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Initial Impressions Report

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Center for Army Lessons Learned
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Introduction

The Center for Army Lessons Learned (CALL) deployed an army officer from Fort Leavenworth, Kansas, with the 3rd Brigade, 2nd Infantry Division, Stryker Brigade Combat Team (SBCT) 1 during Operation Arrowhead Blizzard, the occupation of the brigade's Forward Operations Base (FOB) Pacesetter, vic Samarra, Iraq.

CALL acknowledges and thanks the officers, non-commisioned officers (NCOs), and Soldiers of SBCT 1 who not only tolerated extra "sets of eyes" in their units, but also supported the collection efforts. The access to information and other support they provided was invaluable and much appreciated.

CALL has collected observations and developed lessons learned on Army Transformation in digital units from the first Army Warfighter Experiment (AWE) in 1997, Joint Contingency Force Advanced Warfighter Experiment (JCF AWE) in 2000, DCX I in 2001, DCX II in 2002, Millennium Challenge 2002 (MC02), Exercise Arrowhead Lighting 2 SBCT 1 OE in 2003, and most recently JRTC Rotation 04-05 Lancer Storm SBCT 2 MRE. This report is the eighth in a series on Army Transformation, its lessons learned, and tactics, techniques, and procedures (TTP).

CALL executed this mission primarily by direct collection from a deployed (embedded) army officer using CALL's observation sheets. Through the efforts of direct collection, CALL collected numerous TTP, observations, and lessons learned during the operation, for analysis and cataloging into CALL's databases. CALL also acknowledges and thanks the brigade for reviewing this report and for their contributions in making it a better product.

CALL encourages you to visit the CALL archives for a compilation of observations on this and other Initial Impressions Reports (IIR) and lessons learned reports. To request information, contact CALL at http://call.army.mil. On the CALL main web page, select "Request Information on a CALL product."

Executive Summary

This Initial Impressions Report (IIR) focuses on issues, observations, insights/lessons learned, doctrine, organization, training, materiel, leadership and education, personnel, and facilities (DOTMLPF) implications/recommendations, and tactics, techniques and procedures (TTP) observed during the brigade's execution of Operation Arrowhead Blizzard commencing on occupation of their Forward Operations Base (FOB) Pacesetter, vic Samarra, and finishing upon preparation for movement north to relief in place/transfer of authority (RIP/TOA) with 101st ABN (AASLT) in Mosul. Some TTP are mentioned, but at this time can only be correlated with the current operation. The content of this report describes actual operations and in some cases is not in concert with the published organizational and operations concept plan (O&O). Since many of the observations were made at the battalion and below level, there may be some conflicting information or views which allow the reader to better assess the issue and visualize possible workarounds.

Upon arrival in Kuwait the brigade began reception, staging, onward-movement, and integration (RSOI) operations and performed all tasks ahead of schedule. The brigade conducted normal tasks associated with the RSOI process as well as slat armor install, contractor support, and digital integration The brigade used the military decision-making process (MDMP) in preparing for the mission, which focused primarily on combat operations rather than stability and support operations. A portion of the RSOI training incorporated lessons learned from those units already in theater. The brigade operated in an area of operations (AO) of 10,000km with one infantry battalion detached which caused some support and signal structure challenges.

The mission of CALL was to collect observations, insights/lessons learned, and TTP from the operation, input them into CALL's databases, then write and publish written products to share these insights/lessons with future SBCT and appropriate Army agencies. From the information collected, CALL organized the observations, discussion, insights/lessons learned, DOTMLPF implications/recommendations, and TTP into the following chapters:

Summary of Key Observations or Lessons Learned

By nature or training, when observing training exercises or actual operations, military leaders usually acknowledge the things going right, but tend to focus more on what needs improvement so units can learn and improve their combat readiness, and the lessons and sound TTP can be passed on to others. Although advised to also "look for the good," the preponderance of the observations and lessons learned by CALL's CAAT fall into the category of what needs to be improved (although the unit did many things right). Below are some of the key observations or lessons learned by doctrine, organization, training, materiel, leadership and education, personnel, and facilities (DOTMLPF) categories. Further discussion of these key observations and the remaining observations and lessons learned are contained within the individual chapters.

Doctrine (no key observations noted)

Organization

- **Interrogations:** Initially, the battalions achieved limited success with interrogations. The battalion's S2 section had limited success in extracting information from detainees through questioning and relied heavily on evidence provided by the rifle companies to complete the detention packets for processing into the brigade's detention facility. Although the battalion initially operated without a tactical human intelligence (HUMINT) team, the attachment of a HUMINT team significantly increased the battalion's ability to execute interrogations and improved the results of the interview and interrogation process. (Topic D, Section 2, Chapter 1)
- **Translator support:** The reconnaissance, surveillance, and target acquisition (RSTA) squadron was not allocated enough translators to properly conduct its mission. The nature of intelligence gathering requires at least a translator for each HUMINT team. The squadron does not operate its organic HUMINT operators as a tactical HUMINT team, but as embedded in their respective reconnaissance platoons, as per the modification table of organization and equipment (MTOE). In addition to the HUMINT operators, all reconnaissance Soldiers are trained in human intelligence gathering. The nature of operations during Operation Cyclone Warhorse required a translator for each Stryker reconnaissance variant (RV) in order to maximize the HUMINT collection capabilities. (Topic C, Section 3, Chapter 1)
- **Long distance communication internal/higher:** The RSTA squadron operated over nearly the entire brigade battlespace and had difficulty in maintaining fluid frequency modulation (FM) communication with the brigade and with all troops. There was one tactical satellite (TACSAT) net allocated to the brigade and no dedicated TACSAT for squadron command or operations and intelligence (O&I) nets. Therefore, the brigade relied heavily on FM communication and did not fully utilize the TACSAT net for command and control (C2) or O&I. In addition, TACSAT radios are authorized only at the troop command post (CP) and squadron CP level. Convoys have no dedicated long range communication capability. The squadron successfully used PRC 148 radios in TACSAT mode using extra Spitfire TACSAT antennas. The brigade standard operating procedure (SOP) requires video teleconferencing (VTC) provided by Initial KU Band Satellite System (IKSS) for nightly commander's update. This system continually had problems

with maintaining connectivity and had a limited range, both causing for a slow data rate and an extremely slow commander's update. The brigade requires an additional TACSAT authorization and PRC 148 radios with all platoons (one per vehicle), with TACSAT antennas, to support long distance communications for medical evacuation (MEDEVAC) and C2. The TACSAT radios can also be used to conduct the commander's updates. (Topics E, F, and G, Section 3, Chapter 1)

- **Air cavalry liaison officer:** The air cavalry liaison officer at Airborne Battalion Combat Team (ABCT) headquarters proved to be the essential link between the task force (TF) tactical operations center (TOC) and brigade headquarters. Extended distances between the ABCT and TF TOC often prevented key leadership from attending battle update briefs (BUB) and limited face-to-face contact between TF and brigade command groups and staff officers. Without constant communication with the ABCT TOC through the cavalry LNO, parallel planning and timely reactions to operational developments would have been extremely difficult. The lack of FM communication between the TF and ABCT TOC, and unreliable digital nonsecure voice terminals (DNVT), made My Internet Relay Chat (MIRC) over Secret Internet Protocol Router Network (SIPRNET) the most effective means of real time communication. This medium has proven to be reliable, user-friendly, and allows the rapid exchange of time-sensitive operational data, as well as updates from brigade staff processes, facilitating parallel planning. The cavalry LNO was especially critical in the planning and execution of UH60 C2, logistics, and battlefield circulation flights. The unique crew management and maintenance requirements for utility lift helicopters led to an additional LNO positioned at the SBCT headquarters and the establishment of a UH60 pilot LNO at TF headquarters. Additionally, an extremely challenging aspect of conducting combat operations in support of SBCT was the availability of only ten UH60 aircraft for brigade operations. Throughout operations in Samarra, these aircraft were attached to 4th Aviation Brigade, 4th Infantry Division (4ID), which further complicated the brigade's ability to schedule and control flights from the TF TOC. A standard aircraft request to 4ID for four aircraft was established, two for damage assessment/assessment recovery team (DA/ART) and two for nonstandard casualty evacuation (CASEVAC). Any additional UH60 missions requested by brigade had to be requested through 4th Aviation Brigade for approval. This requirement greatly reduced rapid support to the SBCT. TF 3-17 regained control of the ten aircraft prior to moving to AO NORTH. While this decision improved the brigade's ability to plan missions and provide command and control for these aircraft, the brigade was challenged with supporting all utility lift operations with ten aircraft in an area of operations that the 101st Air Born Division (ABN) previously supported with over one hundred UH60s. With two aircraft in phase maintenance at any given time and two at the National Military Command (NMC) for unscheduled maintenance, the brigade found themselves supporting C2, DA/ART, CASEVAC, and logistics/personnel missions with only six aircraft. Additionally, with ten crews, providing 24-hour coverage for C2, DA/ART, and CASEVAC operations further limited the brigade's ability to support other operations. (Topics L and M, Section 4, Chapter 1)
- **Ground tactical operations (TAC) vs. aerial TAC:** Air cavalry operations during Operation Arrowhead Blizzard clearly demonstrated the need for a ground TAC forward. The decentralized nature of operations around Samarra initially led the brigade to opt against a ground TAC to a centralized TOC, employing the task force commander or S3 as

an aerial TAC (in an OH58D) in support of the SBCT main effort. While this was effective during decisive operations, OH58D flight times and crew management prevented command and control of 24-hour operations. Additionally, the TOC was unable to establish FM communications with aircraft flying missions on the objective due to the distance back to the TF TOC. This prevented the TOC from tracking missions in real time, making pilot debriefs following missions or relayed information from the SBCT TOC the only source of situational understanding for the command group on the ground. While troop commanders were more than capable of coordinating with ground commanders, the slow information flow to the TOC made it more difficult to anticipate requirements to launch the quick reaction force (QRF) or to brief pilots prior to launching toward the objective. After a decision to collocate the TAC with SBCT headquarters, which resulted in similar limitations, the decision was made to push the TAC forward, collocating with 1/23 Infantry TAC, just east of Samarra. This move allowed constant FM communication with aircraft on the objective. Additionally, the S3, S3Air, and S2 were able to move into the city with infantry vehicles, allowing more effective C2 of aircraft during operations facilitating the planning of future operations and better situational understanding of Samarra. (Topic N, Section 3, Chapter 1)

- **Urban operations:** Close air support (CAS) flew a 24/7 "cap" over the town of Samarra for the initial stages of the operation and later reduced support to coverage through hours of darkness, and on request for daylight ops. Rules of engagement (ROE) made the use of CAS in an urban environment during a post-war, low-intensity conflict phase extremely problematic. CAS aircraft was being used in a reconnaissance role, a role they had limited capability to perform with the targeting systems they carried. Ground commanders were becoming accustomed to requesting CAS when what they really wanted was reconnaissance or intelligence, surveillance, and reconnaissance (ISR). In an environment where kinetic effects are highly unlikely, a re-look of the force mix is warranted to ensure the desired effects are achieved by air support. A shift in focus from lethal CAS platforms to non-lethal ISR assets is intuitive given the current and forecast ground situation, most especially for urban operations.
- The use of the air ground integration (AGI) for the rotary Kiowa Warrior (KW) was very successful in the urban operations.

Training

- **Raids/cordon and searches:** The battalions conducted a number of planned raids/cordon and searches and numerous spontaneous raids (site exploitations) resulting from actionable intelligence on the ground. Most raids led to the apprehension of personnel or discovery of caches. Of note, the incorporation of attached engineers and the massing of minesweepers during cordon and searches (sappers sweep an area, while the infantry secure and dig) proved to be an extremely effective TTP. (Section B, Section 2, Chapter 1)
- **HUMINT operations to develop direct attack targets:** The RSTA squadron developed a plan to refine the target files by emphasizing both organic and attached HUMINT assets. Due to the time available to conduct operations, the initial plan was limited from the original five days to just twenty-four hours. Manage time to allow HUMINT target refinements when developing deliberate target attacks. (Topic A, Section 3, Chapter 1)

- **MOUT aviation operations:** TTP practiced and developed at home station were not realistic for the environment the brigade actually entered. The MOUT training facility at Fort Drum provided some feel of a MOUT environment, but lacked realism for aerial platforms due to the size of the MOUT site. TTP was developed through a compilation of aviation units forward in Iraq and TTP from other continental United States (CONUS) aviation units. When the TF began flying missions in Samarra, they planned on utilizing a stand-off distance from the city to facilitate use of the mast-mounted sight (MMS). This method quickly proved to be inefficient. Flight directly over the city at speeds of not less than 40-60kts proved to be the best option. The sight was effective outside the city; however, for direct and immediate visual support for the infantry on the ground, the old scout techniques worked better. Also, the use of the M4 for immediate action, in addition to the .50cal and 2.75" rockets, was more effective than the Hellfire. Requests to identify vehicles within the city were routine; however, identifying a specific vehicle in a congested MOUT environment with many similar vehicles was extremely difficult. During the cordon and searches within the city, the TF provided nearly continuous support during each operation. The SBCT developed a numbering system for each structure within Samarra. For ground elements this was optimal, but was less than desirable for air cav. The threat of surface to air fires and other threat engagements was a reality over Samarra, Balad, Ad Diluhua, and a host of other small villages. TTP of varying flight paths, altitudes, and formations, coupled with the use of the ALQ-44, greatly reduced exposure to enemy attacks. (Topic O, Section 3, Chapter 1)
- **Convoy escort:** Convoy escort missions were flown in support of all brigade convoys from FOB Navistar to Pacesetter. Each marching unit had a United States Air Force (USAF) joint tactical air controller (JTAC) team aligned in the serial with command element/fire support officer (FSO) to facilitate clearance of fires if necessary. With civilian vehicles mixed in along the route, identifying threat vehicles from non-combatant vehicles was virtually impossible prior to the initiation of a hostile act. Aircraft were able to identify potential threats to convoys (vehicles stopped along the roadside or near chokepoints such as intersections or bridges) but unless a vehicle or its occupants were caught or viewed committing a hostile act, CAS could not intervene and stop an ambush or improvised explosive device (IED) attack. It was virtually impossible to identify and IED using CAS assets. As convoys traverse various unit boundaries, clearance authority for indirect fires changed. Clearing fire out of sector during a tactical road march (TRM), given the restrictive ROE and limitation in communications, was virtually impossible. A possible alternative to supporting the ground convoy escort mission in a low-intensity restrictive ROE environment would be the use of systems with "direct fire" capability such as rotary wing aviation, for which the local commander or aircraft commander holds clearance authority. (Topic A, Section 4 Chapter 2)
- **Intelligence battlefield operating system (IBOS) functions:** The planning of the IBOS functions (operations, collection management, targeting, analysis/processing and production, and dissemination) were not synchronized, involved in the planning process, or aware of the planning among the other functions. Since the intelligence cycle is an integrated function, a disparity in planning awareness among the functions weakens the cycle. Planning for near, mid-range, and long-range IBOS operations must be conducted regularly, deliberately, and conscientiously, with the goal of synchronizing the IBOS. (Topic A, Section 1, Chapter 4)

- **S2 communications:** The brigade S2 section did not have voice communications or Force XXI battle command brigade and below (FBCB2) connectivity (which was the primary means of communication for data between battalion and subordinate units) with battalion forward elements (company, platoon, THT) and therefore had to relay through battalion rear element. This additional layer made the transfer of data (such as targeting updates) from higher to lower extremely challenging. DNVT telephone was the primary voice link between the TAC and the main. The DNVT lines were unreliable and data transfer from the main to the TAC depended on SIPRNET email, which was unpredictable. The brigade S2 section became aware of these limitations only as a problem arose. (Topic B, Section 1, Chapter 4)
- **Intelligence information flow and collection management:** Without an air coordination element (ACE), deployable intelligence support element (DISE), or air control team (ACT) in direct support, the bulk of the SBCT intelligence collection takes place at the battalion level. SBCT S2 must provide guidance to battalion S2s on the importance of thoroughly debriefing combat patrols and providing detailed and concise information to the brigade S2 section. The collection management process was static and the effectiveness of collection operations was not regularly assessed which disrupted the process of selecting the best asset available for the requirement. Updates on priority intelligence requirement (PIR) resolution were not briefed to the commander resulting in missed opportunities to influence changes to the PIR. The collection management process must remain dynamic in order for targeting to be focused. In addition targeting was not effectively integrated into planning and collection and was unrefined and unfocused. Targets were often acquired based on single-source and were not further developed or developed in a vacuum. A key indicator of a weak targeting process, in a stability operations and support operations (SOSO) environment, is a high number of persons detained versus a low amount of useful information obtained. This imbalance hinders information operations (IO), critical in a SOSO environment. Once offensive operations began, units often requested live or hurried target updates. Targeting must be integrated into the planning and collection processes and must be reviewed regularly and deliberately as opposed to just before offensive operations. (Topics C, D, and E, Section 1, Chapter 4)
- **Initial KU Band Satellite System (IKSS):** The IKSS provided the SBCT and all subordinate battalions with reliable SIPRNET and non-classified internet protocol router network (NIPRNET) access running at speeds comparable to mobile subscriber equipment (MSE) speeds. Each battalion could make worldwide phone calls and had VTC capabilities which were not possible with the near term digital radio (NTDR). The IKSS is designed as a battalion enabler, improving network connectivity from the brigade down to the battalion. The IKSS network, however, is dependent on the brigade subscriber nodes (BSN) having connectivity to the higher command (HICON). Initially there were complaints about the IKSS, but once the data was stabilized and there was NIPR and SIPR connectivity through 4ID and the MSE network, battalion connectability became more reliable. The issue was compounded by Soldiers/leaders deploying with very little training on the system, resulting in a very steep learning curve. The overall assessment of the IKSS at brigade level was great; however, the ability of the battalions to utilize it effectively was a problem. (Topics A and B, Section 2, Chapter 8)
- **Frequency modulated (FM) radios:** From the start of operations in theater, the battalions have been utilizing all three stacks of FM radios on the relay/retransmission vehicles.

