NEWSLETTER

NO. 10-06 OCT 09

Army Transformation: Support Brigades

Tactics, Techniques, and Procedures

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Foreword

The purpose of this newsletter is to highlight the Army's modular transformation in the area of its support brigades. The Center for Army Lessons Learned and the Army directed much of their attention in the past to the transformation of brigade combat teams. In some instances, support brigades received less attention. This newsletter is an effort to place emphasis on the good work being done to transform our former combat support and combat service support organizations into the support brigade concept. This is done primarily through a compilation of articles and interviews published in professional journals that specifically focus on organization and employment lessons learned and best practices.

We hope this information will be useful; serves to support a historical context; and offers some tactics, techniques, and procedures that can be used today and in the future to permit our forces to organize and operate more effectively.

DARRELL K. WILLIAMS
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Director, Logistics, Engineering
and Security Assistance

Army Transformation: Support Brigades Newsletter

Table of Contents

Introduction	**1**
Chapter 1. Battlefield Surveillance Brigade	**3**
The Battlefield Surveillance Brigade: The Future of Division-Level Intelligence, Surveillance, and Reconnaissance *MAJ Jaren K. Price*	**3**
Commander's Interview: COL Robert P. Ashley, Commander, 525th Battlefield Surveillance Brigade, Iraq, 21 March 2008 *LTC Gregory Puccetti*	**13**
The Battlefield Surveillance Brigade in Defense Support to Civil Authorities: 560th Battlefield Surveillance Brigade Lessons for Supporting a State-Level National Guard Reaction Force *COL Peter C. VanAmburgh*	**18**
Collection Report: 525th Battlefield Surveillance Brigade, Operation Iraqi Freedom 07–09, March 2009 *Center for Army Lessons Learned*	**27**
The Battlefield Surveillance Brigade in the Attack? 560th Battlefield Surveillance Brigade Lessons from Exercise North Wind 2008, Iwate, Japan, and Employment of Attached Maneuver Forces *COL Peter C. VanAmburgh*	**32**
Chapter 2: Maneuver Enhancement Brigade	**35**
The Maneuver Enhancement Brigade *COL Charles A. Williams and Mr. Joe Crider*	**35**
Modular Engineer Structure in Divisions *COL Jeffrey R. Eckstein*	**42**
Chapter 3: Fires Brigade	**47**
Transformation of Artillery: Continuity and Change *LTG Wilson A. Shoffner, U.S. Army, Retired*	**47**
Massed Precision Fires: A New Way of Thinking *Vincent R. Bielinski*	**54**

The Fires Brigade: A Critical Capability in an Era of Persistent Conflict *COL Samuel R. White, Jr.*	**56**
Chapter 4: Combat Aviation Brigade	**65**
The Changing Face of Army Aviation *BG Stephen D. Mundt with LTC Fred V. Manzo, Jr.*	**65**
Transforming Aviation Support Battalion Maintenance: Times Have Changed *MAJ Rogers L. Stinson, Jr.*	**70**
Chapter 5: Sustainment Brigade	**73**
Modular Transformation and the 3rd Sustainment Brigade *COL Darrell K. Williams, LTC Lillard D. Evans, and CPT Brittany R. Warren*	**73**
Engineers Breaking New Ground in the Sustainment Brigade *MAJ Anne V. Taylor*	**77**
Transformation of Finance Operations *MAJ Thomas A. Buchholz, CPT Nicole M. Ward, and SSG James R. Bakie*	**82**
Establishing Modular Human Resources Operations in Iraq *CPT Shaunarey Amos*	**89**
Human Resources Modularity Tested in Iraq *CPT Xarhya Wulf*	**93**
Commander's Interview: COL Mark Barbosa, Commander, 7th Sustainment Brigade, Iraq, 15 October 2008 *LTC Tony Skubi*	**100**

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Introduction

The following collection of articles is primarily focused on the modular support brigades: battlefield surveillance brigade, maneuver enhancement brigade, combat aviation brigade, fires brigade, and the sustainment brigade. In some cases, the articles touch on division-level operations. These articles cover a range of issues relating to modular force design, lessons learned, and commanders' interviews. They should not be considered as all-inclusive. In some instances, the information may be slightly dated but typically no older than one to two years. This is an effort to capture relevant articles published in recent professional journals and from the Center for Army Lessons Learned (CALL) archives to inform Soldiers and provide a historical document. Since the modular brigade combat teams garner much attention, this newsletter attempts to document challenges and efforts from the perspective of the supporting forces.

In many instances, the ideas presented in these articles are personal opinions and in some cases not approved Army doctrine. Since Army leadership is still reviewing some portions of the modular design, the recommendations in these articles should always be validated with the latest approved designs and the most current Army doctrine.

CALL acknowledges and thanks the professional journals and authors who permitted the reproduction of these articles and in many instances were personally involved in assisting CALL in the formatting process.

Minor modifications to format were made to support the CALL newsletter format. In some instances pictures that were not referenced in the narrative were omitted.

Chapter 1

Battlefield Surveillance Brigade

The Battlefield Surveillance Brigade: The Future of Division-Level Intelligence, Surveillance, and Reconnaissance

MAJ Jaren K. Price

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On 17 March 2008, General William S. Wallace signed a directive transferring the proponency for the battlefield surveillance brigade (BFSB) from the Combined Arms Center (CAC) at Fort Leavenworth to the U.S. Army Armor Center at Fort Knox. This transfer represents an important next step in continuing the development of the BFSB into a fully operational support brigade designed to conduct multi-disciplined intelligence, surveillance, and reconnaissance (ISR). As armor and cavalry officers and Soldiers occupy key positions in this brigade, there is a pressing need to understand this organization and how it functions. It is also critical that lessons learned from the deployment to Iraq of the first interim-designed BFSB, the 525th BFSB, be debated and, as necessary, incorporated into other BFSBs as they are activated.

This article briefly discusses the mission, organization, and operational concept of the BFSB and the important role it plays in the modular Army and makes recommendations to encourage debate on its future development.

Mission of the BFSB

As outlined in the BFSB operational and organization (O&O) concept, the BFSB's mission is to "conduct ISR operations to enable the division commander to precisely focus joint elements of combat power and simultaneously execute current operations while preparing for future operations."[1] It is the primary organization in the division for conducting ISR. The BFSB does this by executing the ISR tasks assigned by the division headquarters, which answer the commander's priority intelligence requirements (PIR). This allows the commander to make informed and timely decisions to shape operations in the area of operations (AO). Unlike previous division- or corps-level military intelligence (MI) units, the BFSB's primary task is collection, not analysis. The structure to conduct analysis has been built into the division and corps intelligence (G2) sections. The focus of the BFSB is intelligence that lies outside the brigade combat teams' (BCT) AO or supports the higher level commander in shaping the entire AO.

