the following events with Soldiers with 1-7 CAV:

(a) 16-20 SEP 13: STX Lanes and interviews (FHTX).

(b) 1-6 DEC 13: Post home station training surveys, panel discussions and interviews (FHTX).

(c) 9-13 DEC 13: Panel discussions and interviews with the Cobra Team at the NTC during the NTC Umbrella Week (FICA).

(d) 19 FEB – 28 FEB 14: Observed 1-7 CAV during NTC Rotation 14-04. Surveyed Cobra Team OC/Ts. Conducted post NTC Observer Coach Trainer (OC/T) surveys (FICA).

(e) 17- 21MAR 14: Post NTC rotation surveys, interviews and panel discussions (FHTX).

(4) **Team Composition**: The team composition was designed to facilitate data collection as identified in the DCMP and consisted of subject matter experts from the Armor School, DOTD, CDID T&EO and TCM-ABCT/Recon. (see Figure 1.4)

TRADOC Capability Manager, Armored Brigade Combat Team (TCM-ABCT)		
COL William Nuckols	Study Team Director	Squadron-Brigade
SGM Michael White	Study Team NCOIC	Squadron-Brigade
Mr. Carl Johnson	Observation Team Lead	Troop-Squadron
Mr. Derek McCrea	Training Analyst	Platoon-Troop
Mr. Mark Granen	Leadership Analyst	Platoon-Troop
MSG Curlee Kelley	Material Analyst	Squad-Platoon
Office Chief of Armor		
SFC David Neuzil	Organization/Personnel Analyst	Squad-Platoon
Directorate of Training Development		
SFC Kenneth Gowins	Doctrine Analyst	Squad-Platoon
CDID Test and Evaluation Office		
Mr. Eugene Lee Hill	Survey Analyst	Survey Administrator

Figure 1.4 Team Composition

(5) **Study Constraints and Limitations**:

(a) **Constraints**.

- The unit had the normal preparation time prior to the NTC rotation, but had added training requirements based on the conversion to the SSP organization. These added training requirements included Bradley gunnery qualification and scout squad creation and training. The latter was further complicated by delayed dismounted manning to 100%. The unit conducted the majority of their home station training with ~50% manning of dismount Soldiers.

- The unit had a mix of Bradleys to include M2A3s, M3A3s and M7s. This is a non-doctrinal mix, but this allowed the study team to assess the value of an FS3 capability versus a Bradley equipped with the TOW missile. The unique vehicle configuration also created potential challenges with the shop stock list (SSL), maintenance and training.

(b) **Limitations**.

- This study plan was focused on the ABCT scout platoons. When the team identified data that cuts across all formations (IBCT/SBCT) it is stated in the report. Assume the findings in the report relate to the ABCT unless mentioned otherwise.

- The report is based on a study sample of one cavalry squadron operating in the SSP configuration for one NTC rotation and the corresponding home-station training period. The team was able to capture 3x5 data from OC/Ts with experience observing ABCTs in the 3x5 configuration and Soldiers in the unit with 3x5 experience.

- The study took place on restrictive-severely restrictive terrain at FHTX and on unrestrictive terrain at the NTC. It has not been evaluated in other operational environments.

- The unit only had one RSLC graduate; questions that pertain to RSLC could not be adequately addressed within the scope of this study. Leaders in the unit familiar with the course content did express that there is a need for SPC-SGT to attend the course and then attend ARC as SSG-SFC as part of their professional development.

- Personnel and Facilities: LD 1 addresses DOTMLPF considerations, however, assessment of personnel and facilities (P&F) were not essential elements of analysis for this report. There are no increases in scout personnel from the 3x5 to the 6x36 formation; however, CASCOM has identified strategies for personnel to fulfill maintenance requirements for the additional tracked vehicles without increasing manning in the ABCT. The unit did not express any concerns related to maintenance facilities during the analysis. The unit encountered challenges with ranges that are outlined in Chapter 2. There are no facilities impacts/issues with the unit conducting this PoP. The current facilities (maintenance bays, motor pool spacing, wash racks, and offices/personnel billeting) are sufficient for transition to the FDU. TCM-ABCT will continue to access the impact on other units as the FDU goes forward. No immediate concerns were identified in the FDU staffing so the team does not anticipate that this will be a problem.

4. **Hypothesis**: An ABCT scout platoon equipped and manned using the SSP organization demonstrates increased capabilities to perform R&S missions during combined arms maneuver and wide area security.

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CHAPTER 2
LEARNING DEMAND 1 ANALYSIS

1. **KEY OBJECTIVES.** Learning Demand 1 focuses on DOTMLPF integration that is required as the Army transitions to the 6x36 SSP design. Table 2-1 below outlines Learning Demand (LD) 1, as well as the corresponding Essential Elements of Analysis (EEA). The chapter is broken down by individual measures of merit that form the basis for the findings of the report. For the full DCMP see Annex F.

Learning Demand 1. Do the dismounted capabilities of the 6x36 FDU design perform as predicted, and what if any DOTMLPF limitations exist?			
Issue #	**Issue**	**EEA#**	**EEA**
1.1	Do the dismounted capabilities of the 6x36 FDU design perform as predicted, and what if any DOTMLPF limitations exist?	**1.1.1**	How well does current doctrine address the dismounted capabilities of the 6x36 FDU design?
		1.1.2	How well does the current BCT organization address the support requirements of the 6x36 FDU design?
		1.1.3	How well does the current R&S training support the requirements of the 6x36 FDU design?
		1.1.4	Do the dismounted capabilities of the 6x36 FDU design perform as predicted, and what if any materiel limitations exist?
		1.1.5	How well does the current Leadership and education support the requirements of the 6x36 FDU design?
		1.1.6	How well does proposed 36 Soldier Scout Platoon meet the R& S mission requirements?

Figure 2.1 Data Collection Management Plan (DCMP) for Learning Demand 1.

2. **Learning Demand 1 Summary**: The SSP organization significantly improves ABCT cavalry scout platoon operational performance as currently implemented. The capabilities of the SSP can be further improved by conducting the DOTMLPF changes as identified in this report. This will ensure the formation has the proper equipment, knowledge, skills and attributes necessary to accomplish all R&S tasks required for combined arms maneuver and wide area security.

3. **Analysis:** Data sources for this analysis include subject matter expert review of doctrine, field observations, participant input from surveys, After Action Reviews (AARs), panel discussions, and interviews.

a. **EEA 1.1.1 How well does current doctrine address the dismounted capabilities of the 6x36 FDU design?**

Doctrine does not describe the 6x36 formation specifically because it does not currently exist as an MTOE formation. However, ATP 3-20.98 (Reconnaissance Platoon) and ATTP 3-20.97 (Dismounted Reconnaissance Troop) detail dismount reconnaissance.

Recommendation 1.1.1: Revise doctrine from platoon to squadron level to capture the difference in survivability, capabilities, limitations, duties, responsibilities and training requirements required as we transition to the SSP. Doctrine should capture naming convention changes (i.e. section to squad, RECCE to scout platoon, etc). 19D Soldier Training Publication Skill Level 1-4 tasks need to be reviewed and revised as necessary. MoMs 1-4 below must be reviewed for doctrinal implications.

(1) **MoM 1.1.1.1 Do the current platoon, troop and squadron FMs, ADPs, and ADRPs adequately describe mounted-dismounted integration when conducting reconnaissance and security (R&S) operations?**

Revise doctrine to reflect the change in the vehicle platforms, mounted operations and the addition of scout squads that are now organized and equipped to conduct independent operations. Doctrine must adequately address interaction between mounted and dismounted elements and the impact on operations in unified land operations. Current doctrine addresses mounted-dismounted integration; however, revise platoon and troop doctrinal manuals to adequately address the operational employment of the 6x36 formation. Reconnaissance Platoon doctrine (ATP 3-20.98) describes survivability limitations for the 3x5 formation but requires revision to capture the difference in survivability of the 6x36 formation. Doctrine that details the 3x5 formation must remain available to the force until the configuration is no longer a scout formation in which our Soldiers serve.

(2) **MoM 1.1.1.2 Does the doctrine adequately describe dismounted survivability tactics?**

Dismount survivability tactics describe those skills that are utilized by Soldiers when operating away from the platform. They include, but are not limited to movement techniques, maneuver formations, the use of restrictive terrain to provide cover and concealment and construction of survivability positions. Current doctrine is written to apply to every formation and is therefore generic in nature. Doctrine provides details necessary for leaders to effectively plan and execute survivability tactics. A consideration unique to ABCTs pending conversion from M3s to M2s is the ability to place an entire scout squad in one vehicle. Platoon leaders must understand that impact of a catastrophic vehicle kill on his scout squad strength.

At NTC the unit operated mostly with six Soldiers per vehicle. Although this option has advantages, the risk for mass casualties is greater when all six Soldiers from the squad ride in one vehicle. There were instances during this and previous NTC rotations where an entire squad was destroyed when the vehicle was engaged. The platoon leader has to weigh the survivability risk against information sharing and increased situational awareness provided by the squad leader having his entire squad available in the Bradley. The squad leader display (SLD) in the hull provides the senior leader with the location of the other vehicles in the platoon, including terrain and graphics to increase situational awareness. *Analysis Team Observation*

(3) **MoM 1.1.1.3 Does the doctrine adequately describe how to properly utilize the lethality of dismounted teams?**

Doctrine must be revised to reflect the synergistic effects of a scout squad led by a staff sergeant with increased organic weapons. Doctrine must provide planning and employment considerations for the squad so that they can effectively plan and integrate direct and indirect fires. Planning considerations must also include employment of air-ground operations and detailed instruction on sustained long-duration OP operations and increased patrol requirements. ATP 3-20.98 (Reconnaissance Platoon) does not provide details on the capabilities and deployment of the Javelin weapons system. A dismounted reconnaissance team with a radio has the ability to bring any and all brigade lethal effects to the enemy as long as they are in range and fires can be cleared.

(4) **MoM 1.1.1.4 Does the doctrine adequately describe how to effectively mobilize (employ) dismounted teams?**

The six Bradley platoon changes the way the platoon maneuvers. Platoon leaders will deploy in one of two configurations: either two sections of three vehicles or three sections of two vehicles. The implication for the dismounted scout squads is significant; Soldiers may not always operate from the same platform. Platoon leaders and NCOs will have to determine impacts to vehicle and personnel load plans, increased significance on pre-combat checks (PCCs) and pre-combat inspections (PCIs) to ensure equipment is staged to the correct vehicle when Soldiers move. Existing doctrine that focuses on the 3x5 formation cannot be extrapolated to provide sufficient planning considerations for this formation. This has further implications if Bradleys inside the scout platoon do not have a common hull, seating and stowage plan.

(5) **Are there any other doctrinal changes that would need to be addressed with the 6x36 design?**

(a) **Intelligence Linkage from Squad to Squadron**: One of the largest concerns addressed by squadron leadership was related to lack of details on how squads, platoons and troops link intelligence gathering efforts to collect priority intelligence requirements (PIRS), specific information requirements (SIRs), intelligence requirements (IRs), named areas of interest (NAIs) and indicators. Initially during home station training, platoon leaders did not talk about NAIs or their plan to tie questions to answer intelligence requirements. According to

the squadron commander, that task is the most important task Scouts perform. The squadron command and staff developed a synch matrix to accomplish this intent from section to squadron level.

Recommendation 1.1.1A: Add sample standard reconnaissance and security guidance into existing doctrine. (See Annex K for Squadron R&S product samples)

(b) **Naming Conventions**: If the Army changes the element naming convention from section to squad doctrine will require revisions, (i.e. section to squad leader, vehicle section to vehicle squad, etc).

(c) **Doctrinal Standardization Simplifies Training**: Standardization across BCTs has the potential to simplify training and operations for scout platoons. With similarly manned organizations, doctrine can describe a uniform set of operations and tactics for the dismounted element of any scout platoon. Doctrine and training products can be simplified.

(d) **Gunnery Modifications Required**: Current range facilities do not support six vehicle training exercises. In order to support the SSP training exercise units will have to book adjacent ranges, especially when conducting live fire exercises. This effectively precludes digital range support for SSP gunnery at the platoon level. 1-7 CAV had to modify gunnery standards to train and certify their platoons. Gunnery doctrine will need to revise scout firing tables, scenarios, targetry and ammunition allocations to support the 6x36 formation. Doctrine (Standards in Weapons Training / Direct Fire Gunnery) will need to be revised to reflect training ammunition based on the SSP equipment assigned. Squadron leadership recommended required live fire gates for individuals, teams, squads and platoons. The SSP organization requires a mounted vehicle progressive training while simultaneously conducting progressive dismounted squad training. Use the current Bradley rifle platoon training strategy as a model. Leaders stated that if doctrine requires progressive live fire exercises for every dismount element (individual, team, squad, platoon) then unit leaders will focus more equally on dismounted and mounted training requirements resulting in better trained platoons. The SSP gunnery should also include successful execution of calls for fire and scout platoon control of air assets to engage a target.

> "Greater numbers of lightly armored vehicles, tables VIII-XII were conducted simultaneously with section and platoon integrity, allowing them to simulate actually fighting a battle as they would, next to their wingman." *Post Home Station Survey Respondent*

Recommendation 1.1.1B: Gunnery doctrine (Standards in Weapons Training) will need to be revised to reflect training ammunition and scenarios based on the SSP equipment assigned. The training strategy needs to capture simultaneous mounted and dismounted individual, team, squad and platoon events.

(e) **Tactical Standard Operating Procedures (TACSOPs):** Platoon size elements did not have relevant TACSOPs that addressed routine functions of scout platoons. Troop level TACSOPs did not provide the requisite level of detail needed by platoon leadership to execute their missions. Feedback received from officers and NCOs indicates that platoon oriented doctrinal publications need to return to providing checklists to assist inexperienced leaders in performing their missions. ie: Assembly Area (AA) procedures, battle drills, PCCs/PCIs.

Recommendation 1.1.1C: MCoE develop a product similar to the legacy era Ft. Knox Supplemental Manual (FKSM), sample Infantry, Armor and Cavalry TACSOPs, and sample checklists for distribution to students in professional military education (PME) courses.

(f) **CASEVAC in Cavalry Doctrine**: With additional dismounts on the ground at extended ranges from evacuation platforms it is vital that we review doctrine and ensure leaders have all the tools necessary to execute successful medical planning and evacuations. Review of platoon and troop doctrine identified areas that can be improved with more details for units to plan medical support for R&S missions. Review of unit SOPs has identified they no longer contain the details for planning and executing casualty evacuation (CASEVAC) and medical evacuation (MEDEVAC), and leaders have lost the knowledge, skills and attributes to conduct these operations in the decisive action training environment (DATE). Since TACSOPs do not contain details, units are referring to doctrinal manuals for details on ground and aerial casualty evacuation. These doctrinal manuals do not discuss these tasks in sufficient detail and do not mitigate demonstrated unit weaknesses on evacuating casualties with organic assets, mass casualty evacuations, planning and rehearsals. Scout doctrine also lacks administrative details for casualties (use of DA 1156 etc).

Recommendation 1.1.1D: Cavalry Troop doctrine contains CASEVAC/MEDEVAC content, but could be improved with a diagram displaying the different roles of medical care that occur from platoon to squadron level. A sample paragraph 4 (OPORD) and sustainment overlay would better aid first sergeants/executive officers during planning and conducting sustainment operations.

(g) **Knowledge of Access to Doctrinal Resources**: Knowledge and use of the Combined Arms Training Strategy (CATS), Army Training Network (ATN), Army Publishing Directorate (APD) and other online portals for doctrine needs improvement. The most common method for Soldiers to acquire doctrine is through available internet search engines. Several NCOs stated they still rely solely on their printed manuals from the 1990s. All leaders expressed a shortage of printed doctrine and there is an Army-wide lack of knowledge on the process to procure it. As we revise doctrine we must ensure that leaders understand where to locate manuals and how to order them.

- Only **3%** of Skill Level 1 19D Soldiers interviewed were aware that there is a Skill Level 1 19D Soldier Training Publication
- Only **16%** of NCOs use ATN to obtain doctrine
- Only **8%** understand CATS

Post Home Station Training Panel Discussions

The primary barrier repeatedly observed is a lack of printing/reproduction capability for publications at unit level. Though units can use the supply chain and order many different hard copy publications, many are only available from the APD in Electronic Means Only (EMO), requiring units to print what they need usually without unit provided resources. One example of an EMO publication that Soldiers absolutely need, but would be cost prohibitive for a unit to produce is the 19D Skill Level 1 Soldier Training Publication. This publication is over 700 pages long and is seldom used by Soldiers.

Units are having the same problem with technical manuals (TMs). This problem will become worse once they become equipped with six Bradleys, units will not have adequate TMs on hand to conduct vehicle maintenance operations. Leaders expressed a concern over a lack of Bradley technical manuals (TMs). Leaders said they have tried to order the manuals with no success and said that they personally printed the preventative maintenance checks and services (PMCS) section of the TMs. The remaining portions of the TM contain individual task standards, vehicle operation procedures and safety data that is necessary for the unit to maintain the vehicle safely. Unit publications representatives can order hardcopy TMs through APD through a "point click ordering system." The point click ordering system contains all doctrine available for unit publications representatives to order in digital (EMO) and hard copy (EA).

Recommendation 1.1.1E: Armor School identify how revised doctrinal publications in support of the SSP FDU are provided to units. Unit publications representatives need to order hardcopy doctrine and TMs through APD through the "point click ordering system" at the following hyperlink https://dol.hqda.pentagon.mil/ptclick/index.aspx

b. **EEA 1.1.2 How well does the current BCT organization address the support requirements of the 6x36 FDU design?**

The unit did not deploy to the NTC with the support requirement organization changes outlined in the ABCT FDU. The study team is reluctant to make assessments on sufficiency of the proposed support requirement organizational changes based on one NTC rotation in which the unit was not organized under the proposed table of organizational equipment (TO&E). Additionally the unit conducted an unconventional logistical package (LOGPAC) cycle: during which the commander focused on training the unit leaders on how to plan and conduct resupply based on conditions instead of time. The unit stated that if they had been equipped with UAHs instead of Bradleys they would have had to refuel more often due to higher fuel consumption rates for UAHs. Having said that, the unit did not experience any logistical shortcomings that would indicate the support requirements in the new FDU design are not sufficient to support operations. The changes based on SCoE analysis are shown in figure 2.2:

Test Set, Common Core, STE M1/FVS	T06859	6
Adapter Hardware: FVS Peculiar, STE M1/FVS	A10769	6
MFS Tank Rack Module	T20131	6
9 PLS Trailers	T93761	9
POL HEMTT	T58318	1

Figure 2.2 SSP FDU Support Requirements

Recommendation 1.1.2: Continue to track this issue in subsequent unit visits with emphasis as the FDU is fielded.

(1) **MoM 1.1.2.1 Does the squadron medical section MTOE provide adequate support for the 6 x36 Scout platoons?**

The squadron medical section MTOE provides adequate support for the 6x36 formation. The squadron assigned three medics to each troop, however all troops did not assign the medics to platoons. In cases where the troop assigned one medic/platoon they retained the senior medic in headquarters and assigned a scout as the driver, leaving one junior medic for each platoon. The 6x36 formation has the same number of Soldiers as the 3x5 formation. The difference is the way the Soldiers are organized. Leaders recommended mitigation strategies including one combat lifesaver (CLS) per team and vehicle and increasing attendance to Emergency Medical Technician – Basic (EMT-B) courses. This resulted in casualties not receiving treatment from a qualified medic from the platoon casualty collection point to the next level of care.

Recommendation 1.1.2.1: Policy guidelines should include one CLS per team and vehicle.

(2) **MoM 1.1.2.2 Does the FSC MTOE support the logistical requirements for 6x36? Are there any other sustainment concerns and/or advantages related to the 6x36 formation?**

Changes are required for Forward Support Company (FSC) MTOE to support the logistical requirements of the 6x36 formation. The FSC MTOE does not currently support the logistical requirements for the 6x36 formation. The addition of three Bradleys to each platoon doubles the number of Bradleys in the troop requiring changes to sustainment requirements. The Multifunctional Division, Force Development Directorate, US Army Combined Arms Support Command at Fort Lee, VA has conducted analysis in support of the FDU that identifies possible solutions. If the FDU is approved, future Cavalry squadron FSCs will closely resemble today's Combined Arms Battalion (CAB) FSC. Sustainment platforms lack mission command systems on all vehicles required to communicate with the scout platoon. Sustainment assets lack sufficient mobility, survivability, and communications to immediately follow combat forces through all terrain to sustain combat. As the Army fields communications systems we must ensure sustainment units have the equipment required to communicate with the unit supported.

(a) **Consumption Rates Increased for Bradley Parts**: Platoon leadership recommended that parts on hand need to be increased to reflect consumption rates for six Bradleys. One common platform under the 6x36 concept requires less storage in the authorized stockage list (ASL) for UAH parts and more space for Bradley parts.

(b) **Improved Recovery Capability**: Unit first sergeants and executive officers said they prefer the pure Bradley fleet because they can recover like vehicles without having to shut down two sections or send recovery assets across the battlefield.

(c) **Service Station Method of Resupply**: Vehicles assigned to the FSC provided adequate support during resupply operations by delivering supplies through the service station method. During the post home-station training survey, 100% of the platoons handled logistical requirements and resupply utilizing a service station type of resupply. 82% agreed that the service station method meets all the unit needs under the 6x36 concept. The unit never conducted tailgate resupply and therefore no data was collected on this method of resupply.

(d) **Sustainment Mission Command**: Sustainment elements could not always communicate with the troop during resupply operations due to lack of communications systems assigned to all vehicles. The unit recommended that sustainment platforms have common mission command capabilities as the units they are supporting.

(3) **SSP Dismount Manning/Leader to Led Ratio**: The SSP organization increases the leadership experience and proficiency in the formation. The SSP improves the leader to led ratio and greatly enhances the ability of the ABCT scout platoon to conduct simultaneous mounted and dismounted R&S missions.

Recommendation 1.1.2.2: Assess conversion of dismount elements in those scout platoons that will remain equipped with a 3x5 platform configuration from 12 personnel to 2x6 man scout squads led by SSGs. Assess the feasibility of trading two UAH for a 3rd six man squad (3 BFVs x 3 UAH x 3 six man squads), until all scout platoons can be converted to the 6x36 formation.

c. **EEA 1.1.3 How well does the current R&S training support the requirements of the 6x36 FDU design?**

Recon Career Timeline: The recon career timeline (see figure 2.3) is effective if implemented as a standard policy for 19D Soldiers and officers regardless of formation. This will require schools to adjust POIs and move away from formation based instruction while retaining efforts to increase platform oriented content. The creation of a scout squad will increase proficiency requirements for leaders and Soldiers due to increased duration and distance they will operate independently from their platforms. This will also increase mounted leader requirements for operating in conjunction with scouts over what is currently required in the 3x5 formation.

Professional Military Education (PME): Soldiers and leaders assigned to the 6x36 formation will be required to possess higher levels of proficiency coming out of Professional Military Education (PME) courses than the 3x5 formation due to the distance and duration they will operate independently away from the platform. The leader to led ratio will provide an increased

training capability to improve R&S skills. In the 6x36 design, all NCOs and officers assigned to scout platoons in ABCTs must possess the mounted and dismounted knowledge, skills and attributes necessary to conduct all R&S missions. This unit demonstrated shortcomings when conducting mounted dismounted integration, air ground operations, land navigation, CBRN and calls for fire. They also experienced challenges with individual skills involving Bradley vehicle skills, reporting, and radio/FBCB2 operations. Senior leaders for the Cavalry OC/T team at NTC said that the following trends need improvement across all formations (ABCTs, IBCTs and SBCTs): Logistics, Troop Leading Procedures, Field Craft, CASEVAC/MEDEVAC, Vehicle Recovery, Tactical Posture, Security, and Time Management. There were a litany of Javelin issues involving maintenance, PCCs, battery management, operations and employment all based on an absence of a Javelin course. The unit tried to mitigate these Javelin deficiencies during a focused home station training event but did not have the expertise required to effectively conduct the training. All of these issues are commonly recurring trends in units TCM-ABCT has observed during five rotations at the NTC and 27 unit visits. One Station Unit Training (OSUT) and PME courses need to review ways to better train these competencies.

Functional Training: Officers and NCOs must attend functional courses designed to train R&S skills prior to arrival to their unit.

> The high number of ARC and CLC graduates in 1-7 CAV was a key component to the unit's top performance at NTC when compared to previous unit rotations. *Multiple Cobra Team OC/T Comments During NTC Rotation 14-04*

The MCoE conducted ARC and CLC with Mobile Training Teams (MTTs) at Fort Hood, Texas (FHTX). The unit had 25 ARC graduates, 16 CLC graduates, and one RSLC graduate. Had the MTTs not been conducted at FHTX the unit would not have had the opportunity to attend the courses. Assess whether MTTs are a feasible solution for ARC and CLC.

Recommendation 1.1.3A: Review PME instruction to ensure noted training deficiencies for all Soldiers assigned to cavalry squadrons are addressed.

Recommendation 1.1.3B: Standardize the recon career timeline (Figure 2.3) for all 19D Soldiers serving in cavalry scout positions regardless of formation type. Increase attendance to RSLC for SL 2 NCOs; attendance to ARC for SL 3 NCOs and LTs; CLC for SL 4 NCOs and Captains. Functional training should occur prior to assignment.

Recommendation 1.1.3C: Assess the value of making the intermediate-level education (ILE) reconnaissance elective available online for those unable to attend the course.

Recommendation 1.1.3D: Assess the value of providing training for SL 5-6 NCOs, LTCs and COLs. This training may be in the form of an elective at a PME course or an online course.

Recommendation 1.1.3E: Assess current reconnaissance course programs of instruction (POIs) to reflect targeted military occupational specialty (MOS) attendance. Consider a two phased POI, that includes a core instruction followed by instruction block based on unit of assignment.

Recommendation 1.1.3F: The current Infantry School policy of units training their Javelin gunners using only the Javelin training publication (TC 3-22.37 Javelin, Close Combat Missile System, Medium) requires review. MCoE must provide units training for their Javelin gunners, either through a Javelin specific course or by improving the current Heavy Weapons Leader Course (HWLC) POI to train the skills necessary to certify unit trainers to execute the unit Javelin Training Program. For more details on the HWLC visit the Fort Benning information page at http://www.benning.army.mil/infantry/197th/229/hwlc/

Actions to Date: The MCoE has established a Functional Course Alignment Working Group to address ways to better align the course with non commissioned officer education system (NCOES) graduation dates. DA PAM 600-25 is being revised to recommend attendance to the course. The Army released a message on 1 Nov 2012 approving the enlisted Additional Skill Identifier (ASI) R7, Army Reconnaissance. The MCoE is currently developing options to increase coding and attendance to the Army Reconnaissance Course (ARC), and Reconnaissance and Surveillance Leaders Course (RSLC) of scout platoon positions across all formations (ABCT, IBCT and SBCT).

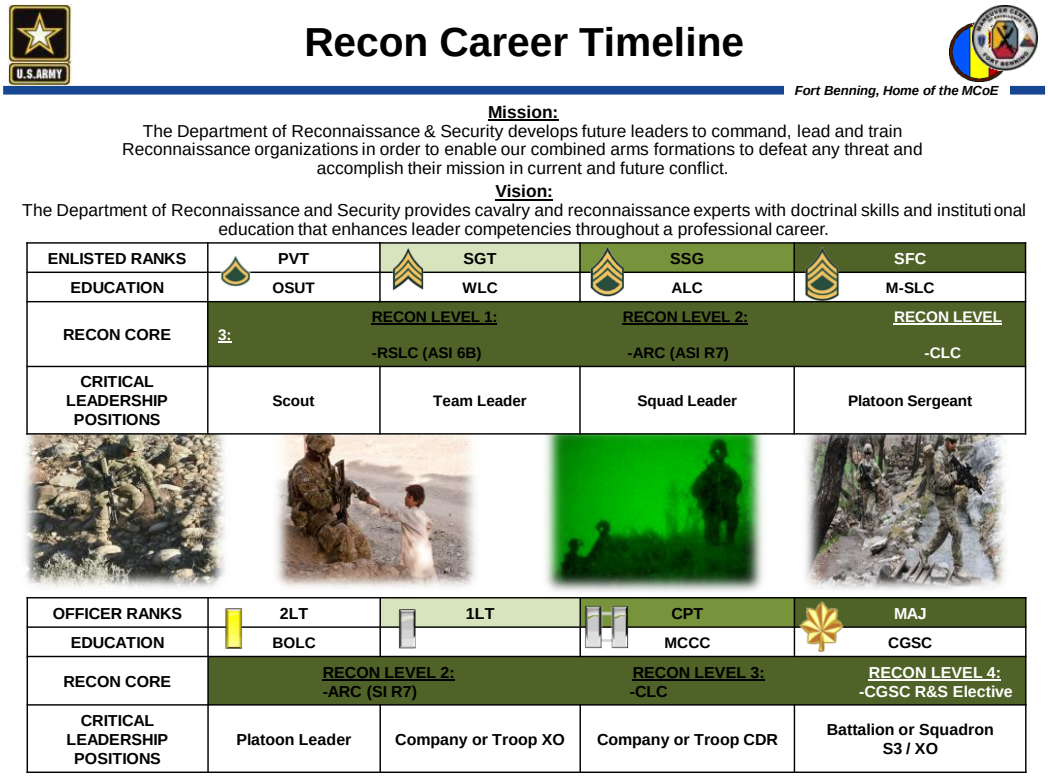

Figure 2.3 Recon Career Timeline (IBCT Warfighters Forum Senior Mentor Symposium, JAN 14)

(1) **MoM 1.1.3.1 Does the ABCT CATS provide training guidance that prepares cavalry troops to conduct mounted-dismounted operations?**

CATS contains collective tasks but lacks all the details for leaders to plan and execute training events. CATS replaces what historically were print based documents readily available to augment institutional knowledge and leader knowledge, skills and attributes to assist in training event development. Those leaders who are aware of CATS are using the site as a source to provide a detailed training plan, however these same leaders stated that CATS is not user friendly and is too vague to provide them with the tools necessary to successfully conduct training. Most leaders expressed that they use printed doctrine for identifying and resourcing training requirements. There is an additional problem in that not all leaders are familiar with CATS; only troop commanders, first sergeants and training NCOs seem to have a level of understanding in this organization. All personnel associated with the CATS said that the program would be better if it provided examples of how to conduct training, either based on previous commander plans or some sort of ARTEP based training module. The analysis team attempted to negotiate CATS and locate tasks to support a training event "STX for Conduct Platoon Route Reconnaissance – Live" in an attempt to replicate difficulties units were having at hyperlink https://atn.army.mil/dsp_CATSviewer01.aspx#. Once at the document the team was referred to the DOTD Collective Training Branch to download the TSP, but could not find the TSP. This process is difficult and confusing to navigate.

Recommendation 1.1.3.1: Leaders need to be provided with more complete training packages. If CATS is going to be the solution we need to update the content and make it more user friendly. Leaders need the level of detail that was provided in legacy ARTEP manuals in order to plan and conduct training to restore core competencies.

(2) **MoM 1.1.3.2 Does the Army Reconnaissance Course (ARC) adequately prepare lieutenants to integrate mounted and dismounted capabilities while conducting R&S operations?**

(3) **MoM 1.1.3.3 Does the Army Reconnaissance Course (ARC) adequately prepare staff sergeants to integrate mounted and dismounted capabilities while conducting section-level R&S operations?**

Both ARC related MoMs are assessed in the following paragraphs:

Graduates of ARC clearly demonstrated increased knowledge, skills and attributes when compared to non-graduates related to R&S fundamentals, however, platoon leaders demonstrated difficulties conducting planning and conducting movement and maneuver of the mounted and dismounted scout squads. There is no course content that currently provides platoon level leaders practical experience in mounted and dismounted integration. One possible solution is to align a field training exercise with RSLC students or form squad leaders/team leaders from NCOs attending the course and conduct tactical exercises without troops (TEWTs).

68% of 1-7 CAV Soldiers stated that dismount training needs more emphasis. *Post NTC Survey*

Scout platoon leaders/platoon sergeants are moving from a UAH platform to a mix of three different platforms (Bradley, Stryker, UAH) under the SSP formation. They need to be trained on the platform before they arrive to their unit. There is a lack of consistent platform oriented training in Fort Benning courses. All scout platoon leaders interviewed who were graduates of ARC stated they received no "hands on" Bradley training in either ARC or A-BOLC. The lieutenants said the learning curve for the Bradley was too steep when they arrived to the platoon.

Actions to Date: In FY 14 the MCoE began incorporating BFVs into ARC and A-BOLC courses. As ABCT scout platoons transition to the SSP configuration this initiative needs to continue. With 50% of the SSP formation serving as BFV crewmen, training strategies must address how 19D Soldiers and NCOs receive critical Bradley training prior to assignment to ABCT scout platoons.

ARC graduates expressed varied opinions on field training received in the course quoting two main reasons: availability of tracked vehicles and maneuver training areas. All leaders expressed that SSG, SFC and LTs assigned to the scout platoon need to be graduates of ARC in order to gain the skills necessary to perform their duties. OC/Ts expressed that all functional reconnaissance courses should review ways to increase leader knowledge on movement and maneuver.

All leaders had very positive feedback on the ARC. The Squadron Commander (SCO) stated he requires all officers assigned to the unit to be ARC graduates. The largest issue is ensuring that officers and NCOs en route to ABCTs attend the course prior to assignment.