Having the third stack has significantly enhanced the ability for the battalions to retransmission command (cmd), operations and intelligence, fires, and administrative/logistics plans (admin/log). Admin/log nets are a definite force multiplier in theater and aid in establishing C2 where an FBCB2 void exists between battalions and brigade logistics vehicles. The systems in the SBCT are state of the art and a dream for any signal officer; however, the training provided in the basic and advance courses needs to keep pace. The focus should still be mobile subscriber equipment (MSE) backbone; the digital systems that the SBCT has are quickly proving to be more reliable, quicker to setup, and more maneuverable. (Topic D, Section 2, Chapter 8)

Materiel

- **Stryker infantry carrier vehicle (ICV):** The lethality/survivability of the ICV resides with the .50cal heavy machine gun and the MK19, as well as the speed in which it brings the infantry into the fight. While the confines of the ICV are tighter than expected, due to individual body armor (IBA) with small arms protective inserts (SAPI) and CamelBaks®, there is room for the squad to be comfortable. The ICV, when equipped with slat, is wider than an M1A2 Abrams battle tank. Maintenance issues attributed to the addition of slat generally are in the tire's ramp cylinders and/or related to fuel consumption. Due to the additional weight of the slat, it is imperative for the crew to conduct daily preventive maintenance checks and services (PMCS) to determine if the alignment of the tires is within tolerance. The remote weapon system (RWS), and its associated equipment, is operationally successful. The forward looking infrared radar (FLIR) capability of the antiterrorism (AT) vehicle is quite suitable for the urban fight. FBCB2 and its application for C2 is a great capability. It allows leaders to maintain a situational awareness and understand the common operating picture. This applies only to FBCB2 systems, since currently the blue force tracking (BFT) is not tracked on the FBCB2 system, nor does the ICV have a BFT monitor. (Section 1, Chapter 1)
- **Equipment and technology:** The equipment and technology available within the SBCT have greatly increased the lethality and enhanced the survivability of the SBCT Soldier. The use of M4 and all its associated components have been utilized effectively in the close fight. The PEQ-2 and PVS-14 combo, in limited visibility operations, has allowed the Soldier to effectively illuminate and mark targets even with the presence of high ambient light. The tactical lights mounted on most all systems provide a white light capability for searches, and generally come with an infrared (IR) or red filter for maximizing light discipline. These systems have been utilized with great success in raids and search operations. The battalion and company snipers provide accurate target acquisition and detection in day or night out to 1000m (M24), 2000m (XM 107) or out to 10k with the Long-Range Advanced Scout Surveillance System (LRAS3). The tools of the trade are XM107 .50cal sniper rifle, M24 7.62 sniper rifle, and M4/203 rifle for spotter. All systems come with specific scopes, the AN/PVS-10 sniper night sight (SNS) allows thermal, night, and day use. It is task organized per mission and arms room concept, and utilized as needed. The snipers have greatly contributed to the “see the enemy first” philosophy as well as the surgical precision fires when needed. The infantry squads are capable of conducting urban breach operations without assistance from engineers through training and the use of a variety of equipment and methods (manual and ballistic methods). The

IBA w/SAPI plates greatly enhanced the Soldier survivability on the battlefield; however, it greatly increased the Soldiers' load during combat operations. Most Soldiers placed their kit on the IBA itself and did not use the modular lightweight load-carrying equipment (MOLLE) rucksack, with the additional weight, configuration, and CamelBak®; the ability to even wear the MOLLE rucksack was questionable. Managing the Soldier load is still a critical task (Topic A, Section 2, Chapter 1)

- **Sustainment/force protection:** Force protection provided by an occupied FOB was sufficient except for overhead cover against indirect fire attacks. Containers did have blast protection around the perimeter of each living area and in between containers, but there was no protection from artillery fire within the perimeter of the living area. The lack of sufficient overhead cover around the living spaces contributed to Soldier casualties and injuries. (Topic F, Section 2, Chapter 1)
- **Long distance communication platforms:** The RSTA squadron's troops are allocated high frequency (HF) radios for extended distance communications. However, other than the HF radio in the troop TOC, the Harris radios are not vehicular-mounted, which severely limits its range capability. (Topic B, Section 3, Chapter 1)
- **Aircraft weight reduction:** The RSTA arrived during the winter months and was very much aware of flying the KW at near gross weight during operations. Taking lessons learned from 2-17 Cavalry and other KW units within theater, the TF requested approval to remove the MMS, the associated black boxes, and AVR-2 laser warning set (no laser threat identified in theater). Additionally, since the end of major combat operations, the Hellfire had not been used, so the brigade opted to remove the remote Hellfire equipment as well. The multipurpose load handling gear was removed at home station and replaced with the standard landing gear. The total weight reduction was approximately 400 pounds. This action aided in fuel loads and weapons load (400-500rds .50cal, three 2.75" rockets, and 700lbs gas) and brought the gross weight of the aircraft to an average of 5000 pounds. (Topic Q, Section 4, Chapter 1)
- **Aviation life support equipment (ALSE) - belts vs. vests:** Pilots experienced significant operational and safety problems wearing the ballistic body armor within the confined cockpit space of the KW. When wearing the ballistic armor in conjunction with the vest, head movements and hand and arm positioning for manipulation of multi-function display buttons and circuit breakers was extremely difficult. The TF requested a waiver, through the chain-of-command to Logistics Support Activity (LOGSA), to wear the ALSE belt with the ALSE gear on the belt, in lieu of the survival vest. KW pilots had the option, while in theater, to wear either the ALSE vest or ALSE belt. (Topic R, Section 3, Chapter 1)
- **Tactical HUMINT teams (THT):** The lack of up-armored vehicles leads to decreased effectivenesss of direct support (DS) Tactical HUMINT teams and loss of intelligence to the brigade. THT is in DS of an infantry battalion rode in the Stryker vehicles leaving behind specialized organic communications and automation equipment due to lack of space, which left the THT unable to report intelligence to, or receive guidance from the military intelligence (MI) company commander and brigade headquarters. The loss of this intelligence reduced the brigade's ability to effectively develop further high value targets (HVT) to supply the combat commander for neutralization. Since the THT often operates in concert with the combat units, the unit MTOE should be changed to include armored high mobility multipurpose wheeled vehicles (HMMWV) equipped with a crew-served

weapons allowing the THT to operate in hostile situations while carrying its full complement of mission essential equipment. (Topic A, Section 2 and Topic C, Section 3, Chapter 4)

- **Vehicle communication equipment (MI company):** During convoy movement from Kuwait, to Pacesetter, to Mosul, lack of communications between vehicles made C2 difficult. Four of the 13 MI company vehicles were able to effectively communicate. Enemy contact and vehicle breakdowns pose a serious C2 issue without effective communications. Future MI company vehicles should be equipped with Advanced Signals Intelligence Program (ASIP) or FBCB2 systems, or issue PRC-148 radios to address the maneuver communication issue. (Topic D, Section 3, Chapter 4)
- **Air defense and air space management (ADAM) cell:** The ADAM cell has been performing its mission on a smaller scale than usual and focusing primarily on Army airspace command and control (A2C2) mission since there was not real air threat. Without SENTINEL radars in the SBCT it was extremely difficult to get a low-level picture which was critical when helicopters were attached to the brigade. Repositioning a 4ID radar provided an air picture, via SIPRNET, of the brigade objective; however, it did not cover the FOB. In addition, the cell experienced difficulty in performing its mission when operating in a fixed site due to the length of antenna cables. Adding a Situational Awareness-Joint (SAT-J) system to the SBCT authorization would provide a theater-level picture and communications link. (Section 1, Chapter 7)
- **Force protection and security:** "Rat-patrol" weapons mounts were used to provide thin skin vehicles additional platforms for force protection and security. This modification allowed weapons to be mounted on both sides of the vehicle, providing 360 degree security. Addition of scissor mounts for the air guard position provides stability and security of weapons when moving, to provide local security. (Section 2, Chapter 9)

Leadership and Education

- **FBCB2 connectivity:** During operations, the capability to send FBCB2 text messages to the rear (FOB Pacesetter) did not exist. The RSTA squadron pushed its TAC forward to control the battle. The EPLRS covered the rear area to ensure seamless digital connectivity. (Topic D, Section 3, Chapter 1)
- **Use of DS THT leaders in battalion MDMP:** DS THT leaders were not included in battalion-level MDMP. The THT leader is a subject matter expert (SME) with regard to tactical HUMINT operations and source handling and has received extensive training in questioning, vetting, and the legal principles of conducting HUMINT operations. Company commanders, executive officers, and platoon leaders, to no fault of their own, pulled THT away from lucrative sources of intelligence or failed to follow promising leads because they did not understand the purpose, potential, or capabilities of their HUMINT assets. (Topic B, Section 2, Chapter 4)
- **THT use at brigade level:** The brigade placed all of its THT assets in DS to subordinate battalions. THT were successful in supporting combat operations at the battalion and company level. However, the brigade was left without its own HUMINT sensors to address brigade requirements as was the area around FOB Pacesetter, degrading force protection posture. When incidents requiring a THT response occurred, the brigade employed members of its own staff to address the issue. THT serving in the general

support (GS) role are more responsive to the brigade commander's information requirements and submit their report directly into the brigade's IBOS. They are more apt to perform complex force protection operations such as counterintelligence force protection source operations (CFSO) and threat and vulnerability assessments. (Topic C, Section 2, Chapter 4)

- **Command and control (C2):** The battalions were able to track the battle more effectively than before with the situational awareness (SA) and common operating picture (COP) available, provided by the FBCB2 and BFT. With the COP and SA the battalion TAC could move with the fight, or where the commander determined the most effective point to command. With the FBCB2, the maneuver elements (TAC included) can outrun the TOC. With BFT, however, this is not necessarily the case since it is satellite based, not terrestrial. Some units (brigade included) established a TOC A (main) TOC B (jump TOC) and the TAC. Depending on operations, the TOC B can be pushed out to maintain COP and communications and return control to TOC A at the completion of operations. Based on the O&O, the brigade is capable of a 50k by 50k operational box. During this operation the box was larger than 50k by 50k and later was required to encompass the 101st sector. With an AO and area of influence (bordering Syria, Turkey, and Iran) the architecture needed to be augmented. (Section 1, Chapter 5)

Personnel

- **News media / public affairs challenges:** The SBCT performance during Arrowhead Blizzard exceeded expectations, as identified in many of the news stories, but there were also some difficult times. When the IED destroyed the 1-14 cavalry Stryker, the American Broadcasting Company (ABC) news crew was within "seeing the smoke" distance from the incident, but the leaders on the scene refused to take the news crew to the scene. This violated the department of defense (DoD) news media ground rules, but by the time the public affairs officer (PAO) found out about the incident it was too late for ABC to capture the news; amends had to be made. With regard to this same incident, a reporter at the brigade base camp heard about the incident and went directly to 1-14 cavalry. Within minutes the reporter had more detailed information than the brigade TOC. This incident reaffirmed to the operations staff in the brigade TOC the need to demand more timely and detailed information from subordinate units. As previously mentioned, the SBCT does not have an organic public affairs element, but due to the notoriety of the brigade the element was provided from I Corps. The two-man team was deployed with two computers, two small digital cameras, one digital video camera, and no vehicle. The computers and cameras worked well, but having no dedicated vehicle presented a recurring problem for moving around a very large base camp. A PAO team in the SBCT proved to be a key asset. With the transition to stability and support operations, the team was a critical tool for the commander for spreading the commander's message throughout the AO and providing public support. In addition, the team provided the commander an IO tool as well as a collection asset from embedded reporters, acted as the embedded media manager, and served as the unit information relations officer by sending positive reports back to the family readiness groups (FRG). (Topic E, Section 1, Chapter 8)

Facilities (no key observations noted)

Summary

As 3rd Brigade, 2nd Infantry Division, Stryker Brigade Combat Team (SBCT) 1 deployed, after successfully gaining initial operating capability, the concepts of the O&O and the incorporation the insights/lessons learned and TTP from the units currently in theater were becoming a reality. The leaders and Soldiers of the brigade have worked hard over a three-year period to solve the many challenges inherently associated with transforming from a mechanized heavy brigade to becoming the Army's first operational SBCT.

The synergy of the SBCT digital systems, combined with its MTOE and Stryker vehicles, allowed the unit to be successful during the mission readiness exercise (MRE) and final preparation for deployment. Unit commanders and staffs must maintain their understanding of and training on the digital systems and how to maximize their capabilities during full-spectrum operations and in all types of terrain and conditions to be successful on future battlefields. The creation of a dedicated team of Soldiers, NCOs, and officers from many branches into a single brigade-sized unit has resulted in an extremely strong and lethal offensive combined arms team. The brigade is a well-equipped and well-trained unit and has proved to be and effective force that can operate across the spectrum of operations and serve as the vanguard for the Army as it moves toward fielding its Future Force.

Chapters 1 through 8 of this report contain key observations, discussions, insights/lessons learned, and DOTMLPF implications/recommendations. Chapter 9 contains enemy TTP and recommended equipment modifications (not previously mentioned). This report has been coordinated with and reviewed by the unit. The observations will be useful to the leaders and Soldiers of SBCT 2 and 3 as well as the other follow-on SBCTs. Some observations may require the attention of doctrine developers, the materiel community, or service schools.

It is CALL's intent that the information and material contained in this report benefit Soldiers and the readiness and training of our Army.

CHAPTER 1: MANEUVER

Section 1: Stryker Infantry Carrier Vehicle (ICV)

The Stryker ICV provides the speed, agility, and lethality needed to get forces into the fight and the ability to deploy from the vehicle with a situational awareness. The Stryker ensures versatility in that each ICV (with a 9-man squad) can transport and provide direct fire support, non-standard casualty evacuation (CASEVAC), and resupply. The Stryker is a Soldier system, not just a vehicle.

Topic A: Lethality/Survivability

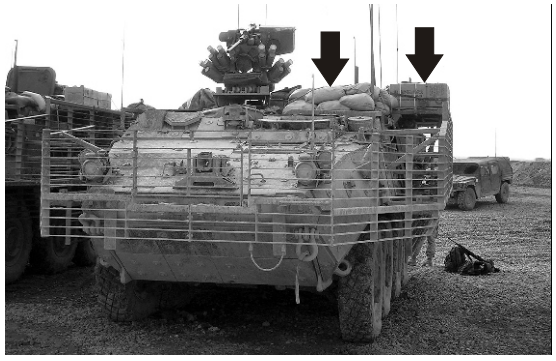
Observation: The lethality of the ICV resides with the .50 HMG and the MK19, as well as the speed in which they bring the infantry into the fight.

Discussion: As of February 04 there have been two improvised explosive device (IED) incidents in the theater that have affected the Stryker vehicles. The first incident damaged the front bottom slope and caught on fire destroying the vehicle. The IED charge, however, did not breach the hull. The second incident destroyed a tire and arm as the IED struck the front left of the vehicle, but was driven away by the crew. In both cases only minor injuries were incurred. A third IED incident involving a light medium tactical vehicle (LMTV) and Hummer resulted in minor exterior damage and minor injuries. While the confines of the ICV are tighter than expected (due to individual body armor [IBA] with small arms protective inserts [SAPI], CamelBaks®) there is room for the squad to be comfortable).