Organization of the BFSB

The newly published U.S. Army Field Manual (FM) 3-0, *Operations,* lays out an operational environment that characterizes the future as an era of persistent conflict. Not only must the U.S. military be capable of defeating traditional militaries of nation states, such as North Korea or Iran, but also non-state actors, such as terrorist groups and international drug cartels, that threaten U.S. interests. FM 3-0 calls for a military capable of executing full-spectrum operations that include offense, defense, and stability operations.[2] The BFSB was designed to operate across the spectrum of conflict and provide ISR in support of these operations. From 2004 to 2006, the CAC experimented with various designs for the BFSB, which were tested and refined through multiple simulations, studies, exercises, and reviews supported by the U.S. Army Training and Doctrine Command (TRADOC) Analysis Center, the Army's battle labs, U.S. Joint Forces Command (USJFCOM), and RAND Corporation. This led to the current design approved by the Vice Chief of Staff of the Army on 11 August 2006.

The BFSB was designed to be a responsive, adaptable, and multi-disciplined ISR organization. Through the combination of traditional reconnaissance missions performed by scout/cavalry units and the technical and human intelligence (HUMINT) operations performed by MI units, the BFSB was designed to provide the mix of ISR capabilities necessary to operate in any contingency. The BFSB's organic organization consists of a brigade headquarters, an MI collection battalion, a reconnaissance squadron, a network support company, and a brigade support company. It was also designed to be tailored during Army Force Generation (ARFORGEN) for its specific mission or contingency by adding a variety of capabilities (see Figure 1).[3]

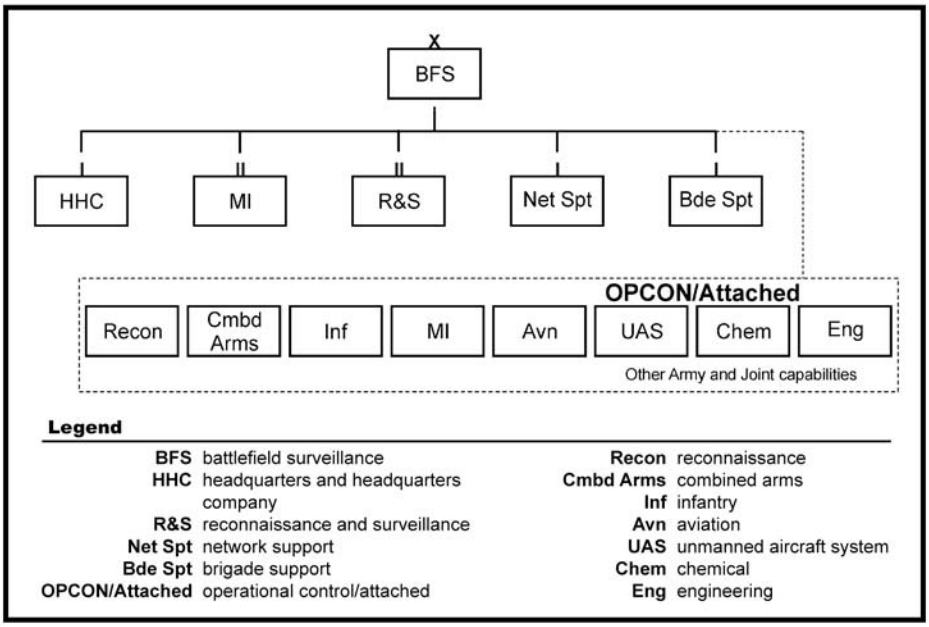

Figure 1. Battlefield surveillance brigade organization

BFSB Headquarters

The BFSB headquarters' mission is planning, executing, and supporting ISR operations. It was designed with three command elements: a mobile command group, tactical command post (TAC CP), and a main command post (MAIN). The MAIN is organized by warfighting functions with enablers and includes: an air defense and airspace management/brigade aviation element (ADAM/BAE), an Air Force tactical air control party (TACP), and a robust sustainment section designed to provide sustainment planning and coordination due to the lack of a brigade support battalion (BSB). The BFSB is commanded by an armor, infantry, MI, or aviation officer with the XO and S3 from a different branch than the commander (see Figure 2).

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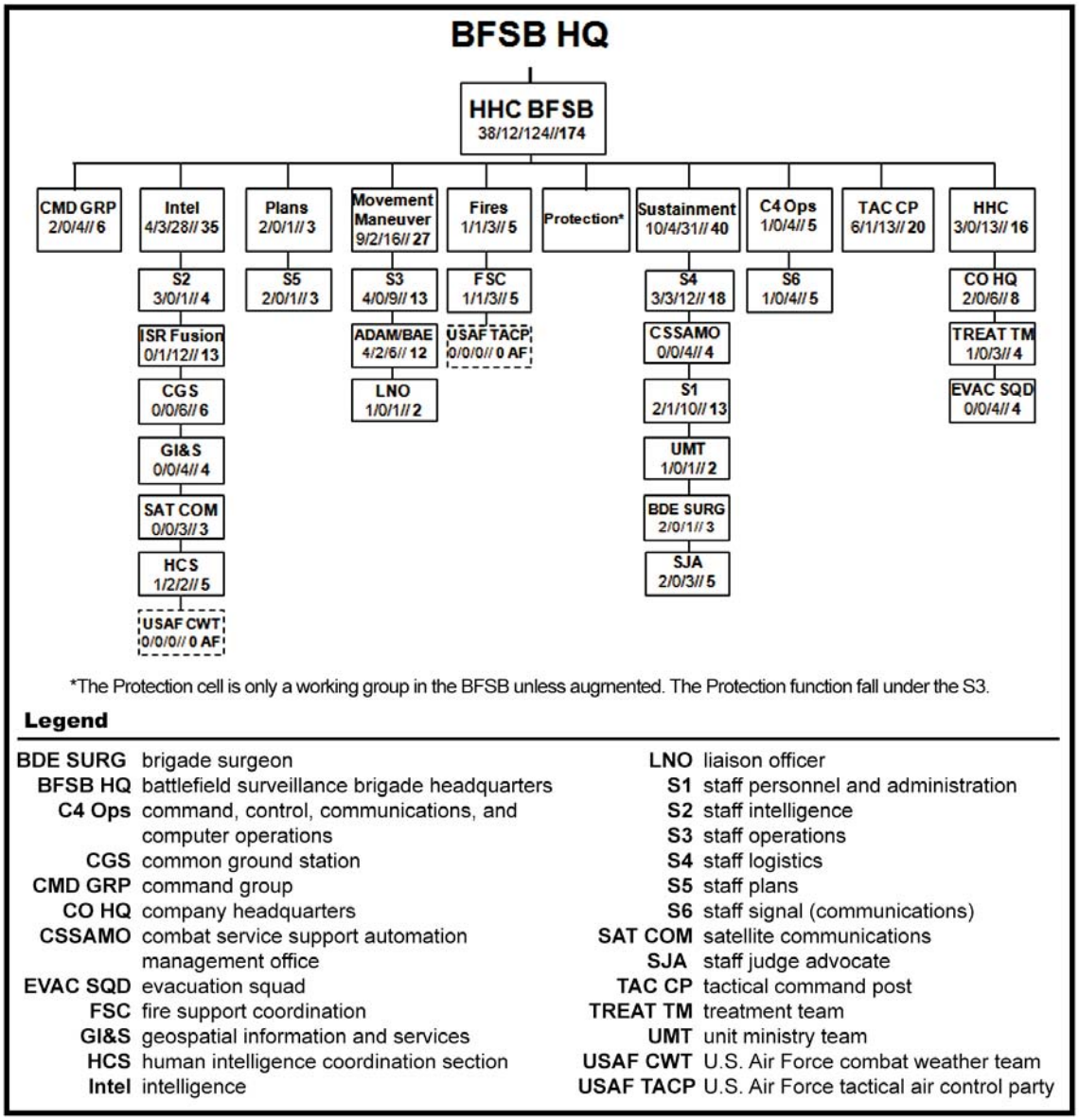