Leaders expressed that ARC should challenge leaders to conduct the simultaneous execution of tasks including map reading, controlling driver routes, reconnaissance, and radio operations and also challenge leaders during planning to ensure maintenance and PCIs occur.

ARC graduates were much more proficient in R&S tasks than non-graduates. ARC graduates did not demonstrate all of the skills that they were taught in the course. Units require repetitive training opportunities in order to fully develop the skills for ARC graduates.

> "NCOs who attended the ARC possessed more knowledge than others during the NTC rotation. Reporting procedures, OP emplacements, and vehicle positioning was done at a more proficient level by the NCOs who graduated the ARC." *Scout Platoon Observer, NTC 14-04*

Leadership across the squadron expressed that there is a very obvious difference in R&S knowledge levels of graduates versus non-graduates. NCOs stated they wish they had attended ARC when they were SGTs; this indicates a need for a SL 2 training requirement in the Recon Career Timeline (see Figure 2.3). Leaders stated in order to have the most qualified SSGs in charge of squads, they need to be ARC graduates. The unit was very pleased with the difference in report quality from OPs manned with SSG ARC graduates.

One proposed solution to increase NCO attendance to ARC is for ARC to provide an instructor to serve an OC/T augmentee during an NTC Rotation in place of an OC/T to attend ARC. The exchange would improve the instructor knowledge through observing current operations in the decisive action training environment. The OC/T would gain R&S knowledge to be better equipped to coach units at the NTC.

ARC graduates interviewed recommended ways to improve the course:

"FBCB2, how to use for orders process, LOGSTATS, reports, PACE Plan."

"The use of vehicles other than just UAHs"

"Air to ground integration and working with enablers."

"Optics, radios and the use of dismounts. More time to use the harris."

ARC graduates interviewed recommended ways to sustain the course:

"Being able to serve from every position as a Cavalry Scout was very positive while attending ARC because it assisted me greatly when planning my platoon's mission and training."

"Conducting reconnaissance and security in a field environment."

"Better understanding of the OPORD and putting it into action real time."

"Land navigation and mission planning."

Recommendation 1.1.3.2: Identify strategies to ensure leaders receive dismounted and mounted integration hands on training.

Recommendation 1.1.3.3: Implement the standardized Recon Career Timeline as discussed in EEA 1.1.3.

(4) **MoM 1.1.3.4 Does the Cavalry Leader's Course (CLC) adequately prepare company commanders to integrate mounted and dismounted capabilities while conducting R&S operations?**

(5) **MoM 1.1.3.5 Does the Cavalry Leader's Course adequately prepare operations officers and operations NCOs to integrate mounted and dismounted capabilities while conducting R&S operations?**

Both CLC related MoMs are assessed in the following paragraphs:
The MCoE provided an MTT for 1-7 CAV to increase CLC graduates and the unit sent scout platoon sergeants (PSG), platoon leaders (PL), first sergeants, troop commanders, the FSO,

Assistant FSO, all staff captains, S2, Assistant S2, and the MI captain. The unit said the course greatly increased their tactical knowledge in a way that enabled the leaders to visualize a three dimensional IPB process from squad to squadron. Study respondents expressed that CLC is a great course to prepare squadron staff and troop leadership for R&S assignments. The squadron commander recommended that all senior NCOs and troop/field grade officers attend CLC. The squadron had brigade commander support to ensure troop/squadron leadership and staff attended CLC.

During surveys graduates of CLC recommended the following improvements for the course:

"There should be more emphasis on utilizing Live, Virtual, Constructive and Gaming (LVCG) to execute plans to gauge effectiveness."

"Include a gauntlet style training event, enabling leaders to get outside the classroom and execute a plan. This will enforce use of analog graphics, and require thought to be involved in the outputs of a planning process."

Unit leaders stated that CLC needs to sustain the below:

"Very good at translating tactical to operational problem; understanding what we are answering the mail for."

"The course does a great job of IPB at the troop level."

"Critical thinking skills; provided an article in Glass Board where the students became engaged to solve problems; the course needs to sustain this event."

"The CLC instructors were TOP NOTCH and represented the Cavalry very well."

"MI Captains in cavalry squadrons need to go to CLC. Our MI Captain went to the course and he was much more prepared to support our unit."

Recommendation 1.1.3.4: Based upon feedback from the unit CLC is the most complete training event for the targeted audience. Recommend this be the lowest priority as we address POI changes.

(6) **MoM 1.1.3.6 Does the Ranger Course adequately prepare officers and NCOs to lead dismounted operations?**

The Ranger Course provides training in dismounted skills that are critical for scout NCOs. Although the course does prepare NCOs and officers to better lead dismounted operations, the Ranger Course is not specific to the scout formation but more of a common baseline for dismounted NCOs of all MOS.

"The platoon leader stated that he wished all squad leaders and team leaders had attended the Ranger Course. He shared that one of his team leaders attended the Ranger Course and did not graduate due to injury but benefited from attending. He was constantly driving things home and looking for better ways to improve his team. The team leader who attended the course was very comfortable with dismounted tactics and land navigation. It appeared that this team leader understood his job more as a dismount than the other NCOs." *Scout Platoon Observer, NTC*

Recommendation 1.1.3.6: Although the Ranger Course is not included in the Recon Career Timeline, reconnaissance leaders should seek opportunities to become Ranger qualified when training seats are available and resources and time allows. Units should prioritize attendance for cavalry Soldiers to attend reconnaissance functional courses first and then look for opportunities to send leaders to the Ranger Course. The proposed scout platoon TO&E annotates that six leaders are Ranger qualified. If these positions require an ASI, the Recon Career Timeline needs to be adjusted to reflect this course.

(7) **MoM 1.1.3.7 Does the Army Recon & Surveillance Leader's Course adequately prepare Company Commanders, Operations officers and Operations NCOs to integrate mounted and dismounted capabilities while conducting R&S operations?**

The unit only had one RSLC graduate. The data collection team was unable to answer this question from the demographic. Leaders in the unit familiar with the course content did express that there is a need for SPC-SGT to attend the course and then attend ARC as SSG-SFC as part of their professional development.

(8) **Other Training Considerations:**

(a) **Raven Employment**: Troops did not effectively employ the Raven. When utilized UAS were used mainly near friendly troop locations to augment local security. Troops need to evolve to effectively employ UAS in support of operations (example: observation of NAIs/enemy movements). Issues with air space management and requesting employment of Ravens made it too complicated for units to use the Raven. Employment issues are hampered by lack of trained operators. (see Figure 2.4)

"Unit employed Raven, but only for a limited time. They attempted to observe an NAI and dead space, but due to the operator error, they crashed the Raven and were unable to fly again. Also, only one qualified operator in the whole troop, which hindered the flexibility of the unit to employ the asset." *NTC OC/T*

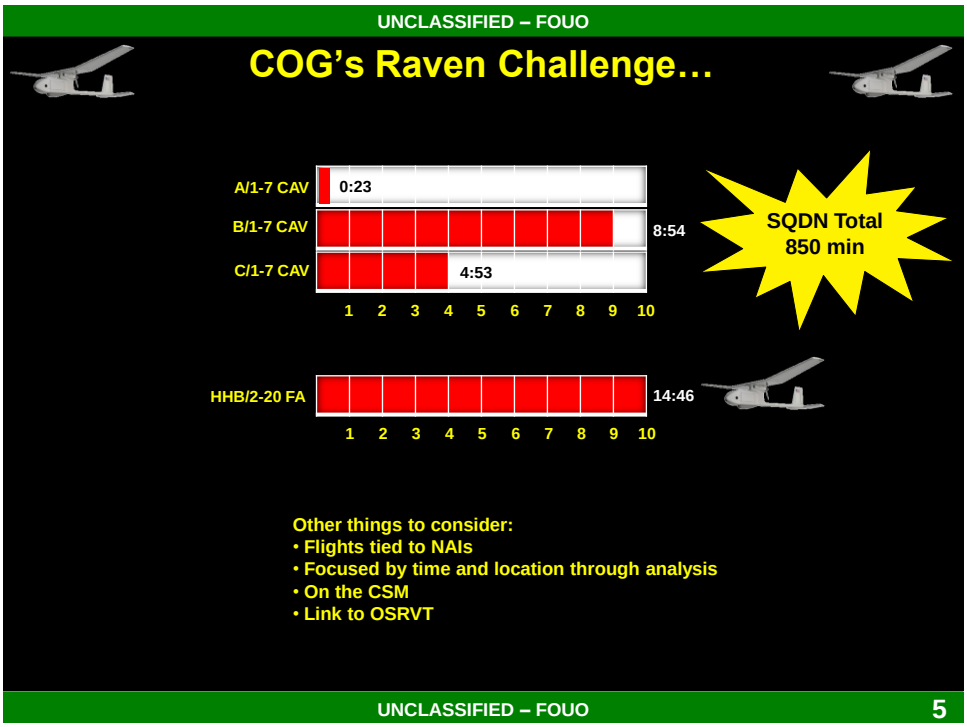

Figure 2.4 Raven Employment (Final NTC AAR)

(b) **Enemy Air/ UAS**: The 6x36 formation has an increased capability to identify and defeat enemy air. Current formation gaps identify that scout and cavalry sections, platoons, troops and squadrons lack the ability to effectively counter enemy aircraft and unmanned aerial vehicles. OC/Ts expressed that during previous rotations there has been a trend in the lack of direct fire planning or engagements for enemy air, especially fixed wing and UAS. 1-7 CAV was successful at engaging rotary wing aircraft. Dismount Soldiers stated that the unit was effective in countering the UAS threat by identifying the communication channel being used by the enemy (PUMA) UAS. By identifying the communication channel the unit was able to identify the location and call for fire on the UAS operator.

(c) **HF Radio Proficiency**: Soldier proficiency with long range communications systems is more critical in the 6x36 formation. The increased leader to led ratio and dismounted manning provides the capability to operate longer distances from mounted platforms. Six Bradleys also provide direct fire support for dismounts to operate at extended distances. Soldiers from squad to brigade combat team (BCT) level lack high frequency (HF) radio proficiency. Although ARC contains HF radio planning considerations, ARC does not train in depth technical HF radio skills. The only reconnaissance functional course that trains in depth technical HF radio skills is RSLC.

Recommendation 1.1.3.7: Review reconnaissance courses for ways to integrate HF radio training into the POIs.

(d) **Analog Graphics**: Analog graphics that made it down to the squad through troop levels were incomplete and lacked required details on maneuver, fires, enemy, and obstacles. OC/Ts stated that one reason for this is a reliance on the FBCB2 by platoons to conduct mission

command. Since squads do not have FBCB2 they transferred graphics to their maps from FBCB2s or from paper slides provided by higher. OC/Ts in all troops stated that squad graphics need much improvement. Squads did not have graphics that articulated adjacent units that could have added to their capability to provide R&S support to other troops and the squadron. Development and distribution of analog graphics is a lost art. Units also need improvement adding FBCB2 graphics.

Recommendation 1.1.3.8: Explore the feasibility of reinforcing training on analog graphics and critical FBCB2 content to MCCC, BOLC, and NCOES.

(e) **Reporting Formats**: In many cases the unit did not use a standardized report format to report contact (SPOT, SALUTE, SALT, etc.).

> CO/TRP and PLT sized elements observed often did not use a standardized reporting format to report enemy visual, indirect, or direct fire contact or enemy movement activities. This impacted effective battle tracking, battle damage assessments, situational awareness and understanding, and staff analysis of projected movement and intent. It is absolutely critical for PLT sized elements to submit reports in a clear, concise manner that accurately depict what they are seeing in order to provide the commander with information. When visual contact was made with enemy vehicles, FM radio reports consisted of narratives that were confusing, lacked critical information, and failed to pass relevant information to adjacent and higher level elements. *CALL Collection and Analysis Team Observation*

Standard report formats can be found in FM 6-99, dated August 2013, entitled *US Army Report and Message Formats.* For this observation, page A-196 contains a format for the SPOTREP and utilizes the 'SALUTE' line guide. Overall, the manual contains various applicable reports that allow the observer to relay information in a brief, concise manner. This minimizes FM frequency usage, is consistent and aids radio discipline, and informs commanders and battle staffs without confusing chatter.

Report formats should be present in TACSOPs in order to improve standardization, enforce network discipline, and to increase unit effectiveness. Standard report formats are consistent with one of the fundamentals of reconnaissance and maneuver; "report timely and accurately." Review institutional training strategies and home station training plans to ensure basic radio reporting skills are developed using standard reporting formats.

(f) **CBRN Operations**: This is the first ABCT rotation at the NTC in a Decisive Action Training Environment (DATE) to fully reincorporate CBRN play. Units have had extended time away from training with CBRN protection equipment and enablers, and were challenged with integrating their capabilities into reconnaissance missions, movement and maneuver plans, and command post / tactical assembly area activities. MTOE changes have removed the 74D CBRN NCO at CO/TRP/BTRY levels. Units must integrate CBRN training into all levels of individual and collective training opportunities. Qualified teams for early warning equipment emplacement, contaminant detection and identification, and individual and equipment decontamination must be identified and tracked down to platoon levels. A return to robust, aggressive CBRN training at home station is necessary to return units to proficiency in CBRN operations. Professional Military Education (PME) courses for all Military Occupational

Specialties (MOS) should review POIs for CBRN related content to ensure NCOs and Officers are receiving adequate instruction on training and supervising unit level CBRN skills.

d. **EEA 1.1.4 Do the dismounted capabilities of the 6x36 FDU design perform as predicted, and what if any materiel limitations exist?**

Dismount proficiency is addressed in previous areas of this report. EEA 1.1.4 is focused on the specific material limitations of the 6x36 formation. Primary material limitations included: man portable extended range day/night optics and hand held mission command systems. The dismount squad does not have a light-weight, man portable long range optic that provides observation overmatch outside of threat direct fires. The platoon did not have the ability to outfit six simultaneous OPs with optics and mission command equipment. In the 3x5 formation, dismounts are not assigned the duty position as a machine gunner or anti-armor specialist. Study respondents expressed that the 6x36 dismount squads should be equipped with one M240B and one Javelin weapon system in order to provide increased lethality, versatility, and survivability. The Bradley currently does not provide a battery charging capability, however this issue will be solved with the fielding of the universal battery charger.

(1) **MoM 1.1.4.1 Is the Troop Executive Officer (XO) more effective performing his duties mounted on a Bradley than on a M113A3 (RISE)/M1068?**

The unit placed some Troop XOs on BFVs instead of their MToE assigned M1068 at the NTC. Analysis during this rotation shows that the troop XO is more effective on the M1068 than the Bradley. One common trend expressed by OC/Ts was that XOs need to operate on the M1068 and be more involved in battle tracking using mission command systems in the command post. When XOs become involved in the fight it left command posts with a gap in reporting capability. The commander became focused on the fight and in many occasions the senior member of the Company Intelligence Support Team (CoIST), a junior NCO took charge of the command post.

> "The XO needs to be in the M1068 IOT allow him better SA and battle tracking." *NTC Cobra Team OC/T*

(2) **MoM 1.1.4.2 Do the dismounted teams possess the necessary lethality to conduct reconnaissance and security operations against a hybrid threat in all terrain?**

Dismounted teams, properly operating a radio are lethal against any enemy in all terrain and weather conditions. The only exception is in subterranean conditions where manned/unmanned aviation and indirect fire support is denied to the dismounted team. In the 3x5 formation, dismounts are not assigned the duty position as a machine gunner or anti-armor specialist. Study respondents expressed that the 6x36 dismount squads should be equipped with one M240B and one Javelin weapon system in order to provide increased lethality, versatility, and survivability. In addition to weapons, communications and optics availability for each OP will provide the required capability for dismount lethality.

(a) **M240B or M249**: During interviews in the field, respondents preferred the M240B to the M249. The opinion was that although the M249 is lighter it does not have the range and firepower provided by the M240. On the post home station survey when asked to rate the effectiveness of weapons to successfully accomplish the mission, 49% of Soldiers rated the M240B as effective and 38% of Soldiers rated the M249 as effective. If an M240 gunner is assigned to the scout platoon an assistant gunner should also be designated to better distribute associated equipment and class V weight.

(b) **Javelin CLU**: Study respondents stated a need for one Javelin CLU per dismount squad/three total per platoon. The overall opinion stated that the dismount OPs in the 6x36 formation require an increased armor defeat capability when compared to the 3x5 formation due to increased distance from vehicles, longer duration OPs, and increased responsibilities for the squad. Numerous opportunities existed at the NTC where OPs could have better utilized the Javelin capability to provide increased lethality in support of retrograde and disengagement scenarios. The Javelin CLU also provides an additional observation solution for the squad and increased versatility.

Recommendation 1.1.4.2: Equip the platoon with three Javelin CLUs (this is an increase of one CLU over current BOIP), three M240Bs and code three Soldiers per platoon with anti-armor ASIs.

(3) **MoM 1.1.4.3 Do the dismounted teams have adequate survivability when conducting R&S against a conventional threat?**

The SSP demonstrated increased survivability when compared to the 3x5 formation by providing increased dismounts, increased leadership and mobile protected firepower. Through planning, preparations, use of restrictive terrain, and disengagement/displacement criteria, dismounted teams have adequate survivability against a conventional threat. During the post home station training survey, 81% of squad leaders felt comfortable in the SSP operating dismounted beyond half the effective range of vehicle mounted weapons systems, which is a 31% increase over the response to the same question for the 3x5 formation.

(4) **MoM 1.1.4.4 Do the dismounted teams have the necessary optics to conduct R&S in open terrain, both day and night?**

> "Visual contact is the most important form of contact." *Squadron Commander*

The dismount squad does not have a light-weight, man portable long range optic that provides observation overmatch outside of threat direct fires. Although the dismounts have the capability to deploy the LRAS it was rarely deployed dismounted at the NTC due to weight and size (>100 lbs). Each troop received 14 total LTLM AN/PED-5s (Laser Target Locator Module, NSN 1240-01-590-4552) in JAN 14. The troop assigned four-six LTLMs per platoon. If the SSP is approved the quantity of LTLM would need to be six to provide the capability to each team. Dismounts had very positive remarks on the capability provided by the LTLM. The LTLM is light weight and provides the capability to identify ten digit grids to targets from 5-7 km.

Dismounts reported positive identification up to 2-3 km. Although the LTLM provides the required capability as far as weight, lasing, and day and night observation, it does not provide the observer with the capability to conduct reconnaissance that maximizes the brigade's fire plan. Dismount OPs observed vehicles beyond 7 km but had to reposition Bradleys to positively identify the targets as friendly or foe. Dismount Soldiers stated they could have called for fire on targets from 10-15 km if they could confirm that the target was enemy but lacked the material capability. Increased dismount use of UAS and the LRAS can provide mitigation for this gap now. UAS could have been better used to provide observation of NAIs outside of the range of the LTLM. Use of the LRAS would be better achieved by reducing its bulk and increasing the power capability. If an LRAS is stored in the vehicle the load plan needs to be revised to properly secure the equipment. Long term strategies need to address long range optics for dismounts and lightweight portable UAS.

"NCOs within the platoon expressed that they have the necessary optics to conduct R&S operations, however they cannot always utilize this equipment due to size when dismounting. The platoon had an OP along a hilltop which was there over night but failed to dismount the LRAS due to its weight." *Scout Platoon Observer, NTC*

Figure 2.5 AN/PED-5 (Photo Courtesy Mark Granen)

During the deliberate attack dismounts from one troop established OPs 1,500 meters forward of the vehicles. The OPs utilized the LTLM to provide observation up to 5-7km. For the mission the LTLM met the observation requirement for the unit to maximize the asset. *NTC Observation*

(5) **MoM 1.1.4.5 Do the dismounted teams have adequate communication equipment?**

(6) **MoM 1.1.4.8. Does the Scout Platoon have the network capability for MISSION COMMAND and to integrate organic/joint assets?**

The below addresses both Mission Command MoMs listed above:

42% of squad and platoon leadership state that dismount squads have insufficient communications equipment to support the 6x36 configuration squad employment. The SSP can operate six simultaneous OPs, but currently only has two dismount radios. These radios are not sufficient based on home station training and NTC observations. Soldiers reported having issues communicating with their mounted element in restrictive terrain at distances less than 300m. The average distance Soldiers said they could communicate in unrestrictive terrain varied widely with distances ranging from 1000-2000 meters. Scouts said they need to be able to communicate at distances within direct fire range >3000 meters. The future SSP needs to provide six radios for dismounted operations capable of BLOS communications.

Way Ahead: Figure 2.6 shows the 3x5 Scout platoon is authorized eight dismount man pack radios (AN/PRC 119F) by TOE, even though the unit only had two dismount radios per platoon on the average. The AN/PRC 119F is scheduled to be replaced by the AN/PRC-155 which will provide the capability that the dismount leaders are recommending. The AN/PRC-155 provides beyond line of sight (BLOS) communications. Units equipped with the IMBITR will also receive upgrades with the Rifleman's Radio that improves the unit's capability to communicate in all terrain. In scout platoons, each team of three dismounts must be able to communicate with vehicles in all terrain; in the ABCT SSP this equals six dismount radios. If dismounts are spread among six vehicles they require communications to link up on the ground.

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		Cavalry Squadron (PLTs)			Battalion (PLTs)		
	SCOUT PLATOONS	ABCT	IBCT (MTD)	SBCT	ABCT BN	IBCT BN	SBCT BN
	# of Personnel per platoon	**36**	**24**	**23**	**36**	**22**	**24**
DISMOUNTED	**SQD Dismounted Communications (AN/PRC 148)**	**0**	**4**	**4**	**8**	**8**	**8**
DISMOUNTED	**Dismounted Short Range Manpacks (AN/PRC 119F)**	**8**	**2**	**2**	**5**	**2**	**5**
DISMOUNTED	**Land Mobile Radio**	**0**	**14**	**14**	**0**	**18**	**15**
DISMOUNTED	**HF Manpack Radio (AN/PRC 104)**	**5**	**2**	**4**	*	*	*
	# of Vehicles per platoon	**8**	**6**	**4**	**8**	**8**	**4**
MOUNTED	**Mounted Short/Long Rang Radio (AN/VRC 89)**	**3**	**0**	*	**0**		*
MOUNTED	**Mounted Vehicle Long Range Radio (AN/VRC 90)**	*	**0**	*	**0**	**3**	*
MOUNTED	**Mounted Long Range w/ Dismounted Manpack (AN/VRC 91)**	*	**4**	**2**		**3**	*
MOUNTED	**Mounted Dual Long Range Radio VRC 92**	**5**	**2**	**2**	**5**	**2**	**4**
MOUNTED	**FBCB2 (AN/UYK 128)**	**5**	**6**	**4**	**5**	**2**	**4**

Figure 2.6 Table of Organizational Equipment for 3x5 Scout Platoon Communications

(7) **1.1.4.6 Do the dismounted teams have adequate communications equipment to conduct air-ground integration?**

The SSP scout squads currently have the capability to communicate directly with air assets; however, squadron policy required communications through a joint terminal attack controller (JTAC) or the platoon sergeant. This capability will be lost when units field the AN/PRC-155 until aircraft are equipped with radios that operate on the same wave form.

While unit's currently have the ability to communicate with air assets there are significant training issues. 66% of Soldier's surveyed stated that communications with fixed wing aircraft was difficult, and 29% said the same of rotary wing. Survey results indicate that increased use positively increase training readiness. During the post NTC survey rotary wing proficiency remained about the same (31%) while fixed wing improved to 27%.

"The unit had challenges with deconfliction of fires, direct and indirect. Competencies in weapons, effects, and capabilities. Air mission planning challenges – setting conditions with measures of predictability." *Battle Period 1 Hotwash Comment*

(a) **Air Insertion Operations**: The squadron air inserted dismounts at the NTC. The dismount OP was able to communicate with air assets with a JTAC assigned by the squadron to the team.

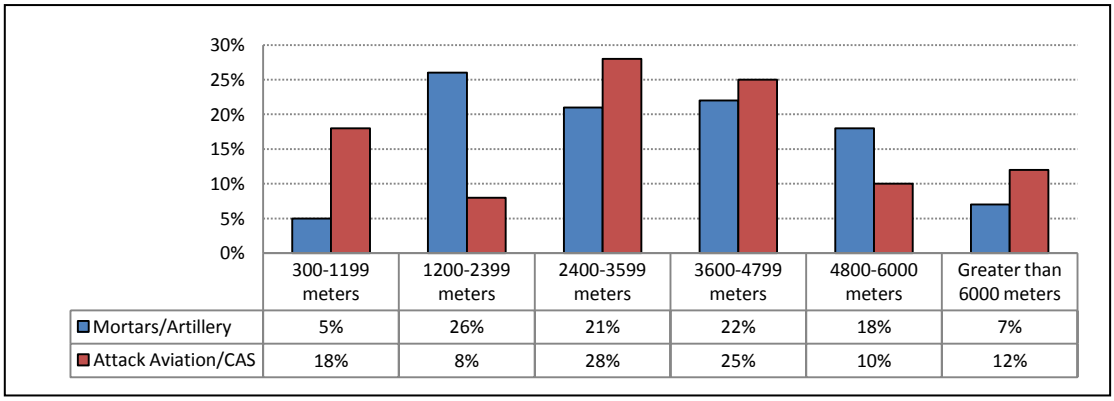
(b) **S3 Air**: The squadron did not have an officer assigned to perform the duties of an S3 Air. Combined Arms Battalions and Cavalry Squadrons do not have this position on their MTOE. Rotation 14-04 provided sufficient indication that this should be reconsidered. In the interim units should consider assigning this task as an additional duty to an officer on the staff.

(c) **Other Enablers:** The unit utilized an Air Weapons Team (AWT), but the pilots did not have the unit's graphics. The unit had Prophet and Low Level Voice Intercept Patrol (LLVI) teams, but did not understand how to employ them.

Recommendation 1.1.4.6: Look for ways to improve air ground integration training in the operational and institutional training domains.

(8) **MoM 1.1.4.7 Do the dismounted teams have the capability to effectively integrate Fires?**

Dismount OPs do have the capability to effectively integrate fires during all operations if each OP is equipped with a radio, however there were range limitations. Dismount OPs were limited on their ability to call for fire as they lacked a light-weight, man portable long range optic that provides observation overmatch outside of threat direct fires and mortars. The dismount OPs repositioned Bradleys to positively identify targets in the engagement area at ranges beyond the capability of the AN/PED-5. The OPs did not have communications equipment assigned to maintain direct communications at ranges required to call for fire. Note in the chart below, only 7% of call for fire engagements occurred greater than 6 kms from the observer. The OPs relayed information through the platoon, a Joint Fires Observer (JFO), the Troop Fire Support Officer (FSO), and the unit could establish RETRANS capabilities. One Troop FSO credited dismounted Soldiers for calling the majority of the fires that destroyed enemy forces. Many OC/Ts stated that the unit was very lethal with indirect fires when compared to past rotations. Figure 2.7 outlines the average distance the unit executed called for fire missions:



	300-1199 meters	1200-2399 meters	2400-3599 meters	3600-4799 meters	4800-6000 meters	Greater than 6000 meters
Mortars/Artillery	5%	26%	21%	22%	18%	7%
Attack Aviation/CAS	18%	8%	28%	25%	10%	12%

Figure 2.7 Fire Mission Distances

During the deliberate attack, one troop engaged and destroyed 90% of the engineer assets with indirect fire. The Bradley IBAS identified enemy engineers at 12k and called for fire destroying the enemy obstacle effort.

During the defense, the squadron destroyed two enemy mechanized infantry battalions (MIBs) with a combination of direct and indirect fires. The squadron's direct and indirect fires resulted in the enemy brigade being combat ineffective.

Post NTC Soldier Interviews

(9) **Are there any other material concerns with the 6x36 formation?**

(a) **Signature Reduction**: With the loss of the UAH, ABCT Scouts may need to be dismounted at further ranges from OPs to conduct stealthy reconnaissance and remain undetected. Soldiers expressed a need for Bradley noise reduction to be able to dismount Soldiers closer to OPs and also to decrease the audible detection range therefore mitigating enemy detection. The noise of the Bradley was consistently the number one concern Soldiers expressed about the 6x36 formation. Leaders expressed that the exhaust on the Bradley presents a signature that can be identified especially when the vehicle is started. The exhaust has been a constant complaint from vehicle commanders as it is directly under their hatch. Signature management is an issue under consideration by the program manager.

(b) **Mounted Observation**: A mounted observation advantage provided by the 3x5 formation is the Long Range Advance Scout Surveillance System (LRAS3). The Bradley A3 variant does not have an LRAS3, but provides observation through the Improved Bradley Acquisition Sub System (IBAS). The LRAS3 observation range exceeds the IBAS, however there are ongoing efforts to increase this observation capability. The unit deployed to NTC under the 6x36 formation, with one modification designed to provide an LRAS3 type capability. The unit deployed one BFIST equipped with an FS3 per section (two per platoon). The BFIST variants were able to identify enemy forces at extended ranges, but were not able to engage targets at the same ranges as the Bradleys equipped with the TOW missile. The remaining section Bradley variants were equipped with TOW missiles. To ensure that future scout platforms maintain both lethality and observation overmatch, TCM-ABCT recommends no change to the current MCoE modernization strategy for platform based optics. Scout Bradley variants should be equipped with the TOW missile while improvements to long range optic capabilities are instituted through future engineer change proposals. Unit and OC/T comments support this position. (Note: there is no plan to remove TOW hammerheads and replace with LRAS; integration of IFLIR into all M2A3s will provide the same level and range of observation as the current LRAS).

During one mission at the NTC a troop commander utilized the Bradley IBAS to laze an enemy target. The commander navigated the commander's tactical display (CTD) on the turret FBCB2 to the combat mode screen, then selected LRF and obtained a 10 digit grid coordinate to a target 9,075 meters away. He called for indirect fire and destroyed the entire enemy Brigade Tactical Group. *NTC Mission AAR Observation*

Although the LRAS3 provided on the UAH does provide long range surveillance capability the system is not stabilized and needs to be stationary for observation. "Simulations have showed that the UAH must remain mobile to survive, which limited its crews ability to acquire enemy forces." *(Sept 2007 article titled Heavy Brigade Combat Team, A Reconnaissance Squadron Experiment authored by the Directorate of Training, Doctrine, and Combat Development, U.S. Army Armor Center, Fort Knox)*

The 6x36 formation can mitigate the loss of the UAH mounted LRAS in several ways: utilization of dismounts on OPs forward of vehicle positions, acquisition of targets with the Bradley IBAS, and utilization of UAS assets. Figure 2.8 below depicts how the unit was positioned to conduct observation. Note there are no dismount OPs pushed forward of the troop screen line to increase observation distances. The majority of the enemy that could not be observed was due to the terrain, not the distance.

Figure 2.8 6x36 Troop Observations (Slide from NTC Midro AAR)

(c) **Bradley Silent Watch**: All crewmen interviewed expressed that the Bradley silent watch capabilities need to be improved for scout variants. When surveyed 61% of Bradley crewmen expressed that the Bradley is not capable of running all mission critical systems for two hours with the engine off. Soldiers reported varied silent watch times for their vehicles ranging from fifteen minutes to four hours, with most stating two hours. During panel discussions Bradley crews recommended six hours minimal for silent watch and twelve hours optimal in order to reduce vehicle audible and thermal signatures during R&S operations. Vehicle commanders stated that they need to be able to identify target grid coordinates, ranges and fire during silent watch. Of all the Bradley variants the Scout variant has the greatest need for conducting silent watch.

"A vehicle which can run on batteries during all hours of darkness would not have to turn on at night when everything else is silent. 8-12 hours of battery life would be enough to pull security all night and stay completely hidden from the enemy when it is most important." *1-7 CAV Survey Respondent*

During surveys vehicle crews 55% of crews recommended greater than four hours of silent watch. (See figure 2.9):

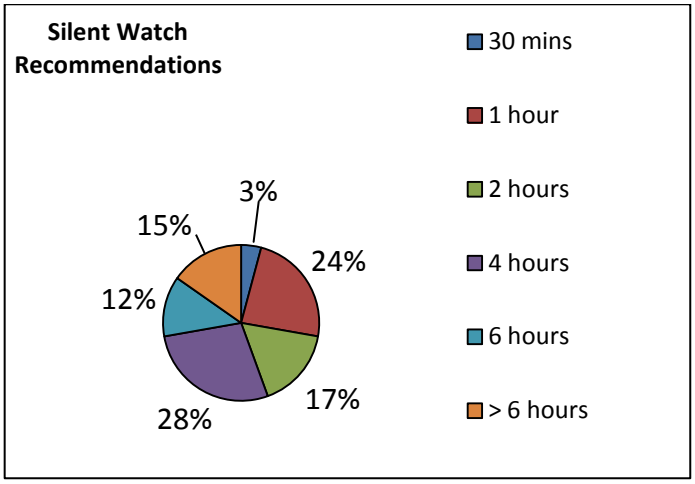


Figure 2.9 Bradley Silent Watch Recommendations

Recommendation 1.1.4.8: Identify a strategy to establish a >2 hour Silent Watch capability for the BFV and future scout vehicles.

(d) **Battery Charging Capability**: The current UAHs provide a charging capability for dismounted equipment. If the platoons lose this capability they are requesting a way to charge batteries on the Bradley. The squads spend long durations away from the vehicles and their equipment requires multiple sets of batteries. During home station training the dismounts spent 66% of their time in OPs during area reconnaissance missions. Engineering Change Proposal (ECP) 2 will provide a universal battery charger (UBC) to charge dismounted equipment. The unit also had one CLU charger per troop but recommended one per platoon due to location in the operational environment.