Insights/Lessons Learned:

- Change movement routes, speed, and intervals (speed is security, size equals maneuverability [i.e. the more vehicles moving, the less agility in route]).
- Use sandbags or Kevlar blankets to provide extra force protection for all vehicles.
- ALWAYS maintain 360 degree security. In many cases IEDs are combined with small arms and rocket propelled grenade (RPG) and the vehicle may be hit from the rear, reducing reaction time.

DOTMLPF Implication/Recommendation: none



Figures 1 and 2. Photos show an IED impact and a Stryker equipped with slat armor, sand bag vehicle protection for the tank commander (TC), and ancillary gear on top.

Topic B: Slat Armor

Observation: The ICV, when equipped with slat, is wider than an M1A2 Abrams battle tank. Maintenance issues attributed to the addition of slat generally are in the tire's ramp cylinders and related to fuel consumption.

Discussion: It is imperative for the crew to conduct daily preventive maintenance checks and services (PMCS) due to the additional weight of the slat to determine if the alignment of the tires is within tolerance. The slat armor has taken a bit of a beating while driving in urban areas. It restricts the vehicle from some of the alleys and unimproved roads that the vehicle would normally be able to travel if slat was not present. The load configuration determination is also a key factor with the slat.

Insights/Lessons Learned:

- If vehicle is loaded high it denies some observation from the tank commander (TC) and air guard (AG) hatches; however, supplies are then out of the reach of civilians.
- If nets and poles are carried along with three days of supply (DOS) of CL I (water and meals, ready to eat [MRE]), this would increase the visual obstruction of the TC and AGs.
- If the vehicle is configured with slat armor, the load plan is tenable.

DOTMLPF Implication/Recommendation: none

Topic C: Remote Weapon Station (RWS)

Observation: The RWS and its associated equipment are operationally successful.

Discussion: The forward looking infrared radar (FLIR) capability of the antiterrorism (AT) vehicle is very suitable for the urban fight. Again, with IBA and SAPI, it limits the operator's movement and flexibility in the RWS. As with the Bradley M2, for purposes of signaling, reverse polarity panels are needed..

Insights/Lessons Learned:

- The thermal and day sight work well, especially in hours of limited visibility operations and the acquisition of enemy/heat signatures.
- The day sight is great for target identification (TGT ID), stationary point target destruction, and area target (while moving) destruction.

DOTMLPF Implication/Recommendation: none

Topic D: Force XXI Battle Command and Control Brigade and Below (FBCB2)

Observation: FBCB2 is a vital asset for C2.

Discussion: FBCB2 allows leaders to maintain a situational awareness and understand the common operating picture. This applies only to FBCB2 systems, since currently the BFT is not tracked on the FBCB2 system, nor does the ICV have a BFT monitor. This is available in the brigade and battalion TOC only, not company TOC or commander's vehicle.

Insights/Lessons Learned:

- There are many different TTP on who monitors FBCB2 and the FIPR messaging.
- If the TC is in the hatch and the RWS operator is not monitoring the FBCB2, a message can be missed, as well as routes, dismount points, etc.
- If the company commander is not monitoring the FBCB2 COP, common operating environment (COE), FIPR, and radio messages can be missed. The squad can easily see the FBCB2 screen, but it is difficult for them to see the TC screen when the TC is in the hatch.
- At night, due to the threat, the TC sits down in the vehicle and assists the driver by switching from the RWS sight to the day and night sight (DNS) and keeps everyone's SA accurate.

DOTMLPF Implication/Recommendation: none

Section 2: Infantry Battalion Operations

Blocking and tackling for the frontline infantry Soldier works well. A key factor for the success of the platoon/companies is due to the tactical and technical competence and training of the individual Soldier. The understanding of the battle drills has allowed them to excel at all times. The close quarters marksmanship (CQM) is evident in the close quarters battle (CQB) of the urban fight. The situational understanding (SU) during operations is higher than ever before, even when conducting fragmentary order (FRAGO) on the move. The Stryker system with the communication suite allows the squads to see where they are and where they are going. The Single-Channel Ground and Airborne Radio System (SINCGARS) allows the squads to hear fragmentary orders (FRAGOS) through the speaker boxes and combat vehicle crewman's helmet (CVC), and the RWS allows them to see where to go (day and night sights).

The primary offensive operations conducted by the infantry units are conduct reconnaissance, conduct raid, conduct movement to contact (combat patrols), security operations, and a few stability operations (presence patrols). Most of the raids were based on single source information so locations could change quickly, triggering a FRAGO on the move.

Both 1/23 Infantry Battalion and 5/20 Infantry Battalion conducted continuous operations in their respective AO. By managing the company missions, the battalions executed multiple operations while conducting parallel planning (2/3INF was attached to 3BCT but returned to 3-2 control for future operations). Most of the operations were conducted at platoon and company level, mitigating the synchronization of outside assets and ensuring the habitual relationship in each company or platoon. With the high operational tempo (OPTEMPO), management of resources was critical. Very little degradation to the Soldier was noted even though operations had been continuous for nine consecutive days. The combat engineers, civil affairs/psychological operations (CA/PSYOPS) teams, snipers and KW trained with each company and platoon which definitely supported the planned O&O of the SBCT.

The raid mission was the most prevalent in this environment at company and platoon level. By the establishment of SOPs for the raids (outer and inner cordon), over watch (snipers and machine guns habitually), breach and seize element (QRF element), the units have been able to conduct these operations quickly while decreasing their time on target. This has been the TTP for the urban raid for platoon and company operations. Depending on location and size, there is a target handover from the cavalry squadron or battalion scouts/snipers. The SBCT unique, squad designated marksman, has proven itself as an integrated asset to the infantry platoon. Armed with the M-14 rifle and scope, or M4 with advanced combat optical gun sight (ACOG), the marksman can assist with target acquisition and destruction out to 800m. While still maintaining himself as part of the squad, the marksman provides the squad leader with an accurate tool when no company snipers are assigned or available. The company mortars are task organized with the supporting effort to provide fires to the main. Since the ROE direct that mortars must be used in the direct lay method (for high explosive [HE]), the use of illumination/IR illumination or suppression can be directed from this position. The brigade conducted the fight in a contiguous operations battle space, with handover of targets at contact points or via FM/FBCB2 depending on the SA and COP available in this brigade. This process was manageable due to the size of the brigade battle space during centralized planning and decentralized operations.

Topic A: Infantry Soldier Trends and Equipment

Observation: The equipment and technology available within the SBCT have greatly increased the lethality and enhanced the survivability of the SBCT Soldier.

Discussion: The M4 and all its associated components have been utilized effectively in the close fight. The PEQ-2 and PVS-14 combo, in limited visibility operations, has allowed the Soldier to effectively illuminate and mark targets even with the presence of high ambient light. This has been possible due to the PVS-14 worn over the non-dominant eye, allowing his night observation device (NOD) to see the laser of the PEQ-2 and acquire and destroy the enemy in a limited visibility area. If the enemy moves into a moderately light area, the M68 close combat optic or ACOG provides accurate fire for the Soldier in the destruction of the enemy or providing effective suppressive fire.

The "tactile" that are mounted on most all systems provide a white light capability for searches, and generally come with an IR or red filter for maximizing light discipline. These systems have been utilized with great success in raids and search operations; the downfall is the amount of 3-volt batteries needed. The average Surefire light with the Xenon halogen bulb depletes the batteries in about one hour of continuous operation. The Pica tiny rail system allows the modular application of all weapon tools, as well as a vertical grip for added stability. The battalion and company snipers provide accurate target acquisition and detection in day or night out to 1000m (M24), 2000m (XM 107), or out to 10k with the LRAS3. The tools of the trade are XM107 .50 cal sniper rifle, M24 7.62 sniper rifle, and M4/203 rifle for spotter. All systems come with specific scopes - the AN/PVS-10 (sniper night sight[SNS]) allows thermal, night, and day use - and are task organized per mission and arms room concept, and are utilized as needed. All of these systems have been effectively utilized in the missions conducted in the AO. The snipers have greatly contributed to the "see the enemy first" philosophy, as well as the surgical precision fires when needed.

Insights/Lessons Learned:

- The infantry squads can conduct urban breach operations without assistance from engineers through training and the use of a variety of equipment and methods (manual and ballistic).
- Manual/mechanical - use of the hooligan tools (bolt cutters, sledge hammer, pry bar, and quickie saw): The preferred method is observation of the entry point and identification of method/equipment. Once this is done the training conducted prior to deployment takes over. Just like any breach operation, use suppress, obscure, secure, and reduce (SOSR) and then conduct the breach. This is generally the quieter of the two methods (unless the quickie saw is used), but also damages less of the structure, and requires no real stand off (apartments, hotel rooms, offices, etc.) during the actual breach.
- Ballistic/explosive: C4/line charge/silhouette charge or shotgun is used for covert entry (least preferred). The preferred method id overt entry with the use of shock and disregard for damage. Safety precautions must be maintained with regard to over-pressure (hallways, rooms, etc), shrapnel (flying glass vicinity blast area, pieces of breach point) and boom (depending on size and type of demo used, earplugs recommended, can be removed after

blast). The shotgun must remain with the initial squad in case hasty fix/blast is required to complete the breach or "help" open a door. Again SOSR must be maintained for safety of breach element.

- If combat engineers (Sappers) are attached they will normally be conducting the breach, but redundancy for the breach is also maintained by infantry, especially if an unplanned breach is needed or casualties occur at the breach point. The SAPPERS are deployed with their own engineer squad vehicle Stryker for movement and support.
- The IBA with SAPI plates greatly enhanced the Soldier survivability on the battlefield. At the same time, though, it increased his load during combat operations.
- Most Soldiers placed their kit on the IBA itself and did not use the modular lightweight load-carrying equipment (MOLLE). With the additional weight, configuration, and CamelBak®, the ability to even wear the MOLLE rucksack is questionable.
- A realistic maximum operational combat load for a Soldier is a weapon, IBA (kit attached with combat load) with SAPI, assault rucksack (MRE), poncho liner, poncho, first aid kit, and CamelBak® w/2 liters (approximate weight is 60lbs).
- Not included in this 60 lb weight is ancillary equipment (AT-4, M203 gunner ammo, hooligan tools, quickie saw, shotgun with ammo, etc.) which when required greatly degrades sustainability and in a hot/tropical environment water consumption is increased.
- Managing the Soldier load is still a critical task.

DOTMLPF Implication/Recommendation: none

Topic B: Operations

The battalion conducted a total of 12 planned raids/cordon and searches and numerous spontaneous raids (site exploitations) resulting from actionable intelligence on the ground.

Observation: Most raids led to the apprehension of personnel or discovery of caches.

Discussion: Of note, the incorporation of attached engineers and the massing of minesweepers during cordon and searches (Sappers sweep an area, while the infantry secure and dig) proved to be an extremely effective TTP.

Insight/Lessons Learned:

- The battalion manned 5 x operations as part of the counter mortar/man pad defense around logistics support area (LSA) Anaconda (4 x 24hr operations). Additionally, the battalion conducted a minimum of four counter-mortars, man-portable air defense systems (MANPADS), and improvised explosive device (IED) patrols along the main supply route (MSR) in the AO daily.

DOTMLPF Implication/Recommendation: none

Topic C: Battle Damage Assessment (BDA)

A summary of the BDA inflicted upon the enemy during these operations is below.

Category	Total	Remarks
Enemy killed in action (KIA)	2	AH-64 Hellfire
Enemy wounded in action (WIA)	2	
Enemy detained	127	
Weapons captured		
rifles	84	6476 rounds, 88 full magazines
machine guns	3	
rocket propelled grenade(RPG)	31	14 rounds
artillery/mortar shells	154	(1000+ at chemical munitions site)
high explosives	271 TNT/5 CA	measurements in lbs.
IED material		
pistols		
mortars		
rocket launchers		
Caches found	18	
IED		
unexploded		
exploded (w/ effects)	1	
exploded (w/o effects)	3	

Topic D: Results of Interrogations

Observation: Initially, the battalion achieved limited success with interrogations.

Discussion: The battalion's S2 section had limited success in extracting information from detainees through questioning and relied heavily on evidence provided by the rifle companies to complete the detention packets for processing into the brigade's detention facility.

Insight/Lesson Learned:

- Although the battalion initially operated without a tactical HUMINT team (THT), the attachment of a THT on 30 December significantly increased the battalion's ability to execute interrogations and improved the results of the interview and interrogation process.

DOTMLPF Implication/Recommendation:

- This attachment should be sustained in the future to support combat operations. (Organization)

Topic E: Intelligence Preparation of the Battlefield (IPB)

Observation: Enemy operations in the sector consisted of mortar/rocket attacks against the forward operations base (FOB) and LSA, IED attacks, and small-arms fire attacks.

Discussion: Most prevalent were mortar and rocket attacks against FOB Eagle/Paliwoda, LSA Anacoda, and FOB Rock. The second most prevalent form of enemy attack was the emplacement of IEDs along the MSR and alternate supply routes (ASRs), attempting to inflict damage and casualties on convoys or to attack Iraqis supporting coalition forces.

Insights/Lessons Learned:

- The targets were usually logistics convoys that were either lightly armored or not protected by significant combat elements and small-arms attacks - primarily drive-by shootings against Iraqi Civil Defense Corps (ICDC) checkpoints and small arms ambushes against contractors working for the coalition.
- In addition, battalion logistics packages (LOGPAC) convoys and checkpoints manned by rifle platoons were attacked.

DOTMLPF Implication/Recommendation: none

Topic F: Sustainment

Observations: Force protection provided by occupied FOB was sufficient except for over-head cover against indirect fire attacks.

Discussion: Containers did have blast protection around the perimeter of each living area and in between containers, but there was no protection from artillery fire within the perimeter of the living area. The lack of sufficient overhead cover around the living spaces contributed to Soldier casualties and injuries during the mortar attacks on FOB Paliwoda.

Insights/Lessons Learned:

- The similar design of container living areas in Mosul raises a concern about force protection that needs to be addressed to prevent targeting FOBs by former regime elements (FRE) conducting indirect fire attacks.
- Combat service support (CSS) elements, for the battalion and the brigade, sustained combat operations by running LOGPAC from LSA Anaconda to FOB Rock and Paliwoda daily.
- The battalion's assigned combat repair team (CRT) provided outstanding maintenance support ensuring an operational readiness (OR) rate of 90% throughout the combat operation.

DOTMLPF Implication/Recommendation:

- Actions must be taken to adequately protect Soldiers from overhead artillery fire around living spaces. (Facilities)

Topic G: Fires

Observation: Indirect fires were primarily used for harassment and interdiction (H&I) fires throughout the operation.

Discussion: The battalion 120mm mortars fired 12 H&I missions and one counter-fire (illumination) mission (total of 181 high-explosive [HE] and 5 illumination). The 155mm artillery fired 24 missions and two counter-fire, radar acquired missions (total of 256 HE rounds). The USAF conducted close air support (CAS) missions in support of H&I fires (1 x MK-84 [2,000lb] and 2 x MK-83 [1,000lb]; no battle damage assessment (BDA) was observed. Attack aviation was used to support ground maneuver forces almost on a daily basis.

Insights/Lessons Learned:

- They normally flew armed reconnaissance missions around LSA Anaconda and along primary routes in the AO and provided an aerial QRF in support of our ground forces.
- The most common mission flown was aerial observation over a target area to assist in identifying and blocking enemy personnel trying to flee the objective area.
- The TTP commonly used was to push the assets down to the company (and sometimes platoon) level to assist in combat operations.

DOTMLPF Implication/Recommendation: none

Topic H: Civil Military Operations

Observation: Despite a lack of designated funds, the civil affairs teams were able to make good progress with the local communities.

Discussion: The battalions usually arrived in their AO with one CA major attached to the staff.

Insights/Lessons Learned:

- Other CA teams were task organized to battalions in support of the battalion's mission.

DOTMLPF Implication/Recommendation: none

Topic I: Battalion Command and Control (C2)

Observation: The battalions were spread across an area that covered over 1,000 square kilometers.

Discussion: Despite the challenges of the large battle space, the battalions were able to communicate throughout using organic retransmission assets (at one point a battalion had 3 x retransmission assets to talk across its battle space) and the digital coverage provided by the Arrowhead Brigade's NCS-E.

Insights/Lessons Learned:

- Overall, the battalions were able to maintain constant communications (either FM voice or FBCB2) throughout its battle space.
- FBCB2 became the primary means of communications and allowed leaders to see themselves, rapidly disseminate information, and empower leaders with the necessary information to make timely decisions.