Figure 2. Battlefield surveillance brigade headquarters

MI Battalion

The MI battalion is composed of six companies (see Figure 3). The unmanned aircraft system (UAS) company provides organic aerial reconnaissance and surveillance with the Shadow UAS system and links to the future Army extended-range multipurpose UAS. The technical collection company conducts signal intelligence (SIGINT) and contains six Prophet collection systems. The collection and exploitation (C&E) company and the counterintelligence (CI)/HUMINT company are designed to provide CI and HUMINT collection for the higher headquarters as well as augment, or provide, HUMINT support to BCTs or support brigades.

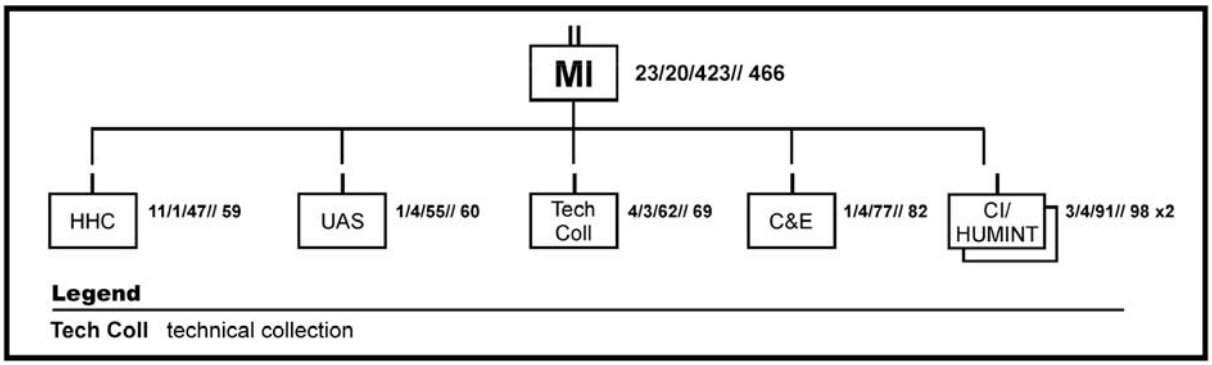

Figure 3. Military intelligence battalion

Reconnaissance Squadron

The reconnaissance squadron is composed of a headquarters troop, two high mobility multipurpose wheeled vehicle (HMMWV)-based ground troops, and a long-range surveillance (LRS) company composed of 15, six-man teams (see Figure 4). The squadron includes fire support personnel and an Air Force TACP. Unlike previous cavalry squadrons, it is not intended to fight for intelligence against a robust conventional enemy; rather, it is designed to integrate the advantages of a scout on the ground, with all the technical and HUMINT capabilities of the MI battalion, to avoid decisive engagement and shape the battlefield by superior knowledge of the enemy.

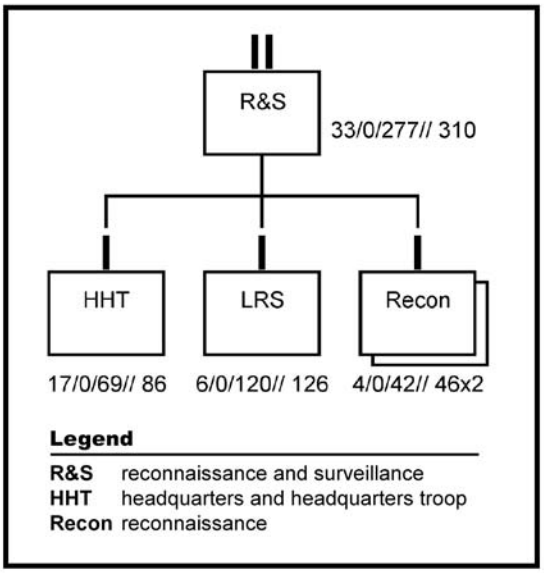

Figure 4. Reconnaissance squadron

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Network Support Company

The network support company provides the communications structure for the brigade. It is based primarily on the satellite communications structure provided by the Joint Network Node (JNN) system. The company is designed to provide both digital, voice, and video teleconference connectivity, along with automation support.

Brigade Support Company (BSC)

The BSC is designed to support the organic structure of the BFSB with field feeding, distribution, and maintenance support. It is designed to task organize into teams to support each battalion or can be organized as necessary to support the BFSB.

Table of Organization and Equipment versus Modified Table of Organization and Equipment (MTOE)

As in most cases with Army units, the MTOE differs from the design document in the TOE. As currently fielded, the 525th BFSB includes a smaller headquarters, two smaller MI battalions, a LRS company, a network support company, and a brigade support company. The 525th has not been fielded key equipment such as the Shadow UAS and Trojan Spirit. Current plans are to first field Active Component BFSBs based on the MTOE and then transition them to full design following redeployment. Most Army National Guard (NG) BFSBs will be activated with the full design.