Recommendation 1.1.4.7: TCM-ABCT work this issue with the Program Manager.

e. **EEA 1.1.5 How well does the current leadership and education support the requirements of the 6x36 FDU design?**

Dismount utilization during missions needs to be reinforced in MPCC, MCCC, A-BOLC, BLC, ARC, ALC and M-SLC. The increased manning and capability provided by the SSP will increase the need for maneuver leaders to fully understand how to utilize this asset. The Army needs to review ways to improve senior leader and staff knowledge of the dismounted, mounted

and air capabilities of the cavalry squadron to fully maximize the effectiveness of the SSP. Numerous examples at the NTC demonstrated that the following tasks need improvement: mounted/dismounted integration, Bradley skills, air ground integration, reporting, HF/FBCB2 training, CBRN, land navigation, Javelin, and call for fire. Soldiers assigned to the 6x36 formation will be required to possess greater proficiency on these skills due to the increase of capability at the squad level. The leader to led ratio will provide more trainers to improve R&S skills. 19D OSUT, PME and functional courses need to review ways to better train these competencies. Training impacts will be simplified with common platforms, however assignment oriented platform training must be in courses.

(1) **MoM 1.1.5.1 Does the leader to led ratio of the dismounted teams provide the necessary Mission Command to conduct R&S operations?**

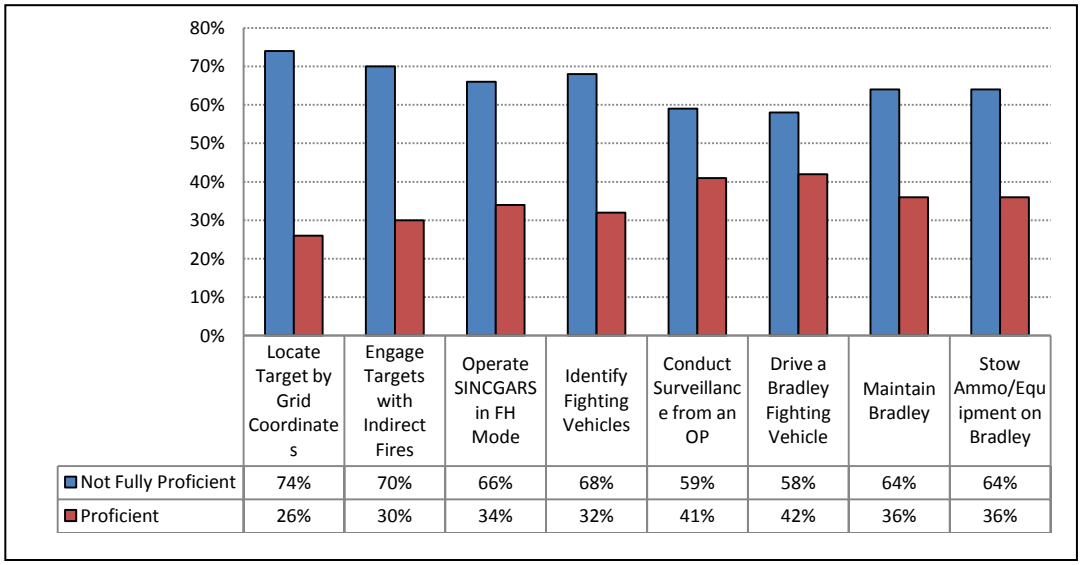
The leader to led ratio of the SSP dismounted teams provided the necessary Mission Command to conduct R&S operations. In the 3x5 formation, platoon leaders had to determine whether a staff sergeant needed to dismount from the Bradley in order to provide increased leadership with the dismount element. When a staff sergeant dismounted it left a Bradley without an experienced vehicle commander. The staff sergeant also had to be proficient in multiple roles. The SSP solves this dilemma by providing an appropriate leader to led ratio that enables effective mission command for simultaneous mounted and dismounted operations. The SSP adds a staff sergeant for each dismounted squad. Platoon leaders and commanders expressed that they felt much more confident in their dismounted capability with staff sergeants on the ground with each squad.

(2) **MoM 1.1.5.2 Does 19D OSUT adequately prepare Soldiers to conduct dismounted SL1 tasks ISO R&S missions?**

19D OSUT must improve training to adequately prepare Soldiers to serve in positions coded for mounted and dismounted members assigned to the scout platoon. Leader panel discussions and survey results, as well as analysis team observations indicate that Soldiers need significant improvement on tasks that are currently associated with land navigation, call for fire, and radio operations.

19D OSUT currently does not train, but needs to start training the task *Demonstrate Visual Tracking Techniques* found in STP 17-19D. This task is directly tied to information collection activities by determining indicators of enemy presence, composition, and disposition. Visual tracking is found in ATP 3-20.98, *Reconnaissance Platoon* as a dismounted reconnaissance patrol method.

Skill level 1 also report that they need training on land navigation, Bradley operations and maintenance, and exposure to skill level 1 19D doctrine. This validates what leaders are saying in panel discussions and survey responses (see figure 2.10).



	Locate Target by Grid Coordinates	Engage Targets with Indirect Fires	Operate SINCGARS in FH Mode	Identify Fighting Vehicles	Conduct Surveillance from an OP	Drive a Bradley Fighting Vehicle	Maintain Bradley	Stow Ammo/Equipment on Bradley
Not Fully Proficient	74%	70%	66%	68%	59%	58%	64%	64%
Proficient	26%	30%	34%	32%	41%	42%	36%	36%

Figure 2.10 19D OSUT Graduate Proficiency (Post Home Station Training Survey; SGT-CPT)

(a) **Bradley Training in 19D OSUT**: During panel discussions Soldiers provided mixed opinions on Bradley and scout related training they received in OSUT. There seemed to be a disparity from class to class on the level of vehicle training received. While some stated vehicle training as adequate, others who graduated from a different class said they did not spend any time driving or learning about the Bradley. Soldiers who received two days of training on the Bradley rated the training as ineffective. Soldiers said that firing a few rounds on the Bradley in OSUT was not effective. Soldiers and NCOs stated that 19Ds need to conduct the Gunnery Skills Test (GST), become familiar with the Bradley turret, and conduct hull and turret Preventative Maintenance Checks and Services (PMCS) in OSUT. Soldiers recommended low resource intensive training in the motor pool conducting Bradley pre combat checks, load plans, install and fill the radios, and maintenance. Soldiers and NCOs asked for a post OSUT course for the Bradley like there is for the Stryker, stating Soldiers assigned to Stryker formations receive this Assignment Oriented Training, but the 19Ds assigned to Bradley platoons only receive the training in OSUT. 19D Soldiers and NCOs recommended that institutional Bradley training be required for those en route to ABCTs. Generating and operational force training strategies need to take into consideration that 50% of the platoon authorizations are for Bradley crewmen under the SSP concept.

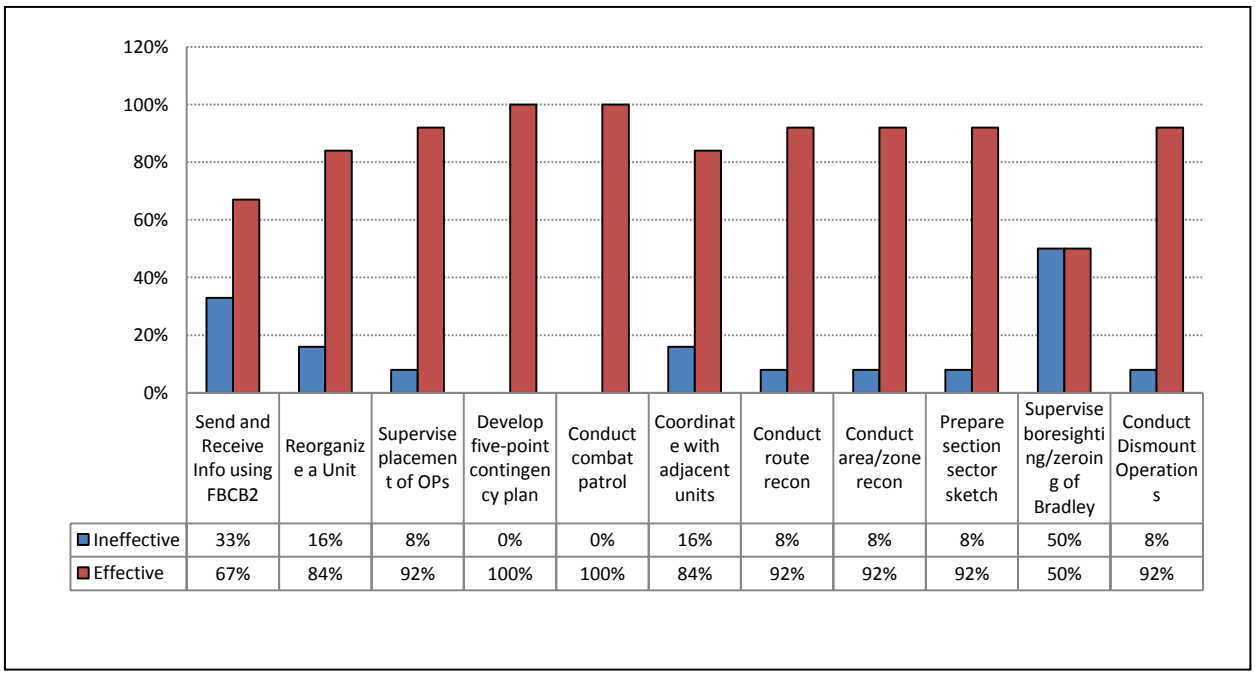
(b) **Field Training Exercise (FTX) in OSUT**: Most Soldiers interviewed who recently graduated from OSUT said their FTX was infantry-centric and did not touch on scout specific individual tasks. When asked what tasks were conducted, the response was defend the FOB, attack the FOB, and urban operations.

(3) **MoM 1.1.5.3 Does 19D ALC adequately prepare NCOs to conduct section level R&S missions?**

During interviews 19D NCOs who have recently graduated ALC overwhelmingly recommended an R&S focused FTX with more mounted and dismounted hands on training

where students conduct route, area, zone recon, screen and guard in the field. During the post home station training survey when asked to rate the effectiveness of the 19D ALC for teaching leadership tasks NCOs rated Supervise Boresight/Zeroing on a Bradley the most ineffective at 50% and Send and Receive Information using the FBCB2 the second most ineffective at 33%. These results match the core competencies that leaders have been reporting as an issue to TCM-ABCT during unit visits related to mission command and platform proficiency. The ratings reported at 100% effective included: Conduct Combat Patrol and the Five-Point Contingency Plan.

Figure 2.11 rates the effectiveness of Cavalry Scout Advanced Leaders Course for teaching the following leadership tasks:



	Send and Receive Info using FBCB2	Reorganize a Unit	Supervise placement of OPs	Develop five-point contingency plan	Conduct combat patrol	Coordinate with adjacent units	Conduct route recon	Conduct area/zone recon	Prepare section sector sketch	Supervise boresighting/zeroing of Bradley	Conduct Dismount Operations
Ineffective	33%	16%	8%	0%	0%	16%	8%	8%	8%	50%	8%
Effective	67%	84%	92%	100%	100%	84%	92%	92%	92%	50%	92%

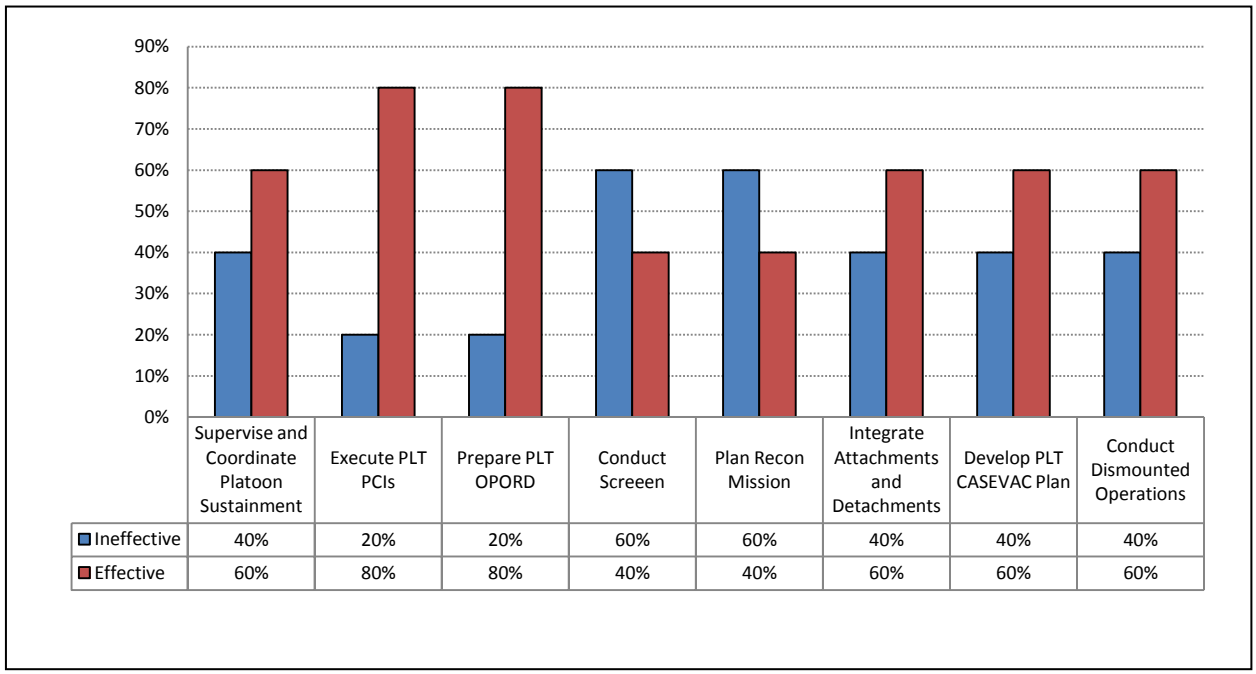
Figure 2.11 Advanced Leader Course Effectiveness

(4) **MoM 1.1.5.4 Does M-SLC adequately prepare NCOs to conduct platoon level R&S operations and logistical operations?**

19D graduates of the Maneuver Senior Leader Course rated two tasks the most ineffective at 60% (Conduct a Screen and Plan Recon Missions) followed by four tasks rated at 40% ineffective (Supervise and Conduct Platoon Sustainment; Integrate Attachments and Detachments; Develop a Platoon CASEVAC Plan; Conduct Dismounted Operations). Tasks rated the most effective at 80% were Execute Platoon Pre Combat Inspections and Prepare the Platoon Operations Order. M-SLC graduate respondents want to see an increased emphasis in the course on 19D tasks. Survey results indicate that the course is based on 11B tasks. Ways to improve R&S training is to execute different phases of instruction by MOS (11B/19D/19K).

"I understand the concepts and the idea of integrating different MOS and experience. But a lot of essential training value was lost. After Phase 1, MOS specific training needs to be done." *M-SLC Graduate Survey Response*

Figure 2.12 rates the effectiveness of the Maneuver Senior Leaders Course for teaching the following leadership tasks:

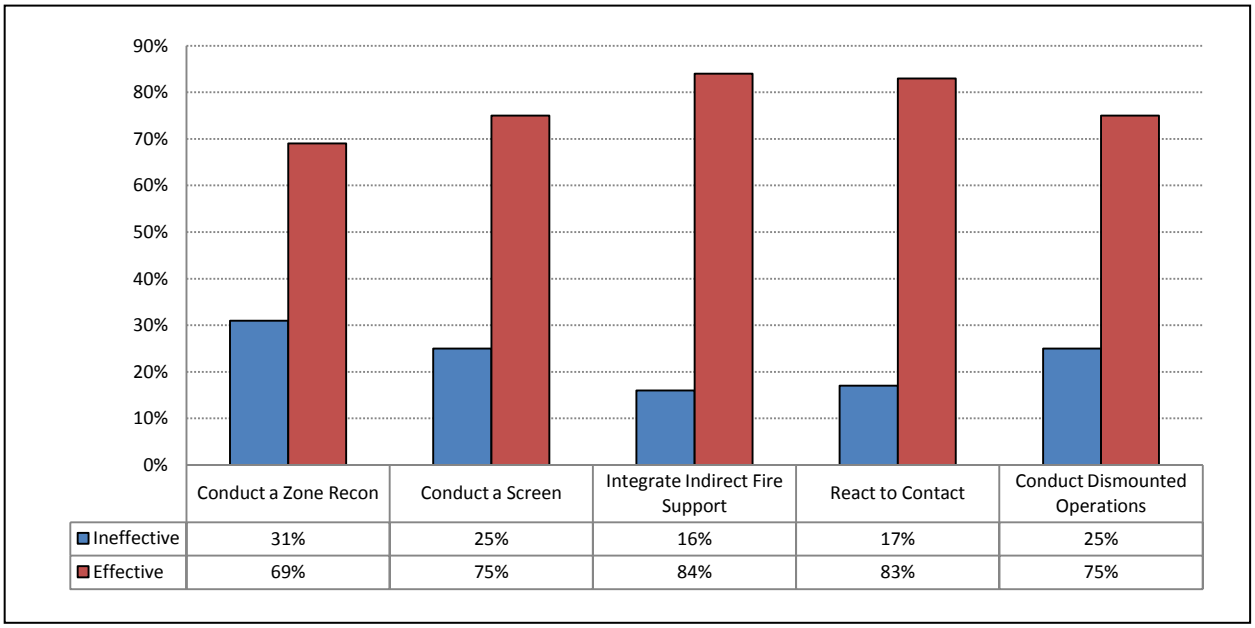


	Supervise and Coordinate Platoon Sustainment	Execute PLT PCIs	Prepare PLT OPORD	Conduct Screeen	Plan Recon Mission	Integrate Attachments and Detachments	Develop PLT CASEVAC Plan	Conduct Dismounted Operations
Ineffective	40%	20%	20%	60%	60%	40%	40%	40%
Effective	60%	80%	80%	40%	40%	60%	60%	60%

Figure 2.12 Maneuver-Senior Leader Course Effectiveness

(5) **MoM 1.1.5.5 Does A-BOLC adequately prepare officers to conduct R&S missions?**

(a) The perception of lieutenants during panel discussions is that they were not prepared to serve as ABCT scout platoon leaders through attendance to A-BOLC. They believe that the course focuses solely on preparation for assignment as tank platoon leaders. The officers said that armor lieutenants enroute to ABCT scout platoons must attend ARC to acquire this skill-set. These comments conflict with survey results in which A-BOLC graduates were asked to rate the effectiveness of the course to teach five R&S tasks. In figure 2.13, A-BOLC graduates rated Conduct a Zone Reconnaissance the least effective at 31% and Integrate Indirect Fire Support the most effective at 84%. The analyst team believes this dichotomy in reporting is based upon survey respondents reporting on their ARC experiences. TCM-ABCT/Recon assesses that this leader development model is about right. 19 series officers need a solid foundation that will allow them to serve as both armor and cavalry officers, through attending an Armor focused A-BOLC and ARC IAW the current Recon Career Timeline provides a solid leader development path, and should be sustained. Officers who are assigned to cavalry organizations but have not attended ARC are at a distinct disadvantage and not properly prepared to assume duty positions in those organizations.



	Conduct a Zone Recon	Conduct a Screen	Integrate Indirect Fire Support	React to Contact	Conduct Dismounted Operations
Ineffective	31%	25%	16%	17%	25%
Effective	69%	75%	84%	83%	75%

Figure 2.13 Basic Officer Leaders Course Effectiveness

(6) **MoM 1.1.5.6 Does Maneuver Captains Career Course (MCCC) adequately prepare officers to conduct R&S missions?**

MCCC Effectiveness: MCCC graduates were asked to rate the effectiveness of the Maneuver Captains Career Course for teaching leadership tasks, three areas were rated as ineffective: Conduct Zone/Area Reconnaissance at the Troop Level – 60% ineffective; Conduct a Screen at the Troop Level – 60% ineffective; Conducting Dismounted Operations – 40% ineffective.

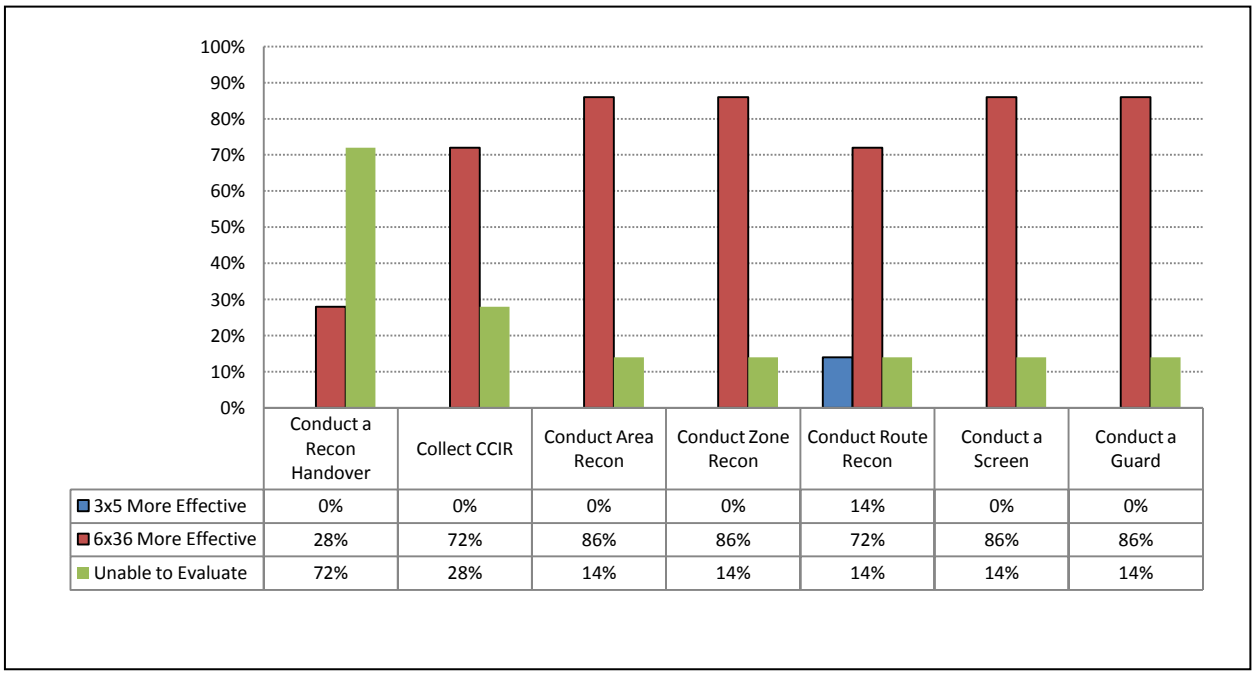
> "For at least one orders iteration, all armor officers plan a reconnaissance or security operation. Reconnaissance and Security operations for armor officers need more emphasis." *1-7 CAV Survey Respondent*

Recommendation 1.1.5.6: DOT assess the feasibility of incorporating an ABCT oriented R&S mission for all armor officers to plan. The Armor Commandant has provided guidance in revisions to AR 600-3 that requires Armor officers graduating from MCCC to attend follow-on training at CLC in order to acquire cavalry leader and staff skills.

f. **EEA 1.1.6 How well does proposed 6x36 formation meet the R&S mission requirements?**

The 6x36 formation increased the ability for the scout platoon to successfully accomplish R&S mission requirements. The leader to led ratio, increased dismounted manning, and six Bradleys provided improvements to the platoon's R&S capabilities. Leaders made very positive remarks on the increased capability provided by the leader to led ratio of the 6x36 formation. The 6x36 formation provided staff sergeants on the ground and in the vehicle crews that better equipped the

platoon to accomplish all R&S missions. Increased NCOs enabled the unit to better perform troop leading procedures and missions required for mounted and dismounted operations. Integration between dismounted and mounted squads, while needing improvement, ensured that the unit was able to identify and successfully destroy enemy elements. The increased leadership was evident in the unit's performance on long duration OPs, patrols, and wide area security operations. Soldiers surveyed stated they operated up to 2km away from vehicles during zone reconnaissance and screen missions and up to 4km for guard missions; this is a significant operational range increase over the 3x5 organization as reported by NTC OC/Ts. During the post NTC unit survey 100% of 1-7 CAV's PSG/PL surveyed stated that the 6x36 formation improved their ability to conduct area and zone reconnaissance missions; 79% surveyed stated the formation improved their ability to conduct a route reconnaissance. The effectiveness of the 6x36 formation over the 3x5 formation is clear as indicated by the OC/T survey results in figure 2.14.



	Conduct a Recon Handover	Collect CCIR	Conduct Area Recon	Conduct Zone Recon	Conduct Route Recon	Conduct a Screen	Conduct a Guard
3x5 More Effective	0%	0%	0%	0%	14%	0%	0%
6x36 More Effective	28%	72%	86%	86%	72%	86%	86%
Unable to Evaluate	72%	28%	14%	14%	14%	14%	14%

Figure 2.14 Effectiveness of 6x36 vs 3x5 for R&S Missions (OC/T Survey)

Leaders in 1-7 CAV further disclosed that dismounted personnel increased the coverage of dead space, area security for Bradleys on a screen line, improved overall survivability, and increased flexibility for dismount OPs. Dismounts provided the ability to cover dead space and get to areas of higher elevation or restricted terrain that Bradleys couldn't get to.

Recommendation 1.1.6: Rapidly implement the organizational changes identified for both personnel and equipment to form SSPs as quickly as possible. Assess conversion of dismount elements in those scout platoons that will remain equipped with a 3x5 platform configuration from 12 personnel to 2x6 man scout squads led by SSGs.

(1) **MoM 1.1.6.2 Does the Standard Scout Platoon provide adequate depth when conducting screen missions?**

The SSP supports improved depth at the platoon level when conducting a screen in restrictive and unrestrictive terrain. Depth is achieved through the use of enablers, positioning of mounted and dismounted elements, and proper use of reconnaissance management techniques (cuing, mixing, and redundancy). The SSP increases the depth through the ability of the unit to employ six mounted OPs and 6x3 man dismounted OPs. The unit effectively operated OPs greater than 24 hours at the NTC when required.

OC/Ts reported that the squadron defeated the Division Tactical Group (DTG) recon and used good depth to emplace themselves in positions to identify the enemy main effort. OC/Ts also reported that the 6x36 formation allows OPS for greater depth and on security flanks if necessary.

g. **What additional and/or unique considerations and tactics, techniques and procedures did the unit adapt to accomplish the mission under the 6x36 design? (Note: This data is based upon NTC operations and was not included in the original data collection plan.)**

(1) **"No Bradley" Line TTP**: Leaders operating in the 6x36 formation addressed an increased need to utilize dismounts for local security to improve the survivability of the platoon while operating in wooded areas. The audible noise created by the vehicle can increase the need for additional local security in restrictive terrain. The unit identified tactics, techniques and procedures (TTPs) to mitigate the audible noise of the Bradley by establishing a "No Bradley" line to maintain the vehicle outside of enemy audible detection ranges. The "No Bradley" line was generally between 1,000 to 2,000 meters, dependent on the terrain. The unit also established standard operation procedures (SOPs) with "short counts" where vehicles would all start simultaneously to prevent identification of individual vehicle locations.

(2) **Use of the Bradley Squad Leaders Display (SLD):** Squad leaders said an advantage of the SSP is the capability to brief Soldiers on the SLD. The SLD provided real time information on friend and enemy forces and the terrain. The squad leaders were able to use the SLD to prepare their Soldiers to move rapidly to OPs and conduct patrols as soon as the ramp dropped. Squad leaders also had positive comments on using the CVC in the hull to communicate with the vehicle commander. The squad leader's used the CVC for mission command and situational awareness between the vehicle commander and the squad leader. The Bradley provides six headsets, for monitor only, that can be worn by dismount personnel under the helmet to improve situation awareness.

(3) **15 Minute Dismount Rule**: As the NTC rotation progressed leaders better utilized the dismounts. One TTP established by platoons was to move the dismounts to OPs or local security if the vehicles were going to be stationary for more than 15 minutes. Dismount leaders recommended that platoon and troop leadership look at ways to more deliberately plan for their use throughout the operation. Leaders expressed that dismount NCOs and platoon leaders need to better plan and communicate when dismounts will be utilized from the LD to the LOA. All

leaders in the platoon need to understand when speed will be required due to unlikely enemy contact and when the dismounts will be deployed more due to the enemy situation. If the unit is going to be stationary for a long time, dismounts should be deployed to adjacent ridge lines to clear likely enemy OPs, dead space, and provide R&S to terrain that cannot be observed by the Bradleys. There were multiple occasions during the rotation where close enemy OPs remained undetected for long periods of time.

(4) **Mounted Squad Configuration**: The SSP provides the platoon the options to organize in different ways than they did in the 3x5 formation. During NTC most platoons operated in two sections of three Bradleys. The platoon sergeant led one section and the platoon leader led the other section. The leadership expressed that it is important to separate the leaders into two separate sections and to keep the senior scout with the platoon leader's section. In the 3x5 formation the PSG and PL were in the same section (HQs section). The other configuration that the unit operated in at NTC was in three sections: alpha, bravo and charlie. Even in the three section concept the platoon did not place the PSG and PL in the same section.

(5) **Class of Supply List for the Scout Squad/Platoon**: Since the SSP has more dismounts the platoon needs more batteries. Several platoon NCOs said they ran out of batteries for dismounts. The NCOs recommended an annex to the TACSOP that lists the classes of supply, specifically batteries that a squad and a platoon is required to have on hand to use during pre-combat inspections (PCIs).

(6) **"Top Hat/Low Sky"**: One platoon established TTPs to control squad and platoon vehicle direct fire engagements. On one mission at NTC the squad sent dismounts to clear an IV line forward of the vehicles. The dismounts identified an enemy platoon and talked the vehicles into the best positions to destroy the threat. The senior vehicle commander gave the command "Top Hat" that served as a trigger for both vehicles to expose their turrets over the IV line and engage the threat. The vehicle commander then gave the command "Low Sky" to move the vehicles back into a covered position. The Bradley section with only two vehicles destroyed 3 BMPs and 1 Tank.

(7) **Use of Optics to Move at Night**: The SSP formation provided Bradley Driver Vision Enhancer (DVEs) in every vehicle and Bradley thermal sights improved the ability for the unit to conduct night movements. The unit established a TTP to use this capability to move at night and preposition the vehicles in turret down positions before the enemy could identify their positions. By moving the Bradleys at night the enemy could not observe any dust trails created by the scout platoon's movement.

(8) **Chief of Reconnaissance**: This position is not formally defined nor assigned to a member of the staff. Opinions vary widely on how this should be addressed. It is the opinion of the analysis team that it is more important that the brigade assign a qualified officer to this role than it is to formalize it as a coded position.

(9) **Personnel and Facilities**: Refer to Chapter 1, Limitations.

CHAPTER 3
LEARNING DEMAND 2 ANALYSIS

1. **KEY OBJECTIVES.** Learning Demand 2 focuses on operational performance of the 6x36 SSP organization using criteria defined as versatility, survivability, protection, mobility and firepower. Figure 3.1 below outlines Learning Demand (LD) 2, as well as the corresponding Essential Elements of Analysis (EEA). The chapter is broken down by individual measures of merit that form the basis for the findings of the report. For the full DCMP see Annex F.

Learning Demand 2: How does the proposed R&S architecture (Force Design) enable the commander to conduct effective reconnaissance and security operations during combined arms maneuver and wide area security?			
Issue #	**Issue**	**EEA#**	**EEA**
2.1	How does the proposed R&S architecture (Force Design) enable the commander to conduct effective reconnaissance and security operations during combined arms maneuver and wide area security?	**2.1.1**	How does the proposed R&S architecture (Force Design) improve the Scout squads and platoons versatility?
		2.1.2	How does the proposed R&S architecture (Force Design) improve the Scout squads and platoons survivability?
		2.1.3	How does the proposed R&S architecture (Force Design) improve the Scout squads and platoons protection?
		2.1.4	How does the proposed R&S architecture (Force Design) improve the Scout squads and platoons mobility?
		2.1.5	How does the proposed R&S architecture (Force Design) improve the Scout squads and platoons firepower?

Figure 3.1 Data Collection Management Plan (DCMP) for Learning Demand 2.

2. **Learning Demand 2 Summary:** The SSP improved the overall effectiveness of the organization, increased Soldier and unit survivability and capability by properly equipping and organizing the platoon. Scout platoons provided commanders relevant and timely information in support of operations during combined arms maneuver and wide area security missions. The organization provided an increased capability for the platoon to develop the situation rapidly, fight for information, conduct continuous reconnaissance, maintain contact with the enemy and provide real-time information of the enemy's composition, disposition, strength, and actions that allowed staffs to analyze and make recommendations to the commander. The increased

leader to led ratio, dismounted manning available and firepower improved the formation's ability to contribute across all of the warfighting functions.

> "We need to get into the 6x36 formation as quickly as possible." *Cobra 40, Command Sergeant Major for the Cavalry OC/T Team*

3. **Analysis:** Data sources for this analysis include subject matter expert review of doctrine, field observations, participant input from surveys, After Action Reviews (AARs), panel discussions, and interviews.

a. **EEA 2.1.1 How does the proposed R&S architecture (Force Design) improve the Scout squads and platoons versatility?**

The SSP formation demonstrated an increase in versatility when compared to the 3x5 formation for both wide area security and combined arms maneuver operations. On several occasions the increased manning enabled the platoon to effectively destroy enemy dismounted scouts through maneuver and using direct fire. Many OC/Ts stated "the 3x5 formation did not provide the versatility to successfully accomplish all required R&S tasks." One Troop primary OC/T with 14 NTC rotations said this is the first unit able to accomplish isolation of Ujen (MOUT Site at NTC), and attributed the success to six Bradleys and 18 dismounts on the ground to handle ~ 100 intentionally displaced persons (IDP).