DOTMLPF Implication/Recommendation: none

Section 3: Reconnaissance, Surveillance, and Target Acquisition (RSTA) Squadron

The RSTA squadron conducted initial operations in Samarra (Operation Cyclone Warhorse) by conducting area and route reconnaissance of known and suspected infiltration and ex-filtration routes. They verified trafficability of routes for Strykers and alternate routes if needed. During the initial phase of this operation, the first IED contact occurred. Once routes had been reconnoitered and the infantry battalions began their saturation of the AO, the RSTA then set up traffic control posts (TCP), both hasty and deliberate, to control all access into and out of Samarra. The use of RVs for establishment of the TCP also helps with target ID in Samarra. The long-range advanced scout surveillance system (LRAS3) was used from the TCP (or its ops) to search in and around the city. The squadron's .50 cal/MK-19 weapons platforms were used for precision fires and area suppression.

Topic A: Lack of HUMINT Operations to Develop Direct Attack Targets

Observation: The squadron developed a plan to refine the target files by emphasizing both organic and attached HUMINT assets.

Discussion: The initial plan was limited from the original five days to just twenty-four hours due to the time available to conduct operations.

Insights/Lessons Learned:

- When possible, manage time to allow for HUMINT target refinements in order to allow for more productive deliberate attacks.

DOTMLPF Implications/Recommendations: none

Topic B: Long Distance Communication Platforms

Observation: The squadron's troops are allocated high frequency (HF) radios for extended distance communications.

Discussion: However, other that the HF radio in the troop tactical operation centers, the Harris radios in the troops are not vehicular mounted which severely limits their range capability.

Insights/Lessons Learned:

- Change the modification table of organization and equipment (MTOE) from MANPAC HF radios to vehicular-mounted.

DOTMLPF Implication/Recommendation: none

Topic C: Lack of Translator Support

Observation: The squadron was not allocated enough translators to properly conduct its mission.

Discussion: The nature of intelligence gathering requires at least a translator for each HUMINT team. The squadron does not operate its organic HUMINT operators as a tactical HUMINT team (THT), but rather embedded in their respective reconnaissance platoons (as per the MTOE). In addition to the HUMINT operators, all reconnaissance Soldiers are trained in HUMINT gathering.

Insight/Lesson Learned:

- The nature of operations during operation cyclone warhorse required a translator for each Stryker RV in order to maximize the HUMINT collection capabilities.

DOTMLPF Implication/Recommendation:

- Supply one interpreter per vehicle or train the HUMINT teams in the local language more comprehensively. (Training)

Topic D: FBCB2 Connectivity

Observation: During operations, the capability to send FBCB2 text messages to the rear (FOB Pacesetter) did not exist.

Discussion: The squadron pushed its TAC forward to control the battle. At least once daily the TAC sent an FBCB2 free text message of a situation report (SITREP) to the TOC.

Insight/Lesson Learned:

- In the two plus weeks of the operation only one message was received.

DOTMLPF Implication/Recommendation:

- Ensure that the enhanced position location reporting system (EPLRS) covers the rear area in order to allow for seamless digital connectivity.

Topic E: Long Distance Communication Internal/Higher

Observation: The squadron operated over nearly the entire SBCT battle space and had difficulty maintaining fluid FM communication with the brigade and with all troops.

Discussion: Though there is a Spitfire (TACSAT) at the troop and squadron level, there was no dedicated TACSAT for squadron command or operations and intelligence (O&I) nets.

Insights/Lessons Learned:

Additionally, the brigade relied heavily on FM communication and did not fully utilize their TACSAT net for command or O&I. There was only one TACSAT net allocated to the brigade.

The brigade needs more TACSAT nets as part of their communication frequency allocation. Brigade needs to use its TACSAT to C2 its command and O&I nets, especially when the brigade is operating in a large battle space.

DOTMLPF Implication/Recommendation:

- Allocate a dedicated squadron TACSAT net to allow squadron to C2 across the brigade's/squadron's battle space.

Topic F: Limited TACSAT Capability

Observation: There are only TACSAT radios at the troop command post (CP) and squadron CP level.

Discussion: Squadron successfully used PRC 148 radios in TACSAT mod using extra Spitfire TACSAT antennas.

Insight/Lessons Learned:

- Convoys have no dedicated long range communication capability.

DOTMLPF Implication/Recommendation:

- Increase the MTOE to include PRC 148 radios with all platoon (one per vehicle) and additional TACSAT antennas for these radios. This will give each vehicle the capability to communicate long distance for medical evacuation (MEDEVAC) and C2.

Topic G: Use of IKSS for Commander's Update (via VTC)

Observation: The brigade's SOP for nightly commander's update is to use the VTC capabilities given by the IKSS system.

Discussion: This system continually has problems with maintaining connectivity and has a limited range, causing for a slow data rate and an extremely slow commander's update.

Insight/Lessons Learned:

- Utilize the TACSAT radios to conduct the commander's update.

DOTMLPF Implication/Recommendation: none

Topic H: 3/17 Cavalry Support

Observation: 3/17 Cavalry flew, in support of the squadron, during all missions (initial recon of Samarra, TCP operations and area security of FOB Pacesetter).

Discussion: During the planning phase C/3-17 Cavalry attended all of our mission briefings and was integrated into all squadron operations.

Insight/Lessons Learned:

- The TTP developed for the aircraft to drop down to the squadron net (and subsequently be pushed to the supporting troop's net) was extremely efficient.

DOTMLPF Implication/Recommendation:

- Continue to integrate 3-17 Cavalry into all operations. (Leadership and Education)

Topic I: Cross Talk between Units

Observation: Cross-talk between battalion level units via FM and FBCB2 was excellent throughout the operation.

Discussion: In addition, the battalion was able to communicate with adjacent units from 3rd Brigade, 4th Infantry Division. In one instance the battalion utilized FBCB2 to communicate to 2/3 Infantry (while detached to 3rd BDE/4th ID).

Insight/Lessons Learned:

- Effectively conduct a search of suspected FRE along the border of our units.
- In one instance the battalion utilized FBCB2 to communicate to 2/3 Infantry (while detached to 3rd BDE/4th ID).

DOTMLPF Implication/Recommendation:

- Continue the effective cross talk.

Topic J: Aviation Operations and Integration

Observation: With the attachment of 3-17 Air Cavalry Squadron (24xOH-58D, 10xUH-60) the same air cavalry troops are supporting the same infantry battalions, thus creating the habitual relationship between the aviation unit (OH-58D Kiowa Warriors [KW]) and ground units.

Discussion: The KW operated on the ground unit's frequency and assisted in target observation and identification, interdiction, and closing off escape routes. If targets depart before the units arrive, the KW could track the target and coordinate location with an offensive unit, as well as provide direct fire when needed.

Insights/Lessons Learned:

- This TTP has proved to be highly successful and the relationship has developed into a much more responsive team effort.
- The KW pilots would land at the battalion or company command post; conduct OPORD, rehearsals, and back briefs to ensure synchronization of the fight.
- The KW can configure with 1 x rocket and 1 x .50cal or 2 x rocket pods each consisting of 7 rockets (may be decreased to 4 rockets per for weight to remain in air longer).
- The UH-60s have been utilized as non-standard CASEVAC, C2, emergency aerial re-supply, and battlefield circulation and if required can be task organized to air mobile troops.

DOTMLPF Implication/Recommendation: none

Topic K: Air-Ground Integration (AGI)

Observation: Initial development of AGI began during the TF deployment to Fort Lewis in AUG/SEP 03.

Discussion: The 82nd AVN BDE KWIC (Kiowa Warrior in Close) Card and the squadron's TACSOP were utilized as the initial base for AGI. During the train-up it became increasingly apparent that identification of the Stryker vehicle was not an issue; however, the ability of the KW crew to contact the ground battalion or company commander for direction was a problem. Fort Lewis provided both the ground and the air assets initial cross training on the systems. A series of OPORD driven exercises, with various companies throughout the brigade, were scheduled and conducted. However, due to a limited number of aircraft deployed to Lewis, not all ground BN leaders and Soldiers were trained. Upon arrival in Kuwait, an additional series of OPORD driven exercises was conducted for both UH60s and OH58Ds. Capabilities, limitations, and TTP were stressed. A series of "attacks" during convoy live fire training were conducted at Udairi which proved to be extremely valuable and showed the ground personnel the direct effects of KW overhead and the ease of direct communications for the convoys.

Insights/Lessons Learned:

- Communication to the ground element decision-making authority was the key.
- The aerial platform also provided assistance for communications to higher headquarters (ground elements had limited transmission distance).
- The air platform added about 30-45KM on FM transmissions.
- Aerial route reconnaissance was provided forward of the convoys by approximately one hour, then provided near constant coverage for convoy security for the entire length of the movement.

DOTMLPF Implication/Recommendation: none

Topic L: Brigade LNO

Observation: The air cavalry liaison officer at SBCT headquarters has proven to be the essential link between the task force TOC and brigade headquarters.

Discussion: Extended distances between the SBCT and TF TOC often prevented key leadership from attending battle update briefs (BUB) and limited face-to-face contact between TF and brigade command groups and staff officers. Without constant communication with the ABCT TOC through the cavalry LNO, parallel planning and timely reactions to operational developments would have been extremely difficult. The lack of FM communication between the TF and SBCT TOC, and unreliable DNVT phones, made MIRC chat over SIPRNET the most effective means of real time communication. This medium proved to be reliable, user-friendly, and allowed the rapid exchange of time-sensitive operational data as well as updates from brigade staff processes, facilitating parallel planning. The cavalry LNO proved especially important in the planning and execution of UH60 C2, logistics, and battlefield circulation flights.

Insights/Lessons Learned:

- Operation Arrowhead Blizzard required multiple UH60 missions every day that often changed at the last minute due to developments on the ground.
- The unique crew management and maintenance requirements for utility lift helicopters led to an additional LNO positioned at the SBCT headquarters and the establishment of a UH60 pilot LNO at TF headquarters.
- These additional LNO greatly assisted in UH60 mission management.
- Initially the task force LNO to the SBCT was a ground cavalry lieutenant. While this proved more than efficient in the relay of information and employment of air cavalry helicopters, it appears a better course of action is to employ an aviation officer or warrant officer from the air control team (ACT) (due to lack of aviation staff officers) on a rotating basis to provide the SBCT command group with maximum knowledge on the OH58D (capabilities and limitations).

DOTMLPF Implication/Recommendation: none

Topic M: Limited UH60s

Observation: One of the most challenging aspects of conducting combat operations in support of ABCT was the availability of only 10 UH60s.

Discussion: Throughout operations in Samarra these aircraft were attached to 4th AVN BDE, 4ID, which further complicated the brigade's ability to schedule and control flights from the TF TOC. A standard aircraft request to 4ID for four aircraft was established, two for DA/ART and two for nonstandard CASEVAC. Any additional UH60 missions requested by brigade had to be requested through 4th AVN BDE for approval. This requirement greatly reduced rapid support the SBCT. TF 3-17 regained control of the 10 aircraft prior to moving to AO NORTH. While this decision has improved the brigade's ability to plan missions and provide command and control for these aircraft, the brigade was challenged with supporting all utility lift operations with 10 aircraft in an area of operations that the 101st ABN previously supported with over 100 UH60s.

Insights/Lessons Learned:

- With two aircraft in phase maintenance at any given time and two non-mission capable (NMC) for unscheduled maintenance, the brigade found themselves supporting C2, DA/ART, CASEVAC, and logistics/personnel missions with only six aircraft.
- Additionally, with ten crews, providing 24-hour coverage for C2, DART, and CASEVAC operations further limited the brigade's ability to support other operations.

DOTMLPF Implication/Recommendation:

- Continue to employ our UH60 LNO at SBCT headquarters as well as a senior warrant officer LNO at the TF TOC to provide maximum UH60 support for both the ABCT and Multinational Brigade North (MNB[N]). (Leadership and Education)

Topic N: Ground TAC vs. Aerial TAC

Observation: Air cavalry operations during Operation Arrowhead Blizzard clearly demonstrated the need for a ground TAC forward, even in support of decentralized troop operations.

Discussion: The decentralized nature of operations around Samarra initially led the brigade to opt against a ground TAC, instead having one centralized TOC and employing the task force commander or S3 as an aerial TAC (in an OH58D) in support of the SBCT main effort. While this was effective during decisive operations, OH58D flight times and crew management prevented command and control of 24-hour operations. Additionally, the TOC had no FM communications with aircraft flying missions on the objective due to the distance back to the TF TOC. This prevented the TOC from tracking missions in real time, making pilot debriefs following missions or relayed information from the SBCT TOC the only source of situational understanding for the command group on the ground. While troop commanders were more than

capable of coordinating with ground commanders, the slow information flow to the TOC made it more difficult to anticipate requirements to launch the QRF or to brief pilots about to launch toward the objective. After one attempt to co-locate the TAC with ABCT headquarters that yielded similar limitations, the decision was made to push the TAC forward to co-locate with 1/23 IN TAC, just east of Samarra.

Insights/Lessons Learned:

- This move allowed constant FM communication with aircraft on the objective almost immediately after aircraft lost contact with the TOC, allowing continuous information flow throughout combat operations.
- Additionally, the S3, S3A, and S2 were able to move into the city on the ground with infantry vehicles, allowing more effective C2 of aircraft during operations and facilitating the planning of future operations due to better situational understanding of Samarra.
- Limitations on our ability to establish a forward TAC are a lack of survivable vehicles and the lack of a TACSAT telephone, as well as the ability to communicate with forces on the ground.

DOTMLPF Implication/Recommendation:

- The TAC will continue to be co-located with Stryker infantry or cavalry on the ground. (Leadership and Education)

Topic O: MOUT Aviation Operations

Observation: TTP practiced and developed at home station were not realistic for the environment the brigade actually entered.

Discussion: The MOUT training facility at Fort Drum provided some feel of a MOUT environment, but lacked realism for aerial platforms due to the size of the MOUT site. TTP were developed through a compilation of aviation units forward in Iraq, and TTP from other CONUS aviation units. When the TF began flying missions in Samarra, they planned on utilizing a stand-off distance from the city to facilitate use of the mast-mounted sights (MMS). This method quickly proved to be inefficient. Flight directly over the city at speeds of not less than 40-60kts proved to be the best option. The sight was effective outside the city, but for direct and immediate visual support for the infantry on the ground, the old scout techniques worked better. The use of the M4 for immediate action, in addition to the .50 CAL and 2.75” rockets is more effective than the Hellfire. Requests to identify vehicles within the city were routine, but identifying a specific vehicle in a congested MOUT environment with many similar vehicles was extremely difficult. During the cordon and searches within the city the TF provided nearly continuous support during each operation.

Insights/Lessons Learned:

- The SBCT developed a numbering system for each structure within Samarra.
- For ground elements, this was optimal. For air cavalry, it was less than desirable.
- The ABCT broke down the city into block-sized objectives (OBJ), color coded, and number/letter coded.
- This assisted in the ability to quickly focus on a specific OBJ within each of the ground maneuver battalion's areas of operation.
- The threat of surface to air fire (SAFIRE) and other threat engagements was a reality over Samarra, Balad, Ad Diluhua, and a host of other small villages.
- TTP of varying flight paths, altitudes, and formations, coupled with the use of the ALQ-44, greatly reduced exposure to enemy attacks.

DOTMLPF Implication/Recommendation: none

Topic P: Task Force Package Development

Observation: Upon notification that the squadron would be deploying to Iraq with the ABCT, it was quickly realized that the unit would need to be supplemented with other battlefield operating system (BOS) elements to be a truly effective combat arms team.

Discussion: The initial package included an addition KW troop and the addition of a UH60 company. As the unit further refined their plans and needs, they added an air defense artillery team, a fire support team, a JTAC team, and an air force weather team. Since UH60s were not organic to the squadron, an aviation intermediate maintenance (AVIM) company was added to fulfill the role of UH60 aviation unit maintenance (AVUM)/AVIM and OH58D AVIM. Additional aviation officers were also suggested to supplement the LNO package. The unit did receive additional officers, but none were aviation branch which caused an additional requirement to learn aviation operations at an accelerated pace.

Insights/Lessons Learned:

- By integrating non-aviation officers into the battle captain and LNO operations, they have continued to grow professionally which will aid them in the long run in their careers.
- The TF could further simplify split-based operations with dedicated LNO, much like ravens from the 101st ABN DIV.
- It was requested by the ABCT that an LNO be provided to each BN. This was not a capability.
- Instead, many face-to-face coordination operations with the TF S3 and AS3 were conducted to facilitate operations on a near daily basis.

DOTMLPF Implication/Recommendation: none

Topic Q: Weight Reduction

Observation: The TF arrived during the winter months and were very much aware of flying the KW at near gross weight during operations.

Discussion: Taking lesson learned from 2/17 cavalry and other KW units within theater, the TF requested approval to remove the MMS, the associated black boxes, and the AVR-2 laser warning set (no laser threat identified in theater). Additionally, since the end of major combat operations the Hellfire had not been used so the brigade opted to remove the remote Hellfire equipment. The multi-purpose load handling gear was removed at home station and replaced with the standard landing gear.