Operations

The BFSB is the primary organization tasked to collect PIR for the division or assigned headquarters. Its organic structure was primarily designed to meet the needs of a modular division, but it may be force tailored to support a corps, joint task force, or multinational force. Force tailoring is the assignment of additional capabilities to the organic brigade organization based on the mission during ARFORGEN. The higher headquarters conducts its mission analysis and determines PIR. Based on PIR, it assigns ISR tasks to subordinate units according to location and capabilities. The higher headquarters uses mission orders with a task and purpose and provides necessary resources. It is then up to the subordinate commander to determine how he will accomplish the mission. Once the required information is collected, it is analyzed and fused with other information to form intelligence. This intelligence is evaluated against the original requirement to ensure compliance. If the task is fulfilled, the higher headquarters begins the process again, which is focused on the next priority; if the task is not fulfilled, then it is adjusted to meet the original requirement (see Figure 5).

The BFSB primarily operates for the higher headquarters in areas not assigned to other brigades or in an assigned AO for ISR operations. Its tasks should focus on allowing the higher headquarters to shape the AO for subordinate units. Additionally, the BFSB reinforces the ISR capability of BCTs or can provide this capability to other brigades. This is primarily done with the CI/HUMINT companies in the MI battalion.

Once the BFSB receives its task from higher headquarters, it conducts mission analysis and plans the best way to accomplish the mission. The BFSB commander task organizes the reconnaissance squadron and MI battalion as required. This allows for the use of cueing, mix, and redundancy. Task organizing company-sized elements of ground recon, UAS, SIGINT, and HUMINT capabilities has proved effective in developing intelligence of insurgent infiltration routes, training camps, and sustainment capabilities, particularly in the western areas of Iraq. This intelligence allows maneuver commanders to quickly and precisely target and destroy these insurgent capabilities.

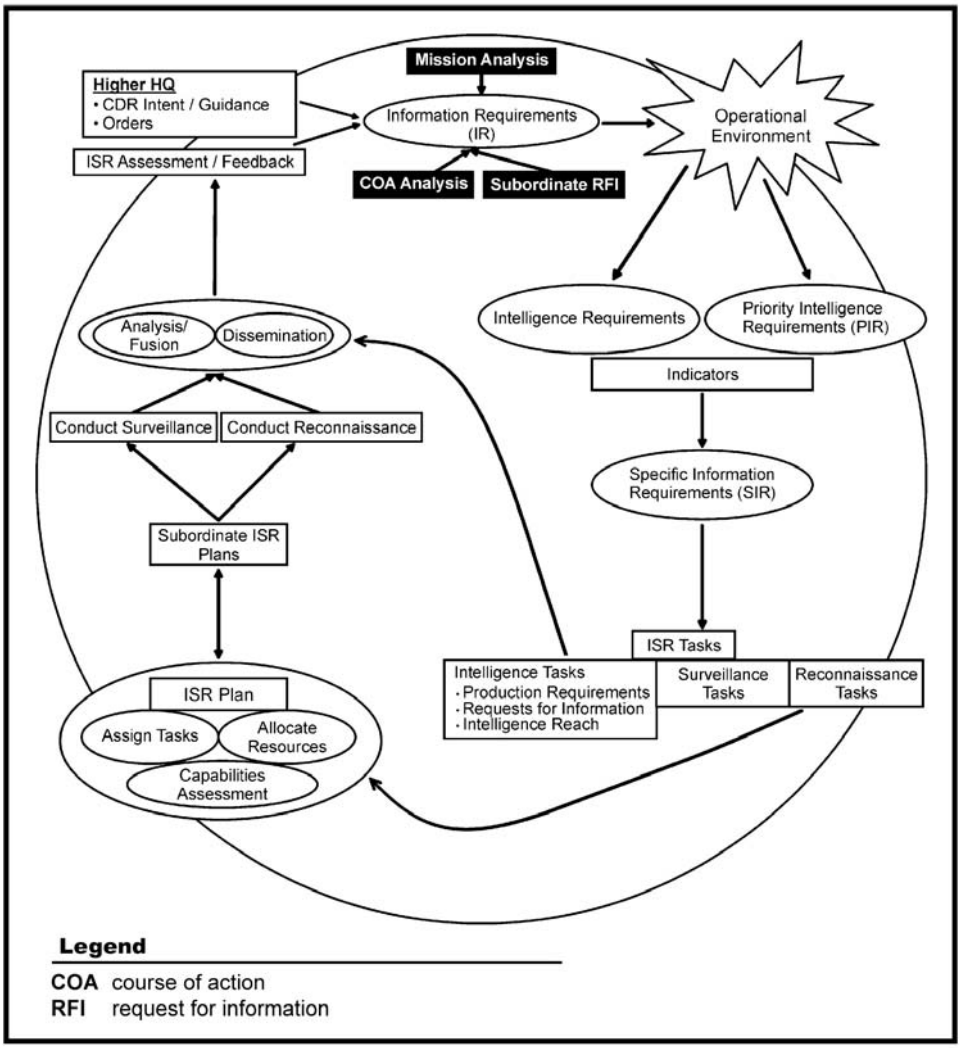

Figure 5. Intelligence, surveillance, and reconnaissance process

Figure 6 depicts a division AO with both contiguous and noncontiguous AO focused on urban areas. (**Note:** Counterintelligence and HUMINT companies and platoons are represented by the generic MI unit symbol.) The BFSB has been assigned an AO along the western border of the country, concentrating on a templated threat, and will use a mix of MI and reconnaissance assets. BFSB HUMINT and SIGINT assets have been task-organized to some brigades to provide, or augment, their ISR capabilities. A LRS team and UAS are also tasked to find a sniper operating along a main supply route in the division control area.