> During the deliberate attack, increased dismount manning combined with six Bradleys ensured the squadron was able to utilize tempo and OPs necessary to develop the situation for the brigade. Dismounted OPs were able to identify the start and end points for the enemy defensive perimeter, battle positions and obstacles. The dismounted OPs also provided the best location for the BCT to breach. During this mission one dismount squad was able to move forward 1,500 meters and defeat an enemy anti-tank position that allowed the Bradleys to reposition to positions of advantage, and identify enemy locations. A troop was able to defeat a spoiling attack allowing 2-8 CAV to conduct the passage of lines unimpeded. The SSP was equipped with the appropriate lethality, mobility and manning to set the conditions for 2-8 CAV to be successful in the main attack. Squadron leadership expressed that the 3x5 formation would not be able to accomplish the tasks that the 6x36 accomplished resulting in mission success for the BCT. "If we were in the 3x5 formation we would have had to displace as soon as we encountered an enemy 2x2 formation and would have not been able to support 2-8 CAVs safe passage of lines. We would not have been able to seize and retain key terrain for the CABs to follow through." *Squadron Commander Comments on NTC Deliberate Attack*

(1) **MoM 2.1.1.1 How effective was the integration of the mounted and dismounted capabilities for the R&S platoon?**

> "The use of OPs increased throughout the rotation to the point where dismounts were talking the vehicles onto enemy targets." *Post NTC Unit Visit Comment*

The SSP formation increased the capability for the platoon to improve mounted to dismounted integration. On numerous occasions leaders expressed that the leader to led ratio greatly improved the ability of the platoon to operate both mounted and dismounted. OC/Ts expressed that this organizational construct was able to perform tasks that the 3x5 formation could not. This chapter will further address these tasks. Assigning a staff sergeant, or PL/PSG, to each Bradley squad and two of three dismounted squads greatly improved the ability to integrate the dismounted and mounted elements through improved mission command and capabilities.

"Reconnaissance organizations require versatility to adapt to ever-evolving tactical situations and operational realities. Versatility without survivability and combat power has little relevance. Reconnaissance units unable to survive contact with an enemy and incapable of overcoming even light resistance tend to be marginalized either by a threat or by their own commanders. Even stealthy reconnaissance requires an ability to survive a chance contact or an ambush that may occur with little warning." *Robert S. Cameron, Ph.D. "To Fight or Not to Fight: Organizational and Doctrinal Trends in Mounted Maneuver Reconnaissance from the Interwar Years to Operation IRAQI FREEDOM," Combat Studies Institute Press*

"Having 18 dismounts which can conduct simultaneous operations which can be synchronized with the mounted operations is amazing. This organization allows for more flexibility for the BCT and Squadron Commander to answer PIRs and ease transitions during phases." *Post Home Station Training Survey*

During Battle Period 1 a platoon from Blackhawk Troop demonstrated an example of improved dismounted to mounted integration provided by the SSP. The platoon identified an inter-visibility (IV) line and deployed dismounts forward to clear the terrain in order to make contact with the smallest element possible and avoid detection. The dismount squad provided intelligence for the vehicles to reposition to a location for the platoon to mass fires that destroyed ~ 27 enemy dismounts, 4 BRDMs and 5 LMTVs. The dismounted element then searched the enemy and captured graphics and frequencies that were provided to the squadron to develop the enemy situation. Soldiers said they would not have been able to accomplish this task if they were not in the SSP formation. *Post NTC Panel Discussion*

Finding 2.1.1.1: The SSP demonstrated the improved versatility to perform mounted and dismounted tasks unable to be accomplished by the 3x5 formation. The dismounted scout squad reorganization provides increased leadership and experience, lethality, and operational range, for two of the three dismounted squad size elements, which increases platoon depth through proper employment. The conversion of 3x5 to six Bradleys increases flexibility for the platoon because any mounted squad can respond equally well in support of tactical requirements. This has the added benefit of decreasing decision and operational timelines since platoon leaders can employ any mounted element without consideration of the platform's capabilities and position on the battlefield. The SSP provides the squadron the ability to execute three OPs per platoon. Each are capable of conducting dismounted patrols, providing local

security, manning a dismounted OP, maintaining three crew members alert in a BFV and executing rest, sustainment and planning functions.

(2) **MoM 2.1.1.2 Did the SSP enable the unit to effectively man additional LP/OP positions?**

The SSP formation enabled the platoon to effectively establish more long duration dismounted OPs. When asked to compare the effectiveness of the 6x36 formation to the 3x5 formation 100% of the OC/Ts surveyed stated that the 6x36 formation is more effective at performing dismounted and mounted OP related tasks. Platoons established between 2-3 OPs capable of performing observation for longer durations due to increased manning. The SSP provides 18 dismounts due to fewer crew manning requirements; this is a six dismounted scout increase over the 3x5 formation. These additional dismount Soldiers increased the capability of the platoon to conduct long-term OPs, continuous screening ability, and to concurrently conduct multiple dismounted tasks associated with route, zone, or area reconnaissance.

An increase to 18 dismounts allowed platoons more versatility to employ more dismounted configurations to accomplish more R&S tasks. Platoons deployed dismount teams in various sizes based on METT-TC. Figure 3.2 shows the configurations platoons operated during home station training:

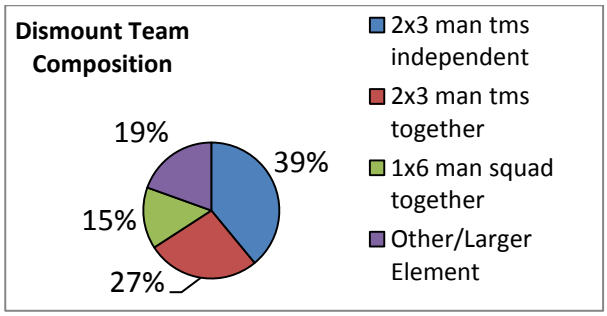


Figure 3.2 Dismount Team Composition

Finding 2.1.1.2: This rotation demonstrated that reorganizing the scouts into three scout squads provides the platoon leader with the ability to man three OPs indefinitely or up to six OPs for short duration and provides the appropriate leadership on the ground to supervise R&S tasks. During this rotation the unit was able to place OPs at further distances due to the optics and direct fire capabilities of six Bradleys then they every could have when organized as a 3x5 organization.

(3) **MoM 2.1.1.3 When conducting R&S dismounted operations, how much area was covered by the platoon?**

Based upon missions and terrain at the NTC, scouts surveyed reported the ability to cover an average distance of 3-5 km per hour and a 3-8 km wide frontage, dependent upon terrain. 90% of platoon sergeants and platoon leaders surveyed stated that the 6x36 formation improved their

ability to achieve coverage during area, zone, and route reconnaissance missions. The increased number of dismounts aided in route reconnaissance and overall information collection from multiple locations simultaneously. Mounted leaders were able to more effectively accomplish the mission and protect dismounted teams because of the addition of NCO dismounted team leaders controlling dismounted teams. The 6x36 formation demonstrated the capability to provide more boots on the ground supervised by an increased leader to led ratio and offering the platoon various ways to organize based on the mission, enemy, terrain and weather, troops and support available, time available and civil considerations (METT-TC) - all this increased the area the platoon was able to cover.

Finding 2.1.1.3: The most significant improvement to R&S dismount operations was the standardization of mounted platforms. This allowed the PL to emplace observation posts/BFVs to cover greater doctrinal distances while remaining within supporting distance of each other to enhance security through mutual support and to enable reconnaissance handover between OPs/BFVs when required.

b. **EEA 2.1.2 How does the proposed R&S architecture (Force Design) improve the Scout squads and platoons survivability?**

(1) **MoM 2.1.2.1 How survivable was the Platoon/Squad?**

The addition of three Bradleys and the reorganized dismounted scouts increased the survivability of the scout platoon. ATP 3-90.28 (Reconnaissance Platoon) lists survivability as a limitation of the 3x5 formation. A pure Bradley formation mitigates this limitation in the platoon by providing platforms of increased survivability and standardizes the level of protection across the platoon vehicles. The platoon, once configured will continue to improve protection as they reap the benefits of platform survivability improvements in the future. The increased capability to emplace more OPs improves local security, adds depth to the R&S plan and provides early warning of threats approaching on avenues of approach mounted vehicle crewmen may not be observing; all of which increases the survivability of the platoon. This report has already identified the benefits of improved vehicle over-watch of dismounted elements and this section will not restate those findings.

(a) **Additional Bradleys Improved Survivability**: A pure Bradley fleet provides increased survivability when compared to the 3x5 formation. The Bradley provides additional mobile protected firepower for dismounted Soldiers while on board. When Soldiers dismount, the vehicle provides stabilized firepower to support dismount operations at extended ranges. The UAH provides inadequate survivability against direct and indirect fires in missions when compared with the more survivable Bradley. A disadvantage of the 6x36 formation is the Bradley is not as stealthy as a UAH due to the vehicle's audible and vehicle signature. The signature disadvantage can be mitigated by the appropriate use of dismounts for local security to counter enemy AT threats when the situation dictates. Platoons will need to conduct terrain analysis to determine the best dismount and remount points, and deploy dismount forces forward in restrictive terrain to increase the ability to successfully conduct stealthy reconnaissance.

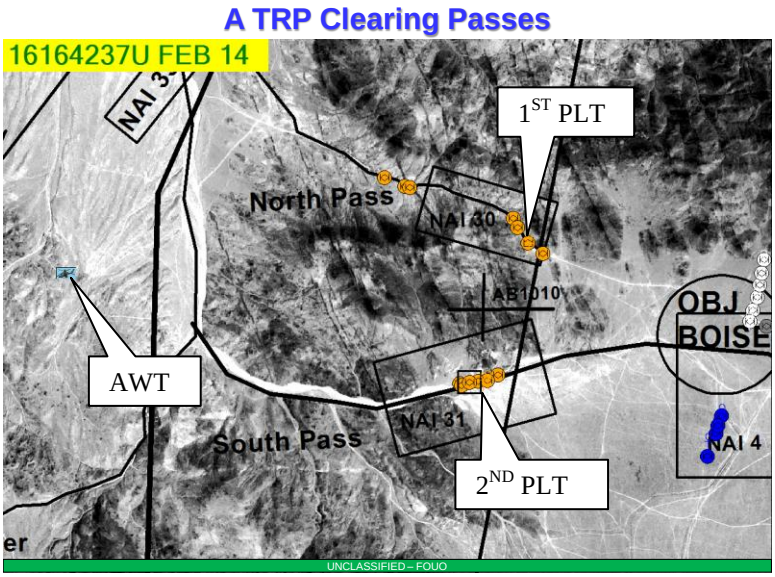
"The BFVs weapons capability and armor allowed the unit to conduct screen missions and face a higher level of threat forces before disengagement/displacement criteria was met." *Cobra OC/T*

(b) **Additional Dismounts Improved Survivability:** Additional dismounted Soldiers organized in an SSP scout squad enabled the platoon to increase reconnaissance and security in support of the Bradley platforms. This organization increased survivability by allowing the platoons to better position dismounts with leadership and material at increased ranges therefore reducing the vehicle's chances of being compromised. Unit leaders consistently addressed that in order for the 6x36 formation to be survivable they must have the right number of dismount Soldiers, especially in restrictive terrain where dismounts protect flanks from ATGM threats.

The enemy had emplaced two BRDMs in a hide position and deployed an OP in elevated, restricted terrain able to observe BLUEFOR elements. BLUEFOR reconnaissance elements initially did not detect this enemy OP and bypassed it as they moved into their positions. The BLUEFOR reconnaissance elements established a mounted fighting position approximately 150 meters away from this OP but failed to dismount scouts to provide local security, which allowed the enemy OP to continue to observe the BLUFOR maneuver element. Eventually, the platoon received a report of an enemy 3-man OP and possible BRDMs on a hill directly behind them. The SSP provided the PL with the capability to dispatch a dismounted security patrol that neutralized the enemy OP position, and destroyed a BRDM. *CALL Collection and Analysis Team Observation*

Unit leaders report that dismounted forces allowed reconnaissance without compromising Bradley positions because dismounts were able to clear adjacent routes, IV lines, and reduce the impact of Bradley noise and smoke signatures. Dismounts positioned 1km forward of vehicles significantly reduced audible and visual signatures. Platoon leadership indicated that the addition of a staff sergeant squad leader provided them with the confidence that the mission would continue if they temporarily lost communications, and there was sufficient leadership and experience on the ground to enable greater freedom of action and initiative to adjust OPs as required to accomplish the mission.

Figure 3.3 depicts Alpha Troop clearing passes in advance of follow on maneuver forces. They are working in conjunction with an air weapons team. The SSP formation provides additional dismount manning that allows the ability of the platoon to perform this mission which historically requires significant mounted-dismounted integration. OC/Ts expressed that this organizational construct utilized dismounts to clear terrain forward of the vehicles more effectively than previous 3x5 equipped organizations.



Alpha Troop Combat Power:

14 Bradleys
6 SSP Squads
1 AWT

Figure 3.3 Alpha Troop Defile Drill (Slide from NTC LFX AAR)

Finding 2.1.2.1: The synergistic effect of standardizing platforms to BFVs and forming organic scout squads led by staff sergeants and or the PSG/PL creates an organization that is standard in its capabilities and has the flexibility and versatility to respond to more threats unilaterally across the operational environment. When used effectively these maneuver elements greatly increase the survivability of the individual Soldier and platform as well as making the overall platoon inherently more survivable.

c. **EEA 2.1.3 How does the proposed R&S architecture (Force Design) improve the Scout squads and platoons protection?**

The 6x36 formation improved mobile protected fire power for the scout platoons. Protection levels were increased for mounted and dismounted Soldiers through a combination of armor, mutual direct fire support and improvements to platoon CASEVAC capabilities.

"We were able to stand toe-to-toe with multiple echelons of his formations to neutralize, if not defeat, them with a combination of direct and indirect fires. Without the protection of the BFV, we would have had much more strict displacement criteria and had to have absolutely adhered to it." *Post NTC Unit Survey*

(1) **MoM 2.1.3.1 How protected was the R&S Platoon/Squad (Scout)?**

The SSP provided more protection than the 3x5 formation by providing mobile protected firepower, mutually supporting platforms, increased dismounts for security, and a more protected CASEVAC platform.

(a) **Mutual Supporting Platforms**: Leaders were able to plan and conduct movement and maneuver with increased direct fire support for their wingmen and dismounted Soldiers. The SSP provided the section leader the ability to conduct alternating and successive bounding.

(b) **Increased Security**: The increase in dismount manning provided by the SSP provides a capability for additional protection through the use of dismounted activities such as confirming or denying enemy activity in dead space during maneuver for security reasons.

> "Additional dismounts increased protection with stealth and security of mounted reconnaissance by providing additional forward and flank observation during movement." *Post Home Station Training Survey Comment*

(c) **Improved CASEVAC**: During operations at NTC platoons were better equipped to evacuate casualties with Bradleys versus UAHs due to space and protection. On one occasion this resulted in the platoon sergeant on B14 being able to rapidly evacuate wounded Soldiers through rough terrain from behind the enemy's forward elements (see Figure 3.4). Although the Bradley registered several near misses from BMPs, the mobile protected firepower and the ability to rapidly negotiate cross country terrain enabled the PSG to deliver casualties in time to receive medical care resulting in the three Soldiers surviving. When the platoon operated in two sections with three vehicles they could lose the platoon sergeant's vehicle to a CASEVAC mission and easily adjust sectors of fire with no loss in security.

91% of platoon and first sergeants rated the Bradley effective for CASEVAC, while 37% rated the UAH as effective. Bradleys provided a more effective platform from which to conduct Casualty Evacuation (CASEVAC), when compared to UAH's which lack the survivability and lethality to perform CASEVAC. UAHs also lack adequate space to evacuate and treat casualties while en route to the next level of medical care.

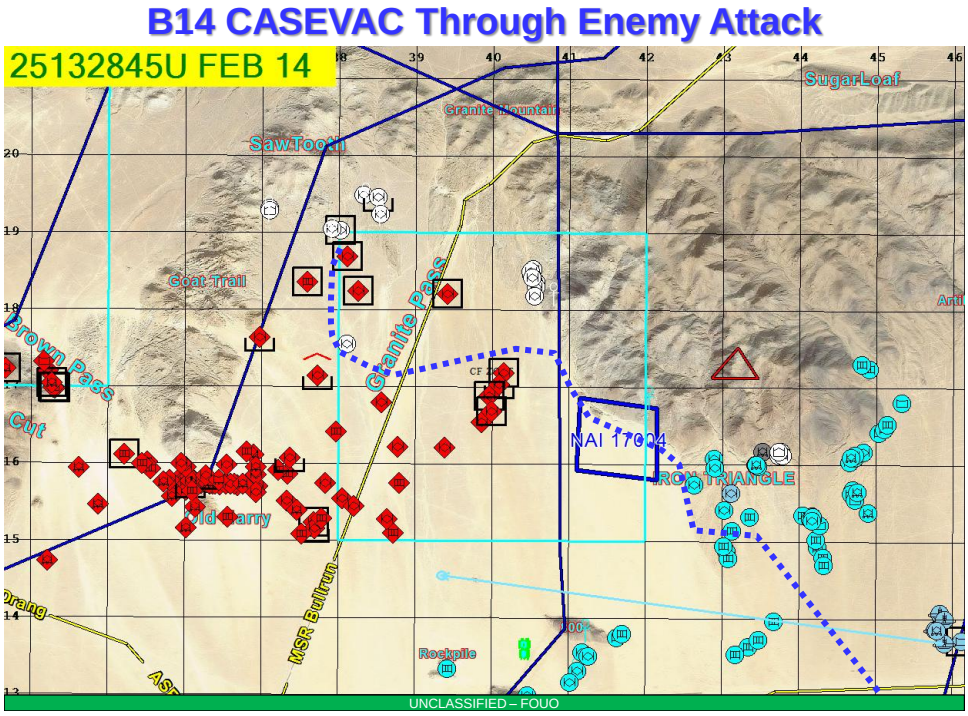


Figure 3.4 Bradley CASEVAC = Zero Died of Wounds

Finding 2.1.3.1: The SSP provides a combination of mobility, protection and firepower that significantly increases protection for assigned Soldiers over the old 3x5 organization. The ability of the Bradley to increase force protection for Soldiers while mounted greatly exceeds that of the UAH. The improved mobility of the Bradley allows leaders to move rapidly to positions of support for dismounts as required. The increase in 25mm and TOWs also allow vehicles to provide greater overwatch for dismounted elements and survive first contact for mounted elements. The scout squad TO&E not only provides increased weapons lethality to counter more enemy threats, it also significantly increases the overall effectiveness of the squad by placing an experienced leader on the ground at all times. The 3x5 organization equipped with UAH mounted LRAS currently has superior sensor capabilities and has the ability to identify threats at greater ranges, however, it is unable to capitalize on these capabilities against the threat. While the threat acquisition ranges are less capable than the UAH acquisition ranges the threats kill ranges are greater which nullifies the advantage of the LRAS as shown in figure 3.5.

Heavy Brigade Combat Team, A Reconnaissance Squadron Experiment authored by the Directorate of Training, Doctrine, and Combat Development, U.S. Army Armor Center, Fort Knox, Sept 2007.

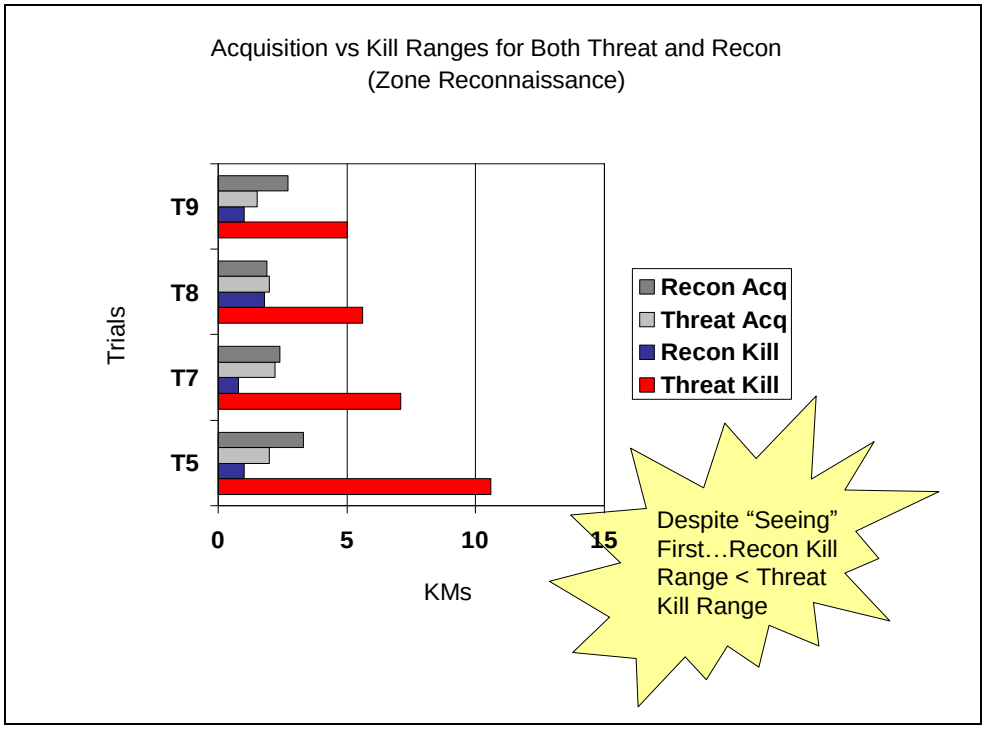


Figure 3.5 3 UAH x 5 Bradley Formation vs Threat Acquisition/Kill Ranges

d. **EEA 2.1.4 How does the proposed R&S architecture (Force Design) improve the Scout squads and platoons mobility?**

The 6x36 formation improved the mobility of the scout platoon to effectively perform all R&S missions in all terrain. R&S missions for the BCT were unconstrained by the mobility of the Bradley. The squadron was able to emplace vehicles in restrictive terrain that allowed observation that would not been possible with the 3x5 formation.

> "It is easier with the 6 Bradleys than it is when there are a mix of Bradleys and wheels. One, there are less vehicles to worry about. Secondly, they have the same maneuverability which means they can conquer the same type of terrain without fear." *Post NTC Unit Survey*

(1) **MoM 2.1.4.2 Was the Squad's/Platoon's planned movement hampered by lack of mobility?**

The below analysis answers the two mobility MoMs above:

Mobility in Vegetated Areas: In Fort Hood, Texas the platoons encountered dense vegetation and restrictive to severely restrictive terrain with limited distance observation. Crews who have experience in this terrain with UAHs said they could traverse it more effectively with a pure Bradleys platoon. Crew members said in previous FTX they had to wait on UAHs and it slowed the pace of their movement.

> "6x36 provided more maneuverability and allowed us to maintain formation better than the 3x5 in vegetated areas." *Post Home Station Training Survey*

Mobility in the Desert and Mountains: At NTC the 6x36 formation demonstrated the ability to maneuver over all terrain. According to OC/Ts, in the past, units equipped with a mix of UAHs and Bradleys have had difficulty maneuvering cross country due to the difference in mobility between the two vehicles. Platoon leaders in the 3x5 formation have had to select movement routes that met the mobility requirements of both Bradleys and UAHs, therefore restricting the scout platoon to movement along less protected mobility corridors. The increased mobility provided by the Bradley was evident when numerous OC/Ts expressed it was very difficult for them to keep up with Bradleys in their UAHs. During the Live Fire Exercise (LFX) a senior Dragon OC/T stated that the UAHs in one of the Combined Arms Battalion scout platoons could not maintain pace with Bradleys in restrictive terrain. In the past several NTC rotations units have had significant challenges with UAH tires going flat on rocky terrain and stopping the vehicle dead in its tracks. 1-7 CAV leaders and OC/Ts expressed that they were very impressed by the Bradley's ability to negotiate restrictive and severely restrictive terrain that the UAHs could not navigate. A Cobra Team OC/T stated, "The 3x5 has no survivability to fight for information, and it can't keep up with Bradleys, has many flat tires; 9 blown first hour; 30 tires in 1 troop. When UAHs make first contact they are not survivable. The UAH cannot support the movement of the Bradley with direct fire weapons. With 6x36 every identifier can kill; with 3x5 the UAH had to ID the target and the Bradley had to kill the target."

"Platoon leadership expressed that the 6x36 design increased the platoon's ability to maneuver on the battlefield while in formation versus the 3x5 concept. Six Bradleys can maneuver across restricted terrain while maintaining situational awareness in a platoon formation opposed to five UAHs maneuvering through rough terrain slowing down the platoon's movement." *Scout Platoon Observer, NTC 14-04*

The unit maintained formations better with pure Bradleys with common capabilities. Single vehicles in the Bradley section were able to provide supporting direct fires for the other platform to conduct fire and maneuver. Bradley sections had equal firepower to provide suppressive fires to support a second section conducting bounding over watch. Overall mission command to control maneuver was more simplified with one platform.

"We were able to stay online or bound quickly as needed. In the past I was always waiting for a truck to catch up or have to explain what I am seeing because the trucks couldn't see. Or again the trucks were either stuck or couldn't make it where I had gone." *Post Home Station Training Survey*

Figure 3.6 Bradley occupying severely restrictive terrain at the NTC. (*Photo courtesy NTC Cobra Team*)

In the 3x5 formation the mix of tracked and wheeled vehicles in the same platoon limited the platoon leader's flexibility in selecting movement techniques and terrain over which platoon could move. In the 6x36 formation platoon leaders expressed it is much easier to plan and control movement with one platform type that has common cross country capabilities.

Mobility was improved as platoons were able to recover like vehicles under the 6x36 formation. Under the 3x5 formation a disabled Bradley had to be recovered by the platoon sergeant or another section's Bradley, removing combat power from two sections instead of one.

Finding 2.1.4.2: The SSP enabled the scout platoon to traverse cross country terrain that was previously inaccessible in the 3x5 formation. This allowed the platoon to emplace mounted and dismounted OPs in support of the R&S efforts faster, maintain tempo in the offense, and facilitate sustainment and medical evacuation operations across all mission sets.

e. **EEA 2.1.5 How does the proposed R&S architecture (Force Design) improve the Scout squads and platoons firepower?**

> "The firepower of having more 25mm within the organization is amazing. This will finally allow the Cavalry to fight for information when necessary and to displace under contact which will allow the CABs and the BCT commander more time to make decisions. Having more time will allow the commander to have a clear understanding of the OE which again will ease tensions during gaps." *Post NTC Unit Survey*

The 6x36 formation improves the unit's firepower by providing twice as many stabilized 25mm weapons systems and anti-tank missiles, and 50% more Soldiers available for dismounted operations. OC/Ts expressed that this scout formation is the most lethal they have observed at the NTC. The 6x36 formation demonstrated an increased capability to fight for information that resulted in the BCT's main body being prepared to defeat the threat during combined arms maneuver and wide area security.

> Army forces must be capable of developing the situation through action, in close contact with the enemy and civilian populations, fighting for information, and reassessing the situation to keep pace with the dynamic nature of conflict. *The U.S. Army Functional Concept for Movement and Maneuver 2016-2028*

(1) **MoM 2.1.5.1 Was the R&S platoon/squad able to fight for information when required?**

The 6x36 formation provided an increased capability to fight for information through a combination of lethality, manning, movement and maneuver, protection and survivability. The 3x5 formation was vulnerable to enemy counter reconnaissance and security measures, and fighting for information in decisive action was limited.

Lethality Advantage: When compared to the 3x5 formation, the 6x36 formation increases the ability for the platoon to fight for information during movement by providing twice as many weapons systems with stabilized platforms. The Bradley's stabilized 25mm canon provides direct fires while on the move at ranges up to 3,000 meters and the TOW missile can destroy armored targets at ranges beyond that. The UAH is not equipped with a stabilized weapon system to accurately engage targets while moving and does not have the capability to provide effective direct fires against a near pear threat at standoff distances comparable to the Bradley. The UAH also does not have an armor defeating capability and must call for a Bradley to

reposition to engage identified threat targets. The increased ranges and precision accuracy of the BFV weapons systems provide increased frontages and depth for employment of OPs and the ability to observe multiple NAIs with the IBAS and CIV, effectively mitigating the existing UAH gap pertaining to weapons ranges and lethality.

96% of Soldiers surveyed rated the 6x36 formation effective at attritting enemy forces. 98% of Soldiers surveyed rated the 6x36 formation as effective in regaining/maintaining contact with enemy forces. 100% of the OC/Ts surveyed rated the 6x36 effective when asked to rate the units ability to attrite enemy forces. *Post NTC Unit and OC/T Surveys*

Lethality comparisons between SSP and 3x5 are limited since NTC does not keep statistics from previous rotations; however the team was able to conduct a side by side comparison of these two formations using live fire data from the last five decisive action rotations. It should be noted that ammo allocations for this rotation were the same for the SSP and the 3x5. This means that SSP Bradleys had half of the ammunition 3x5 Bradleys used for the same scenarios. During NTC rotation 14-04, the 6x36 formation destroyed 70% of targets presented during the day and 56% of the targets presented at night. ABCT 3x5 formations over the past two years have averaged between 35-50% during the day and 20-35% at night. This demonstrates exponentially increased lethality for the SSP.

The SSP was very effective at fighting for information. In the BCT movement to contact the squadron destroyed 2 T-80s, 3 BMPs and a BRDM, and achieved mobility/firepower kills on 1 additional T-80 and 3 BMPs. While conducting a stationary flank guard in support of the brigade defense a single troop destroyed 6 BMPs (Catastrophic), 3 BMPs (Mobility), 1 T80, and 2 Enemy Rotary Wing Aircraft. A senior platoon trainer with 14 rotations stated the 6x36 formation is the most lethal he has seen.

Deliberate Attack Vignettes from NTC Rotation 14-04

The squadron mission for the deliberate attack required the unit to cross the line of departure almost two days prior to the main body to conduct deliberate and stealthy reconnaissance with dismounts positioned forward utilizing all assets available (Recon by Fire, Artillery, Mortars, 25mm, TOW, Coax, Dismounts). The increase of dismount personnel provided by the 6x36 formation improved the unit ability to perform tasks they would have otherwise been unable to perform. One example: The unit planned for dismount use to clear the anti-tank threat in restrictive terrain in order to reduce the risk to follow on forces. The dismount force was also to be used to confirm destruction of enemy forces and clear terrain. Second example: One troop had a task to conduct an air insertion of eight scouts, one JTAC and one JFO. Third Example: One troop had a task to conduct movement to retain the towns of Ujen and Razish; this task is dismounted intensive to be equipped to handle the local population. Increased NCOs on the ground resulted in more calls for fire. In one troop dismount OPs called for fire all night long and destroyed over 20 enemy vehicles.

In the 3x5 formation, the range of the UAH mounted weapon system does not provide lethality overmatch, compliment the Bradley's weapons ranges, or provide the capability to defeat enemy

forces in support of dismounted operations. The gunner has the choice of operating the LRAS or operating the primary, crew-served weapon but not both simultaneously.

Finding 2.1.5.1: In the words of OC/Ts the SSP provides an organization that is "Unfair to the threat." OC/Ts go on to say that the SSP is "able to mass TOW and Javelin on tanks (or engage with 25mm AP to the flanks or rear), and destroy PC and below with direct fires, stripped the threat of his recon and security forces basically every fight." This capability demonstrated repeatedly in NTC Rotation 14-04 a marked correlation with the squadron's ability to successfully accomplish their R&S missions. The study team cannot overstate the value of having a scout platoon with sufficient lethality to match and in most cases overpower the opposing force. The combination of improved lethality and survivability enabled SSPs to survive chance contact and continue to their reconnaissance objectives.

Note: Additional lessons learned products on Scout formations can be found at the Cobra team MilSuite page at https://www.milsuite.mil/book/groups/ntc-cobra-team and at the TCM-ABCT MilSuite page at https://www.milsuite.mil/book/groups/t

END OF REPORT

Standard Scout Platoon Proof of Principle
Table of Contents

Appendix A: Standard Scout Platoon DOTMLPF Recommendations

OCOA

1. **Recommendation 1.1.2.2**: Assess conversion of dismount elements in those scout platoons that will remain equipped with a 3x5 platform configuration from 12 personnel to 2x6 man scout squads led by SSGs. Assess the feasibility of trading two UAH for a 3rd six man squad (3 BFVs x 3 UAH x 3 six man squads, i.e. 3x3x3), until all scout platoons can be converted to the 6x36 formation. **OPR:** Armor School (Lead), CDID (TCM ABCT and CDD)(Support)

   Recommendation 1.1.6: Rapidly implement the organizational changes identified for both personnel and equipment to form SSPs as quickly as possible. Assess conversion of dismount elements in those scout platoons that will remain equipped with a 3x5 platform configuration from 12 personnel to 2x6 man scout squads led by SSGs. **OPR**: Armor School (page 49).

2. **Recommendation 1.1.3B**: Standardize the recon career timeline for all 19D Soldiers serving in cavalry scout positions regardless of formation type. Increase attendance to RSLC for SL 2 NCOs; attendance to ARC for SL 3 NCOs and LTs; CLC for SL 4 NCOs and Captains. Functional training should occur prior to assignment. **OPR:** Armor School (Lead), OCOI and DOTD (Support) (page 26).