Insights/Lessons Learned:

- This action aided in fuel loads and weapons load (400-500 rounds .50cal, three 2.75" rockets, 700 lbs gas) and brought the gross weight of the aircraft to an average of 5000 pounds.
- The unit opted to keep two aircraft per air cavalry troop configured with the MMS to facilitate reconnaissance operations in open terrain along the border areas in the current AO.
- The total weight reduction was approximately 400 pounds.

DOTMLPF Implication/Recommendation: none

Topic R: Aviation Life Support Equipment (ALSE) - Belts vs. Vests

Observation: Pilots experienced significant operational and safety problems wearing the ballistic body armor within the confined cockpit space of the KW.

Discussion: When wearing the ballistic armor in conjunction with the vest, head movements and hand and arm positioning for manipulation of multi-function display buttons and circuit breakers was extremely difficult.

Insights/Lessons Learned:

- Following the lead, taken by one of the divisions in theater, the TF requested a waiver, through the chain of command to Logistics Support Activity (LOGSA), to wear the ALSE belt with the ALSE gear on the belt, in lieu of the survival vest.
- KW Pilots have the option, while in theater, to wear either the ALSE vest or ALSE belt.

DOTMLPF Implication/Recommendation: none

CHAPTER 2: FIRE SUPPORT

Section 1: 1/37 Field Artillery

Since arrival in the forward operations base (FOB), the artillery battalion conducted one counter-fire mission from the FOB, not due to lack of acquisition but to the rules of engagement (ROE). The radars acquired 50 indirect missions since occupation of FOB (Q-36 point of origin 45 and Q-37 point of origin 5). The enemy tactics, techniques, and procedures (TTP) are to utilize indirect fire from urban locations, thus preventing the battalion from conducting counter-fire operations. The counter-fire mission executed was a rocket launch from close to FOB and counter-fire; battle damage assessment and repair (BDAR) indicated 19 additional rockets left at the launch site. The battalion mortars have fired in direct lay with infrared (IR) in support of offensive operations.

The battalion has provided a hot platoon (2 guns) providing 6400 square miles of coverage, 24 hours a day. The battalion main mission is fire support, but convoy security and detainee support are its daily operations in the brigade supporting role. These tasks have been accomplished with no detriment to the artillery main mission of fire support. C/52 Infantry anti-tank (AT) company was attached to 1/37 Field Artillery (FA) to provide the Stryker presence and the necessary firepower, along with the FA battalion's organic crew-served weapon systems, to conduct direct action on ambushes and survivability in case of attack and improvised explosive device (IED).

Section 2: Brigade Detainee Transfer Facility

This mission of establishing a self-contained, self-securing facility capable of housing detainees for up to 24 hours was given to C1/37 FA Battalion in support of operations in Samarra. The facility was designed with an initial planning number of 300-1200 possible detainees over a two week time frame. The facility was designed to provide a location convenient to the maneuver battalions that would provide the battalions a quick turnover of detainees, evidence, and required paperwork and return to their respective assembly areas.

A location was selected approximately 800 meters from an improved road that provided excellent observation in all directions for external security and trafficability for maneuver Stryker. The site location planning factor was a 200x200 meter area plus room for engineer assets to construct a protective ten foot berm. The terrain inside the facility also was selected for its drainage to afford the actual detainee area to remain relatively dry despite the December rainy season of Iraq. Upon reconnaissance, selection, and initial occupation of the site, the priority

focused on establishing the protective berm beginning in the direction of the improved road to allow the unhindered construction of the detainee holding area. The holding area was constructed using triple-standard concertina, and consisted of an entrance funnel (to facilitate vehicles backing into and out of the area for the loading and unloading of detainees), detainee search area, and four holding cells, each capable of containing a maximum of 25 detainees or the ability to segregate detainees based on crime category (see diagram).

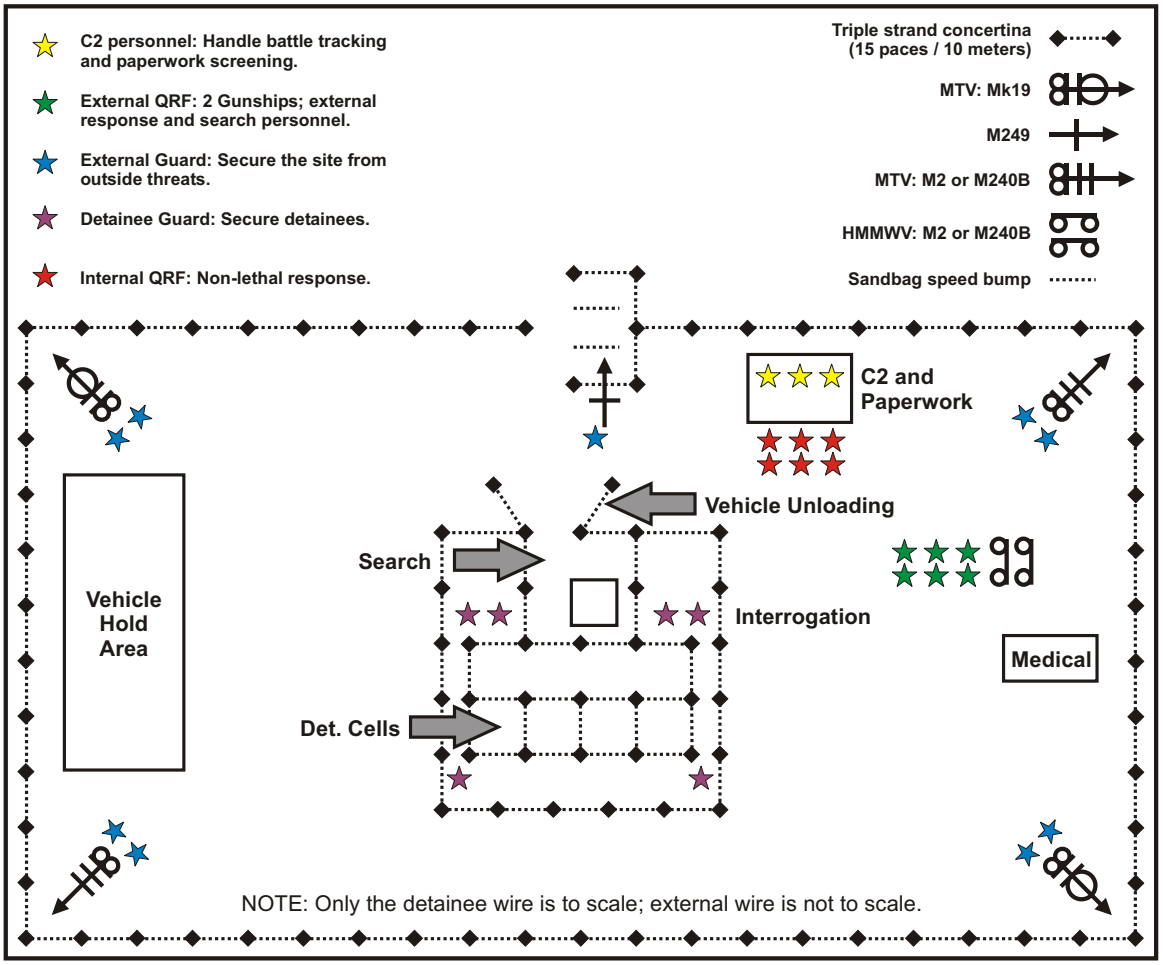


Figure 3. Rock Detainee Transfer Point

Constructed rehearsals were conducted with all sites and attached personnel on the process for receiving, handling, and uploading of detainees for transfer to the division detainee holding area. The tasks rehearsed included CASEVAC, tactical HUMINT team (THT) screening and interrogation, react to indirect fire, and site security.

Upon receipt of the first detainee, the teams executed the battle drills as rehearsed. The external guard force stopped the vehicles approaching and had the vehicle commanders approach the

facility, report the number of detainees, and verify, face-to-face, that they still had positive control of the detainees. Once verified, the vehicles were guided into the site and the convoy commander reported to the C2 cell with all required paperwork and confiscated items. The C2 cell verified and inventoried each item, and ensured that each detainee paperwork packet had a minimum of two sworn statements from separate witnesses that were present during the apprehension. The C2 cell then verified the other required paperwork as listed below:

- **Coalition Provisional Authority Forces Apprehension Form** (CPA form) must be properly filled out. Yellow fields must be filled in, if applicable, upon apprehension.
- **DD Form 2745** enemy prisoner of war (EPW) capture tag or an equivalent document containing information shown on DD 2745
- **Photograph of detainee**
- **DA Form 2823s** (sworn statements) are required for criminal detainees from two individuals present at time of capture which must have who, what, when, why, how and where explained. It is recommended all detainees have a DA Form 2823 completed by the capturing unit to assist in explaining why detainees were detained and the events that took place at time of capture.
- **Medical screening documents** need to accompany any detainee who has a medical condition.
- **DA Form 4137** is required for any property that was taken from the detainee since time of capture. If a weapon is mentioned on the DA Form 4137 but is not transferred with the detainee, a disposition statement is required explaining where the weapon is.
- **Photographs of any property** that was not transferred with the detainee for any reason (examples: vehicles, explosives, weapons, or equipment too large to transport)

If the paperwork was not present or was incorrect, the C2 cell would assist the apprehending unit with preparing or correcting the items. Once the paperwork was complete, the detainee site gained control of the detainees, searched them and segregated them into appropriate cells. The detainee guards ensured that the detainees remained safeguarded and silenced at all times.

The THT then had 12-18 hours to screen and interrogate detainees in order to ensure that detainees were transferred to the division holding area within 24 hours and to gain any actionable intelligence for the brigade. Once complete with the interrogation or after the 18 hour time standard was completed, which ever came first, the detainees, paperwork, and associated apprehended property were turned over to the tenant escort team that moved the detainees to division.

Topic A: Improper Paperwork

Observation: The first few units with detainees did not have the list of items above prepared prior to arrival at the transfer point.

Discussion: This slowed the process; after the paperwork was completed the division accepted all detainees immediately.

Insights/Lessons Learned:

- Apprehending units must have at a minimum two complete sworn statements prepared by witnesses of each of the detainees.
- The sworn statements must have who, what, when, why, how, and where of the apprehension explained.
- All other paperwork could be completed at the transfer point.

DOTMLPF Implications/Recommendations: none

Topic B: Transfer of Detainees from the Transfer Point to the Division Holding Area

Observation: Appropriate vehicle and security assets must be present and available to transfer detainees twice a day to the division holding area to ensure the speedy processing of detainees.

Discussion: The 4th ID standard is 24 hours; this requirement was met.

Insight/Lesson Learned:

- Commanders must balance the following:
  (1) The speed at which detainees are processed,
  (2) The operational security of the environment, and
  (3) The tactical value of information gathered at the transfer point. Two vehicle escort teams were maintained to facilitate twice daily movement to the division site, although only the primary team was needed in this case.

DOTMLPF Implication/Recommendation: none

Section 3: Fire and Effects Coordination Cell (FECC)

The FECC, as the counter-fire headquarters for the brigade's area of responsibility (AOR), coordinated fire missions for the subordinate battalions. In coordination with the brigade S-2 cell, the FECC analyzed radar acquisitions in an attempt to determine a pattern. One radar acquisition led to the capture of an enemy mortar system and other military equipment used by non-compliant forces. Another acquisition, in which 107mm rockets were launched in an attack on the FOB, led to the execution of a counter-fire mission by the brigade's DS artillery battalion. The next morning, elements of brigade found several other 107mm rockets that were postured toward the FOB at the location from which the rocket attack was launched. Additionally, the FECC planned and executed several harassment and interdiction fire missions in an effort to disrupt the enemy's movement around the FOB.

Section 4: Air Liaison Officer

Topic A: Convoy Escort

Observation: Convoy escort missions were flown in support of all BDE convoys from Navistar to Pacesetter.

Discussion: Each march unit had a USAF JTAC Team aligned in the serial with command element/fire support officer (FSO) to facilitate clearance of fires if necessary. With civilian vehicles mixed in along the route, identifying threat vehicles from non-combatant vehicles was virtually impossible prior to the initiation of a hostile act. Aircraft were able to identify potential threats to convoys (vehicles stopped along the roadside or near chokepoints such as intersections or bridges), but unless a vehicle or its occupants were caught or viewed committing a hostile act, close air support (CAS) could not intervene and stop an ambush or IED attack. It was virtually impossible to identify an IED using CAS assets.

Insights/Lessons Learned:

- The clearance of CAS fires during convoy escort was problematic.
- As convoys traverse various unit boundaries, clearance authority, for indirect fires, changes.
- In practice, after 3 months in country, the 5th Expeditionary Air Support Operations Squadron (EASOS) JTAC had yet to clear the release of ordnance.
- Clearing fire out of sector during a tactical road march (TRM), given the restrictive ROE and limitation in communications, was virtually impossible.
- In the low-intensity, restrictive ROE environment, ground convoy escort is a mission best performed by systems with "direct fire" capability, such as rotary wing aviation, where the local commander or aircraft commander holds clearance authority.

DOTMLPF Implication/Recommendation: none

Topic B: Urban Operations

Observation: CAS flew a 24/7 "cap" over the town of Samarra for the initial stages of Operation Arrowhead (Ivy) Blizzard.

Discussion: ROE makes using CAS in the post-war, low-intensity conflict phase problematic in the urban environment. CAS aircraft were being used in a reconnaissance role, something they have a limited capability to perform with the targeting systems they carry. Ground commanders are becoming accustomed to asking for CAS when what they really want is reconnaissance (RECCE) or intelligence, surveillance, and reconnaissance (ISR). Lethal CAS assets were called upon to execute a mission for which they were not prepared or trained.

Insights/Lessons Learned:

- In an environment where kinetic effects are highly unlikely, another look at the force mix is warranted to ensure the desired effects are achieved by air support.
- A shift in focus from lethal CAS platforms to non-lethal ISR assets is intuitive given the current and forecast ground situation, most especially for urban operations. The air liaison officer (ALO) and tactical air control party (TACP) provide redundant communications for additional C2.

DOTMLPF Implications/Recommendations:

- Know what you are requesting - CAS vs. RECCE. (Training)
- Use munitions as a commander's tool, show of force; ensure the battle space is cleared for it. (Leadership and Education)

CHAPTER 3: STAFF JUDGE ADVOCATE/BRIGADE OPERATIONAL LAW TEAM (SJA/BOLT)

3/2 SBCT has two assigned JAG officers responsible for all legal actions within the brigade (plus one attached for tactical data systems [TDS], no command relationship). The assistant BOLT moved up to the forward operating base (FOB) with the advanced echelons (ADVON). The lead BOLT moved up with the main body in order to ensure the brigade had sufficient legal coverage during the operational movement (maneuver damage, react to contact damage, civilians on the battlefield (COB), rules of engagement [ROE], Uniform Code of Military Justice [UCMJ]) and to be better able to advise the commander on the status of an on-going Army Criminal Investigation Command (CID) investigation that had media implications. Since the Brigade Main stood up in early December, BOLT had been involved in several areas of operational law, most notably as an advisor to the Army Regulation (AR) 15-6 investigating officers. Investigations under AR 15-6 are mandated by the regulation when there is a death of a service-member, loss of an aircraft, or loss of equipment totaling one million dollars or more. The command has also appointed several 15-6 officers to conduct discretionary investigations into the numerous accidental discharges that have occurred.

Section 1: Operational Law

BOLT advised the different levels of command on all aspects of military justice, to include article 15 charges, letters of reprimand, and officer actions. The brigade employs the expertise of several different contractors. The brigade assigned contracting officer's representative (COR) prepared a contractor roll-up for the command group in order to better define the brigade's rights, responsibilities, and limitations with respect to interacting with the various contractors and department of defense (DoD) civilians accompanying the force. In addition, the COR looked over various news releases and contracting documents to ensure legal sufficiency.

The assistant BOLT (A/BOLT) spent the majority of the time at the civil military operations center (CMOC) in Samarra. A/BOLT and a contingent of CA personnel manned the CMOC with personnel from 3BCT/4ID in order to process possible claims resulting from damage to the civilian population from the maneuver units during the operation. In this type of environment, the BOLT:

- Provides the commander the legal expertise for the three bock fight (full scale military operations, CMO, stability operations).
- Provides contract and legal oversight for any dealings with local nationals.
- Is the reviewing authority for UCMJ, AR 15-6, and civilian issues.