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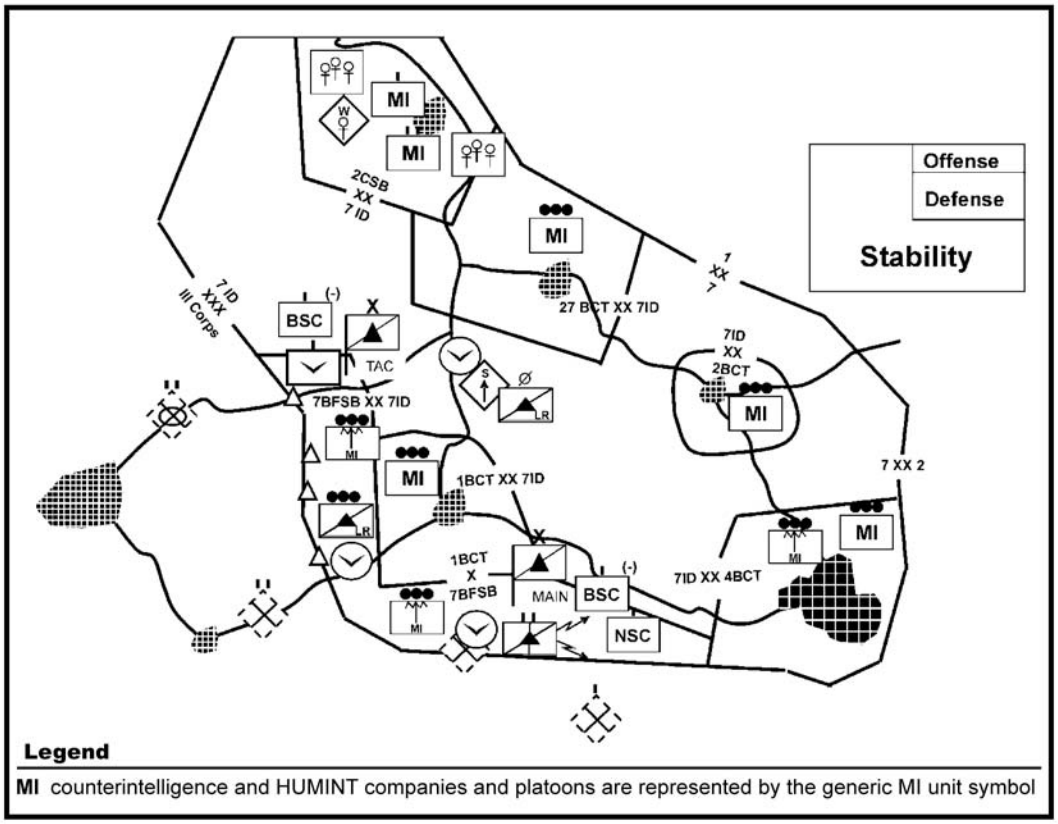

Figure 6. Battlefield surveillance brigade operations

Armor/Cavalry Officers in the BFSB

The BFSB provides a variety of opportunities for cavalry officers and Soldiers. Currently, the Army plans to activate four Active Component BFSBs and six in the NG. The requirement for two additional Active Component BFSBs is currently under review. The BFSBs contain positions from private to sergeant major and lieutenant to colonel designated for scout and cavalry specialties. Soldiers or officers could actually spend their entire careers in a BFSB. The BFSB commander's position is coded as an O2B, which means it could be filled by an armor, infantry, MI, or aviation officer. Commanders of BCT recon squadrons, in addition to BFSB MI battalions and recon squadrons, should be the primary candidates for this command.

The key is developing commanders and staff officers that understand the various ISR disciplines and how to execute ISR operations and effectively integrate both joint and Army assets to provide timely and accurate intelligence. While it is beneficial to understand and gain experience in various types of units, specialization of officers who "grow up" in BFSBs and recon squadrons should be encouraged.

Recommendations for Consideration

As with any new organization, many strengths and weaknesses are not evident until the unit is deployed to perform its actual mission. The 525th BFSB, in conjunction with the U.S. Army Center for Army Lessons Learned, has begun to identify some of these shortfalls. However, if a unit is not resourced or employed as it was designed, the unit and concept cannot clearly be

evaluated. Currently, the 525th BFSB is neither resourced nor being deployed as designed. However, based on lessons learned from the deployment of various BCTs, the deployment of the 525th BFSB, and simulations and exercises involving the BFSB, I recommend several items for immediate consideration.

Deploy a fully resourced BFSB

The first recommendation is to fully resource the TOE design and deploy a BFSB as soon as possible. In particular, the Armor Center must ensure that the reconnaissance squadron is fully manned, equipped, and trained and also correct the shortages that exist in the BFSB headquarters between the MTOE and TOE. The BFSB should then be assigned to a headquarters and employed as a brigade to fully test its operational concept. The next available BFSB could be deployed to Afghanistan to work for the combined joint task force/U.S. division headquarters as Afghanistan provides a variety of terrain to test BFSB capabilities as well as the need for ISR capabilities for the commander. As more BFSBs are activated, one should be assigned to each deployed division headquarters. The National Guard BFSBs should be included in this plan.

Reevaluate the MI battalion structure

The second recommendation is for the MI school, based on feedback from the 525th, to reexamine how the MI battalion should be structured: Should it have two smaller MI battalions, as in the current MTOE, or one large battalion as approved in the TOE. The concept currently being tested with smaller deployed MI battalions is to combine the HUMINT and SIGINT into multifunctional teams instead of discipline-specific companies. The 525th has documented numerous advantages to this concept such as the teams' ability to develop intelligence and support BCTs. The MI school must look closely at the requirements for the MI battalion in full-spectrum operations and determine which design makes the most sense. If the school determines that two small battalions with multifunctional teams are better, changes must be made to the support company for the BFSB.

Add a brigade special troops battalion

The third recommendation is to resource a unique brigade special troops battalion (BSTB) for the BFSB. In the original design, the BFSB had a BSTB but was later removed to reduce personnel numbers. Based on observations from the 525th BFSB and the Stryker BCT (which does not have a BSTB or a BSB) and the other BCTs, BSTBs are critical to effectively employing the brigade's separate and support companies. These headquarters reduce the requirement for small unit-level planning by the brigade staff and allow for better planning of operations and care of Soldiers. Based on personnel and equipment numbers and the sustainment operations in the BFSB, adding a BSTB and BSB is likely excessive. A BSTB with an added support operations section could meet the needs of the BFSB and provide command and control for the network support company, the sustainment company, and any additional company-sized units attached to the BFSB.

Develop light reconnaissance vehicles

A fourth recommendation is for the Armor Center to reevaluate the needs of the Army for light reconnaissance vehicles and design and procure new vehicles. One critique that has resurfaced repeatedly in the BFSB design is using the HMMWV as a reconnaissance vehicle in both the recon troops and LRS companies.