   Recommendation 1.1.3E: Assess current reconnaissance course POIs to reflect targeted MOS attendance. Consider a two phased POI, that includes a core instruction for all and an instruction block based on the unit of assignment. **OPR:** Armor School (Lead), DOTD (Support) (page 26).

   Recommendation 1.1.3.3: Implement the standardized Recon Career Timeline as discussed in EEA 1.1.3. **OPR**: Armor School (page 30).

   Recommendation 1.1.3.2: Identify strategies to ensure leaders receive dismounted and mounted integration hands on training. **OPR**: Armor School (Lead), DOTD and DOT (Support) (page 30).

   Recommendation 1.1.3.7: Review reconnaissance courses for ways to integrate HF radio training into the POIs. **OPR**: Armor School (Lead), DOTD and DOT (Support) (page 33).

3. **Recommendation 1.1.1E**: Armor School identify how revised doctrinal publications in support of the SSP FDU are provided to units. Unit publications representatives need to order hardcopy doctrine and TMs through APD through the "point click ordering system" at the following hyperlink https://dol.hqda.pentagon.mil/ptclick/index.aspx. **OPR**: Armor School (Lead); DOTD Publications Branch (Support) (page 23).

   Recommendation 1.1.3.1: Leaders need to be provided with more complete training packages. If CATS is going to be the solution we need to update the content and make it

more user friendly. Leaders need the level of detail that was provided in legacy ARTEP manuals in order to plan and conduct training to restore core competencies. **OPR:** Armor School (Lead), DOTD (Support) (page 28).

4. **Recommendation 1.1.3A**: Review PME instruction to ensure noted training deficiencies for all Soldiers assigned to cavalry squadrons are addressed. **OPR:** Armor School (Lead), DOTD (Support) (page 26).

5. **Recommendation 1.1.3.8**: Explore the feasibility of reinforcing training on analog graphics and critical FBCB2 content to MCCC, BOLC, and NCOES. **OPR**: Armor School (page 34).

6. **Recommendation 1.1.4.6:** Look for ways to improve air ground integration training in the operational and institutional training domains. **OPR**: Armor School (page 40).

7. **Recommendation 1.1.2.1:** Policy guidelines should include one CLS for every team and vehicle. **OPR**: TCM-ABCT/Recon will continue to share this issue with leaders during future unit visits OPR: Armor School (Lead), DOTD (Support) (page 24).

8. **Recommendation 1.1.3C** Assess the value of making the ILE reconnaissance elective available online for those who do not have the opportunity to attend the course. **OPR:** Armor School (Lead), DOTD (Support) (page 26).

9. **Recommendation 1.1.3D**: Assess the value of providing training for SL 5-6 NCOs, LTCs and COLs. This training may be in the form of an elective at a PME course or an online course. **OPR:** Armor School (Lead), DOTD (Support) (page 26).

10. **Recommendation 1.1.3.4:** Based upon feedback from the unit CLC is the most complete training event for the targeted audience. Recommend this be the lowest priority as we address POI changes (page 31).

11. **Recommendation 1.1.3.6:** Although the Ranger Course is not included in the Recon Career Timeline, reconnaissance leaders should seek opportunities to become Ranger qualified when training seats are available and resources and time allows. Units should prioritize attendance for cavalry Soldiers to attend reconnaissance functional courses first and then look for opportunities to send leaders to the Ranger Course. The proposed scout platoon TO&E annotates that six leaders are Ranger qualified. If these positions require an ASI, the Recon Career Timeline needs to be adjusted to reflect this course (page 32).

OCOI

1. **Recommendation 1.1.3F**: The current Infantry School policy of units training their Javelin gunners using only the Javelin training publication (TC 3-22.37 Javelin, Close Combat Missile System, Medium) requires review. MCoE must provide units training for their Javelin gunners, either through a Javelin specific course or by improving the current

Heavy Weapons Leader Course (HWLC) POI to train the skills necessary to certify unit trainers to execute the unit Javelin Training Program. For more details on the HWLC visit http://www.benning.army.mil/infantry/197th/229/hwlc/. **OPR**: Infantry School (Lead); Armor School (Support) (page 27).

CDID

1. **Recommendation 1.1.4.8:** Identify a strategy to establish a >2 hour Silent Watch capability for the BFV and future scout vehicles. **OPR**: MCoE CDID (Lead) (page 42-43)

2. **Recommendation 1.1.4.2:** Equip the platoon with three Javelin CLUs (this is an increase of one CLU over current BOIP), three M240Bs and code three Soldiers per platoon with anti-armor ASIs. **OPR**: MCoE CDID (Lead); Armor School (Support) (page 36).

3. **Recommendation 1.1.4.7** (Battery Charging Capability): TCM-ABCT work this issue with the Program Manager. OPR: TCM-ABCT (page 43).

4. **Recommendation 1.1.2**: Continue to track this issue in subsequent unit visits with emphasis as the FDU is fielded. **OPR**: TCM-ABCT (page 24).

DOTD

1. **Recommendation 1.1.1**: Revise doctrine from platoon to squadron level to capture the difference in survivability, capabilities, limitations, duties, responsibilities and training requirements required as we transition to the SSP. Doctrine should capture naming convention changes (i.e. section to squad, RECCE to scout platoon, etc). 19D Soldier Training Publication Skill Level 1-4 tasks need to be reviewed and revised as necessary. **OPR**: DOTD (page 19).
2. **Recommendation 1.1.1A**: Add sample standard reconnaissance and security guidance into existing doctrine. **OPR**: DOTD (page 21).

3. **Recommendation 1.1.1B**: Gunnery doctrine (Standards in Weapons Training) will need to be revised to reflect training ammunition and scenarios based on the SSP equipment assigned. The training strategy needs to capture simultaneous mounted and dismounted individual, team, squad and platoon events.**OPR**: DOTD Gunnery Branch (page 21).

4. **Recommendation 1.1.1C**: MCoE develop a product similar to the legacy era FKSM, sample Infantry, Armor and Cavalry TACSOPs, and sample checklists for distribution to students in PME courses. **OPR**: DOTD (page 22).

5. **Recommendation 1.1.1.D**: Cavalry Troop doctrine contains CASEVAC/MEDEVAC content, but could be improved with a diagram displaying the different roles of medical

care that occur from platoon to squadron level. A sample paragraph 4 (OPORD) and sustainment overlay would better aid first sergeants/executive officers during planning and conducting sustainment operations. **OPR**: DOTD (page 22).

DOT

1. **Recommendation 1.1.5.6**: DOT assess the feasibility of incorporating an ABCT oriented R&S mission for all armor officers to plan. The Armor Commandant has provided guidance in revisions to AR 600-3 that requires Armor officers graduating from MCCC to attend follow-on training at CLC in order to acquire cavalry leader and staff skills. OPR: DOT (page 48).

Appendix B: Standard Scout Platoon Operational Findings

Finding 2.1.1.1: The SSP demonstrated the improved versatility to perform mounted and dismounted tasks unable to be accomplished by the 3x5 formation. The dismounted scout squad reorganization provides increased leadership and experience, lethality, and operational range, for two of the three dismounted squad size elements, which increases platoon depth through proper employment. The conversion of 3x5 to six Bradleys increases flexibility for the platoon because any mounted squad can respond equally well in support of tactical requirements. This has the added benefit of decreasing decision and operational timelines since platoon leaders can employ any mounted element without consideration of the platform's capabilities and position on the battlefield. The SSP provides the squadron the ability to execute three OPs per platoon. Each are capable of conducting dismounted patrols, providing local security, manning a dismounted OP, maintaining three crew members alert in a BFV and executing rest, sustainment and planning functions. (page 54).

Finding 2.1.1.2: This rotation demonstrated that reorganizing the scouts into three scout squads provides the platoon leader with the ability to man three OPs indefinitely or up to six OPs for short duration and provides the appropriate leadership on the ground to supervise R&S tasks. During this rotation the unit was able to place OPs at further distances due to the optics and direct fire capabilities of six Bradleys then they every could have when organized as a 3x5 organization (page 55).

Finding 2.1.1.3: The most significant improvement to R&S dismount operations was the standardization of mounted platforms. This allowed the PL to emplace observation posts/BFVs to cover greater doctrinal distances while remaining within supporting distance of each other to enhance security through mutual support and to enable reconnaissance handover between OPs/BFVs when required (page 56).

Finding 2.1.2.1: The synergistic effect of standardizing platforms to BFVs and forming organic scout squads led by staff sergeants and or the PSG/PL creates an organization that is standard in its capabilities and has the flexibility and versatility to respond to more threats unilaterally across the operational environment. When used effectively these maneuver elements greatly increase the survivability of the individual Soldier and platform as well as making the overall platoon inherently more survivable. (page 58).

Finding 2.1.3.1: The SSP provides a combination of mobility, protection and firepower that significantly increases protection for assigned Soldiers over the old 3x5 organization. The ability of the Bradley to increase force protection for Soldiers while mounted greatly exceeds that of the UAH. The improved mobility of the Bradley allows leaders to move rapidly to positions of support for dismounts as required. The increase in 25mm and TOWs also allow vehicles to provide greater overwatch for dismounted elements and survive first contact for mounted elements. The scout squad TO&E not only provides increased weapons lethality to counter more enemy threats, it also significantly increases the overall effectiveness of the squad by placing an experienced leader on the ground at all times. The 3x5 organization equipped with UAH mounted LRAS currently has superior sensor capabilities and has the ability to identify threats at greater ranges, however, it is unable to capitalize on these capabilities against

the threat. While the threat acquisition ranges are less capable than the UAH acquisition ranges the threats kill ranges are greater which nullifies the advantage of the LRAS. (page 60).

Finding 2.1.4.2: The SSP enabled the scout platoon to traverse cross country terrain that was previously inaccessible in the 3x5 formation. This allowed the platoon to emplace mounted and dismounted OPs in support of the R&S efforts faster, maintain tempo in the offense, and facilitate sustainment and medical evacuation operations across all mission sets (page 62).

Finding 2.1.5.1: In the words of OC/Ts the SSP provides an organization that is "Unfair to the threat." OC/Ts go on to say that the SSP is "able to mass TOW and Javelin on tanks (or engage with 25mm AP to the flanks or rear), and destroy PC and below with direct fires, stripped the threat of his recon and security forces basically every fight." This capability demonstrated repeatedly in NTC Rotation 14-04 a marked correlation with the squadron's ability to successfully accomplish their R&S missions. The study team cannot overstate the value of having a scout platoon with sufficient lethality to match and in most cases overpower the opposing force. The combination of improved lethality and survivability enabled SSPs to survive chance contact and continue to their reconnaissance objectives (page 64).

Appendix C: Standard Scout Platoon MOA (MCoE, 1CD, TACOM, NTC)

DEPARTMENT OF THE ARMY
HEADQUARTERS UNITED STATES MANEUVER CENTER OF EXCELLENCE
1 KARKER STREET
FORT BENNING, GEORGIA 31905-4500

1\tPLYTO
ATft:I'ITIOI<OF

MEMORANDUM OF AGREEMENT
BETWEEN
THE MANEUVER CENTER OF EXCELLENCE COMMANDING GENERAL
AND
THE 1ST CAVALARY DIVISION COMMANDING GENERAL
AND
THE TANK-AUTOMOTIVE AND ARMAMENTS COMMAND COMMANDING GENERAL
AND
THE NATIONAL TRAINING CENTER COMMANDING GENERAL

SUBJECT: 6 BFV x 36 Scout Platoon – 1st Brigade, 1st Cavalry Division FY14 NTC Rotation

1. The purpose of this memorandum is to outline the justification, responsibilities, and implementation process for the 6 BFV x 36 scout platoons within 1st Brigade, 1st Cavalry Division FY14 NTC Rotation.

2. 6 BFV x 36 Scout Platoon Justification.

a. Problem Statement. Scout squads and platoons in the ABCT lack the uniform versatility, survivability, protection, mobility, and firepower to conduct effective reconnaissance and security operations during combined arms maneuver and wide are security.

1) Versatility. The current 3 BFV x 5 UAH ABCT scout platoon design limits the number of personnel available for dismounted operations.

2) Survivability/Protection. The UAH is unable to survive direct fire engagements against enemy heavy machine guns, ATGMs, and mortars commensurate with the ABCT purpose and design.

3) Mobility. The UAH induces a mobility mismatch with the BFV thereby limiting the platoon's overall cross-country mobility and maneuver flexibility.

4) Firepower. The UAH does not provide the necessary firepower to fight for information against an armored threat. Additionally, the LRAS3 provides superior optical overmatch, but is not stabilized and must be stationary for maximized effectiveness.

b. Solution. Standardize the reconnaissance and security formation with uniform scout squads and platoons that inform decisive action. The 6 BFV x 36 scout platoon will provide the maximum versatility, survivability, protection, mobility, and firepower to conduct effective reconnaissance and security operations during combined arms maneuver and wide area security. This platoon will have three dismounted and three mounted squads, each with a senior and junior leader (Enclosure 1).

SUBJECT: 6 x 36 Scout Platoon - 1st Brigade, 1st Cavalry Division FY14 NTC Rotation

3. Responsibilities

a. MCOE Commanding General: Provide all support across DOTMLPF to include, but not limited to resident ARC and RSLC class seats and a CLC MTT to 1/1 CD. Create and develop the necessary information requirements and metrics to assist in 6 BFV x 36 scout platoon's evaluation and assessment.

b. 1st Cavalry Division Commanding General: Provide the individual, squad, and platoon resources within their capability to field the 6 BFV x 36 scout platoon for two ARS Troops and one CAB scout platoon; leverage all resources required to ensure the scout platoon's mission success at the NTC.

c. TACOM Commanding General: Research, develop, engineer, and resource the technology required for the 6 BFV x 36 scout platoon to perform reconnaissance and security operations.

d. NTC Commanding General: Provide the venue for the transformation of the scout platoon. Provide all support necessary to ensure mission success to include, but not limited to scenario development and OCTs to properly assess, measure, and record the 6 BFV x 36 scout platoon's performance at the NTC.

4. Implementation. The MCOE will host a series of IPRs with the following agencies to solidify resourcing, implementation, and evaluation:

a. HRC (2)- June, July, August 2013

b. 1st CD and the NTC (12-15)

1) June – September 2013 – Once every three weeks.

2) September to December 2013 – Once every two weeks.

3) January to February 2014 – Once per week.

c. PM ABCT and CERDEC (3) – July, September, November 2013

d. NTC (3)- August, October, December 2013

e. Two IPRs will be scheduled with all parties listed above in 1st and 2"d Quarter FY14.

SUBJECT: 6 x 36 Scout Platoon- 1st Brigade, 1st Cavalry Division FY14 NTC Rotation

5. This memorandum of agreement is effective at the latest date signed by the parties listed below.

--------ORIGINAL SIGNED------

ANTHONY R. IERARDI
Major General
Commanding

(Date)

------ORIGINAL SIGNED----

H. R. MCMASTER
Major General
Commanding

(Date)

--------ORIGINAL SIGNED----

THEODORE D. MARTIN
Brigadier General Promotable
Commanding

(Date)

--------ORIGINAL SIGNED-------

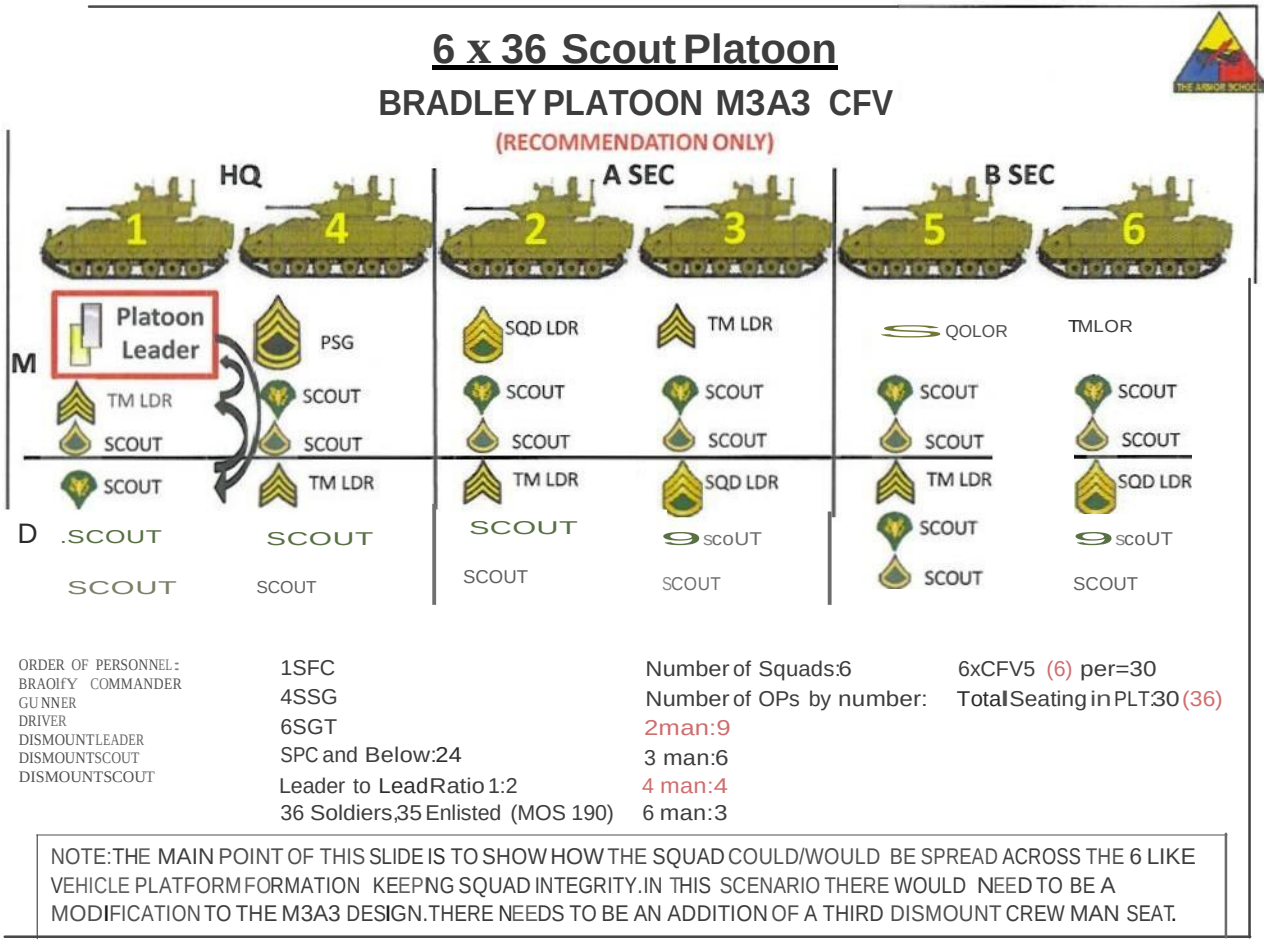
MICHAEL J. TERRY
Major General
Commanding

(Date)

Encis.
1. 6 x 36 Scout Platoon
2. Current 1/1 CAV ARS and CAB Personnel MTOE

SUBJECT: 6 x 36 Scout Platoon – 1st Brigade, 1st Cavalry Division FY14 NTC Rotation

Enclosure 1 – 6 x 36 Scout Platoon



SUBJECT: 6 x 36 Scout Platoon- 1st Brigade, 1st Cavalry Division FY14 NTC Rotation

Enclosure 2 – Current 1/1 CD ARS and CAB MTOE

ARS MTOE 1-7 CAV, 1/1CD-WAGTAA -16SEP12							
PARNO	PARATITLE	LN	TITLE	GRADE	POSCO	REQSTR	AUTHSTR
203	RECCE PLATOON	01	PLATOON LEADER	O2	19COO	1	1
203	RECCE PLATOON	02	PLATOON SERGEANT	E7	19D40	1	1
203	RECCE PLATOON	03	SECTION LEADER	E6	19D30	3	3
203	RECCE PLATOON	04	TEAM LEADER	E5	19D2G	1	1
203	RECCE PLATOON	05	TEAM LEADER	E5	19D2G	1	1
203	RECCE PLATOON	06	TEAM LEADER	E5	19D20	1	1
203	RECCE PLATOON	07	SQUAD LEADER	E5	19D20	3	3
203	RECCE PLATOON	08	CFVGUNNER	E5	19D20	3	3
203	RECCE PLATOON	09	SCOUT	E4	19D1O	1	1
203	RECCE PLATOON	10	SCOUT	E4	19D10	2	2
203	RECCE PLATOON	11	SCOUT	E4	19D10	2	2
203	RECCE PLATOON	12	CFVDRIVER	E4	19D10	3	3
203	RECCE PLATOON	13	SCOUT DRIVER	E4	19D10	5	5
203	RECCE PLATOON	14	SCOUT	E3	19D10	1	1
203	RECCE PLATOON	15	SCOUT	E3	19D10	8	8
						Total	36

CAB MTOE 2-5 CAV and 2-8 CAV, 1/1CD- WAGNAA and WAGRAA -16SEP12							
PARNO	PARATITLE	LN	TITLE	GRADE	POSCO	REQSTR	AUTHSTR
114	SCOUT PLATOON HEADQUAR	01	PLATOON LEADER	O2	02800	1	1
114	SCOUT PLATOON HEADQUAR	02	PLATOON SERGEANT	E7	19D40	1	1
114	SCOUT PLATOON HEADQUAR	03	SCOUT DRIVER	E4	19D1O	2	2
114	SCOUT PLATOON HEADQUAR	04	SCOUT	E3	19D10	2	2
115	SCOUT SECTION	01	SECTION LEADER	E6	19D30	2	2
115	SCOUT SECTION	02	SQUAD LEADER	E6	19D30	2	2
115	SCOUT SECTION	03	CFVGUNNER	E5	19D20	2	2
115	SCOUT SECTION	04	SCOUT	E4	19D10	2	2
115	SCOUT SECTION	05	SCOUT	E4	19D10	2	2
115	SCOUT SECTION	06	CFVDRIVER	E4	19D10	2	2
115	SCOUT SECTION	07	SCOUT DRIVER	E4	19D10	2	2
115	SCOUT SECTION	08	SCOUT	E3	19D10	6	6
116	SCOUT SECTION	01	SECTION LEADER	E6	19D30	1	1
116	SCOUT SECTION	02	SQUAD LEADER	E6	19D30	1	1
116	SCOUT SECTION	03	TEAM LEADER	E5	19D20	1	1
116	SCOUT SECTION	04	CFVGUNNER	E5	19D20	1	1
116	SCOUT SECTION	05	SCOUT	E4	19D10	1	1
116	SCOUT SECTION	06	CFVDRIVER	E4	19D1O	1	1
116	SCOUT SECTION	07	SCOUT DRIVER	E4	19D10	1	1
116	SCOUT SECTION	08	SCOUT	E3	19D10	3	3
						Total	36

Appendix D: Data Collection Plan for 1/1CD "6 x 36" Force Design Update Assessment

DEPARTMENT OF THE ARMY
HEADQUARTERS UNITED STATES ARMY ARMOR SCHOOL
1 KARKER STREET
FORT BENNING, GEORGIA 31905-4500

REPLY TO
ATTENTIO!' OF

ATZK-CD

1 August 2013

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Data Collection Plan for 1/1CD "6 x 36" Force Design Update Assessment

1. Problem Statement. Scout squads and platoons in the ABCT lack the uniform versatility, survivability, protection, mobility, and firepower to conduct effective reconnaissance and security operations during combined anns maneuver and wide area security.

a. Versatility. The current 3 Bradley Fighting Vehicles (BFV) x 5 Up-Armored HMMWV (UAH) ABCT scout platoon design limits the number of personnel available for dismounted operations.

b. Survivability/Protection. The UAH is unable to survive direct fire engagements against enemy heavy machine guns, ATGMs, and mortars commensurate with the ABCT purpose and design.

c. Mobility. The UAH induces a mobility mismatch with the BFV thereby limiting the platoon's overall cross-country mobility and maneuver flexibility.

d. Firepower. The UAH does not provide the necessary firepower to fight for information against an armored threat. Additionally, the LRAS3 provides superior optical overmatch, but is not stabilized and must be stationary for maximized effectiveness.

2. Solution. ABCT Force Design Update (FDU) 13-01 standardizes the mechanized cavalry formation with uniform scout squads and platoons capable of fighting for information. The ABCT FDU submits for the replacement of the UAH with BFV and adds additional dismount capability, which brings manning up to 36 scouts per platoon. The proposed 6 BFV x 36 scout platoon ("6 x 36") will provide the maximum versatility, protection, mobility, and firepower to conduct effective reconnaissance and security operations during combined arms maneuver and wide area security. This platoon will have three dismounted and three mounted squads, each with a senior and junior leader.

3. Purpose. This memorandum outlines the procedures and responsibilities for planning and executing the 1ST Brigade 1ST Cavalry Division 6 x 36 data collection plan during their NTC rotation in February 2014 to validate the improvements achieved in the 6 x 36 force design and identify deficiencies across DOTMLPF arising from the creation of the new 6 x 36 force design.

4. Commandant's intent. My intent is to gather a sufficient volume of infonnation to prove the predicted capabilities of the 6 BFV x 36 scout platoon. The data collection will focus primarily on the dismounted squads to clarify their capabilities and identify their limitations and be able to create solutions across DOTMLPF. We also seek to contrast the 6 x 36 force design with the 3 x 5 ABCT scout platoon using a control group and experimental group during conduct of the home station STX lanes and DATE rotation. This assessment will seek to verify that added versatility,

Appendix D: Data Collection Plan for 1/1CD "6 x 36" Force Design Update Assessment

survivability, protection, mobility, and firepower in the 6 x 36 force design increases scout platoon effectiveness when conducting mounted and dismounted operations during combined arms maneuver and wide area security against either a hybrid or conventional armored threat. The data will be collected in the context of the 1st Brigade 1st Cavalry Division proficiencies, both unit and individual, and within the context of the NTC threat scenarios and operational environment. I want the Data Collection Team to observe for unique or creative tactics, techniques and procedures that maximize the strengths of the 6 x 36 force design so they can be captured in doctrine and exploited through modifications in materiel, training, organization and personnel.

5. Endstate. All improvements in versatility, survivability, protection, mobility, and firepower validated and deficiencies and shortcomings in doctrine, organization, training, professional development, materiel, and personnel identified as they pertain to the new 6 x 36 force design. MCoE is prepared to initiate the necessary changes to ensure scout platoons are properly organized, manned, equipped, and trained to be mobile, lethal, and protected when conducting direct action against a conventional or hybrid threat in all types of terrain.

6. Collection methodology to assess the dismounted capability will consist of three efforts.

a. Post home station training and post NTC rotation computerized surveys that are skill level appropriate.

(1) Battalion Command and Staff

(2) Troop Commands

(3) Platoon Commands

(4) Dismounted Squad Leaders and Team Leaders

(5) Dismounted Teams

b. Post home station training and post NTC rotation After Action Reviews conducted with target groups based on skill level.

(1) Battalion Command and Staff

(2) Troop Commands

(3) Platoon Commands

(4) Dismounted Squad Leaders and Team Leaders

(5) Dismounted Teams

c. Teams embedded with Observer/Controllers at the NTC. This effort will be conducted by TCM-ABCT in the same manner as they typically embed with the O/Cs.

7. Collection methodology to assess the 6 x 36 force design in contrast to the 3 x 5 will consist of three efforts.

a. Post home station training computerized surveys that are skill level appropriate. Surveys will specifically address home station STX lanes where battalion scout platoons will conduct identical scenarios using both force configurations.

b. Post home station training After Action Reviews conducted with target groups based on skill level.

(1) Battalion Command and Staff

(2) Troop Commands

(3) Platoon Commands

c. Conduct comparison of 1/1CD NTC rotation with AAR comments from previous ABCT Cavalry Squadron NTC rotations.

8. Responsibilities.

a. OCOA

(1) Provide OIC to plan data collection effort and serve as POC for USAARMS.

(2) Provide one Data Collection Team member (SFC or above) to lead After Action Reviews with target groups post home station training at Ft Hood, TX.

(3) Provide one Data Collection Team member (SFC or above) to lead After Action Reviews with target groups post NTC rotation at Ft Irwin, CA.

(4) Provide one Data Collection Team member to facilitate computerized survey collection post home station training at Ft Hood, TX.

(5) Provide one Data Collection Team member to facilitate computerized survey collection and observer/controllers post NTC rotation at Ft Irwin, CA.

b. Capabilities Development and Integration Directorate (CDID)

(1) Provide input on capabilities and limitations of 6 x 36 force design.

(2) Create Measures of Performance and Effectiveness that aid in assessing success or failure of the measured units in terms of versatility, survivability, protection, mobility, and firepower.

(3) Create electronic surveys that answer questions in paragraph 12 below.

(4) Provide computers used for surveys.

(5) Provide Data Collection Team to administer computerized surveys post home station training at Ft Hood, TX.

(6) Provide Data Collection Team to administer computerized surveys post NTC rotation at Ft Irwin, CA.

(7) Provide one or more Data Collection Team members to participate in After Action Reviews with target groups post home station training at Ft Hood, TX.

(8) Provide one or more Data Collection Team members to participate in After Action Reviews with target groups post NTC rotation at Ft Irwin, CA.

(9) Conduct comparison of 1/1CD NTC rotation with AAR comments from previous ABCT Cavalry Squadron NTC rotations.

(10) Analyze data and provide reports to Commandant, USAARMS.

c. DOTD

(1) Provide input on current status of reconnaissance and security doctrine.

(2) Provide one Data Collection Team member to facilitate computerized survey collection post home station training at Ft Hood, TX.

(3) Provide one Data Collection Team member to facilitate computerized survey collection post NTC rotation at Ft Irwin, CA.

(4) Provide one Data Collection Team member (SFC or above) to participate in After Action Reviews with target groups post home station training at Ft Hood, TX.

(5) Provide one Data Collection Team member (SFC or above) to participate in After Action Reviews with target groups post NTC rotation at Ft Irwin, CA.

9. Timeline

a. 17 JUL 13 Commandant briefs intent to 1/1CD and NTC.

b. NLT 23 AUG 13 T&EO conducts mock survey of MCoE personnel.

c. SEP 2013 select members of USAARMS and Data Collection Team travel to FHTX to conduct pre home station training IPR.

d. NLT 30 SEP 13 T&EO provides draft surveys to Commandant for review.

e. NLT 11 OCT 13 T&EO provides final surveys to Commandant for approval.

f. JAN 2014 Data Collection Team conducts post *HIS* training data collection/ demographics, Ft. Hood, TX.

g. FEB 2014 Data Collection Team conducts post NTC rotation data collection/ demographics, Ft. Irwin, CA.

h. NLT 31 MAR 13 CDID provides final reports to Commandant.

10. Demographics collection will include at a minimum:

a. Cavalry Squadron:

(1) SCO branch/training/background

(2) S-3 branch/training/background

(3) XO branch/training/background

(4) CSM MOS/traininglbackground

(5) OPS CSM MOS/training/background

b. Cavalry troops and scout platoons (both officer and enlisted):

(1) Duty Position

(2) Time in Position

(3) Rank (TIG)

(4) TIS

(5) Schools: ABOLC, MCCC, CLC, ARC, RSLC, Ranger, WLC, ALC, M-SLC, Bradley MG, Bradley Leader, and BSNCOC

(6) Bradley Operator qualifications (ASI B9)

(7) Additional duties in field

11. Data Collection will take into consideration the following conditions:

a. Degree of Crew Turbulence to adjust to 6 x 36

b. Degree of Crew Turbulence throughout H/S training

c. Squadron and Troop METLs

d. T-P-U ratings for each METL task at conclusion ofH/S training

e. T-P-U ratings for each METL task at conclusion ofNTC rotation

f. Results of Bradley Gunnery conducted at home station training

12. Dismounted Capability Data Collection

a. Doctrine

(1) Do the current platoon, troop and squadron FMs, ADPs, and ADRPs adequately describe mounted-dismounted integration when conducting reconnaissance and security (R&S) operations?

(2) Does the doctrine adequately describe dismounted survivability tactics?

(3) Does the doctrine adequately describe how to maximize the lethality of dismounted tean1s?

(4) Does the doctrine adequately describe how to effectively mobilize dismounted teams?

Appendix D: Data Collection Plan for 1/1CD "6 x 36" Force Design Update Assessment

b. Organization

(1) Does the 6 x 36 Scout Platoon design provide the versatility to effectively conduct dismounted operations?

(2) Does the battalion medical section MTOE provide adequate support for the 36 Scout platoons?

c. Training

(1) Does the ABCT CATS provide training guidance that prepares cavalry troops to conduct mounted-dismounted operations?

(2) Does the Army Reconnaissance Course adequately prepare lieutenants to integrate mounted and dismotmted capabilities while conducting R&S operations?

(3) Does the Army Reconnaissance Course adequately prepare staff sergeants to integrate mounted and dismounted capabilities while conducting section-level R&S operations?

(4) Does the Cavalry Leader's Course adequately prepare company commanders to integrate mounted and dismounted capabilities while conducting R&S operations?

(5) Does the Cavalry Leader's Course adequately prepare operations officers and operations NCOs to integrate mounted and dismounted capabilities while conducting R&S operations?

(6) Does the Ranger Course adequately prepare officers and NCOs to lead dismounted squads and teams?

d. Materiel

(1) Is the Troop Executive Officer more effective performing his duties mounted on a CFV than aM113A3 (RISE)? [Note: this is specific to 1-7 Cav, which intends to operate with troop XOs on Bradleys for their NTC rotation.]