Section 2: Information Operations (IO)

IO facilitates communication with the population through mass media and individual engagements. It makes use of positive activities to influence populace attitudes and behaviors toward friendly forces. Information themes and engagement talking points are produced weekly (or event driven) and updated as command messages change. Emphasis is on coordinating the efforts of CA, PSYOPS, public affairs office (PAO), operational security (OPSEC), and targeting for non-lethal effects where applicable. The IO campaign is a commander-driven operation. During the Samarra operation, IO focused on damage control and non-interference themes. IO produced messages for the local populace to mitigate any collateral damage caused by combat operations. Messages and talking points were used to inform target audiences of the disposition of detainees as well as the reasons why personnel were detained.

Section 3: CA/PSYOP

CA conducted individual engagements focused on rebuilding or developing the local civil infrastructure. This was achieved through the completion of civil projects based on community needs and requests (paid by Commander's Emergency Response Program [CERP] funds). The projects were prioritized according to resources to impact assessment. Projects could use an incentive (quid pro quo) for information against local noncompliant forces. PSYOP facilitated communication with the populace using a variety of media from loudspeaker teams to leaflets and handbills to radio/TV broadcasts. PSYOP teams conducted area and civilian attitude assessments to aid in the targeting process for lethal/non-lethal effects. In Samarra, PSYOP broadcasted safety and non-interference messages via loudspeaker teams. Tactical PSYOP teams (TPT) accompanied patrols and operated during raids to ensure compliance by the locals and specifically the occupants of raided houses. TPT conducted limited rapid area assessments to facilitate combat operations by characterizing popular attitudes. The psychological operation unit planner was located at the CMOC in downtown Samarra, collocated with the special forces team to assist in needs and targeting.

CHAPTER 4: INTELLIGENCE

Section 1: S2

The S2 was tasked to develop targeting information for 200+ targets in the Samarra area. Target development information was based primarily on combat information collected by patrols and raiding parties, on the interrogation of detainees, and on human intelligence (HUMINT) collected from sources by tactical HUMINT teams (THT). The S2 section was challenged in providing useful targeting information in a timely manner. The challenges presented themselves generally in the form of procedural weaknesses, communication issues (both from higher to lower [dissemination] and from lower to higher [collection]), in short time suspense given to further develop targets, and in the scarcity of THT resources.

Topic A: IBOS Planning Functions

Observation: Planning among the intelligence battlefield operating systems (IBOS) functions was not synchronized.

Discussion: All IBOS functions were not involved in the planning process, or were unaware of the planning among the other functions. The IBOS functions within the SBCT include operations, collection management, targeting, analysis (processing) and production, and dissemination. Since the intelligence cycle is an integrated function, a disparity in planning awareness among the functions weakens the cycle.

Insights/Lessons Learned:

- Planning for near, mid-range, and long-range IBOS operations must be conducted regularly, deliberately, and conscientiously, with the goal of synchronizing the IBOS.
- Oversight of planning should be by operations.
- Solid planning also affords a regular opportunity to assess whether new requirements support or degrade the basic IBOS functions, given the resources available.

DOTMLPF Implications/Recommendations: none

Topic B: Operations and Dissemination

Observation: Communications between executing units and brigade during operations were ineffective.

Discussion: The brigade S2 section did not have voice communications with battalion forward elements (company, platoon, and THT) and therefore had to relay voice message through a battalion rear element. The brigade S2 also did not have FBCB2 connectivity, which was the primary means of communication for data between battalion and subordinate units. This made the transfer of data (such as targeting updates) from higher to lower extremely challenging. Digital non-secure voice terminal (DNVT) telephone was the primary voice link between ground tactical operations (TAC) and the Main. The DNVT lines were unreliable and data transfer from the Main to the TAC depended on SIPRNET email, which was unpredictable. The brigade S2 section became aware of these limitations only as a problem arose.

Insights/Lessons Learned:

- The brigade S2 section must have voice and data communications to battalion forward elements.
- Eliminating the need to develop creative "work-around" solutions will result in more timely response from brigade to battalion.

DOTMLPF Implication/Recommendation:

- The brigade S2 section must also thoroughly test and rehearse all links prior to operations and regularly during operations. (Training)

Topic C: Information Flow from Battalion to Brigade

Observation: Post operation information passed from battalion to brigade was generally lacking in detail.

Discussion: In the SBCT, without an all-source collection element (ACE), deployable intelligence support element (DISE), or analysis and control team (ACT) in direct support, the bulk of collection takes place at the battalion level and places dependence on combat information and intelligence received from battalions.

Insights/Lessons Learned:

- The battalion S2s may not understand the importance of a thorough debriefing of their patrols.
- Brigade S2 should provide guidance to battalion S2s on the importance of thoroughly debriefing combat patrols and providing detailed but concise information to the brigade S2.

DOTMLPF Implications/Recommendations: none

Topic D: Collection Management

Observation: The collection management process was static.

Discussion: The effectiveness of collection operations was not regularly assessed. This disrupted the process of selecting the best asset available for the requirement. Updates on priority intelligence requirement (PIR) resolutions were not briefed to the commander, thus removing his opportunity to influence changes to his PIR. The collection management process must remain dynamic in order for targeting to be focused.

Insights/Lessons Learned:

- PIR resolution and collection effectiveness should be assessed on a regular basis.
- The assessment can combine qualitative and quantitative methods.

DOTMLPF Implication/Recommendation:

- The commander must be updated on this assessment every day. (Training)

Topic E: Targeting

Observation: An effective targeting process was not used. Targeting was not integrated into planning and collection.

Discussion: Targeting was unrefined and unfocused. Targets were often acquired based on single-source and were not further developed or developed "in a vacuum." This goes hand-in-hand with the collection management process being identified as "static." A key

indicator of a weak targeting process, in a stability and support operations environment, is a high number of persons detained versus a low amount of useful information obtained. This imbalance hinders Information Operations, critical in a stability and support operations environment. Once offensive operations began, units often requested live or hurried target updates. They were not available due to the lack of development described above.

Insights/Lessons Learned:

- Targeting must be integrated into the planning and collection processes and must be reviewed regularly and deliberately as opposed to just before offensive operations.
- Targeting is not a luxury or a matter of convenience.
- It must fall under extremely close scrutiny by a targeting board (or equivalent) comprised of BOS, lethal and non-lethal, that can affect the process.
- The center of gravity of the target must first be identified in order to determine the best means to target it.

DOTMLPF Implications/Recommendations: none

Topic F: Analysis (Processing) and Production

Observation: Analysis (processing) and production output were limited by the quantity and quality of the input.

Discussion: If the processes in the intelligence cycle are weak, then the output will be weak. This may seem obvious, but it is important to recognize the intelligence cycle as a set of integrated and interdependent processes.

Insights/Lessons Learned:

- All IBOS leaders must acknowledge the interdependency of the intelligence processes and account for this in their planning.

DOTMLPF Implications/Recommendations: none

Topic G: Use of Military Linguists

Observation: Organic military linguists at the interrogation facility are overworked.

Discussion: There was usually only one military linguist assigned to the interrogation facility. Due to a lack of other resources, the linguist(s) was usually overworked. For a native linguist, this might not be any worse than less than ideal working conditions. For a non-native linguist,

the degradation in work quality could be much more severe, resulting in a cultural misunderstanding and the loss of a potentially cooperative subject.

Insights/Lessons Learned:

- If a unit is assigned to maintain an interrogation facility but is short on organic or attached military linguists, then the higher headquarters assigning the mission should augment the lower unit with military or category II (cleared U.S. citizens) contract linguists.
- In lieu of this option, a consolidated interrogation facility should be considered.

DOTMLPF Implications/Recommendations: none

Section 2: S2X/HUMINT

Topic A: Tactical HUMINT Team (THT) Vehicles

Observation: Lack of up-armored vehicles led to decreased effectiveness of direct support (DS) tactical HUMINT teams (THT) and loss of intelligence to the brigade.

Discussion: THT in DS of infantry battalion were forced to leave their soft-sided high-mobility multipurpose wheeled vehicle (HMMWV) behind and ride in Stryker vehicles with the infantry. This forced the THT to leave specialized organic communications and automation equipment behind due to lack of space. This left the THT unable to report intelligence to, or receive guidance from the military intelligence (MI) company commander and brigade headquarters. Loss of this intelligence reduced the brigade's ability to effectively develop further high value targets (HVT) to supply the combat commander for neutralization.

Insights/Lessons Learned:

- THT often operate in concert with combat troops involved in combat operations.
- The unit modification tables of organization and equipment (MTOE) should be changed to include armored HMMWV equipped with a crew served weapons so THT may safely accompany these troops into hostile situations while carrying their full complement of mission essential equipment.

DOTMLPF Implication/Recommendation: none

Topic B: Use of DS THT Leaders in Battalion Military Decision-Making Process (MDMP)

Observation: DS THT leaders were not included in battalion level MDMP causing this asset to be under-used.

Discussion: Battalions requested DS THT but failed to include the team leaders in their planning process. The THT leader is a subject matter expert (SME) with regard to tactical

HUMINT operations and source handling. SMEs receive extensive training in questioning, vetting, and the legal principles of conducting HUMINT operations. This experience should be tapped when creating combat orders to ensure that everyone involved in the operation understands the THT role and mission. It is not the fault of company commanders, executive officers, and platoons if the THT is pulled away from lucrative sources of intelligence and fails to follow promising leads because of a lack of understanding of the purpose, potential, or capabilities of their HUMINT assets.

Insights/Lessons Learned:

- A request for THT support should come with a commitment to fully understand that asset's capabilities and integrate it into MDMP.
- THT operations should be wargamed and addressed in the supported unit's operations order so there is no confusion as to their role on the battlefield.
- Likewise, THT leaders should be trained on and understand the MDMP, as well as the missions of their supported unit, so they may assist the commander in determining the best course of action for THT employment.

DOTMLPF Implication/Recommendation: none

Topic C: THT Use at Brigade Level

Observation: The brigade placed all of its THT assets DS to subordinate battalions, leaving itself without THT coverage.

Discussion: THT were successful in supporting combat operations at the battalion and company level; however, the brigade was left without its own HUMINT sensors to address brigade requirements. Also, the area around FOB Pacesetter was devoid of HUMINT coverage, degrading force protection posture. When incidents requiring a THT response occurred, the brigade was forced to employ members of its own staff to address the issue. While this may have worked as a stopgap measure, it would not be suitable for prolonged operations.

Insights/Lessons Learned:

- During mission planning, the brigade staff must weigh the limited benefits of pushing HUMINT down to the lowest levels against the tremendous cost to force protection and long-range intelligence collection.
- The brigade should maintain a portion of its THT assets in a general support (GS) role to address both force protection issues as well as to serve as one of the brigade's primary intelligence collectors.
- THT serving in the GS role are more responsive to the brigade commander's information requirements and submit their report directly into the brigade's IBOS.

- GS THT are more apt to perform complex force protection operations such as counterintelligence force protection source operations (CFSO) and threat and vulnerability assessments.

DOTMLPF Implication/Recommendation: none

Topic D: Interrogation Environment

Observation: Interrogation operations were conducted in a primitive environment far removed from the brigade tactical operation center (TOC) and supporting infrastructure that both hampered the operation and lead to delayed intelligence reporting.

Discussion: The brigade detainee collection point was located close to an hour's drive from the brigade TOC. The primitive location denied interrogators access to necessary personality and threat databases. Interrogators were unable to check detainee names against the brigade's HVT list. Reduced, inconsistent communications further reduced their effectiveness by making it difficult to receive guidance from higher and to report intelligence. Intelligence reports had to be driven back in convoys, compounding the problem and causing reporting delays of up to 12 hours. This led to missed targets as well as innocent personnel being detained longer than necessary.

Insights/Lessons Learned:

- Interrogation operations should be conducted in close proximity to the brigade TOC or provided with the necessary tools to effectively carry out interrogation operations.
- Brigade interrogators require access to the SIPRNET, brigade web page, and databases.
- If possible they should also have a dedicated DNVT or Defense Switched Network (DSN) line available to them.

DOTMLPF Implication/Recommendation:

- Other points to consider when planning for interrogation operations are: suitable shelter to operate in, appropriate numbers of interpreters (10 interrogators with one interpreter = one interrogator), and suitable security with the ability to separate detainees. (Organization)

Section 3: Military Intelligence Company

The 209th Military Intelligence Company is composed of 75 Soldiers consisting of 96H, 96D, 97B, 96B, 97E, 98C, 92Y, 42A, and 35D. The company is comprised of three platoons, Analysis Platoon (97B, 96B), Integration Platoon (96H, 96D, 98C), and HUMINT Platoon (97E, 97B). The company also has a multi-sensor platoon with three prophet vehicles attached for urban operations (Mosul).

The Analysis Platoon has an analysis and control team enclave (ACT-E), four All-Source Analysis System remote work stations (ASAS RWS) systems, and a Force XXI battle command brigade and below (FBCB2) that is mounted in the ACT-E shelter. The analysis platoon is capable of fusing single source intelligence into the common operating picture to the commander. The digital connectivity that the analysis platoon possesses enhances timely intelligence reporting to higher, lower, and adjacent units. This gives the commander an idea of what his Soldiers should be looking for and helps him strategically place them throughout the theater. The Soldiers of the platoon are expected to target certain people and places and to report their findings to the commander. The platoon has been able to support the brigade commander with continuous plans and operations while in theater.

The integration platoon has a common ground station, four ASAS RWS systems and an Integrated Meteorological System (IMETS). The platoon can receive near real time imagery, signals intelligence (SIGINT), and measurement and signature intelligence (MASINT) that are all provided by the common ground station. There are three Soldiers attached to the platoon that are from the first weather squadron. These Soldiers are able to provide the commander with continuous weather intelligence, dictating certain missions for the brigade. This system can access the Joint Surveillance Target Attack Radar System (JSTARS), if applicable, as well as the feed off the *Shadow* tactical unmanned aerial vehicle (TUAV).

The HUMINT Platoon operates in four tactical HUMINT teams (THT), and two operational management teams. The teams are currently assigned to the infantry battalions within the brigade. The teams are trained to perform interrogations on suspects detained by the infantry battalions. They also conduct source operations and counterintelligence operations within theater. They perform intelligence gathering through elicitation and liaison, and can conduct screening of local national employees. Each team provides their assigned unit with any source of intelligence they can offer, from gaining information from a selected and trusted source, to having linguist capabilities that, in turn, support battalion requirements.

The multi-sensor platoon consists of 19 Soldiers along with nine linguists attached. Ten Soldiers (98H morse code intercept, 98C SIGINT analysis) are attached to the company at brigade headquarters. These Soldiers work with the hammer, an advanced SIGINT collection asset, which provides these Soldiers with a more detailed target and a stronger signal from a static antenna. This antenna and system are usually kept at the MI company headquarters (HQ). Seven Soldiers (96R) are in Tell Afar with 1/14 Cavalry and are conducting force protection operations using ground surveillance radars and Remotely Monitored Battlefield Sensor System (REMBASS). Eight Soldiers are at Camp Glory and they work with the Ground Prophet and a second Prophet Hammer, collecting on any known targets throughout the theater. The Ground Prophet is a SIGINT collection asset that is truck mounted (MD405) and collects with a telescoping antenna. The coverage is significantly reduced during urban operations. There is a man-portable version of the Prophet (PRD-13) which needs to be secured when used.

- REMBASS planting is critical for conducting these operations at night.
- Organic technical support is needed for conducting maintenance for this system; currently, this support is provided by central technical support facility (CTSF-NW).

Topic A: Reporting

Observation: There are a number of continual reporting problems.

Discussion: The reporting problems involve the following:

- standardization of TACSOP format
- intelligence report (INTREP)
- pilot debrief
- timeliness
- detail, such as time of incident, 8 to 10 digit military grid reference system (MGRS) vs. 6 digit MGRS, circumstances of detention for detainees at initial report (digital photos are good)
- SALT / SALUTE, initial report only with no follow-up report
- HUMINT reporting

Insights/Lessons Learned:

- This has to be a top-down enforced standard based on the TACSOP reporting requirements and the battle rhythm.
- Any unit not reporting in a timely and accurate way is not supporting the broader analytical effort, and therefore is not supporting the brigade commander's fight.

DOTMLPF Implication/Recommendation: none

Topic B: Communications

Observation: Net-meeting (My Internet Relay Chat [MIRC])) on MCS-Lite/ASAS-Lite has been the most reliable and efficient method of communication.

Discussion: MIRC is used for communication between Military Intelligence (MI) Company, S2 battle captain, S2 planner, and 5/20 INF S2 NCOIC. It has real-time web chat, white-board collaboration, and file transfer capability. It allows for private messaging to a specific station during a Net meeting, as well as global broadcast of files to all members of an active call. The drawback with Net meeting is the bandwidth required to maintain an open call.