For the recon troops, critics point out that the HMMWV lacks the protection, firepower, and the essential suite of cameras, sensors, and lasers required of a reconnaissance vehicle. While the standard 1025/26 HMMWV has advantages such as off-road mobility and could be sling loaded

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by Army helicopters, the needed change to up-armored vehicles negates these advantages. The ideal vehicle for the BFSB and the infantry BCT (IBCT) recon troops would include the following options: be sling loadable by helicopter (also internally loaded on a CH-47); provide armor protection from small arms up to 12.7 mm and mines/improvised explosive devices; have an organic suite of sensors that could be used on the move; have a mast antenna for employment while stationary; be capable of mounting a variety of weapons (M2, Mk-19, M240); have high off-road mobility; carry a minimum of six Soldiers (crew of two and four dismounts) and equipment; have a range of 350+ miles; and have the ability to run various electronic equipment from an internal power source.

The LRS company does not have a vehicle to support its teams, and the recon troop vehicle would not meet the needs of the LRS company, which establishes the need for another type of light recon vehicle. The LRS company requires a light, all-terrain vehicle that would extend the range and speed of the LRS teams. Ideally, a six-man LRS team and its vehicles could be internally loaded in a CH-47 for insertion missions. At a minimum, it must be lightweight and small, sling loadable, and able to carry LRS Soldiers and their equipment without resupply for five to seven days. The vehicle must be highly mobile and nearly silent and would serve primarily as transportation to increase the LRS teams' mobility and not as a fighting or reconnaissance platform. The vehicle would carry between one to three people; the key is that the entire LRS team and vehicles are CH-47 transportable. They must also be transportable by medium tactical vehicles, either internally or on standard Army trailers.

Resource BFSB Air Force tactical air control parties (TACPs)

The fifth recommendation concerns one of the most critical shortages currently in the BFSB — the unresourced requirement for TACPs in the brigade and recon squadron. The BFSB has no organic indirect or joint fires capability and must rely on outside resources. Due to the distances the BFSB was designed to operate, the support of Army indirect fires assets is likely to be limited. This provides a reliance on joint fires, especially for LRS teams. The lack of TACPs severely limits the BFSB's ability to plan and employ joint fires, especially close air support in a timely manner. This capability is critical to protect BFSB Soldiers and allow the BFSB to execute targeting. The Armor Center should ensure that the current Army/Air Force memorandum of agreement is modified to resource the required TACPs for the BFSB.

Explore feasibility of a single scout military occupational specialty (MOS)

Finally, the recon troops in the BFSB are currently composed primarily of 19D cavalry scouts, while the LRS company is composed of 11B infantrymen. All "scouts" in the BFSB recon squadrons as well as the IBCT recon squadrons should be 19Ds as opposed to a mix of 11Bs and 19Ds; using 11Bs as scouts is inefficient, and their training does not provide necessary entry-level skills for Soldiers primarily focused on ISR. While many basic scout and infantry tasks overlap, there is a big difference between training focused on obtaining information while avoiding contact with the enemy and training focused primarily on killing the enemy and holding terrain. An 11B receives limited training on ISR and must be trained as a scout after arriving at his unit. Training for 19Ds is focused on ISR, and Soldiers arrive prepared to operate as both mounted and dismounted ISR Soldiers. Training for 19Ds leads to a different mindset focused on ISR, not offensive operations; 19Ds stay primarily in ISR units, while 11Bs are currently assigned between infantry and ISR units, degrading their effectiveness to perform either task. As the Armor and Infantry Centers consolidate into the Maneuver Center of Excellence, a single scout MOS makes sense.

The BFSB was designed to improve the commander's ability to understand the enemy and operational environment and make well-informed decisions. As the Armor Center continues the development of this organization, armor and cavalry officers need to understand how the BFSB

is organized and operates. As lessons learned are developed from the deployment of the 525th BFSB, it only makes sense to examine the design and make necessary changes, just as the Army has done with the BCTs. While armor and cavalry officers and Soldiers are key components of this organization, it is the development of "ISR" Soldiers and leaders who understand both the muddy boots and technical aspects of ISR that will shape the battlefields of today and the future.

Notes

1. U.S. Army Combined Arms Center, "Operational and Organizational Concept for the Battlefield Surveillance Brigade," Fort Leavenworth, KS, 1 May 2007.

2. Headquarters, Department of the Army, U.S. Army Field Manual (FM) 3-0, *Operations,* U.S. Government Printing Office, Washington, DC, February 2008.

3. "Operational and Organization Concept for the Battlefield Surveillance Brigade," Figures 1 through 6, 1 May 2007.

Note: This article was originally published in the November–December 2008 edition of *ARMOR.*

Commander's Interview: COL Robert P. Ashley, Commander, 525th Battlefield Surveillance Brigade, Iraq, 21 March 2008

LTC Gregory Puccetti, Center for Army Lessons Learned Theater Observation Detachment Liaison Officer to 525th Battlefield Surveillance Brigade

What would you say are the biggest issues that face our forces in combat today?

Operational tempo (OPTEMPO), dwell time, and family: As you sit in a command position and get a chance to see the Soldiers and officers and see their spouses and children, and I put this in the perspective of having come into the military in 1984, I must be careful not to lose perspective on what they face. All these issues are intertwined: OPTEMPO, dwell time, and family. It's all a part of the dynamic of being in the military. That said, if I were a noncommissioned officer (NCO), lieutenant, or captain coming in right now thinking that I was facing this OPTEMPO for the next twenty years, I'm not sure I could do it. It would be very difficult to sustain this pace for an entire career. It's different if you are at the 16th, 17th, or 18th year mark knowing you only have three or four more years because retirement is coming up. Not that anyone is less patriotic. But asking a young captain, thinking you are going to face another 14 to 15 years of hitting the road every second or third year—that is a tall order. Not that we will definitely be in theater for the next 15 years, but it is very tough to ask Soldiers to sustain today's pace for over a decade. So we take that into consideration when we talk to them about their career aspirations and goals and things that they want to do. The biggest thing is the shear overall OPTEMPO and its impact on the Soldier and the family. It's pretty significant. The dwell time is coupled to that dynamic. I know that the Army Chief of Staff is pushing hard to get back to a 12-month rotation, which I agree. I had a very interesting discussion with some of the leadership from III Corps when they came in as they talked to us about what it was like to be here for 15 months. One of the senior leaders made a very interesting comment, something like you might hear from Yogi Berra, when he said that "15 months is more than 12 plus 3." A thought that resonated pretty strong with everyone. The 12-month mark is pretty tough to meet, and then when you add another 90 days to that, I think that's pretty significant, and we saw that in the face of III Corps earlier. They did a great job up to the last day…but the fatigue in their faces was evident.