(2) Do the dismounted teams possess the necessary lethality to conduct area reconnaissance and screen operations against a conventional or hybrid threat in open terrain?

(3) Do the dismounted teams have adequate survivability when conducting R&S against a conventional or hybrid threat?

(4) Do the dismounted teams have the necessary optics to conduct R&S in all weather, across open terrain, both day and night?

(5) Do the dismounted teams have adequate communication equipment?

(6) Do the dismounted teams have adequate communications equipment to conduct air-ground integration?

(7) Do the dismounted teams have the capability to independently integrate Fires?

(8) Does the Scout Platoon have the network capability for mission command and to integrate organic/joint assets?

e. Leadership and Education

(1) Does the leader to led ratio of the dismounted teams provide the necessary mission command to conduct dismounted R&S operations?

(2) Does 19D OSUT adequately prepare Soldiers to conduct dismounted skill level 1 tasks?

(3) Does 190 ALC adequately prepare NCOs to conduct section level R&S missions?

(4) Does M-SLC adequately prepare NCOs to conduct platoon level R&S operations and sustainment operations?

(5) Does A-BOLC adequately prepare officers to conduct dismounted R&S missions?

(6) Does MCCC adequately prepare officers to conduct dismounted R&S missions?

f. Personnel

(1) Does the 36 Soldier Scout Platoon provide adequate width and depth when conducting zone, area, and route reconnaissance missions?

(2) Does the 36 Soldier Scout Platoon provide adequate width and depth when conducting screen and guard missions?

13. Point of Contact is MAJ Curtis Goller at 706-626-3119; email: curtis.a.goller.mil@mail.mil.

JOHN C HERMILING
COL, AR
Interim Commandant, USAARMS

DISTRIBUTION:
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DIRECTOR, CAPABILITIES DEVELOPMENT AND INTEGRATION
DIRECTOR, DOCTRINE AND TRAINING DEVELOPMENT

Summary of Changes
(Cavalry Squadron)

Army G-3/5/7

APPENDIX E: SSP 3x5 and 6x36 Organization Charts

SCOUT PLATOON x2 (*CURRENT*)

LT 19C00 (PLT LDR) C
SGT 19D2G (TEAM LEADER) C
SP4 19D1O (SCOUT DRIVER) C

SFC 19D4O (PLT SGT) C
SGT 19D2G (TEAM LEADER) C
SP4 19D1O (SCOUT DRIVER) C

SSG 19D3O (SECTION LEADER) P
SGT 19D2O (CFV GUNNER) P
SP4 19D1O (SCOUT) C
SP4 19D1O (CFV DRIVER) P
2 PFC 19D1O (SCOUT) C
X3

SGT 19D2O (SQUAD LEADER) C
SP4 19D1O (SCOUT DRIVER) C
SP4 19D1O (SCOUT) C
PFC 19D1O (SCOUT) C
X2

SGT 19D2O (SQUAD LEADER) C
SGT 19D2O (TEAM LEADER) C
SP4 19D1O (SCOUT DRIVER) C
PFC 19D1O (SCOUT) C

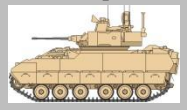
OFF: 1
WO: 0
ENL: 35
TOTAL: 36

BFV: 3
HMMWV: 5

SCOUT PLATOON x2 (*PROPOSED*)

OFF: 1
WO: 0
ENL: 35
TOTAL: 36

1LT 19C00 PLT LDR
SGT 19D20 GNR/TM LDR
PFC 19D10 DVR
SPC 19D10 SCOUT
SPC 19D10 SCOUT
PFC 19D10 SCOUT



SFC 19D40 PLT SGT
SPC 19D10 GNR
PFC 19D10 DVR
SGT 19D10 TM LDR
SPC 19D10 SCOUT
PFC 19D10 SCOUT

SSG 19D30 SQD LDR
SPC 19D10 GNR
PFC 19D10 DVR
SGT 19D2B TM LDR
SPC 19D10 SCOUT
PFC 19D10 SCOUT

SSG 19D30 SQD LRD
SPC 19D10 GNR
PFC 19D10 DVR
SGT 19D30 TM LDR
SPC 19D10 SCOUT
PFC 19D10 SCOUT

SSG 19D30 SQD LDR
SPC 19D10 GNR
PFC 19D10 DVR
SGT 19D2B TM LDR
SPC 19D10 SCOUT
PFC 19D10 SCOUT

SSG 19D30 SQD LDR
SPC19D10 GNR
PFC 19D10 DVR
SGT 19D20 TM LDR
SPC 19D10 SCOUT
PFC 19D10 SCOUT

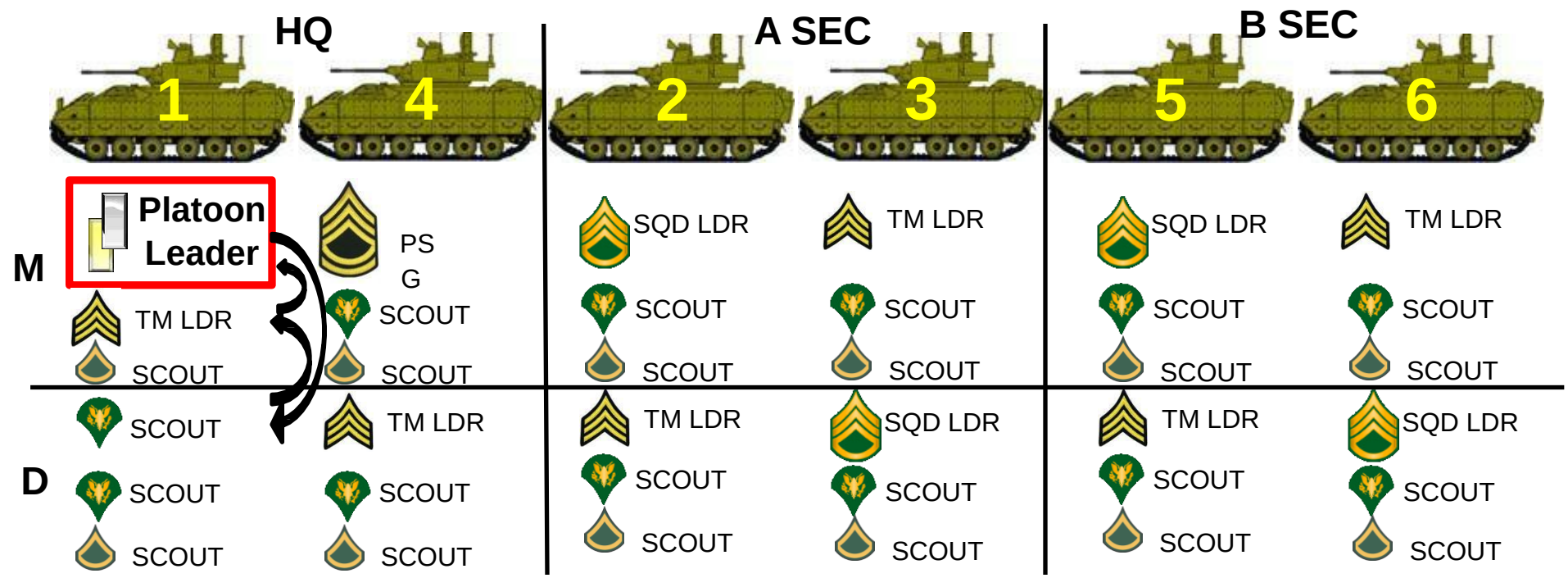
Multipliers:
2 PLTs per Troop
3 Troops per Squadron
10 AC Squadrons
2 APS Squadrons

Requirements:

	Current PLT	Proposed PLT	Bill per Troop	Bill per ABCT	ABCT AC (10)	APS (2)	BFV TOTAL
Personnel	36	36	0	0	0	0	0
Recon Vehicles	3	6	6	18	180	36	216

Standard Scout Platoon with M2A3 (CAV SQDN)

APPENDIX E: SSP 3x5 and 6x36 Organization Charts



NOTE: THIS SLIDE SHOWS HOW THE SQUAD COULD/WOULD BE SPREAD ACROSS THE 6 LIKE VEHICLE PLATFORM

Appendix F: SSP Data Collection Management Plan

Obj #	Objectives	Issue #	Issue	EEA#	EEA	MOM#	MOM	Data Sources#	Data Sources	EVENTS			
										1	2	3	4
1	Determine if the designed capabilities of the 6 x 36 FDU dismounted scout squad and platoon are adequate and identify their limitations and solutions to their limitations across the DOTMLPF.	1.1	Do the dismounted capabilities of the 6 x 36 FDU design perform as predicted, and what if any DOTMLPF limitations exist?	1.1.1	How well does current doctrine address the dismounted capabilities of the 6 x 36 FDU design?	1.1.1.1	Do the current platoon, troop and squadron FMs, ADPs, and ADRPs adequately describe mounted-dismounted integration when conducting reconnaissance and security (R&S) operations?	1.1.1.1.1	There are several data sources - SME review of current doctrinal manuals, **human observation** - data collectors, observing analysts; **participant input** - surveys, AARs, & interviews				
						1.1.1.2	Does the doctrine adequately describe dismounted survivability tactics?	1.1.1.2.1	There are several data sources - SME review of current doctrinal manuals, **human observation** - data collectors, observing analysts; **participant input** - surveys, AARs, & interviews				
						1.1.1.3	Does the doctrine adequately describe how to properly utilize the lethality of dismounted teams?	1.1.1.3.1	There are several data sources - SME review of current doctrinal manuals, **human observation** - data collectors, observing analysts; **participant input** - surveys, AARs, & interviews				
						1.1.1.4	Does the doctrine adequately describe how to effectively mobilize dismounted teams?	1.1.1.4.1	There are several data sources - SME review of current doctrinal manuals, **human observation** - data collectors, observing analysts; **participant input** - surveys, AARs, & interviews				

Appendix F: SSP Data Collection Management Plan

Obj #	Objectives	Issue #	Issue	EEA#	EEA	MOM#	MOM	Data Sources#	Data Sources	EVENTS			
										1	2	3	4
				1.1.2	How well does the current BCT organization address the support requirements of the 6 x 36 FDU design?	1.1.2.1	Does the battalion medical section MTOE provide adequate support for the 36 Scout platoons?	1.1.2.1.1	There are several data sources - SME review of current support requirements, **human observation** - data collectors, observing analysts; **participant input** - surveys, AARs, & interviews				
						1.1.2.2	Does the FSC MTOE support the logistical requirements for 6x36?	1.1.2.2.1	There are several data sources - SME review of current support requirements, **human observation** - data collectors, observing analysts; **participant input** - surveys, AARs, & interviews				
				1.1.3	How well does the current R&S training support the requirements of the 6 x 36 FDU design?	1.1.3.1	Does the ABCT CATS provide training guidance that prepares cavalry troops to conduct mounted-dismounted operations?	1.1.3.1.1	There are several data sources - SME review of current training guidance, **human observation** - data collectors, observing analysts; **participant input** - surveys, AARs, & interviews				
						1.1.3.2	Does the Army Reconnaissance Course adequately prepare lieutenants to integrate mounted and dismounted capabilities while conducting R&S operations?	1.1.3.2.1	There are several data sources - SME review of current training POI, **human observation** - data collectors, observing analysts; **participant input** - surveys, AARs, & interviews				
						1.1.3.3	Does the Army Reconnaissance Course adequately prepare staff sergeants to integrate mounted and dismounted capabilities while conducting section-level R&S operations?	1.1.3.3.1	There are several data sources - SME review of current training POI, human observation - data collectors, observing analysts; participant input - surveys, AARs, & interviews				

Appendix F: SSP Data Collection Management Plan

Obj #	Objectives	Issue #	Issue	EEA#	EEA	MOM#	MOM	Data Sources#	Data Sources	EVENTS			
										1	2	3	4
						1.1.3.4	Does the Cavalry Leader's Course adequately prepare company commanders to integrate mounted and dismounted capabilities while conducting R&S operations?	1.1.3.4.1	There are several data sources - SME review of current training POI, human observation - data collectors, observing analysts; participant input - surveys, AARs, & interviews				
						1.1.3.5	Does the Cavalry Leader's Course adequately prepare operations officers and operations NCOs to integrate mounted and dismounted capabilities while conducting R&S operations?	1.1.3.5.1	There are several data sources - SME review of current training POI, human observation - data collectors, observing analysts; participant input - surveys, AARs, & interviews				
						1.1.3.6	Does the Ranger Course adequately prepare officers and NCOs to lead dismounted operations?	1.1.3.6.1	There are several data sources - SME review of current training POI, human observation - data collectors, observing analysts; participant input - surveys, AARs, & interviews				
						1.1.3.7	Does the Army Recon & Surveillance Leader's Course adequately prepare Company Commanders, Operations officers and Operations NCOs to integrate mounted and dismounted capabilities while conducting R&S operations?	1.1.3.5.1	There are several data sources - SME review of current training POI, human observation - data collectors, observing analysts; participant input - surveys, AARs, & interviews				
				1.1.4	Do the dismounted capabilities of the 6 x 36 FDU design perform as predicted, and what if any materiel limitations exist?	1.1.4.1	Is the Troop Executive Officer more effective performing his duties mounted on a CFV than a M113A3 (RISE)?	1.1.4.1.1	There are several data sources - **human observation** - data collectors, observing analysts; **participant input** - surveys, AARs, & interviews				

Appendix F: SSP Data Collection Management Plan

Obj #	Objectives	Issue #	Issue	EEA#	EEA	MOM#	MOM	Data Sources#	Data Sources	EVENTS			
										1	2	3	4
						1.1.4.2	Do the dismounted teams possess the necessary lethality to conduct area reconnaissance and screen operations against a conventional or hybrid threat in open terrain?	1.1.4.2.1	There are several data sources - **human observation** - data collectors, observing analysts; **participant input** - surveys, AARs, & interviews				
						1.1.4.3	Do the dismounted teams have adequate survivability when conducting R&S against a conventional threat?	1.1.4.3.1	There are several data sources - **human observation** - data collectors, observing analysts; **participant input** - surveys, AARs, & interviews				
						1.1.4.4	Do the dismounted teams have the necessary optics to conduct R&S in open terrain, both day and night?	1.1.4.4.1	There are several data sources - **human observation** - data collectors, observing analysts; **participant input** - surveys, AARs, & interviews				
						1.1.4.5	Do the dismounted teams have adequate communication equipment?	1.1.4.5.1	There are several data sources - **human observation** - data collectors, observing analysts; **participant input** - surveys, AARs, & interviews				
						1.1.4.6	Do the dismounted teams have adequate communications equipment to conduct air-ground integration?	1.1.4.6.1	There are several data sources - **human observation** - data collectors, observing analysts; **participant input** - surveys, AARs, & interviews				
						1.1.4.7	Do the dismounted teams have the capability to effectively integrate Fires?	1.1.4.7.1	There are several data sources - **human observation** - data collectors, observing analysts; **participant input** - surveys, AARs, & interviews				

Appendix F: SSP Data Collection Management Plan

Obj #	Objectives	Issue #	Issue	EEA#	EEA	MOM#	MOM	Data Sources#	Data Sources	EVENTS			
										1	2	3	4
						1.1.4.8	Does the Scout Platoon have the network capability for C2 and to integrate organic/joint assets?	1.1.4.8.1	There are several data sources - **human observation** - data collectors, observing analysts; **participant input** - surveys, AARs, & interviews				
				1.1.5	How well does the current Leadership and education support the requirements of the 6 x 36 FDU design?	1.1.5.1	Does the leader to led ratio of the dismounted teams provide the necessary C2 to conduct R&S operations?	1.1.5.1.1	There are several data sources - SME review of current training POI, human observation - data collectors, observing analysts; participant input - surveys, AARs, & interviews				
						1.1.5.2	Does 19D OSUT adequately prepare Soldiers to conduct dismounted skill level 1 tasks ISO R&S missions?	1.1.5.2.1	There are several data sources - SME review of current training POI, human observation - data collectors, observing analysts; participant input - surveys, AARs, & interviews				
						1.1.5.3	Does 19D ALC adequately prepare NCOs to conduct section level R&S missions?	1.1.5.3.1	There are several data sources - SME review of current training POI, human observation - data collectors, observing analysts; participant input - surveys, AARs, & interviews				
						1.1.5.4	Does M-SLC adequately prepare NCOs to conduct platoon level R&S operations and logistical operations?	1.1.5.4.1	There are several data sources - SME review of current training POI, human observation - data collectors, observing analysts; participant input - surveys, AARs, & interviews				
						1.1.5.5	Does A-BOLC adequately prepare officers to conduct R&S missions?	1.1.5.5.1	There are several data sources - SME review of current training POI, human observation - data collectors, observing analysts; participant input - surveys, AARs, & interviews				

Appendix F: SSP Data Collection Management Plan

Obj #	Objectives	Issue #	Issue	EEA#	EEA	MOM#	MOM	Data Sources#	Data Sources	EVENTS			
										1	2	3	4
						1.1.5.6	Does MC3 adequately prepare officers to conduct R&S missions?	1.1.5.6.1	There are several data sources - SME review of current training POI, human observation - data collectors, observing analysts; participant input - surveys, AARs, & interviews				
				1.1.6	How well does proposed 36 Soldier Scout Platoon meet the R& S mission requirements?	1.1.6.1	Does the 36 Soldier Scout Platoon provide adequate depth when conducting screen missions?	1.1.6.1.1	There are several data sources - **human observation** - data collectors, observing analysts; **participant input** - surveys, AARs, & interviews				
						1.1.6.2	Does the 36 Soldier Scout Platoon provide adequate depth when conducting area and route reconnaissance missions?	1.1.6.2.1	There are several data sources - **human observation** - data collectors, observing analysts; **participant input** - surveys, AARs, & interviews				
2	Scout squads and platoons in the ABCT lack the uniform versatility, survivability, protection, mobility, and firepower to conduct effective reconnaissance and security operations during combined arms maneuver and wide area security.	2.1	How does the proposed BCT R&S architecture enable the commander to conduct effective reconnaissance and security operations during combined arms maneuver and wide area security?	2.1.1	How does the proposed BCT R&S architecture improve the Scout squads and platoons versatility?	2.1.1.1	How effective was the integration of the mounted and dismounted capabilities for the R&S platoon?	2.1.1.1.1	There are several data sources - SME review of current doctrinal manuals, **human observation** - data collectors, observing analysts; **participant input** - surveys, AARs, & interviews				
						2.1.1.2	How many LP/OP positions were manned?	2.1.1.2.1	There are several data sources - **human observation** - data collectors, observing analysts; **participant input** - surveys, AARs, & interviews				

Appendix F: SSP Data Collection Management Plan

Obj #	Objectives	Issue #	Issue	EEA#	EEA	MOM#	MOM	Data Sources#	Data Sources	EVENTS			
										1	2	3	4
						2.1.1.3	When conducting R&S dismounted operations, how much area was covered by the platoon?	2.1.1.2.1	There are several data sources - **human observation** - data collectors, observing analysts; **participant input** - surveys, AARs, & interviews				
				2.1.2	How does the proposed BCT R&S architecture improve the Scout squads and platoons survivability?	2.1.2.1	How survivable was the R&S Platoon/Squad?	2.1.2.1.1	There are several data sources - **human observation** - data collectors, observing analysts; **participant input** - surveys, AARs, & interviews				
						2.1.2.2	How many vehicles were lost during the mission?	2.1.2.2.1	There are several data sources - **human observation** - data collectors, observing analysts; **participant input** - surveys, AARs, & interviews				
				2.1.3	How does the proposed BCT R&S architecture improve the Scout squads and platoons protection?	2.1.3.1	How protected was the R&S Platoon/Squad?	2.1.3.1.1	There are several data sources - **human observation** - data collectors, observing analysts; **participant input** - surveys, AARs, & interviews				
						2.1.3.2	How many personnel causalities occurred during the mission?	2.1.3.2.1	There are several data sources - **human observation** - data collectors, observing analysts; **participant input** - surveys, AARs, & interviews				
				2.1.4	How does the proposed BCT R&S architecture improve the Scout squads and platoons mobility?	2.1.4.1	Was the Squad/Platoon able to transverse all required terrain?	2.1.4.1.1	There are several data sources - **human observation** - data collectors, observing analysts; **participant input** - surveys, AARs, & interviews				

Appendix F: SSP Data Collection Management Plan

Obj #	Objectives	Issue #	Issue	EEA#	EEA	MOM#	MOM	Data Sources#	Data Sources	EVENTS			
										1	2	3	4
						2.1.4.2	Was the Squad's/Platoon's planned movement hampered by lack of mobility?	2.1.4.2.1	There are several data sources - **human observation** - data collectors, observing analysts; **participant input** - surveys, AARs, & interviews				
				2.1.5	How does the proposed BCT R&S architecture improve the Scout squads and platoons firepower?	2.1.5.1	Was the R&S platoon/squad able to fight for information when required?	2.1.5.1.1	There are several data sources - **human observation** - data collectors, observing analysts; **participant input** - surveys, AARs, & interviews				
						2.1.5.2	How many enemy kills occurred (Vehicles and dismounted)?	2.1.5.2.1	There are several data sources - **human observation** - data collectors, observing analysts; **participant input** - surveys, AARs, & interviews				

Appendix G – Reconnaissance Capabilities from Platoon to Squadron Level in Armored Brigade Combat Teams (ABCT).

04 March 2014

INFORMATION PAPER

SUBJECT: Reconnaissance Capabilities from Platoon to Squadron Level in Armored Brigade Combat Teams (ABCT).

1. Purpose: To provide leadership from the Maneuver Center of Excellence with a snapshot of reconnaissance capabilities from platoon to squadron level in one Armored Brigade Combat Team (two information papers attached). The unit participating is 1st Squadron, 7th Cavalry Regiment (Garryowen) from 1st Cavalry Division at FHTX.

2. The MCoE formed a data collection team from TCM-ABCT, OCOA, DOTD and 316th Cavalry Brigade that has collected data in support of the ABCT Standard Scout Platoon (SSP/6x36) initiative, and to analyze ABCT reconnaissance organization capabilities from both home station training, and performance at the National Training Center during rotation 14-04 from 15-28 February.

3. The enclosed information papers consolidate initial feedback to identify challenges and recommend improvements in versatility, survivability, protection, mobility, and firepower. The team will also identify potential changes to doctrine, organizations, training, leader development, materiel assets, and personnel structure as they pertain to the proposed 6x36 force design. The team is scheduled to conduct final data collection at FHTX from 17-21 March and submit a final report by 14 April 14.

4. While most of the observations identify challenges the unit has encountered, we do not want anyone to believe that 1-7 CAV did poorly. Conversely, they were extremely lethal, both with indirect and direct fires, and performed movement and maneuver well compared to recent cavalry squadrons conducting decisive action operations at NTC. As anticipated, the 6x36 formation clearly showed improvements from the 3x5 organizational design in lethality, mobility and survivability. The focus for the NTC rotation was on observations and interaction with Observer Coach Trainers (OC/T). We attempted to minimize touches with 1-7 CAV Soldiers and leader's, however; our embedded SME NCOs at platoon level found themselves conducting frequent coaching and teaching. OC/T's are doing much more coaching and teaching than many of us remember as well.

5. From discussions with Cobra 07, his OC/T's, and from our observations, there is a need for MCoE to produce a baseline scout, tank and rifle platoon TACSOP with complementary checklists for leader tasks at all levels (i.e. establishing an OP, assembly area procedures, consolidation and reorganization, establish screen-line). Most platoons lacked platoon level TACSOPS, and simply don't have the experience and expertise to develop checklists.

Prepared by: Carl Johnson, Technical Advisor, TCM-ABCT
Approved by: COL William T. Nuckols, Director, TCM-ABCT

Appendix H – Armored Brigade Combat Team (ABCT) Cavalry Squadron Trends

27 February 2014

INFORMATION PAPER

SUBJECT: Armored Brigade Combat Team (ABCT) Cavalry Squadron Trends

1. Purpose: To provide an update on ABCT Cavalry Squadron Trends from NTC Rotation 14-04.

2. BLUF: Representatives from TCM-ABCT, OCOA, DOTD and 316th BDE collected Cavalry Squadron observations, insights and lessons learned at the National Training Center in order to inform the Army of DOTMLPF considerations for improving Cavalry formations. During NTC Rotation 14-04, the Cavalry Squadron outfitted in the 6 x 36 formation demonstrated the ability to successfully accomplish all missions. The unit arrived to NTC at a higher proficiency level than normal due to an aggressive home station training strategy focused on training and leader development. This allowed the organization to focus more on improving R&S missions collectively as a squadron at NTC. The below observations are trends observed throughout the rotation. Generally, the Squadron improved in most tasks while at the NTC.

3. Summary of Observations:

a. Mission Command Equipment Proficiency: Soldiers from squad to BCT level lack HF Radio proficiency. Although ARC contains HF radio planning considerations, not all reconnaissance NCOs and Officers have attended the course. Likewise for Soldiers at RSLC. Units also need improvement on FBCB2 tasks.

Recommend increased attendance to RSLC for Cavalry Soldiers and NCOs. Also recommend ARC and all MCoE courses review ways to train critical FBCB2 and HF radio skills. Review feasibility of adding HF Radios to 19D OSUT.

b. S3 Air: The squadron did not have an officer assigned the duties of an S3 Air. Although Combined Arms Battalions and Cavalry Squadrons do not have this position on their MTOE it is important to assign this task as an additional duty to an officer on the staff. When the unit was required to plan and conduct air ground operations to include air assault and use of UAS there were challenges.

c. Home Station Training Strategy: The squadron executed a very aggressive home station training strategy. Throughout the rotation OC/Ts informed the MCoE Data Collection Team that this unit was the first to execute many tasks they had not seen

before in the past two years of decisive action rotations. Multiple Cobra Team OC/Ts stated that the unit has the best products, reconnaissance guidance, and R&S knowledge they have seen at the NTC. OC/Ts stated that the unit has more ARC and CLC graduates from any unit they have ever seen and that made a huge difference in the unit's success. The unit also was over 100% manning with Bradley Master Gunners.

d. Fires Planning and Operations: 0 of 28 pre-planned squadron targets were fired during the movement to contact. OC/Ts expressed that troop FSOs need to be more involved in planning and rehearsals. The squadron's fires planning and missions improved greatly through the rotation. One TTP established was for company FSOs to provide target worksheets prior to SCO's delivery of the BN OPORD. Additionally, Troop Commanders are not conducting TLPs collaboratively with their FSOs. This should be a standard TTP.

e. Chief of Reconnaissance: We need to formally identify who should perform duties of the Chief of Reconnaissance for the Brigade. There were varied opinions expressed on this matter. Recommend this subject be discussed as a topic at the next Maneuver Conference or Recon Summit. Regardless who serves as the Chief of Reconnaissance it is vital that the squadron assign an LNO to the BCT who has graduated from the Cavalry Leader's Course (CLC).

f. Cavalry Leader's Course (CLC): OC/Ts and BCT leaders consistently expressed that all troop commanders and squadron staff must be graduates of CLC. The leadership stated that graduates were much more prepared to perform their duties upon assignment. OC/Ts stated that non-CLC graduates do not have the requisite R&S knowledge at troop, squadron or brigade level.

g. Analog Graphics: Analog graphics that made it down to the squad through troop levels were incomplete and lacked required details on maneuver, fires, enemy, and obstacles. OC/Ts stated that one reason for this is a reliance on the FBCB2 by platoons to conduct mission command. Since squads do not have FBCB2 they transferred graphics to their maps from FBCB2s or from paper slides provided by higher. OC/Ts in all troops stated that squad graphics need much improvement. Squads did not have graphics that articulated adjacent units that could have added to their capability to provide R&S support to other troops and the squadron. Development and distribution of analog graphics is a lost art. Recommend exploring the feasibility of adding to MC3, BOLC, and NCOES.

h. CVTESS: NTC Rotation 14-04 was the very 1st ABCT rotation to utilize CVTESS, the replacement for MILES XXI on Abrams and Bradleys. TCM-ABCT sent representatives to NTC during the RSOI to aid units and OC/Ts in training and installation of the CVTESS. Thus far the CVTESS has performed as planned, however, the largest issue we observed was training. Crews and OC/Ts need improvement on CVTESS

knowledge regarding the linkage of resupply of Class V when vehicles were destroyed, ie. reset, resurrect, how much ammo to provide. Over time OC/Ts had developed TTPs to reset TADSS (MILES) when vehicles were destroyed. The CVTESS has the capability for the unit and OC/Ts to perform Class V sustainment tasks. TCM-ABCT will continue to follow-up with NTC and ABCTs with training products to mitigate this issue.

i. Reporting Formats: The unit did not use a standardized report format to report contact (SPOT, SALUTE, SALT, etc.) at platoon-troop level which impacted battle tracking, battle damage assessment and situation awareness/understanding. When visual contact was made with enemy vehicles radio reports consisted of narratives that were confusing, lacked critical information, and failed to pass relevant information to adjacent and higher level elements.

j. Battle Tracking: During two battle periods at the NTC, the Cavalry Squadron experienced challenges with battle tracking. Battle handover did not occur on many occasions as enemy targets passed across the engagement area, i.e. what first started as one BMP ended up being 6 BMPs. The SITTEMP was not updated and sent to the troops after the initial product was created. There was no BDA tracker posted in the squadron TOC. There was no record of indirect rounds fired on targets which led to target duplication.

k. Reconnaissance Planning Considerations (Focus/Tempo/Engagement Criteria):

(1) Troop Commanders need improvement at providing clear planning guidance to platoon leaders. Subsequently, platoon level execution was not consistent.

(2) Engagement criteria, bypass criteria and reconnaissance handover, were not consistently included in orders.

(3) Tempo: Troop commanders and platoon leaders did not provide adequate guidance on the commander's reconnaissance planning guidance IAW ATP 3-20.97.

- The tempo of the troops during the movement to contact did not best support the commander's mission and information requirements. Platoons did not select the proper movement technique based upon the enemy situation. In one troop, when contact was not likely, the unit moved so slowly and deliberately that the unit was not positioned to collect information on the screen line. Another troop moved too fast, passing their OP before it was set in place with eyes on the engagement area. The two troops were not posed to provide adjacent support.

- Troops did not recon the line of departure or conduct an effective terrain analysis or rehearsal to determine the time it would take to meet their R&S objective.

- Squads did not always utilize dismounts to clear defiles or danger areas ahead of mounted elements.

l. Fundamentals of Reconnaissance: During the movement to contact the squadron held one troop in reserve. The troop moved forward to conduct reconnaissance during the battle but it was too late to maximize the asset. After the movement to contact the enemy was positioned west of the BCT. For the first 18 hours following suspension of battle effects (SOBE) the BCT and squadron were initially not prepared for a counterattack following consolidation and reorganization as the western flank had very little security.

m. Security Operations. Similar to Reconnaissance Planning Guidance, Troop Commanders and platoon leaders did not consistently provide guidance on Focus, Tempo and Engagement and Displacement Criteria.

(1) EA development and direct fire planning was not observed. This contributed to a lack of target hand off and lack of identification of gaps and dead space. Additionally, squads and platoons did not know or understand displacement criteria.

n. Cavalry Doctrine. Doctrine does not provide enough details on how squads, platoons and troops link intelligence gathering efforts to collect PIRs, SIRs, IRs, NAIs and indicators. The squadron leadership and staff developed a synch matrix to accomplish this intent from section to squadron level. Squadron leadership expressed that the current Operations Order (OPORD) format contained in doctrine is not conducive for planning R&S missions. The Concept of Operations section of Execution (Paragraph 3) is written from a maneuver perspective and is missing vital R&S sections. An Operation Order format specifically designed for cavalry formations has the potential to improve the orders process.

o. Best Practice Observed that Effectively Returned Combat Power to Maneuver Elements:

(1) Maintenance Collection Point Operations: Of the four previous ABCT rotations observed this unit had the most organized and effective SOP for maintenance collection point operations. The unit accomplished this through effective use of mission command communication systems. The command post had a working FBCB2/BFT that allowed them to receive reports on which vehicles in their unit sustained real world damage and received follow-on information to aid in determining what the major faults were in order to secure parts and alert mechanics. Their effective emplacement and use of OE-254 antennas provided long distance FM communications that they used to speak directly with troop sized elements on the A&L net.

(2) The maintenance technician and motor sergeant were well versed in the intricacies of maintenance packet building to restore MILES adjudicated vehicles. This

assisted unit executive officers in expediting the process required to regenerate combat power.

(3) Very few maintenance collection points over the past 5 NTC rotations have had effective security plans. This unit utilized working vehicle turret weapons systems to sustain 360 degree security while executing normal operations and integrated vehicle personnel into their security plan.

(4) This maintenance collection point command post also had bulk Class III and V on hand to refuel and upload vehicles prior to release back to their troop assembly areas.

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Approved by: COL William T. Nuckols

Appendix I – SSP Trends Information Paper

27 February 2014

INFORMATION PAPER

SUBJECT: Armored Brigade Combat Team (ABCT) Standard Scout Platoon (SSP) Proof of Principle (PoP) Update

1. Purpose: To provide the Armor Commandant an update on the current state of the ABCT SSP PoP.

2. BLUF: Representatives from TCM-ABCT, OCOA, DOTD and 316th BDE collected data in support of the ABCT SSP PoP at the National Training Center in order to validate all improvements and deficiencies in versatility, survivability, protection, mobility, and firepower. The ABCT SSP PoP team will also identify shortcomings in doctrine, organization, training, professional development, materiel, and personnel as they pertain to the new 6 x 36 force design. The team is scheduled to conduct follow-up data collection at FHTX from 17-21 MAR 14 and submits a final report on 14 APR 14.