Insights/Lessons Learned:

- Determine IP addresses for all battalion S2 MCS/ASAS-L and require them to have Net-meeting on (but not in an active call) at all times, then brigade MCS/ASAS-L can call them as required, or they can call brigade.

DOTMLPF Implication/Recommendation: none

Topic C: THT Force Protection

Observation: During Operation Arrowhead Blizzard, infantry battalions did not want THT maneuvering with them in their soft skin HMMWV.

Discussion: Teams were split up by individuals or pairs and required to ride in different Strykers, which eliminated the team's ability to communicate efficiently within the team, and degraded their CI/HIMUNT Automated Tool Set/Individual Tactical and Reporting Tool (CHATS/ITRT) communications.

Insight/Lesson Learned:

- Splitting up THTs is also an operational span-of-control issue for the team leader, who does not have eyes on the team members.

DOTMLPF Implication/Recommendation:

- Acquire and outfit THT with up-armored HMMWV. (Materiel)

Topic D: Vehicle Communication

Observation: There was a lack of communication during convoy movement from Kuwait to Pacesetter to Mosul.

Discussion: Lack of communications between vehicles made C2 difficult on the move. Four of 13 MI company vehicles were able to communicate during the convoy due to current MTOE set-up. Enemy contact and vehicle breakdowns pose a serious C2 issue without effective communications.

Insight/Lesson Learned:

- Outfit future SBCT MI company vehicles with ThumbDrive® Signals Intelligence Program (ASIP) or FBCB2 systems, or issue PRC-148 radios to fulfill maneuver communication issues.

DOTMLPF Implication/Recommendation: none

Topic E: Data Storage/Transfer

Observation: During operations, data storage and file transfers were conducted primarily via ThumbDrive® (a small USB portable storage device).

Discussion: MI company ThumbDrives were purchased by MI company Soldiers with their own funds. The only large-capacity ThumbDrive® issued to the MI company broke after the first full day of use.

Insights/Lessons Learned:

- Acquire 40 ThumbDrives for the MI company. They need to be of different sizes, 20 for classified operations and 20 for unclassified operations
- Prophet/Hammer capabilities provide greater targeting tools for the maneuver fight.
- With current MTOE shortages in 97E, THTs need to be crossed trained in both 97B and 97E skills to execute HUMINT and counterintelligence (CI) operations.

DOTMLPF Implication/Recommendation:

- Embed future HUMINT training with infantry companies at home station to gain better understanding of how HUMINT Soldiers can influence the maneuver fight and increase command relations with maneuver personnel. (Training)

Section 4: MI Company (Linguist)

The 351st MI Co (Linguist) (USAR) is an attachment to the Stryker brigade. The 351st has provided 5 CAT II (SECRET) and 12 CAT III (TOP SECRET) linguists, to THTs, civil affairs, brigade surgical team, and interpreter support for the battalion commanders, deputy commanding officer (DCO), and brigade commander. While in the FOB, the task organization changed slightly with all linguists being pushed down to squad level for door kicking, traffic control points, and patrols. Although not an ideal use of a national asset (as the TS/SCI levels are) it was extremely effective. Also attached were CAT I level Iraqi National Interpreters (contractors) who were managed a bit differently. The following are key considerations:

- Know all the languages that an AO may have; ensure language coverage for your unit with them all.
- Utilize both U.S. Army interpreters as well as local nationals.
- Understand the national's possible personal agendas and do not let him get involved in operations for which he is not cleared.

CHAPTER 5: COMMAND AND CONTROL

Section 1: C2

The battalions are able to track the battle more effectively than before with the situational awareness (SA) and common operational picture (COP) available, provided by the FBCB2 and blue force tracking (BFT). With the COP and SA the battalion TAC could move with the fight, or where the commanders deem to be the most effective point to command. With the FBCB2 the maneuver elements (TAC included) could outrun the TOC. With BFT this is not necessarily the case (since it is satellite based, not terrestrial).

Some units (brigade included) have established a TOC A (main) TOC B (jump TOC) and the TAC. Depending on operations, TOC B can be pushed out to maintain COP and communications and at the completion of operations return control to TOC A. At brigade level this means the brigade tactical Web page needs to be re-synchronized from TOC B to TOC A. According to the O&O, the brigade is capable of a 50x50k operational box. During this operation the box was larger than 50x50k and later would be required to encompass the 101st sector. With an area of operations and area of influence (bordering Syria, Turkey, and Iran) the architecture will need to be augmented. The use of assets that 101st will leave in place (after the relief in place [RIP]) will assist the brigade as well.

Section 2: Tactical Operations Center (TOC) Operations

Each convoy serial must be met, given an orientation, and then escort to the area to be occupied upon arrival at the forward operations base (FOB). Even with the FBCB2 visualization, which was not up for the initial serials, placing parking areas, tents, and motor pools into the system cluttered up the graphics. The command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR) had initial issues drawing the “Live Blue Force” feed. Central technical support facility (CTSF-NW) and battle staff noncommissioned officers (NCO) were able to redirect TOC server feed and provide COP from the TAC maneuver control system (MCS-H) to complete the picture. FM communications proved difficult. The “hero of the battle” for SA was definitely the FBCB2 and mission data loader. This platform was extremely reliable from brigade to battalion and battalion to brigade. The FBCB2 maintains the situational awareness, but not necessarily the situational understanding (SU). Using the FM, TACSAT, or preformatted combat messages would speed up reporting. When using free text, by the time the situation is developed and communicated (as well as follow up reporting), the window for the brigade staff and TOC to influence and provide support in the close fight may have passed.

CHAPTER 6: MOBILITY / SURVIVABILITY

Section 1: 18th Engineer

18th Engineer conducts mobility and survivability operations (forward operations base [FOB] establishment, unexploded ordnance [UXO] identification and destruction, and combat sapper operations and is task organized to the maneuver battalions. During initial operations at FOB Pacesetter, two of the platoons remained task organized under the maneuver battalions. The third platoon was task organized to 1/37 Field Artillery (FA). This task organization did not last more than three days. The platoon that was with 1-37 FA soon split with one squad moving to 5/20 Infantry (IN) and two squads along with the platoon and company headquarters going to 1/23 IN. This left 1/23 IN with five squads, two platoon headquarters, and one company headquarters. The company commander served as the task force engineer for planning and execution during this operation. This element was titled Team Sapper and operated as the 1/23 IN Battalion reserve. Additionally, the team was augmented with an infantry platoon and an Israeli up-armored D9 dozer. The primary purpose of this element was to provide mobility support to an element in contact and conduct attacks of opportunity.

The engineer company participated throughout the full range of combat operations. They supported the infantry's breach into buildings during raids, conducted route clearance operations, searched for caches while simultaneously searching farmhouse, and executed flash checkpoints within the city of Samarra. The company operated without M200A1 trailers for the duration of the operation. The trailers were not needed and allowed for a more mobile vehicle that could "keep up" with the infantry. Some of the vehicles traveled with the plows and rollers. The rollers were not used at all, but the plows were used to knock over some mounds while looking for caches.

Section 2: 1092nd Engineer (Corps Wheeled)

1092 EN (Corps Wheeled) out of West Virginia was direct support (DS) to 3/2 SBCT for the duration of the current operation. Significant problems arose. The units had been in theater for eight months and had not been issued 100 percent small arms protective inserts (SAPI) plates (less than 50 percent of the unit had SAPI plates). They have been providing general engineer operations (vertical, horizontal, plumbing, and nonstandard operation). This is mainly due to the civilian trades of many of the 1092nd members. Their previous three annual training cycles were filled with disaster response to flooding in West Virginia, so they deployed untrained in almost all sapper tasks. The SBCT needed combat engineers, with construction augmentation for life support and force protection at the FOB.

Section 3: Staff Weather Officer (SWO)

The SWO provided accurate weather forecasts, especially during the regions wet season. The SWO forecasts the weather and focuses on its effects on combat systems. The SWO is an excellent resource for when aviation is attached to the brigade for air operations. They analyze the weather's ability to affect operations, whether it is friendly or enemy oriented.

CHAPTER 7: AIR DEFENSE AND AIR SPACE MANAGEMENT (ADAM) CELL

Section 1: Radar

The ADAM cell has been performing its mission on a smaller scale than usual. There was no air threat, so the Army airspace command and control (A2C2) portion of it mission came to the front. It is hard to get a low-level picture without Sentinel radars in the SBCT, which presented a problem when helicopters were attached to the brigade. The 4th Infantry Division repositioned one of their radars to provide coverage of the SBCT objective. The brigade could then receive an air picture via SIPRNET. This support helped but did not cover the forward operations base (FOB) and caused difficulty in following aircraft in and out of the FOB area.

Lesson Learned: When an aviation unit is assigned to the brigade, acquire Sentinel radar to aid in situational awareness as well as the common operating picture (COP).

The following worked very well:

- SIPR feed reliability
- Air and Missile Defense Work Station (AMDWS), which shows a combination of all air pictures (with external feeds from any system provided an aerial picture such as JSTARS, E-3, and Orion) is stable.
- Use of organic satellite communications (SATCOM), high frequency (HF), ultrahigh frequency (UHF), and frequency modulation (FM) provides redundant communications across the spectrum if needed.

Section 2: Fixed Site Operations

Another problem encountered was moving into a fixed site. Shelter for the cell was inside of an aircraft hangar on an old airbase. Antenna wires were not long enough to reach outside of the hangar. Contractors punched a hole in the wall to address the antenna issue; however, this solution only provided a higher altitude air picture. Consideration should be given to ensure that future ADAM cells have longer than usual cabling to allow for potential hard facilities occupation.

The cell was in the process of getting a Situational Awareness - Joint (SAT-J) system which will help provide a theater-level picture and communications link. The SAT-J system is not organic but should be considered for all ADAM cells for the future. This authorization would allow the cell to use satellite capabilities to receive air pictures, but will still not provide a low level picture. Depending on the look angle, cabling may be an issue with length and capability.

Lesson Learned: For fixed facility operations, the ADAM cell needs longer cables. (CTSF-NW was able to do this, great capability to configure needs from personnel on hand.)

CHAPTER 8: COMBAT SERVICE SUPPORT

Section 1: Public Affairs (PAO)

During initial combat operations, Operation Arrowhead Blizzard, an O5 public affairs officer (PAO) and an E5 public affairs NCO supported the brigade staff. The SBCT does not have organic PAO support, so these two Soldiers were borrowed from I Corps at Fort Lewis.

Topic A: News Media Embeds

Observation: Four news media organizations were embedded with units within the brigade.

Discussion: A reporter from The News Tribune (Tacoma, Washington) was embedded with HHC 3/2 SBCT, and also spent time with 1st Battalion, 23rd Infantry Regiment and 1st Squadron, 14th Cavalry Regiment. Reporters from Nightline (ABC News), were initially embedded with 2nd Battalion, 3rd Infantry Regiment, but prior to Arrowhead Blizzard they were moved to 1/23 Infantry for operations in sector. Two reporters from the Army Times were embedded with 5th Battalion, 20th Infantry Regiment. An Army Magazine reporter was embedded with 1/14 Cavalry. During the execution of Arrowhead Blizzard, FOX News visited 5/20 Infantry for a 24-hour period, and a reporter visited 5-20 Infantry for three days.

Insights/Lessons Learned:

- Public affairs personnel spent much of their time tracking the daily location of the embedded reporters and identifying when stories were being filed.
- Depending on known missions, there were also incidents in which reporters were shuffled to one unit for maximum coverage of a particular operation.

DOTMLPF Implication/Recommendation: none

Topic B: Serious Incidents

Observation: Even though the media was embedded with respective units, if a series of significant events occurred in any one area of operation (AO), they all wanted to cover it to some extent.

Discussion: Examples of significant events include a 1/14 Cavalry Stryker vehicle being hit by an improvised explosive device (IED). All Soldiers escaped and only one Soldier had a foot/ankle injury. The vehicle caught fire, burned entirely, and was a total loss, but it showed the vehicle could take a serious hit and protect the Soldiers. This story was significant because it was the first Stryker destroyed by enemy fire and all the media wanted to cover it.

Another incident was a platoon-level firefight in an area of operation (AO) in which five to 20 Soldiers killed 11 enemy fighters. This was the Stryker Brigade's first major engagement, and all reporters wanted to cover this story. Other stories covered include a Stryker that rolled into a canal and a second IED attack that damaged the front left tire of a Stryker. The rollover was news because it was the second rollover event in theater. Fortunately, all the Soldiers were immediately rescued and the vehicle was righted in two hours. On 8 December, two Strykers rolled over into a canal at night and three Soldiers were killed.

Insights/Lessons Learned:

- In the second IED incident, a Stryker tire and hub were damaged, but the Stryker Soldiers, along with aviation support, were able to catch the five enemy fighters responsible for the incident. PAO was able to push three key messages with the media:
  (1) In two IED attacks on Strykers, the vehicle took the brunt of the blast and all Soldiers escaped; one with a minor injury.
  (2) After the Stryker lost a front wheel, the vehicle was still able to continue on its own power and return to its assembly area as the vehicle is designed to do.
  (3) This was the first time SBCT Soldiers were able to catch the enemy fighters immediately following an attack. This was due to swift maneuvering by the Soldiers in the Strykers and the OH-58D pilots in the sky.

DOTMLPF Implication/Recommendation: none

Topic C: Media Analysis

Observation: The public affairs (PA) team pulled the news articles off the internet.

Discussion: The PA team pulled news articles about the SBCT off the internet and posted them to the brigade's intranet Web page due to limited staffing.

Insight/Lesson Learned:

- Very little analysis of news articles was conducted other than to determine whether the story was positive, balanced, or negative, and whether the story contained command messages.

DOTMLPF Implication/Recommendation: none

Topic D: Command Information Stories

Observation: The PAO NCO wrote 3-4 stories each week about SBCT operations at the brigade's FOB and at units' tactical assembly areas.

Discussion: These stories and photos were sent to 4th ID for inclusion in their division field newspaper and sent back to Fort Lewis for inclusion in the Northwest Guardian. Several stories and photos were sent to Army News Service (ARNEWS).

Insight/Lesson Learned:

- Command information stories and photos produced by the brigade should be reviewed by the unit PAO and sent to appropriate news services for inclusion in local, regional, and government news media.

DOTMLPF Implication/Recommendation: none

Topic E: Challenges

Observation: The SBCT performance during Arrowhead Blizzard exceeded expectations, as identified in many of the news stories, but there have also been some difficult times.

Discussion: When the IED destroyed the 1-14 Cavalry Stryker, the ABC News crew was within "seeing the smoke" distance from the incident, but the leaders on the scene refused to take the news crew to the scene. This violated the department of defense (DoD) news media ground rules, but by the time the PAO found out about the incident it was too late for ABC to capture the news; amends had to be made. With regard to this same incident, a reporter at the brigade base

camp heard about the incident and went directly to 1/14 Cavalry. Within minutes, the reporter had more detailed information than the brigade tactical operations center (TOC). This incident reaffirmed to the operations staff in the brigade TOC to demand more timely and detailed information from subordinate units.

As previously mentioned, the SBCT does not have an organic public affairs element, but due to the notoriety of the brigade the element was provided from I Corps. The two-man team was deployed with two computers, two small digital cameras, one digital video camera, and no vehicle. The computers and cameras have worked well, but having no dedicated vehicle presented a recurring problem for moving around a very large base camp. A PAO team in the SBCT proved to be a key asset. With the transition to stability operations or support operation,s the team is a critical tool for the commander for spreading the commander's message throughout the AO, as well as that of public support.

Insights/Lessons Learned:

- The PAO team provided the commander an information operations (IO) tool as well as a collection asset from embedded reporters.
- The PAO team acts as the embedded media manager and oversaw there locations, focus, and ROE for the unit.
- The PAO team can act as the unit information relations' officer in sending positive reports back to the FRG.

DOTMLPF Implication/Recommendation: none

Section 2: Signal

Topic A: Initial KU Band Satellite System (IKSS)

Observation: The SBCT recently purchased an IKSS that could pull in an aggregate 7.4 Mbps shared, throughput in the 10 systems within the brigade.

Discussion: The IKSS provided the SBCT and all subordinate battalions with reliable SIPR/NIPRNET access running at speeds comparable to mobile subscriber equipment (MSE); each battalion can make worldwide phone calls from four phones per battalion. Each battalion also has video teleconferencing (VTC) capability. This was not possible with the near term digital radio (NTDR) that had a planning range of 10 km, a 288 Kbps, and was very dependent on line of site. A key point is IKSS is a battalion enabler improving network connectivity from the brigade down to the battalion. A draw back to the IKSS network was that it is based on whether the "big" pipes leading into the brigade subscriber nodes (BSN) have connectivity to the higher command (HICON). Initially there were complaints about the IKSS; however, once the data was stabilized, NIPR and SIPR connectivity through 4ID and the MSE network battalion connectability became more reliable. The issue was compounded by Soldiers/leaders receiving very little training on the system before deployment, resulting in a very steep learning curve.