Teams/Soldiers are getting younger. I think that one of the other challenges now that we are on the 7th–8th rotation between Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF) is that we see the teams and the Soldiers are getting younger. Where normally you would want a seasoned E6, you may get a brand new E5. The counter to that is absolutely amazing. These young Soldiers are truly inspiring. We put a lot of weight and responsibility on their shoulders and they deliver. This is a function of multiple years of combat and trying to build the force; you simply end up with younger Soldiers. Right now the Army is growing, and as it grows and recruits more they are going to get that much younger. We came out here with a lot of skill level 10 Soldiers and not as many in the E5–E6 range as we would have liked, but the ones that we do have are stepping up to the plate. There is a great deal of experience garnered in the rotations, and that experience will pay dividends in future rotations if we are able to hold on to those Soldiers and their families. Which brings me to the next piece: the families.

You see it in spouses, you see it in children, you deal with combat stress in theater, but we don't think about that as much back home. My family doesn't really watch the news with me deployed. It's a constant reminder of what is going on, and the stress is always there. I think that is partly the anxiety of possibly getting a phone call one day, so they try to do the best they can to work around the fact that it is on the news; it's out there all the time. There is a cumulative effect on the families, spouses, and children. Again it's one thing to ask the Soldiers to do that for 20 years, but it's really a bridge too far to have the families do it. And again, as we get

younger Soldiers, younger families, it's just that much harder on them. We as senior leaders can never fully understand what our junior Soldiers and their families face.

Training Soldiers in technical skills: As we grow the force through the Army Force Generation (ARFORGEN) cycle, the challenge is getting the teams in sufficient time. This is especially true for us, because the technical lead time on the training is, through ARFORGEN, giving us less than optimum time to train them and get them better prepared to go out. We had Soldiers arriving throughout the ARFORGEN cycle as we prepared to deploy. We did not put anyone at risk coming into the theater in terms of combat skills, but some of the more technical skills, obviously, we would have liked to have more time with them, and that's the challenge when you've got fixed blocks of instruction that you are trying to give to a number of Soldiers to get them ready to deploy. Is it problematic when you have Soldiers trickling in up until the last 90 days before you deploy. At that point your focus is combat skills—the combat skills they need to survive outside the wire and make sure they are safe. And then you have got to try and reinforce, as best you can, what they got through their basic military occupational specialty (MOS) training. The complexity of what we do, specifically what they do, on the multifunction teams requires a significantly longer lead time to get these guys trained on these skill sets: computer forensics, signal terminal guidance, signal analysis. Even to get the guys comfortable with the human intelligence (HUMINT) skills requires a lot of time; a lot of repetitive training; a lot of exposure to tactics, techniques, and procedures (TTP)—just reinforcing what they are getting in the schoolhouse. The schoolhouse and the training that we get from the Foundry program have been absolutely outstanding. I've even had interrogators tell me that, in some instances, what they had to do in combat is easier than what they had to do in the schoolhouse. They have been very complimentary about what the schoolhouse did to get them ready to deploy. On the signals intelligence (SIGINT) side, what the Foundry program has done to get them ready for combat was outstanding.

Describe the predeployment process for your unit: notification to deploy, training, making up personnel and equipment shortfalls, family readiness, predeployment site survey, training exercises conducted, and anything else in this subject area that you would like to include.

I think that I already hit the key ones regarding the ARFORGEN cycle and the challenges of getting Soldiers on time. From an equipment standpoint, we work with some very unique commercial off-the-shelf and government off-the-shelf equipment. The technology is rapidly changing, so the normal Army procurement system doesn't support some of the technology that we need, so that has been a challenge. The other part for us, specifically as a battlefield surveillance brigade (BFSB), is that the equipment documents create a certain set of equipment that are given to combat arms Soldiers because they sense that they are the ones that go outside the wire and then there is a type given to everyone else. What we have right now is everyone is outside the wire, so when you would want an M4, combat optics, night-vision devices, and all of these other enablers you don't think twice about giving a combat arms Soldier, we find that we have to work hard to justify that for the military intelligence (MI) Soldier who is literally moving to the objective with them. So there is frustration with that, and you have to come back and go through the operational need statement process because it's not in your modified table of organization and equipment (MTOE) document. There seems to be a hesitancy to put the "real requirement" on paper if it cannot be filled as it puts askew someone's statistics for fielding. A lot of those people who are putting those documents and stuff together are a little out of date in terms of what is taking place in the field, so there is frustration that we have to justify the number of M4s we want for our Soldiers.

Family readiness continues to get better. We have a family readiness support assistant at the brigade level. Forces Command (FORSCOM) funded one for each of the battalions. We were

able to hire both right before we left. That takes a huge burden off the battalion commander where he has got someone who is totally focused on the family readiness group. A point of contact that is a paid position for the company commanders to make sure that they are current on whatever information is being put out. It makes it much easier to track new cutting edge developments in terms of family readiness activities/programs. Obviously, bringing in battalion representatives has been a huge assistance to the brigade representative as well. She had a lot of responsibility just on her own dealing with all the company commands across the brigade.

No issues on the predeployment site survey. All went well. The notification of deployment was well in advance. That's one of the things that's good about what FORSCOM does right now. You know well in advance that you are going. You may not get all of the training you need and all of the Soldiers in time, but there was no doubt that we were getting ready to roll out.

The predeployment process was pretty smooth at Fort Bragg. The Soldier readiness processing program got us through very quickly. A lot of the challenges and the onus are upon us to make sure that we were fully medically ready to deploy. Probably the biggest thing at the last minute was that we were fully medically ready. If we had someone with a dental issue or something like that, Fort Bragg did a great job in assisting and pushing those folks in getting appointments. One of the challenges is just making sure that the Soldiers did the right thing in keeping up with their dental appointments and their shots and everything else. Dental appointments were tough when we were a few months out, but command emphasis the last 60 days helped close the gap. Focused medical review is more a challenge, but it's more of a challenge on us to keep track of and make sure individuals keep up with their own medical requirements. Bragg did a good job of flexing as we needed. We just had to manage by exception with the dental piece. That was the one that was a little problematic getting the appointments, but we got involved; other than that, it was pretty much straightforward.

Describe the actual deployment: arrival in theater; reception, staging, onward movement and integration (RSOI); relief in place/transfer of authority (RIP/TOA) processes, and so on.