3. Initial Insights:

a. Lethality.

(1) NTC Live Fire Exercise: During the NTC Live Fire Exercise the 6 x 36 formation demonstrated an increase in lethality when compared to the 3 x 5 formation. The 6 X 36 formation destroyed 70% of targets presented during the day and 56% of the targets presented at night. ABCT 3 x 5 formations over the past two years have averaged between 35-50% during the day and 20-35% at night. Of note, the Bradley crews were only allocated half of the normal CL V allocation compared to previous rotations.

(2) Force on Force Defense: During the NTC Force on Force Defense Blackhawk Troop 1-7 CAV was able to observe and report enemy movement and destroy the OPFOR division recon elements by massing indirect fires. Following the destruction of the division recon the troop effectively engaged and destroyed 12 platforms: six BMPs, one T-80, two rotary wing aircraft and three additional BMP mobility kills. A senior platoon trainer with 14 rotations stated the 6 x 36 formation is the most lethal he has seen.

(3) Enemy reconnaissance elements engaged and destroyed vehicles beyond 4,000 meters. The 3 x 5 formation with HMMWVs does not allow mutual direct fire support for mounted and dismounted Soldiers. The unit deployed to NTC with one BFIST equipped with an FS3 per section (two per platoon) in order to increase observation capabilities for the scout platoon. The BFIST were unable to engage targets at the same ranges or targets as the variants equipped with the TOW missile. The latest TOW variant,

the TOW 2B Aero is wireless and has a maximum effective range of 4,000+ meters. To ensure that future scout platforms maintain both lethality and observation overmatch, TCM-ABCT recommends that scout Bradley variants continue to be equipped with the TOW missile and address improvements to long range optic capabilities through future engineer change proposals (Note: there is no plan to remove TOW hammerheads and replace with LRAS; integration of IFLIR into all M2A3s will provide the same level and range of observation as the current LRAS).

b. Mobile Protected Fire Power.

(1) Mutual Supporting Platforms: Leaders were able to plan and conduct movement and maneuver with increased direct fire support for their wingmen and dismounted Soldiers.

(2) CASEVAC: During operations at NTC platoons were better equipped to evacuate casualties with Bradleys versus HMMWVs due to space and protection. On one occasion this resulted in a platoon sergeant being able to rapidly evacuate wounded Soldiers through rough terrain behind enemy lines. Although the Bradley registered several near misses from BMPs, the mobile protected firepower and the ability to rapidly negotiate cross country terrain enabled the PSG to deliver casualties in time to receive medical care resulting in the three Soldiers surviving.

(3) Planning Considerations: Platoon leaders expressed it is much easier to plan and control movement with one platform type that has common cross country capabilities. They made this same comment about the ease of planning sustainment requirements, including class III and recovery operations.

(4) Increased Cross Country Mobility: The increased mobility provided by the Bradley was evident when numerous Observer Coach Trainers expressed it was very difficult for them to keep up with Bradleys in their HMMWVs. During the Live Fire Exercise (LFX) a senior Dragon OC/T stated that the HMMWVs in one of the Combined Arms Battalion scout platoons could not maintain pace with Bradleys in restrictive terrain.

c. Leader to Led Ratio and Increased Manning: Leaders made very positive remarks on the increased capability provided by the leader to led ratio of the 6 x 36 formation. The 6 x 36 formation provides staff sergeants on the ground and in the vehicle crews that better equips the platoon to accomplish all R&S missions. Increased NCOs enabled the unit to better perform troop leading procedures and missions required for mounted and dismounted operations. Integration between dismounted and mounted NCOs ensured that the unit was able to identify and successfully destroy enemy rotary wing aircraft. The increased leadership was evident in the unit's performance on long duration OPs, patrols, and wide area security operations.

d. Dismounted Capabilities: On several occasions the increased manning enabled the platoon to effectively destroy enemy dismounted scouts. Many OC/Ts stated “the 3 x 5 formation did not provide the versatility to successfully accomplish all required R&S tasks.” One Troop primary OC/T with 14 NTC rotations said this is the 1st unit able to accomplish isolation of Ujen, and attributed the success to six Bradleys and 18 dismounts on the ground to handle ~ 100 intentionally displaced persons. The unit received ~50% of their dismounted Soldiers ~45 days prior to the NTC rotation. Squadron leadership stated that the unit’s dismounts would have performed at a higher level of proficiency if they would have been present for the entire Road to War.

e. Doctrinal Updates: Doctrine from platoon to squadron level will need to be revised to capture the difference in capabilities, limitations and training requirements (gunnery/ammunition) provided by the 6x36 formation when compared to the 3x5 formation. Doctrine also needs to capture naming convention changes, ie section to squad/RECCE to scout platoon. Duties and responsibilities outlined in ATP 3-20.98 needs to better articulate the role of the platoon sergeant, and revise roles from section/team leader to squad/team leader out lining the increased responsibilities inherent to those roles, while also taking into consideration the increased dismount manning, under the 6x36 formation. 19 series Soldier Training Publication Skill Level 1-4 tasks will need to be reviewed and revised as necessary. Feedback received from officers and NCOs indicates that platoon oriented doctrinal publications need to return to providing checklists to assist inexperienced leaders in performing their missions. ie: AA procedures, battle drills, PCCs/PCIs.

f. Tactical Standard Operating Procedures (TACSOPs): Platoon size elements did not have relevant TACSOPs that addressed routine functions of the scout platoons. Troop level TACSOPs did not provide the requisite level of detail needed by platoon leadership to execute their missions. TCM-ABCT recommends that the MCoE develop a product similar to the legacy era FKSM and distribute it to students in PME courses.

g. Training/Leadership Development:

(1) The largest inhibitor to the unit being able to maximize all R&S resources available was attributed to lack of leader knowledge, skills and attributes necessary to accomplish all tasks in a decisive action training environment. According to OC/Ts this particular unit was one of the best they have observed since DATE rotations began at NTC in MAR 2012. Training and leadership development has the greatest potential to improve ABCT Cavalry units.

(2) An increase in responsibilities for dismounts along with one common platform will drive additional training priorities for MCoE courses. Numerous examples at the NTC have demonstrated the need for MCoE PME and functional courses to review ways to better train mounted to dismounted integration, Bradley skills, air

(3) ground integration, reporting, HF and FBCB2 training, CBRN, land navigation, Javelin, call for fire and fires integration.

(4) Recommend MCoE courses also provide sample checklists and TACSOPs for leaders to refine and develop. TCM-ABCT delivers updates to the MCCC, BOLC, MPCC and M-SLC and will provide sample products to the students.

(5) Six Bradleys/platoon increases the need for units to forecast training for one Bradley MG per platoon.

(6) All unit leaders and OC/Ts have expressed that it is absolutely vital for the institution to ensure all leaders en route to ABCT scout platoons have prerequisite assignment oriented training on mounted and dismounted skills prior to assignment.

(7) Current competency levels demonstrated on R&S knowledge, skills and attributes requires a holistic institutional and home station training strategy to ensure scout forces are equipped to accomplish all missions assigned.

h. Trends:

(1) Javelin proficiency is a challenge that needs to be addressed; this has been common amongst all ABCT DA rotations. Units also need to ensure they bring all of their CLUs to the NTC. NTC can provide MILES Javelins, but the unit must provide the CLU. Units should refer to the Javelin training publication released in 2013 and conduct training IAW the Javelin Training Program for primary and alternate anti armor specialists. TC 3-22.37 Javelin, Close Combat Missile System, Medium (AUG 13), outlines the Javelin Training Program. It is the responsibility of the unit to train this skill set.

(2) Raven Employment: Troops did not maximize the employment of the Raven. ISR platforms were used mainly for force protections instead of observation of NAIs/enemy.

(3) Movement and Maneuver: Scout sections, platoons and troops need improvement on movement and maneuver. The unit did not plan triggers to transition from movement to maneuver and did not select the correct formation or movement technique based upon terrain and the enemy situation.

(4) Displacement/Disengagement Criteria: During the MTC one troop became combat ineffective when they failed to displace from the screen line. Rather than retrograding and conducting a rearward passage of lines the element stayed in place and was enveloped by enemy forces.

Authored by: Derek McCrea/Mark Granen/ATZB-CIA
Approved by: COL William T. Nuckols

DEPARTMENT OF THE ARMY
HEADQUARTERS 1ST SQUADRON 7TH CAVALRY REGIMENT
1ST BRIGADE COMBAT TEAM, 1ST CAVALRY DIVISION
FORT HOOD, TX 76544

REPLY TO
ATTENTION OF:

AFVA-GCO 21 November 2013

MEMORANDUM FOR RECORD

SUBJECT: AAR Ironhorse Rampage

1. PURPOSE: 1-7 CAV conducted Ironhorse Rampage (IHR) on Crittenberg Multipurpose Range Complex and various training areas on the eastern portion of Fort Hood. This memorandum is to serve as the institutionalization of the knowledge garnered during IHR.

2. Mission Command Nodes
   a. TOC
      i. Issue: MEDEVAC
         1. Discussion: During one MEDEVAC, the helicopter was sitting on the CTCP LZ for upwards of 20 minutes while waiting for casualties to arrive. This made the aircraft a large target signature and would allow a nearby enemy an opportunity to destroy an HPT. Timing of sending the 9-Line MEDEVAC request to Brigade is also essential. If sent to early, the aircraft will end up waiting; if sent too late, an urgent casualty could potentially expire.
         2. Recommendation: Synchronization of events pertaining to MEDEVAC and notification of each echelon must be deconflicted. Brigade informed the TOC during the first iteration that only lines 1 and 2 of the 9-Line should be sent immediately, they should be the actual pickup site (CTCP and GO Zulu if used, not an isolated LZ or enemy surrounded area), Lines 3, 4, and 5 will allow the aircrew to configure the aircraft prior to take off. Time/distance analysis must be coordinated in regards to casualty transport from point of injury to point of pickup as well as flight time to LZ. If ground evacuation is used, all graphic control measures and AXPs must be on the TOC map.

      ii. Issue: Shift Change Briefs
         1. Discussion: Shift change briefs are critical for catching new TOC personnel up on events of the previous 8-12 hours. When all sections come together for a common meeting, it allows all personnel shared understanding.
         2. Recommendation: Conduct shift change briefing in accordance with SOPs.

      iii. Issue: Analog tracking system
         1. Discussion: The magnet board is an effective tool for those that use it, but for someone who has never seen our system before, it needs explanation for full understanding as to what each color or pin represents. Tracking below platoon level creates too much clutter on a 1:50,000 scale map.

2. Recommendation: Make labeled platoon, troop, and squadron level icons IAW FM 1-02 for common knowledge. Keep color coded pins but label each one, a color code matrix accompanies the map for reference. (Red pin #1 = IDF attack 3 casualties… Green pin #3 = wire obstacle dimensions 50 x 30 meters, etc).

iv. Issue: Graphics passed among echelons
   1. Discussion: Passing operational graphics from Troop to Squadron level was never accomplished 100%. Possibly due to technical limitations. To achieve COP at all levels, each level must be using the same graphics.
   2. Recommendation: Technical limitations are not an excuse for not passing graphics. At a minimum, FBCB2 overlays sent digitally to be transferred to CPOF. Failing that, send a runner to the TOC with hard copy overlays. The TOC also will pull Brigade level graphics for more COP development.

v. Issue: Handling of attached air assets
   1. Discussion: When two AH-64s were in direct support to the Squadron, control was lost after they had completed requirement for one Troop and left station.
   Recommendation: Each Troop and Squadron should have pre-planned Tasks & Purposes for all potential air enablers so as not to waste limited station time. They can be quickly modified for the current situation. For overall Mission Command, push one aircraft to that Troop's frequency and retain one on Squadron frequency incase a higher priority target presents or to prevent loss of station time. Furthermore, conduct initial check on in accordance with standard to expedite initial check on time.

vi. Issue: Products posted on map board
   1. Discussion: Various products must be printed and conspicuously posted next to the map board for quick reference at each potential decision point and to alert a field grade officer for guidance on major decision points.
   2. Recommendation: Post DSM, CCIR, Commander's R&S guidance, BDE mission, Squadron mission, T&P of subordinate units, T&P of enablers on map board.

vii. Issue: Field Service Representatives (FSR) Support
   1. Discussion: The FSRs were exceedingly helpful and flexible during IHR and assisted in the configuration of many of the ABCS and CPN. However, the demand for support far out weighted the availability of FSRs.
   2. Recommendation: Assemble an FSR team, comprised from each ABCSystem, to provide support prior to the execution of IHR. This will ensure proper configuring and shared understanding of the integration of ABCS between Squadron and Brigade S6 and operators.

viii. Issue: MC on the Move
   1. Discussion: The absence of vehicle install kits for HF and TACSAT severely degrades the Squadron's ability to report rapidly and accurately.
   2. Recommendation: Conduct FM, HF and TACSAT COMMEX to ensure proper COMSEC fills and programming of radios. Conduct FBCB2 COMMEX and rehearsal of OTAR.

ix. Issue: BDE Level COMMEX
   1. Discussion: The absence of a BDE level COMMEX resulted in the inability to validate communication systems prior to IHR. Most affected was FBCB2 (OTAR push to EPLRS).
   2. Recommendation: Conduct FM, HF and TACSAT COMMEX to ensure proper COMSEC fills and programming of radios. Conduct FBCB2 COMMEX and rehearsal of OTAR.

x. Issue: Integration of Long Range Comms to PACE Plan
   1. Discussion: The integration of the Harris 150 radio to MC Nodes increased the squadron's effectiveness in reporting while minimizing the volume of traffic on critical FM nets.
   2. Recommendation: Train, issue and operate the PRC-117F (TACSAT) in each MC Node to extend the units push-to-talk range and add redundancy to the PACE plan.

xi. Issue: Self-Securing RETRANS Sites / Troop Sustainment Support
   1. Discussion: The integration of M1151s and crew served weapons enabled the RETRANS teams to be self-securing, alleviating the Troops from degrading combat power during operations. Additionally, the proximity of RETRANS teams to the Troops operating in sector made resupply and sustainment far more efficient.
   2. Recommendation: Continue to train RETRANS Soldiers to self-secure and task Troops in sector for sustainment support. RETRANS teams SP with 3 DOS of fuel, food and water.

xii. Issue: Follow up with Troops regarding incomplete SIGACT reporting
   1. Discussion: There were times that SIGACTs were reported with information missing (i.e. location), or reports that prompted more detailed information (i.e. report of IED would prompt questions about type of IED, explosive type, etc) that were not followed up on and therefore pertinent information was never received.
   2. Recommendation: Follow up with Troops to ensure all necessary information is being reported. Train TRIST members to identify gaps in reporting at the Troop level in order to encourage proper reporting.

xiii. Issue: Lack of two radios in HQ 20
   1. Discussion: Lack of two radios did not allow the S2 section to monitor both command net and O&I organically. In addition, our track QEAM

is broken so transmission and receiving over FM was not possible. During NTC we will need to utilize both FBCB2 and FM comms to ensure constant communication with Troops and BDE are maintained.

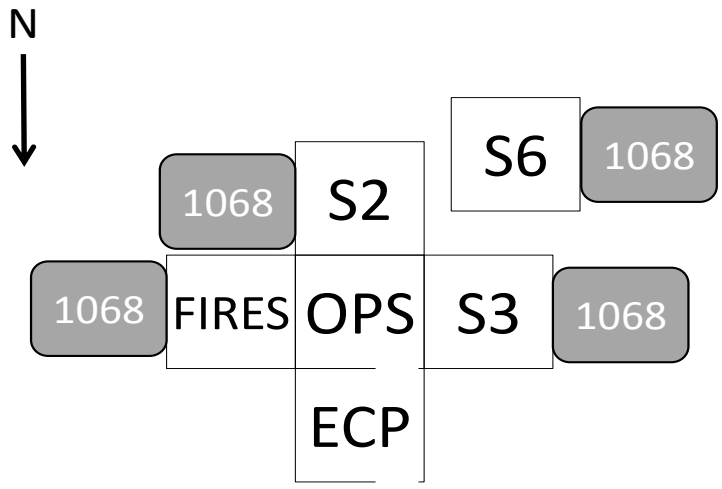
2. Recommendation: Ensure that HQ 20 is equipped with two radios for NTC and ensure that annotated QEAMS deficiency is fixed

xiv. Issue: O&I not functional between TOC and Troops

1. Discussion: Issues that were not appropriate for command net, and required too much information or elaboration for a FIPR were either put out over command net, or were sent via FIPR after an extended amount of time, exceeding the information's LTIOV.
2. Recommendation: Retrans O&I.

xv. Issue: Entry Control Point

1. Discussion: The ECP being connected to the S2 section reduces the S2 work area by about 1/3 and does not provide enough work space for all systems and work stations. The sensitivity of the conversation in this area would be at the highest level in the TOC and personnel lacking security clearance in the ECP can easily hear the conversation. In addition, S2 has 2 external systems to set up that will interfere with the entry point.
2. Recommendation: The ECP should be the SICUP where the S6 was previously located and the entry point into the TOC would be the wall where the MAPs are set. This will increase the distance of the ECP to all systems and potential conversation as well as having the ECP not interfere with any current operations working space. The S6 is not required to be attached to the TOC and can operated disconnected on the south side of the TOC and still maintain the exact same functions. Example Below:



b. TAC

i. Issue: Communications Platforms
   1. Discussion: There are not enough radios in order to facilitate the war fighting functions of Movement and Maneuver, intelligence, and Fires in the two Bradley configuration of the TAC.
   2. Recommendation:
      a. Squadron FSO does not move forward with the TAC. In order to be able to facilitate Fires from the TAC the FSO needs at a minimum the SQDN FIREs Voice and BDE Fires Voices. This would take up 50% of the radios in the current configuration.
      b. Squadron FSO utilizes a BFIST variant. The Squdron TAC would now consist of three Bradley variant vehicles. The BFIST variant vehicle would allow the Squadron FSO to utilize SQDN Fires Voice and Digital(with a Stand Alone Computer Unit) as well as BCT Fires. A JTAC could also be a passenger in this vehicle truly allowing all Fires to be cleared by the TAC.

c. CTCP
   i. Issue: Sustainment Rehearsal
      1. Discussion: The BDE and SQDN did not conduct a sustainment rehearsal prior to Ironhorse Rampage. The Sustainment rehearsal would have allowed for better coordination between BDE and SQDN support nodes and identified issues with the Yellow 2 report PACE plan. LOGPAC procedures and coordination measures can be identified during the rehearsal so that all Troops understand the concept of sustainment.
      2. Recommendation: Conduct a Sustainment Rehearsal with all key sustainment leaders prior to major training events. Rehearsal will cover each Class of Supply and how it will be supported throughout the operation.

   ii. Issue: Yellow 2 PACE Plan
      1. Discussion: The BDE Yellow 2 PACE plan for Ironhorse Rampage consisted of BCS3 as the primary system of record, followed by exported Logistics Reporting Tool (LRT) e-mailed via NIPR as the alternate. Exported LRT physically submitted to BDE S4 via CD served as the contingency means of LOGSTAT submission, and FM as
      emergency. In the event that BCS3 was unavailable, the BDE did not have an alternate plan for contacting Troops via FBCB2 or FM Radio.
      2. Recommendation: BDE Yellow 2 PACE plan should be Primary: BCS3, Alternate: NIPR Email, Contingency: FBCB2, Emergency: FM/Hard Copy Yellow 2 to the BSB Convoy CDR. BDE S4 and SPO should utilize a FBCB2 role and BDE A&L net to receive Yellow 2 reports from subordinate units. The Squadron Yellow 2 PACE plan should be FBCB2 as primary, FM as contingency, HF as emergency, and hardcopy to the Support Platoon LOGPAC Convoy CDR.

   iii. Issue: BCS3 Reporting/SOP

1. Discussion: There was not a BDE-wide BCS3 system rodeo to ensure our BCS3 system was capable of talking to BDE. As a result, we discovered that our user account was not configured correctly to report LOGSTAT to BDE. A set BDE Yellow 2 BCS3 format was not pushed out by BDE, which ultimately resulted in using the Yellow 2 spreadsheet as opposed to the actual BCS3 program.
2. Recommendation: A BDE BCS3 Yellow 2 standard format must be created and sent to all subordinate BCS3 systems. Prior to BDE training events, a BCS3 system verification must be conducted to ensure all systems can communicate with BDE and receive the correct report formats.

iv. Issue: CASEVAC Procedures
1. Discussion: Squadron SOP must identify the proper protocol for bypassing AXPs and transporting casualties directly to the CTCP or BSA. On several occasions, the Troop or Medic arrived at the AXP and failed to make positive contact with medical evacuation team. This caused a delay in ground CASEVAC operations that could have delayed medical care to casualties.
2. Recommendation: All Troops transporting casualties have the freedom of maneuver to CASEVAC through AXP directly to the CTCP in the event of negative communication with the medical evacuation team.

v. Issue: Squadron A&L Net
1. Discussion: The Troop must continue to push all admin and logistics radio traffic on the A&L net. This must be the dedicated net for CASEVAC, LOGPAC coordination, and evacuation of battle damaged or dead lined vehicles. The Troops must also continuously monitor the A&L net during operations.
2. Recommendation: Continue to enforce all sustainment radio traffic on the Squadron A&L net.

vi. Issue: Garryowen Mike (TOC) vs. Garryowen Zulu Responsibilities (CTCP)
1. Discussion: Clearly defined roles for each mission command node need to be established for CASEVAC procedures. During CASEVAC operations there was confusion between Zulu and Mike while coordinating CASEVAC.
2. Recommendation: All CASEVAC requests are run through the CTCP via the A&L net. The CTCP will relay CASEVAC request to Garryowen Mike to coordinate additional medical assets from the BDE.

vii. Issue: Forecasting of logistical requirements
1. Discussion: Troops had a difficult time forecasting logistical requirements in enough time for the CTCP to ensure that the BSA would have enough time to send the required supplies out. Logistical forecasting was subsequently centralized at the Squadron level under the mission command of Hellfighter6 and Garryowen4. This proved effective in ensuring that the on-hand supplies were sufficient to give

each troop 24 hours worth of supplies with about one troop's worth of emergency resupply left.

2. Recommendations: Troop responsibility is to forecast a LOGPAC time 36-48 hours out and provide unusual supply requests in the routine Yellow 2 reports. CTCP mission command will continue commodity management of bulk supplies across squadron and remove that forecasting requirement from the troop's.

viii. Issue: Class V Issue/Turn In
   1. Discussion: There was confusion among the line troops as to what the proper class V turn in standards are. There was also a significant amount of residue lost because items were issued without a proper explanation that they were accountable on turn in or without a proper understanding of what items could be stored based on the vehicle load plan and which items needed to be backhauled immeadiatly by S&T to better facilitate operations.
   2. Recommendations: S&T will instruct a class on class V turn in standards for PLs and PSGs to help them understand requirements. S&T will also develop a better understanding of Bradley and M1064 load plans and conduct analysis on what can be stored and what needs to be backhauled during LOGPAC. S&T will always send a residue truck with LOGPAC during operations.

ix. Issue: Recovery SOP and Maintenance Coordination
   1. Discussion: Troop CPs did not conduct coordination on A&L when a vehicle was evacuated to the UMCP. This resulted in multiple deadlined vehicles at the UMCP that exceeded the capability of recovery assets and would have prevented the CTCP from jumping. Troops also did not leave crews with vehicles, making it difficult to have mechanics surge on a vehicle without reducing security to intolerable levels.
   2. Recommendations: CTCP mission command will enforce a 2 hour time standard for repairs at the UMCP. Anything that cannot be repaired within 2 hours will be evaced to the FTCP for repairs. All vehicles evaced to the CTCP or UMCP need to come with a crew. Vehicles that arrive with no crew will be sent to the FTCP and slated at the bottom of the repair queue.

x. Issue: CASEVAC Procedures
   1. Discussion: Radio comms and linkup proved difficult initially. Troop CPs were slow in sending the 9 line reports. Both squadron command nodes ended up with conflicting casualty numbers because the TOC was tracking SITREPs as the system of record while the ALOC was using the 9 line as the system of record.
   2. Recommendations: All CASEVAC is coordinated and run on the A&L net. A troop conducting CASEVAC will push up to the A&L net. The 9 line becomes the system of record for tracking and reporting all casualties (to include KIA). KIAs reported via 9 line reports will be

coded as "Convience" for pickup and backhauled during LOGPAC or as operations permit.

3. Troops
    a. Apache Troop
        i. Issue: Loss of unit graphics to enemy forces.
            1. Discussion: While conducting a security operation in support of 2-8 CAV, one of White Platoon's dismounted observation posts was compromised by enemy forces. When the OPFOR moved to search White Platoon's casualties, they discovered the dismounts had detailed graphics on their maps. The OPFOR removed the graphics and then used them to conduct attacks against the rest of Apache Troop.
            2. Recommendation: Dismounts only use sterile maps or only have graphics that pertain to their specific task at the observation post. This will prevent unit graphics from being compromised due to the loss of a small element.
        ii. Issue: An increase in pace does not correlate to an increase in tempo.
            1. Discussion: While conducting a Troop CALFEX at Crittenburger Multiuse, Apache Troop planned to rapidly approach the range, and move quickly in between phase lines in an effort to increase the tempo of operations. In reality this disrupted the synchronization of maneuver and the platoons began moving before supporting elements were ready to fire.
            2. Recommendation: The Troop continues to work on incorporating enablers into our maneuver plan in order to ensure better synchronization. During orders and rehearsals, the Troop will emphasize what conditions should be met prior to a unit maneuvering.
        iii. Issue: Fires Planning
            1. Discussion: In preparation for the Troop CALFEX on Crittenburger Multiuse, the Troop planned to use several fires targets in order to suppress enemy forces while Red and White maneuvered. While we used multiple targets, they were short in duration and potentially only achieved disruption and not suppression. In addition, mortar targets were called from the observer to the fire support element to the mortar section. This added an unnecessary delay to our fires process.
            2. Recommendation: When attempting to achieve suppression, the Troop will now define targets by the number of rounds to achieve suppression and the duration that suppression needs to be maintained. This should ensure that the targets planned match the criteria specified by the maneuver platoons. Targets will also be called from the observer straight to the firing element if lines of communication exist. This will primarily apply to mortar targets as all Troop elements utilize the Troop net.
        iv. Issue: Desynchronization of support assets
            1. Discussion: During the zone reconnaissance mission, Apache Troop's systems were tested when the troop need to conduct CASEVAC, recovery and LOGPAC simultaneously. The Troop attempted to respond to all of these issues at the same time and this created several gaps that enemy forces could have exploited.

2. Recommendation: When attempting to solve the tactical problem of simultaneous support operations, the Troop will establish a priority of support. The Troop will then react to each problem individually until we have sufficient combat power to moved on to the next situation.

b. Blackhawk Troop
   i. Issue: Unsure of maneuver restriction in conducting the CALFAX Lane
      1. Discussion: During the CALFX lane I was under the impression that we were still under FT. Hood, Texas range control restrictions. It was not apparent to me that we were authorized to increase complexity in maneuvering through the lane until the day live iterations. Had I asked the right question I would have learned that we were in fact able to maneuver along the range in a method that is not familiar to other ranges in the recent past.
      2. Recommendation: Range control restrictions serve to ensure Soldiers are safe in conducting ranges in the most real world conditions as possible. If the restrictions have been lifted and we are allowed to maneuver in grassy areas between course roads this should be highlighted as this is contradictory to every range we have conducted up to this point.

   ii. Issue: Using analysis of METT-TC and vehicle capabilities/limitations to drive mission planning during the Zone Reconnaissance Lane
      1. Discussion: The lesson learned during this iteration is the application of tactical patience. There was a report by a local national that there was a light wheeled vehicle and dismounts towing a mortar tube around the vicinity of the Heiner Lake. In an effort to maintain tempo and prevent the enemy freedom of maneuver to emplace indirect fire assets that would have been used to impede friendly forces maneuver, The platoon was given the report and maneuvered in to gain contact with the enemy forces.
      2. Recommendation: Upon receiving a vague report from local nationals it is valid to take some time to develop a plan to deal with the reported enemy presence. Using tactical patience resulted in identifying the terrain as benefiting the enemy in that it restricted Bradley maneuver but allowed dismounts maximum freedom of maneuver. Once we slowed tempo and planned out how we could fight the METT-TC variables we conducted the mission much more successfully. I attribute this to knowing the strengths and weaknesses of our equipment and the changes in the METT-TC variables.

   iii. Issue: Methods to mitigate severe terrain while facing an enemy with time and experience fighting that terrain during the Screen Lane
      1. Discussion: During the first day of the screen mission we had two Bradley's with crews engaged and destroyed as they were moving to establish screen line positions. I had established a no Bradley line in an attempt to mitigate lessons learned from zone lane in controlling Bradley vehicle noises which did not help as the enemy had already

rapidly descended on the terrain As we were entering the terrain for the first time I had a higher expectation of the ability to screen onto Route 49ers. Once vehicles started to identify positions it became clear that they were not able to identify positions within the no Bradley line that would enable them to observe onto route 49ers. As this was happening enemy dismounts were identifying vehicle positions and closing in on them even though vehicles were using noise discipline. Once the vehicle positions had been engaged the only option was to expose dismount positions to deal with the enemy dismounts. Due to the severely limited ability to enemy with maximum weapon standoff indirect fire utilization was impossible. To add to the confusion at some point it was conveyed to the command team that the Bradley's were maneuvering on enemy dismounts was absolutely not true. The plan that I developed to defeat an enemy with graduate level understanding of the terrain they had been fighting on for several days was to prevent Bradley's from moving within 1 KM of the main north south running road to prevent ceding audible contact to the enemy. One thing that I did not take into consideration was the fact that if the Bradley's utilized cover and concealment in the appropriate terrain there observation would be limited to 500 meters and less in some instances. This would effectively prevent the implementation of indirect fire support and limit the mounted OP's to direct contact rather than visual contact. This would also only allow mounted OP's to conduct actions on under direct contact.

2. Recommendation: Based on the terrain that we were facing which was not conducive to maximizing Bradley fighting vehicles it would have benefited us to recommend altering the screen line position or maximizing the additional UAS assets available to cover dead space and provide early warning to approaching enemy forces. Additionally as heard in every iteration increasing the number of dismounts would also be off great use to assist in defeating the audible profile emitted by the Bradley especially in missions in which stealth and early identification required.

c. Comanche Troop
    i. Issue: Use of dismounted soldiers during reconnaissance and security operations.
        1. Discussion: During the course of the zone reconnaissance lane, dismounts were distributed throughout 1st Platoon and consolidated by section in either one or two vehicles in 2nd Platoon. This resulted in a capability mismatch which evidenced itself in the specific tactics, techniques, and procedures the platoons employed. 1st Platoon received high marks for its ability to provide local security to its platoon with one to two dismounts per vehicle, while 2nd Platoon overcame significant challenges when a vehicle did not have a dismount for local clearance and security. Following the zone reconnaissance lane, the troop moved into screen operations. At this point, 1st Platoon massed their dismounts and pushed them forward of their vehicle positions for early warning and reaction time. 2nd Platoon

operated in the same way resulting in significant effects on enemy forces as well as overall successful mission accomplishment.

2. Recommendation: There are two recommendations for refining the employment of dismounts. First, that the troops and squadron look at dismount operations with degraded numbers (we're not at our full MTOE of 36 personnel per platoon). It might be more practical to run a four vehicle platoon in order to maximize dismounts if the capability exists to secure the remainder where METT-TC analysis determines a need for more dismounts. Second, that during TLPs and MDMP, formations take a look at either prioritizing dismount observation post employment or local security. OPs are more practical during screening in depth while local security, while always important, becomes more of a need during reconnaissance operations. A small two man team can still achieve the same effects of "pulling" a BFV through terrain for 200-300 meters with overwatch.

ii. Issue: Employment of the troop command post.

1. Discussion: Throughout the conduct of Ironhorse Rampage, C TRP continued to improve upon the employment of the CP during operations. While the CP had been a largely static entity during previous troop exercises in September and October, Ironhorse Rampage demonstrated several capabilities and gaps in how C TRP employs the CP. First, the overall mobility of the CP increased. Unnecessary vehicles, generators, and tentage where sent back to the rear while enablers such as the OSRVT were brought out and placed into operation. This resulted in a jump time from approximately 45 minutes during the zone reconnaissance to 15 minutes during the screen lane. Also, a map board was identified that easily fit into the CP compartment of the M1068 CP vehicle, resulting in one source reporting, troop planning, battle tracking, and digital battle tracking (with FBCB2) capability. Gaps that were identified included security posture and vehicle placement around the CP, especially with the deployment of the platoons as well as the need for deliberate planning regarding jump locations, quartering/recon parties, and occupation.
2. Recommendation: C TRP and squadron should continue to stress a 'fighting' CP capability. Given the mileage that may be covered during recon and security operations at NTC and in future contingency operations, the need to be able to move the CP quickly and emplace it with necessary security to maintain that link with the TOC and the platoons is clearly demonstrated. C TRP should continue to rehearse vehicle placement in the CP, occupation plans, departure plans, recon/quartering party roles and responsibilities, and location planning in order to make the CP more agile. Care should be taken to ensure that enabling devices such as FBCB2 and the OSRVT are kept FMC in order to maximize the capabilities at the troop level. Standardized troop and squadron reporting templates should be kept on file to increase the reporting efficiency of the CP.

iii. Issue: Synchronization and tempo with maneuver and indirect fires/enablers.