Insights/Lessons Learned:

- In order to mitigate the problem identified with all IKSS traffic being predicated on pipes leading into the brigade, one of the IKSS terminals (specifically one of the management terminals) was moved to Camp Doha, Kuwait in order to facilitate a “sanctuary” base for the IKSS network that was external to the AO.
- That terminal was connected directly to a Defense Collaboration Tool Suite (DCTS) system leading into a standardized tactical entry point (STEP) site in Germany to draw NIPR/SIPR/Defense Information Systems Network (DISN) services.
- That DCTS terminal, at Doha, was one of the critical entry points for theater services. Essentially the brigade took a network asset (MRT KU system) and modified it to be a potential HICON link.
- The information assurance (IA) and accreditation paperwork took a significant amount of time but was approved. That terminal was constantly on and provided satellite management for the brigade in order to facilitate battalions setting up their IKSS without needing the brigade main terminal up. The Doha terminal was manned by Data Path, Inc. contractors and not by "green-suitors."
- Overall assessment of the IKSS at brigade level was positive; however, the ability of the battalions to utilize it effectively was a problem. Workarounds were being considered.

DOTMLPF Implication/Recommendation: none

Topic B: Brigade Subscriber Node (BSN)

Observation: The brigade subscriber node (BSN) is a solid piece of equipment that enables the brigade to get NIPR and SIPR data, voice through analog and Integrated Service Digital Network (ISDN) services, has 2 high capacity line-of-sight (HCLOS) radios capable of data transfer of 8 Mbps, and is VTC capable.

Discussion: The brigade experienced a great deal of frustration with the Vantage system, which should allow for flood search routing of voice.

Insights/Lessons Learned:

- The Vantage system was constantly down in one of the BSNs.
- It had to be re-booted several times a day to allow the main tactical operation center (TOC) to make any phone calls at all.

DOTMLPF Implication/Recommendation: none

Topic C: Enhanced Position Location Reporting System (EPLRS)/FBCB2

Observation: As seen at the National Training Center (NTC) and Joint Readiness Training Center (JRTC), EPLRS/FBCB2 system is a star player.

Discussion: EPLRS/FBCB2 is highly used by all vehicles that have it (estimate 65 to 75 percent of SBCT vehicles) allowing for situational awareness and messaging capability. The situation awareness (SA) alone has and will continue to save Soldiers lives. However, there are several fixes that need to happen in future EPLRS/FBCB2 upgrades. Currently the messaging capability is four "hops" to reach its intended target, unless one of the hops is an SA server, which starts the count again.

Insights/Lessons Learned:

- One problem with the messaging capability is that if the message does not get to the intended receiver without hitting an SA server after 4 hops, it stops. If there is something that would tell the originator immediately that the message failed (inbox, system administer failed transmission notice) it would help and the originator could send it again.
- Another problem is that only a few of the vehicles per battalion are SA servers (usually a retransmission and S3 vehicle). This needs to change to all retransmission vehicles and all commanders in the brigade allowing for a more widely dispersed network that would allow for more hops and a far greater message success ratio.

DOTMLPF Implication/Recommendation: none

Topic D: FM Radios

Observation: From the start of operations in theater the battalions have been utilizing all 3 stacks of FM radios on the relay/retransmission vehicles.

Discussion: Having the third stack has significantly enhanced the ability for the battalions to retransmission command (cmd), operations and intelligence, fires, and administrative/logistics plans (admin/log). Admin/log nets are a definite force multiplier in theater and aid in establishing command and control (C2) where an FBCB2 "void" exists between battalions and brigade logistics vehicles. During the operation, 13 out of 15 brigade retransmission vehicles were being used. Of those 13, 7 were retransmitting using all three stacks. The remaining six vehicles were down due to hardware problems (i.e. ASIP R/T turned in, VAA, power amps). In some cases the battalion relay/retransmission vehicles that are farther forward than brigade assets were assisting with brigade nets because of the 3rd stack (i.e. Fires).

Insights/Lessons Learned:

- Although this capability decreases setup and tear down time (now have a total of 6 OE-254 and 2 QEAMS up per retransmission), the third stack retransmission is needed.

- The systems in the SBCT are mostly state of the art and a dream for any signal officer. Therefore, the training in the basic and advance courses need to keep pace.
- Although the focus should still be on MSE as the backbone, the digital systems the SBCT have are quickly proving as, if not more, reliable; they are quicker to setup and more maneuverable.
- Among other systems utilized daily are HF, FM (ASIP), PSC-5, EPLRS and NTDR.

DOTMLPF Implication/Recommendation:

- A strong background in combat net radio (CNR) is highly encouraged for any SBCT S6.

Topic E: Dynamic Host Configuration Protocol (DHCP)/IP Based Internet Protocols

Observations: Tactical operation centers have Web pages that require constant maintenance for reliable information traffic passing.

Discussion: none

Insight/Lesson Learned:

- A firm understanding for all Microsoft office products and DHCP/IP based internet protocols is a must.

DOTMLPF Implication/Recommendation: none

Section 3: Central Technical Support Facility (CTSF-NW) Contractors

The brigade operates in a noncontiguous manner during combat operations. When equipment breaks or malfunctions, contractors have to go where the equipment is rather than wait for the equipment to come to them. Force protection of unarmed team members became a primary concern for the CTSF-Stryker. Prior to deployment, the brigade commander established clear, unambiguous standards for force protection for elements leaving any secure area. The brigade's enforcement of these standards enabled them to confidently send contractors forward, where needed, knowing all reasonable precautions for their safety were in place.

Topic A: Brigade Lessons Learned

Observation: Build support team into the planning cycle.

Discussion: Support is not an after thought, it is vital to the success of the mission. 3/2 SBCT did this well by actually including the support team in the order and distributing fragmentary order to the CTSF-Stryker.

Insights/Lessons Learned:

- Support personnel present unique force protection requirements. Provide simple and clear guidance for force protection for contractors called forward and enforce it.
- Keep the support team informed of mission requirements so they can provide critical support where it is needed most.
- Integrate organic support activities with contractor support for maximum effectiveness.
- Inventory. Identify deficiencies/shortages before you leave; it will be harder to fix later.
- Bring all FBCB2 up prior to deployment. Pay extra attention to support units, base support battalion (BSB), engineers, civil affairs, psychological operations (PSYOPS) and others who may not be as experienced or proficient with FBCB2 as your line units.

D**OTMLPF Implication/Recommendation:** none

Topic B: CTSF-Stryker Lessons Learned

Observation: An umbrella organization is needed to facilitate coordination for command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR) activities.

Discussion: Provide a central point of contact for the unit to coordinate through instead of a myriad of project managers (PMs) and organizations.

Insights/Lessons Learned:

- Integrate with the unit early. The NTC and JRTC are the places to develop support plans and relationships with the supported unit.
- Support from the front. Have key support personnel on site in the field with the unit. Be where the problems are, not in the rear where nothing of significance breaks. This embedding with the brigade qualitatively improves communication and responsiveness and has ensured that CTSF-Stryker is continually involved in the brigade's planning process. A graphic example of this was in the planning for the brigade's assumption of the 101st. Airborne (Airmobile) mission. A brigade planning team, under the XO, did the reconnaissance and essential coordination. The director of CTSF-Stryker was the only contractor invited to participate and was fully involved in every aspect of the operation including the basis for the plan 3/2 subsequently implemented successfully.
- Plan, plan, plan, and plan some more. Prepare to support the unit under the worst possible conditions. Anything you can do for yourself, do. Anything you can bring for yourself, bring. Control your own destiny—come as fully equipped as feasible so you are not a distracter and do not have to place burdensome requirements on the brigade. This operational tenet cannot be over-emphasized.
- Importance of logistics on the shipper/packer role: The more active the role CTSF-Stryker took, on the logistics side, the more success was achieved in getting the broken equipment

from the BSB to the proper vendors. It was unsuccessful, however, to put parts on a logistics package (LOGPAC) and hope the BSB got them on the other end.

- Constantly maintain situational awareness. Develop and maintain a consistent plan to keep force protection at the forefront of all support activities.
- Be aggressive and proactive in establishing and maintaining the flow of parts and equipment once on the battlefield. Do not expect anyone else to do this for you. Build and man your supply chain to maximize your control of the flow. Track all parts outbound and inbound on a daily basis. Always look for better/faster ways to do this. Getting parts to a Fed-Ex/DHL representative is not always easy, especially in a combat zone. Identify all logistics options (LOGPAC, convoy, air) and use the one that is the most reliable and safe under the circumstances. Bring all the shipping packing materials you will need and then bring more. This is not easy.
- Actively monitor the health of your networks and systems. Do not wait for problems to come to you. CTSF-Stryker developed a "circuit rider" approach that had specifically designated field service representatives (FSR) visiting key nodes with a high density of systems. This also proved to be an ideal opportunity to do invaluable "over the shoulder" training and directly impacted the reduction in trouble tickets received. The number of problems arising will decrease, but expect the problems that do arise to be more challenging and critical. Overall, trouble tickets declined from 55 calls a day during pre-combat to 16 calls a day during combat operations. Make use of all the pertinent expertise on your team to solve the hard problems.
- Work as a team. Do not be reluctant to send a multi-functional group to examine a problem. As CTSF contractors, we always experienced positive synergy and never had software become a stopper. When we were not able to do it, the challenge was parts.

DOTMLPF Implication/Recommendation: none

Section 4: Military Police (MP)

During Arrowhead Blizzard the MP plans cell received no additional MP assets. One MP platoon at FOB Pacesetter (DS to 4th ID) was conducting detainee facility operations. Upon arrival at the FOB, an increased force protection posture was established which included a larger guard and search force, more over-watch positions, dirt berms, improved system of concertina wire to control vehicle traffic through and around the air control points (ACP), and Hesco barriers. The search area was improved to provide separate vehicle and pedestrian/passenger holding and search areas. Search teams were instructed by MP plans cell on security, proper search techniques such as utilization of mirrors to better search vehicles, personnel search, and actions under duress. Search teams were formed utilizing two US Soldiers and one Iraqi Civil Defense Corps person(ICDC) to search vehicles and passengers. Search teams and ICDC personnel were instructed on muzzle awareness, security, and over-watch of personnel awaiting access.

Topic A: Detainee Facility

Observation: During sweep of Samara by the maneuver battalions, 4ID moved the MPs and detainee facility operations to Brassfield-Mora.

Discussion: The brigade set up and operated a brigade central collection point outside of Pacesetter instead of utilizing the existing facility. Since the brigade had no DS MP assets, C1/37th FA was tasked with detainee operations for Operation Arrowhead Blizzard. C1/37th FA was trained on detainee operations and force protection measures necessary to construct and operate a detainee facility as well as procedures for transportation of detainees. Logistical and medical support, along with brigade tactical HUMINT team (THT), was included in the detainee facility, which added to the unit's responsibility outside the FOB. An engineer platoon was tasked with the force protection and construction of the detainee facility. The MP plans cell developed a detainee operations packet which included the following:

- Instructions and guidelines for completion of coalition provisional authority apprehension forms
- Proper collection and security of evidence
- Sworn statements
- Prisoner-of-war/detainee collection tags
- Procedures for transporting and searching detainees

Insights/Lessons Learned:

- Guidelines were developed and published to instruct units on force protection, guard force, ROE, handling and feeding of detainees, and measure for construction and operation of a detainee facility.
- Coordination was made with 4ID MPs to ensure detainee packets were completed properly, allowing for acceptance of detainees at the division collection point at Brassfield-Mora. B1/37th FA was tasked with transporting the detainees to Brassfield-Mora.
- Although the detainee facility operation was successful, the units tasked could have been utilized in support of brigade operations other than operation and construction of the detainee facility which could have been supported by a MP element DS to the brigade.

DOTMLPF Implication/Recommendation: none

Topic B: MP Plans Cell

Observation: The MP plans cell was responsible for conducting classes with the female Soldiers in the brigade on searching procedures for female detainees.

Discussion: The training dealt with establishing the area for search, initial visual search of detainee, establishing and setting up security for search/searched personnel, and actions against attempts by detainee to fight or flee. The female Soldiers were able to practice and build confidence in their ability to search females and to control the situation they would be placed in during and after a raid/sweep of an area. Coordination was made with a reserve military intelligence unit, which resulted in utilizing two civilian law enforcement officers.

Insights/Lessons Learned:

- The civilian law enforcement officers were better able to instruct the female Soldiers in the art of searching "non-combatant" females.
- Male MPs do not search females per practice; however, civilian law enforcement officers do and they shared their knowledge and techniques with the female Soldiers.
- The MP plans officer was responsible for maintaining a unit roster for all brigade Soldiers to ensure that there were female Soldiers available and ready to accompany the units while conducting operations.
- During raids conducted at Samarra, several female Soldiers from the brigade were utilized during the operation by maneuver elements to ensure Iraqi females would be searched properly while ensuring the safety of all personnel involved in the operation.

DOTMLPF Implication/Recommendation: none

Topic C: MP Plans Officer

Observation: The MP plans officer was responsible for liaisons with Criminal Investigative Division (CID).

Discussion: In sensitive law enforcement cases, CID has established proper procedures for investigating and collecting evidence pertinent in establishing a case involving brigade assets. CID serves as force protection advisor to the commander as well as planning officer for MP assets. CID also assists in planning detainee operations as well as training assigned units in SOPs if no MPs are assigned or attached.

Insights/Lessons Learned:

- Conduct training and restructuring of resources of local peace officers and departments when working in a support operation, stability operation, or Nation Building effort.
- The MP plans officer was tasked with developing a node security matrix and tasked the MP plans cell to track location and security for other units and ensure that the brigade commander was briefed on the location and what elements were providing security.

DOTMLPF Implication/Recommendation: none

CHAPTER 9: TTP AND EQUIPMENT MODIFICATION

Section 1: Enemy TTP (Not Previously Mentioned)

- Baited Ambush: Enemy will fire some sort of weapon system. When the maneuver unit showed up to investigate, the enemy opened fire with an improvised explosive device (IED), over-watched with rocket propelled grenades (RPG) indirect, and small arms.
- Enemy will utilize Motorola radios/cell phones for intelligence collection as well as asset coordination. Enemy also utilizes cameras, HUMINT, internet, and public sources (radio, television, cable, and satellite).
- Enemy will use sensitive locations (schools, religious buildings, hospitals) to ambush or seek refuge. Targeting the enemy in sensitive locations is an information/public affairs operation tool, Not attacking the enemy in these locations provides him sanctuary for his current and future operations.
- The enemy watches for patterns. If he sees a pattern he will then target you at his time and place of choosing, especially if you are not vigilant in security or in maintaining appropriate combat power.
- The enemy will fire indirect fire from populated areas hoping to draw counter battery fire. If you conduct counter battery fire, it provides propaganda for him. If you do nothing, you provide him indirect sanctuary. Once you see a pattern, saturate the area of operations (AO) and/or launch to locations with infantry and ambush/destroy as he moves in/out.

Section 2: Equipment Modernization

- Use “rat patrol” weapons mounts to provide thin skin vehicles additional platforms for force protection and security (see photo below). The below mod allows weapons to be mounted on both sides, providing 360 degree security, combined with the .50 cal up front.

Figure 4

- With the .50 cal some of the force mod pintels are shearing off due to the pin being too small; recommend drilling out hole and replacing pin with larger one. This can be

attributed to the bumpy roads and weight of .50 cal/traversing and elevating mechanism (T&E)/ammo. If the pin comes out it is a two-man job to put it back into action. See below for exact location.

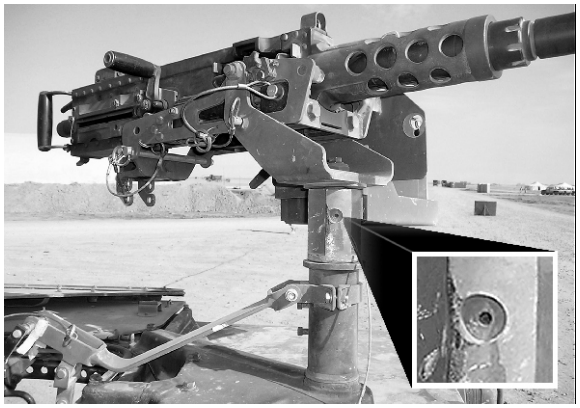


Figure 5

- Addition of scissor mounts for air guard position gives stability and security of weapons when moving to provide local security for Stryker.

Center for Army Lessons Learned

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