DEPARTMENT OF THE ARMY
HEADQUARTERS 1ST SQUADRON 7TH CAVALRY REGIMENT
1ST BRIGADE COMBAT TEAM, 1ST CAVALRY DIVISION
FORT HOOD, TX 76544

REPLY TO ATTENTION OF:

1. Discussion: While apparent during the zone reconnaissance and the screen lane, the synchronization of fires/enablers as well as maintaining a smooth tempo was most necessary during the CALFEX. C TRP was given very clear guidance to both aggressively conduct a reconnaissance in force using suppressing indirect fires to enable maneuver as well as securing a key asset in an attached field artillery platoon. Through a constant drive to keep planning simple and reducing complexity through revision and rehearsal, to multiple rehearsals at the troop and platoon level, to identification of key triggers to enable execution, the troop was able to achieve a high tempo and synchronization on its day run with successful mission accomplishment, continued suppressive fires enabling maneuver, and a pace which clocked in at around fifty to fifty five minutes.
2. Recommendation: C TRP and squadron should continue to emphasis fire planning at all echelons (platoon through squadron) in order to develop fire support officers and NCOs as well as maneuver platoon leaders and NCOs in effectively and quickly placing indirect suppressing fires on enemy forces. Also, clear triggers ("I cross PL Amy and call target number AB0001") should be identified wherever possible and should take into account maneuver time and fire mission execution time. Formations should take care to ensure that the pace and overall speed of the operation does not disrupt the tempo or synchronization of the operation. Too fast or too slow of a pace can ruin a good tempo, forcing the maneuver element to outpace suppressive fires or leave them out to dry in case of enemy counterattack. Finally, multiple rehearsals should be conducted to emphasis gaps in planning, tempo, and synchronization including all attached assets and enablers.

4. POC for this memorandum is LTC Miseli, Jason at Jason.A.Miseli.mil@mail.mil

JASON A. MISELI
LTC, AR
Commanding

S2

Issue: The Majority of Soldiers were not prepared to deal with friendly or neutral Civilians on the Battlefield.

Discussion: If we have learned anything from the recent conflicts in Iraq and Afghanistan we should have learned that everything we do has 2nd and 3rd order effects. In both conflicts we were generally welcomed by the average citizen. Every citizen we accidently killed, piece of infrastructure we accidently destroyed, or feeling we accidently hurt created a generation of locals who either directly attacked coalition forces or allowed anti-Coalition Forces to operate freely. In addition to not creating enemies, productive civilian engagements can also provide valuable information that can be developed into intelligence that will allow for more successful future operations. The majority of the civilian engagements during platoon certification could have resulted in a stronger future insurgent enemy or at least a missed opportunity to gather information from a willing source. Specific Observations:

Civilians were detained and were kept in stressful positions despite not showing any aggressive behavior.

Soldiers did not know what questions to ask or how to ask follow up questions.

Information received was not reported accurately as it moved up the chain of command.

Civilian body guards to the local pro-American governor were killed by US Soldiers for holding legal weapons in a non aggressive posture.

Recommendation: Role play Civilians on the battlefield at every level to increase tactical questioning capability regardless of who makes contact. Have a PLT SOP for how to handle civilians on the battle field, ie. Escort them to the PL or PSG, have PL or PSG come to them, prepare questions to be asked to all civilians. Define and understand ROE for dealing with legally armed local citizens. Utilize the TRIST Soldier in developing questions and reporting the results.

Issue: TRIST Soldiers were not incorporated into Troop operations effectively.

Discussion: Each Troop utilized their TRIST Soldier in different ways, some of which were more effective than others. In some cases, the TRIST Soldier was not incorporated into the planning process and thus was not knowledgeable about the operation enough to effectively support the Troop commander. The TRIST Soldier is designed to be an asset to the commander by assisting in identifying collection gaps, requesting higher collection to fill gaps, and reporting collected information through the S2 channels. Part of this was a lack of the TRIST Soldier understanding their roll and part of this was a result of a lack of willingness on the part of Troop CPs to permit an outside asset access to the troop process.

Recommendation: The Troop needs to buy into the TRIST process while understanding that the supporting Soldier is also refining their role and identifying ways to add capability without reducing efficiency. At the TRIST Soldier level, training needs to focus on communication procedures and tactical doctrinal terminology. At the Troop level, the TRIST Soldier must be incorporated into Troop planning and be permitted to focus on intelligence support and not treated as an additional body to pull security. Additional responsibilities are expected but it would be best to nest the responsibilities with the TRIST roll. For example, training the TRIST Soldier to battle track and conduct RTO duties will allow the Soldier to maintain situational understanding which will in turn lead to better Intelligence support.

S3

Issue: Incomplete reporting to higher
Discussion: Squadron TOC had to pull information many times for a full report in SALT or SALUTE format.
Recommendation: Troop level radio operators trained on SALT and SALUTE format as standard for information passage. SALT initially, SALUTE after further development.

Issue: Delays in reporting to higher
Discussion: Time OPFOR inject event occurred to initial report sent to Squadron TOC was inconsistent.
Recommendation: Timely and Accurate reporting procedures strictly followed. Do not sit on information; send hourly SITREPs at minimum.

Issue: Only one to two vehicles in each Troop had FBCB2 icons visible
Discussion: If all squadron vehicles are populated on FBCB2, situational awareness of combat / support forces could be attained much more rapidly. Grids would not need to be sent up for vehicles, only dismounted OPs.
Recommendation: Get FBCB2 systems all functioning.

FIRES

Issue: Digital communication
Discussion: Only A Trp was able to communicate with SQDN digitally; therefore most comms were voice, which is NOT BDE CDR's intention.
Recommendation: Possibly more digital communication training, RHC training, or simply practice with all Troops involved.

Issue: Only one digital fire mission
Discussion: Only one digital fire mission was sent to SQDN, again NOT BDE CDR's intent to be completely digital for NTC.
Recommendation: Review digital fire missions and retrain Troop FSOs.

Issue: Soldiers not proficient with AFATDS
Discussion: It was obvious at both the SQDN and Trp level that many Soldiers are rusty or lack knowledge of AFATDS. This made fire missions slow or just plain wrong.
Recommendation: Send Soldiers to an AFATDS refresher course.

Issue: A Trp grid zone identifier incorrect
Discussion: The grid zone identifier was incorrect for all NFAs sent digitally by A Trp, instead of 14RPV all came across as 14RQV. If this was not detected by FSE, the NFAs would be invalid and not protect the proper units.
Recommendation: Troubleshoot the AFATDS system with all Troops and look for discrepancies.

Issue: Trp level Fire Support products
Discussion: Most Trp level Fire Support products were not shared with SQDN before the Troops began training like requested in the Annex D. The plans could not be reviewed for recommendations or corrections, and SQDN was unaware of the Troops fires plan.

Recommendation: Review with and retrain Troop FSOs.

Issue: TGTs sent as free text
Discussion: Only A Trp sent planned targets digitally, and that was done as a free text message which had to be manually entered into AFATDS. This is a potential human error issue if TGTs are entered incorrectly by operator.
Recommendation: Train Troop fire support teams.

Issue: AFATDS does not talk to CPOF
Discussion: The AFATDS system does not currently talk to CPOF sytem which means we need to manually enter all graphic control measures allowing for human error and wasting hours on work completed on another system already.
Recommendation: I have already discussed this with SIGO, he and SFC Higgins are looking into it.

S4 PLT CERT AAR Comments

Issue: Use of the Admin and Logistics Net
Discussion: The A&L net was not utilized initially during the Platoon Certification. The Troops used other Squadron nets to report admin and logistic radio traffic. This caused important mission command nets to be occupied with logistic reports. The lack of use of the A&L net also resulted in some sustainment nodes loosing situational awareness on the battlefield. For example, medical and maintenance assets missed important radio traffic that was sent via other squadron nets instead of on the A&L net.
Recommendation: All Admin and Logistics radio traffic will be conducted on the A&L Net. Squadron Mission Command nodes must enforce use of the A&L net.

Issue: BCS3
Discussion: The BCS3 was not effectively utilized during Platoon Certification. The S4 personnel assigned to report on the BCS3 system have a limited knowledge of the system. The BCS3 will be the primary means of reporting Yellow 2 reports to the BDE at Iron Horse Rampage and the National Training Center. All personnel in the ALOC must have a basic working knowledge of the BCS3 and each member of the S4 shop must be trained to operate the BCS3 system.
Recommendation: All S4 Soldiers will attend the BCS3 class to gain reporting proficiency. The S4 shop will set up and operate the BCS3 system in the motor pool during garrison operations and use the system to conduct logistics reports to BDE. In addition to daily garrison BCS3 operations, the S4 shop will participate in multiple CPXs with HHT to gain proficiency.

Issue: Yellow 2 Report Submission
Discussion: The Troops did not submit Yellow 2 reports on time during the Platoon Certification. Yellow 2 reports were due to Squadron at 0600 and 1800 daily. Troops initially did not submit Yellow 2 reports on the Squadron A&L net which led to multiple attempts by the CTCP to contact Troops for Yellow 2 reports. Lack of timely Yellow 2 reports can result in inaccurate classes of supply forecasts for Troop logistics.

Recommendation: All Yellow 2 reports will be submitted on time per the published Squadron SOP. If a Troop is unable to comply with the published timeline, the Troop will come up on the net and ask for an extension.
Issue: Squadron Yellow 2 Format
Discussion: The Squadron used the BDE Yellow 2 format during the Platoon Certification. The BDE format contains many detailed categories that do not apply to a Cavalry Squadron. This resulted in the Yellow 2 report having many unused categories and not displaying the pertinent Yellow 2 data in the ALOC.
Recommendations: Streamline the Squadron Yellow 2 format to only reflect applicable categories for a Cavalry Squadron. This will allow the Troops to submit a more refined Yellow 2 that is applicable to the Cavalry Squadron. For Squadron Yellow 2, the CTCP will utilize internal tracking boards displaying Class I/III/V/Medics/Maintenance to better facilitate operations.

Issue: Troop LOGPAC Operations

Issue: The Troops had issues conducting LOGPAC operations with D FST. Terrain selected for LOGPAC operations did not facilitate the wheeled vehicles in the Support Troop. The restrictive terrain selected for the LOGPAC caused D FST to have issues conducting link up and coordination with the Troops and caused a delay in the Troop timeline. Troops also need to adhere to a strict timeline and complete the LOGPAC in a timely manner. Failure to adhere to established timelines for the LOGPAC caused several operations to be delayed.

Recommendation: Troops conduct CSS and LOGPAC rehearsals to facilitate coordination with D FST. This will allow troops to select terrain for LOGPAC operations that is feasible for D FST to conduct LOGPAC and allow the LOGPAC to be completed in a timely manner.

OVERALL OBSERVATIONS OF 6 BRADLEY PLT

Issue: Dismounted Security
Discussion: The intent for PLT cert was to exercise the use of as many Bradleys as possible. This resulted in the number of dismounts being very low since the PLTs were not filled to the full MTOE. This resulted in very low situation awareness since the crews did not tend to dismount for local security, especially in security operations such as a screen. With current worldwide proliferation of man portable weapons capable of penetrating armor an emphasis must be placed on dismounted security.
Recommendation: Increase awareness and increase training on use of dismounts in conjunction with mounted operations

Issue: Audio signature of Bradley
Discussion: The Bradley is a loud vehicle. The OPFOR was always able to determine when, and from where the PLTs were approaching.
Recommendation: Once again dismounted operations are necessary when conducting deliberate and stealthy operations.

Issue: Bradleys are extremely maneuverable over rough terrain
Discussion: The Bradleys consistently were able to maneuver in areas that the 1151s would not have been able to.

Decision Support Matrix Screen

DP	Enemy Conditions (& How Determined)	Friendly Conditions	Action	Location
1	Enemy conducting counter-attack disrupted	X TRP screen along PL Isabel	Execute BHO	IVO PL Isabel
2	Enemy able to penetrate Screen	X TRP reached displacement criteria	Reinforcement of X TRP by available TRP	IVO PL Fran
3	Employment of Chemical attack	X TRP screen along PL Isabel	O/O delay to conduct BHO and conduct tactical DECON	PL Fran-PL Grace
4	Neutralization of a friendly section	One section neutralized	Reinforcement of X TRP by available TRP	IVO PL Isabel

Tab D (PIR_SIR Matrix & NAI Overlay) of Annex B (Intelligence) to SCREEN FRAGO to Operation Order 14-03 (Operation Fournet)

PIR	SIR	INDICATOR	DP	NAI	START	STOP	ORGANIC				BDE AND HIGHER				
							X TRP	Y TRP	Z TRP	RAVEN	SHADOW	HUMINT	SIGINT	Q36	EWO
1. What is the composition/disposition of the 32nd of the 111th?	Where is the location of the 32nd C2?	Presence of command variant BRDM-2U.	1,2	17013, 01003			X		X	X	R	R			
		High traffic of encrypted comms, regarding C2.											R		R
		Presence of vehicles with additional communication transmitters.					X		X	X	R	R	R		R
		Presence of SA-18D in defensive posture.					X		X	X	R				
	How will the 32nd advance to the West and with what purpose?	Routes that are large enough to support T-80 tanks.	1,2	17003, 17004, 17005, 17006, 17007			X		X	X	R	R			
		Forward security elements of the 32nd moving west.					X		X	X	R	R	R		
		Routes with limited choke points.									R	R			
	How will the 32nd attempt to bypass U.S. troops to reconsolidate with the rest of the 111th?	Identification of routes that allow north-south mobility.	1,2	17001, 17002			X			X	R	R			
		Fording locations with 36 inches of water or less.					X	X				R			
		Bridging assets moving toward Cowhouse creek from the 111th BTG.						X		X	R	R			
		Enemy vehicles moving south and west towards Cowhouse creek.					X			X	R	R			
	What is the current location of the 32nd T-80 tanks?	Visual acquisition of Tanks.	1,2	17004, 17005, 17006, 17007, 17014, 17013, 01003			X		X	X	R	R			
		Audible signatures from Heavy Armored vehicles.					X		X	X		R			
		location of fuelers and logistic vehicles.					X		X	X	R	R	R		
	Is the 32nd Capable of offensive operations?	Effective communications between geographically seperated elements in the central cooridor.	1,2	17001, 17002,17003, 17004, 17005, 17006, 17007, 17013, 01003									R		
		Patrols conducting route reconnasaince.						X		X	R	R	R		
		Presence of operating fuelers and logistic vehicles.						X		X	R	R	R		
		Equipment status reports to the 111th.											R		
2. What is the composition/disposition of the remnants of the 33rd/36th?	What is the current location of the 36th/33rd C2 elements?	Presence of command variant BRDM-2U.	1,2	17011, 01001, 01002				X		X	R	R			
		Presence of vehicles with additional communication capabilities.						X		X	R	R	R		R
		High traffic of encrypted comms, regarding C2.											R		
	What is the current location of the 36th/33rd armored recon elements?	Presence of BRDMs/BMPs operating forward of assault force.	1,2	17009, 17010, 01001, 01002				X		X	R	R	R		
		Communications reporting U.S. activity.											R		
		3-5 person dismounted OPs operating forward of templated positions						X		X	R	R			
	Where are T-80 tanks operating with the elements of the 36th/33rd?	Audiable signatures from Heavy Armored vehicles.	1,2	17009, 17010, 01001, 01002				X							
		location of fuelers and logistic vehicles.						X		X	R	R	R		
		Destroyed Vegitation and Tank Tracks.						X		X	R	R			
		Presence of T-80 Tanks.						X		X	R	R			

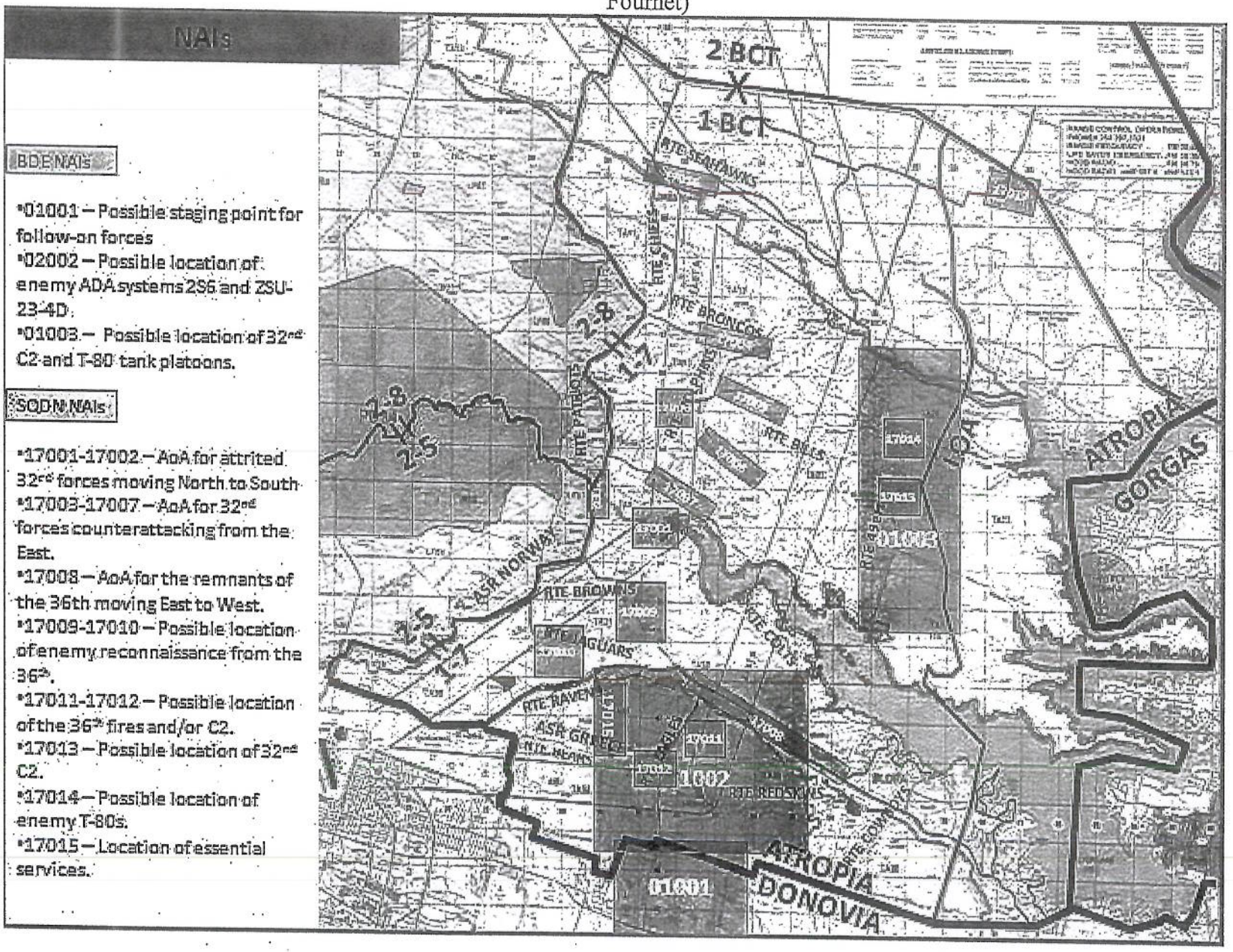
Tab D (PIR_SIR Matrix & NAI Overlay) of Annex B (Intelligence) to SCREEN FRAGO to Operation Order 14-03 (Operation Fournet)

PIR	SIR	INDICATOR	DP	NAI	START	STOP	ORGANIC				BDE AND HIGHER				
							X TRP	Y TRP	Z TRP	RAVEN	SHADOW	HUMINT	SIGINT	Q36	EWO
3. What is the composition/disposition of the 111th BTG assets	What is the current location of the 111th C2 elements?	Presence of command variant BRDM-2U.	1,2	01001, 01002, 17012, 17011				X		X	R	R			
		Presence of vehicles with additional communication transmitters.						X		X	R	R	R		
		High traffic of encrypted comms regarding C2											R		
		Presence of ADA system 2S6.						X		X	R		R		R
	What is the current location of the 111th fires/ADA?	Electronic signature of counter-battery systems.	1,2, 3	01002, 01004, 01005, 17012, 17011									R		R
		Locations of IDF POOs.												R	
		Communication regarding IDF/ADA targetting.											R		
		Visual identification of 2S19D or 63D 107mm MRL						X		X	R	R			
		Visual identification of 2S6 or ZSU-23-4D						X		X	R	R			
		Electronic signature of ADA radar													R
	What is the location of 111th AT assets?	BRDM with with AT-5 ATGM mounted on top(9P148D)	1,2	17009, 17010, 01002				X		X	R				
		Visual acquisition of a towed AT-5 system (2A45MD)						X		X	R				
		SACLOS Laser signature.											R		R
		logistic systems for loading of AT missile systems						X		X	R				
	What is the location of 111th UAS asset and control system?	Identifcation of air field or landing strip.		ALL				X		X	R				
		Small unmanned arial assets in our air space.					X	X	X						R
		Signals associated with UAS control and transmition.											R		R
	What is the condition of 111th EW capabilities?	Disruption in friendly radio communications.		ALL			X	X	X				R		R
		Disruption in friendly GPS capabilties.					X	X	X			R			R
		Presence of enemy smoke obscuration.					X	X	X	X	R	R			
4. How has the recent conflict affected the civilian population and infrastructure?	What main routes are experiencing heavy IDP traffic?	IDP camps concentrated near major MSRs.		17001, 17002,17003, 17004, 17005, 17006, 17007, 17013, 17016,			X	X	X	X	R	R			
		High volume of IDPs moving along routes away from populated areas.					X	X	X	X	R	R			
	What is the current condition of routes throughout the AO?	Damage to the bridge along route Patriots.		17001, 17002,17003, 17004, 17005, 17006, 17007, 17014, 17016,			X	X		X	R	R			
		Washed out areas that limit freedom of maneuver.					X	X	X	X	R	R			
		Obstacles or destroyed vehicles along routes.					X	X	X	X	R	R			
	How have essential services been affected by military operations?	Lack of electricity or rolling blackouts.		ALL			X	X	X			R			
		Abandoned or damaged hospitals.					X	X	X	X	R	R			
		Creation of crude field medical services.					X	X	X	X	R	R			
		Presence of NGOs.					X	X	X			R			
		Absence of emergency services.					X	X	X			R			
		Backed-up sewage systems.					X	X	X			R			
		Damaged wells.					X	X	X			R			

Tab D (PIR_SIR Matrix & NAI Overlay) of Annex B (Intelligence) to SCREEN FRAGO to Operation Order 14-03 (Operation Fournet)

PIR	SIR	INDICATOR	DP	NAI	START	STOP	ORGANIC				BDE AND HIGHER				
							X TRP	Y TRP	Z TRP	RAVEN	SHADOW	HUMINT	SIGINT	Q36	EWO
5. How will the enemy launch an offensive from the East?	How will the 32nd attack into 1-7 AO?	Task organization of a platoon size recon.	1,2	17013, 17014			X			X	R				
		Consolidation of platoon elements into a more offesive capable force.					X			X	R		R		
		Presence of reconaisance forces conducting route recon.					X			X	R	R	R		
	Is the 36th preparing to conduct a seizure of the Cowhouse Creek bridge(K1)?	Movement to a TAA in preparation for offensive operations	1,2	17002, 17001, 17009, 17008				X		X	R	R	R		
		Enemy conducting area reconaissance of K1					X	X		X	R		R		
		Main effort advancing west, 4-8km behind the reconaissance, towards K1.					X	X		X	R	R	R		
	When will the elements of the 111th be capable of offensive operations?	Communication regarding unit readiness	1,2	ALL									R		
		Communication requesting fire support and other operation coordination.											R		
		Operation staging and innitiation.					X	X	X	X	R	R	R		
	How will the 36th attack into 1-7 AO?	Movement to a TAA in preparation for offensive operations.	1,2	17009, 17010, 17015, 17008				X		X	R	R	R		
		Task organization of consolidated assets into disruption(recon) and assault force.						X		X	R		R		
		AoA being utilized by the 36th BN recon elements.						X		X	R	R	R		

Tab D (PIR_SIR Matrix & NAI Overlay) of Annex B (Intelligence) to SCREEN FRAGO to Operation Order 14-03 (Operation Fournet)



Receipt of Mission

Problem Statement:

Planning Considerations:

Mission:

Enemy:

Time:

Terrain:

Troops:

Civil Considerations:

As of: _____

Mission Analysis Guidance – Draft Commander's Intent

Expanded Purpose:

Key Tasks:

End State:
Friendly:

Enemy:

Terrain:

Civil:

As of: _____

COA Guidance – Security Operations (1 of 3)

Focus of Security Operations:

Orientation of Operation:

Protected Force, Area or Facility:

Forms of Security:

Tempo of Security Operations:

Enemy COA for planning:

CCIR:

LTIOV:

As of: _____

COA Guidance – Reconnaissance Operations (2 of 3)

Planning Timeline and Type of Order:

Movement Techniques:

Formations:

Recon Methods:

Management Method:

Duration of Operations:

Early Movement Required/Authorized:

Priority for Mobility, Counter-mobility and Survivability:

IIA Themes and Messages:

Tactical Risk:

As of: _____

COA Guidance – Engagement/Disengagement/Displacement Criteria (3 of 3)

Engagement Criteria:

Guidance for Actions on Contact (by form):

Battle Handover Criteria

Displacement/Disengagement Criteria:

Attack Guidance for Fires:

Priority of Fires:

Fire Support Control Measures:

Weapons Control Status:

As of: _____

COA Guidance – Revised Commander's Intent (3 of 3)

Expanded Purpose:

Key Tasks:

End State:
Friendly:

Enemy:

Terrain:

Civil:

As of: _____

PIR	SIR	INDICATOR	DP	NAI	START	STOP	ORGANIC				BDE AND HIGHER				
							X TRP	Y TRP	Z TRP	RAVEN	SHADOW	HUMINT	SIGINT	Q36	EWO
1. What is the composition/disposition of the 32nd of the 111th?	Where is the location of the 32nd C2?	Presence of command variant BRDM-2U.	1,2	17013, 01003			X		X	X	R	R			
		High traffic of encrypted comms, regarding C2.											R		R
		Presence of vehicles with additional communication transmitters.					X		X	X	R	R	R		R
		Presence of SA-18D in defensive posture.					X		X	X	R				
	How will the 32nd advance to the West and with what purpose?	Routes that are large enough to support T-80 tanks.	1,2	17003, 17004, 17005, 17006, 17007			X		X	X	R	R			
		Forward security elements of the 32nd moving west.					X		X	X	R	R	R		
		Routes with limited choke points.									R	R			
	How will the 32nd attempt to bypass U.S. troops to reconsolidate with the rest of the 111th?	Identification of routes that allow north-south mobility.	1,2	17001, 17002			X			X	R	R			
		Fording locations with 36 inches of water or less.					X	X				R			
		Bridging assets moving toward Cowhouse creek from the 111th BTG.						X		X	R	R			
		Enemy vehicles moving south and west towards Cowhouse creek.					X			X	R	R			
	What is the current location of the 32nd T-80 tanks?	Visual acquisition of Tanks.	1,2	17004, 17005, 17006, 17007, 17014, 17013, 01003			X		X	X	R	R			
		Audible signatures from Heavy Armored vehicles.					X		X	X		R			
		location of fuelers and logistic vehicles.					X		X	X	R	R	R		
	Is the 32nd Capable of offensive operations?	Effective communications between geographically seperated elements in the central cooridor.	1,2	17001, 17002,17003, 17004, 17005, 17006, 17007, 17013, 01003									R		
		Patrols conducting route reconnasaince.						X		X	R	R	R		
		Presence of operating fuelers and logistic vehicles.						X		X	R	R	R		
		Equipment status reports to the 111th.											R		
2. What is the composition/disposition of the remnants of the 33rd/36th?	What is the current location of the 36th/33rd C2 elements?	Presence of command variant BRDM-2U.	1,2	17011, 01001, 01002				X		X	R	R			
		Presence of vehicles with additional communication capabilities.						X		X	R	R	R		R
		High traffic of encrypted comms, regarding C2.											R		
	What is the current location of the 36th/33rd armored recon elements?	Presence of BRDMs/BMPs operating forward of assault force.	1,2	17009, 17010, 01001, 01002				X		X	R	R	R		
		Communications reporting U.S. activity.											R		
		3-5 person dismounted OPs operating forward of templated positions						X		X	R	R			
	Where are T-80 tanks operating with the elements of the 36th/33rd?	Audiable signatures from Heavy Armored vehicles.	1,2	17009, 17010, 01001, 01002				X							
		location of fuelers and logistic vehicles.						X		X	R	R	R		
		Destroyed Vegitation and Tank Tracks.						X		X	R	R			
		Presence of T-80 Tanks.						X		X	R	R			

PIR	SIR	INDICATOR	DP	NAI	START	STOP	ORGANIC				BDE AND HIGHER				
							X TRP	Y TRP	Z TRP	RAVEN	SHADOW	HUMINT	SIGINT	Q36	EWO
	What is the current location of the 111th C2 elements?	Presence of command variant BRDM-2U.	1,2	01001, 01002, 17012, 17011				X		X	R	R			
		Presence of vehicles with additional communication transmitters.						X		X	R	R	R		
		High traffic of encrypted comms regarding C2											R		
		Presence of ADA system 2S6.						X		X	R		R		R
	What is the current location of	Electronic signature of counter-battery systems.	1,2,3	01002, 01004, 01005, 17012,									R		R
		Locations of IDF POOs.												R	
		Communication regarding IDF/ADA targetting.											R		

3. What is the composition/dispositi on of the 111th BTG assets	the 111th fires/ADA?	Visual identification of 2S19D or 63D 107mm MRL	1,2, 3	17011					X		X	R	R						
		Visual identification of 2S6 or ZSU-23-4D							X		X	R	R						
		Electronic signature of ADA radar																	R
	What is the location of 111th AT assets?	BRDM with with AT-5 ATGM mounted on top(9P148D)	1,2	17009, 17010, 01002					X		X	R							
		Visual acquisition of a towed AT-5 system (2A45MD)							X		X	R							
		SACLOS Laser signature.													R		R		
		logistic systems for loading of AT missile systems							X		X	R							
	What is the location of 111th UAS asset and control system?	Identifcation of air field or landing strip.		ALL					X		X	R							
		Small unmanned arial assets in our air space.																	R
		Signals associated with UAS control and transmition.			X	X	X								R		R		
	What is the condition of 111th EW capabilities?	Disruption in friendly radio communications.		ALL	X	X	X						R		R		R		
		Disruption in friendly GPS capabilities.			X	X	X						R						R
		Presence of enemy smoke obscuration.			X	X	X	X	X	X	X	R	R						
4. How has the recent conflict affected the civilian population and infrastructure?	What main routes are experiencing heavy IDP traffic?	IDP camps concentrated near major MSRs.		17001, 17002,17003, 17004, 17005, 17006, 17007, 17013, 17016, 17017	X	X	X	X	X	X									
		High volume of IDPs moving along routes away from populated areas.			X	X	X	X	R	R									
	What is the current condition of routes throughout the AO?	Damage to the bridge along route Patriots.		17001, 17002,17003, 17004, 17005, 17006, 17007, 17014, 17016, 17017	X	X		X	R	R									
		Washed out areas that limit freedom of maneuver.			X	X	X	X	R	R									
		Obstacles or destroyed vehicles along routes.			X	X	X	X	R	R									
	How have essential services been affected by military operations?	Lack of electricity or rolling blackouts.		ALL	X	X	X			R									
		Abandoned or damaged hospitals.			X	X	X	X	R	R									
		Creation of crude field medical services.			X	X	X	X	R	R									
		Presence of NGOs.			X	X	X			R									
		Absence of emergency services.			X	X	X			R									
		Backed-up sewage systems.			X	X	X			R									
		Damaged wells.			X	X	X			R									

PIR	SIR	INDICATOR	DP	NAI	START	STOP	ORGANIC				BDE AND HIGHER				
							X TRP	Y TRP	Z TRP	RAVEN	SHADOW	HUMINT	SIGINT	Q36	EWO
5. How will the enemy launch an offensive from the East?	How will the 32nd attack into 1-7 AO?	Task organization of a platoon size recon.	1,2	17013, 17014			X			X	R				
		Consolidation of platoon elements into a more offesive capable force.					X			X	R		R		
		Presence of reconaisance forces conducting route recon.					X			X	R	R	R		
	Is the 36th preparing to conduct a seizure of the Cowhouse Creek bridge(K1)?	Movement to a TAA in preparation for offensive operations		17002, 17001, 17009, 17008				X		X	R	R	R		
		Enemy conducting area reconaissance of K1					X	X		X	R		R		
		Main effort advancing west, 4-8km behind the reconaissance, towards K1.					X	X		X	R	R	R		
	When will the elements of the 111th be capable of offensive operations?	Communication regarding unit readiness	1,2	ALL									R		
		Communication requesting fire support and other operation coordination.											R		
		Operation staging and innitiation.					X	X	X	X	R	R	R		
	How will the 36th attack into 1-7 AO?	Movement to a TAA in preparation for offensive operations.	1,2	17009, 17010, 17015, 17008				X		X	R	R	R		
		Task organization of consolidated assets into disruption(recon) and assault force.						X		X	R		R		
		AoA being utilized by the 36th BN recon elements.						X		X	R	R	R		