Surprisingly smooth. The only point of angst that we had was that because we were not a brigade combat team (BCT), we were going to get a very small footprint (tactical operations center [TOC]) in Kuwait, and our brigade command sergeant major (CSM) was able to convince Camp Buehring otherwise, so we got the support we needed. My hats off to everybody in the 504th. They were able to give us a seamless RIP/TOA, and I think that it was viewed as seamless from III Corps. The 504th leadership set us up for success. Our Soldiers were trained and ready to step up to the plate. The only difference for III Corps was there was someone different at the other end of the phone after the TOA. I like to think that the RIP/TOA was pretty much transparent, which was COL Geiger's goal and mine as well, and I think the Soldiers pulled it off.

What is your opinion of the level of your unit's preparedness upon arrival in Kuwait for RSOI? What changes do you feel need to be made in order to improve unit readiness upon arrival in theater?

I think the one thing that was a challenge back in the States was the availability of M1114s. We wanted to do as much as we could to replicate what we were going to have to do in theater. Obviously, one of the high-end tasks is the ability to react to an improvised explosive device (IED). We set up IED lanes and put the entire "battle rattle" on everybody. But without the up-armored high-mobility multi-purpose wheeled vehicle (UAH) M1114s, there was no way to understand what it's like to have to drive around and have to pop that 500 pound door and get out. And if somebody combat locked their door, you have to take the wrench that comes off the

door to unlock it. Things like that we could not do in the States because we simply did not have the equipment that we needed.

We could go out to the mock villages. We had elaborate exercises. We actually had Iraqi nationals who lived in the States come out and do role-playing for HUMINT exercises. The SIGINT stuff is kind of problematic to replicate in the States. However, we got to the ranges and did close quarter combat and did a number of complex training events. However, when it came time to actually getting in an up-armored M1114 or even an M1114 for that matter, it was hard to obtain any for training…albeit we were able to get a few. We were begging and borrowing from other units, so that I think that was probably one of the biggest shortfalls that we had in predeployment training.

On the technical side, everyone did everything that they could possibly do to get out of the door. One of my biggest concerns was when we fielded the new Triton system. It wasn't that the sensor would work, it was whether or not the Soldiers would be ready to do the analytical work and would they be familiar enough with the databases and everything to be able to do their jobs because of the complexity and tight timeframe. We were having some problems making sure some of the sensors were full-up and running all of the time, but as far as the Soldiers understanding the analysis portion…they learned it quickly and were far better prepared than I thought possible; they always surprise me in how much they can accomplish.

What are your thoughts on issues surrounding combat operations in a multi-national, joint, intergovernmental, and interagency environment?

The job that I have right now doesn't require me to interface on the interagency environment. As far as the joint environment, one of the things that we have embedded in the BFSB is the joint expeditionary signals intelligence terminal response (JESTR) detachment. What I would say is, from the joint standpoint, there are skill sets and things that the other services can do and although from a traditional roles and missions standpoint there may have been some angst on behalf of the Air Force and the Navy that they are having Airman and Sailors moving with ground elements on the objective, these Airmen and Sailors are just doing some outstanding things. It was probably an out-of-the-box solution; somewhere back at the Pentagon someone said if we can't get enough of these signal terminal ground teams out of the Army structure, there are cryptologists within the Navy and within the Air Force that, if we give them combat skills training and make sure that they are safe, they already understand the theory and the application of that technology. Why not use them for that added capacity. I think that it is absolutely the right thing to do. We have a lot of Airman and Sailors who are directly responsible for finding a lot of high value individuals on behalf of the BCTs and they are doing a great job, and I would hate to see that put at risk because someone puts up a roles and mission argument and says hey that's not what they should be doing. Everybody knows that we should be fighting as a team and the folks who are running the JESTR detachment from the sister services are doing a great job.

With our units now conducting simultaneous stability and offensive operations, is the division/brigade headquarters MTOE adequate? What changes would you recommend to the division/brigade headquarters to provide the capability to conduct both stability and offensive operations?

Really no comments on the division's MTOEs. One of the things that I know is being worked right now is the signal terminal guidance capability. SIGINT terminal guidance and the computer forensics capabilities do not exist within the BCTs. The Army is looking at that capability whether it is going to reside in the BFSB as additive capacity that can be pushed down to the BCT. In addition to the BFSB, I think the capability should also reside in the BCT so they fully

understand how to integrate and execute missions with the additional capacity from the BFSB. I would put both the SIGINT terminal guidance and computer forensics in the military intelligence company of the BCT, and if you need additional capacity, it can come from the BFSB.

Within the stability operations mission (in particular civil military operations and reconstruction/development), what impact did you observe that this mission had on the planning and execution of more traditional Army missions?

I don't have any first-hand observations. The only things I've got are the things that I read from other folks. The only other anecdotal comment is that people used to say that if you train for a high-end conflict, then you can do everything else, but everything else is different. Counterinsurgency is different, civil military operations are different. Just because you can do a high-end, major theater, Fulda Gap Soviet kind of conflict doesn't mean that you can do everything below that.

Do you have any insights or observations regarding effects-based operations (EBO) and changes the Army should consider in doctrine, education, and training to better execute EBO?

I think that my answer to that is more philosophical than anything else. It begs the question: Is there anything that is non-effects-based operations? I think that someone latched on to the term and it developed a life of its own. There isn't anything that we do from an operational standpoint where we should not have some effect or intent behind it. So, I'm not sure why we have to have some specific effects-based operations cell. Everything that we do should be from the commander's intent, and there should be some desired effect that comes out of it that is nested within the next level commander's intent.

What challenges did you face in establishing your rear detachment in preparation to deploy?

That we didn't stand it up earlier. We should have created that shadow structure about a month or so earlier. We set it up about 30 days out; probably about 60-plus would have been better to have a good clean hand off.

What is the most striking or dramatic difference between your first or previous deployments to OIF and/or OEF and your most recent deployment to OIF?

Last time I came out as a part of a small unit. Deployments are so different. This is my first conventional unit deployment. It is literally not even apples and oranges, its apples and rocks. It is so different. There is really nothing I can compare it to.

Did you or your team utilize any external resources such as the Center for Army Lessons Learned to assist you in any of the phases of your deployment? If so, what resources did you find to be most useful?

The First 100 Days books were used and were useful especially for the new Soldiers. Any TTP about the first 100 days were useful, so we pushed that out to all the leaders and Soldiers.

The Battlefield Surveillance Brigade in Defense Support to Civil Authorities: 560th Battlefield Surveillance Brigade Lessons for Supporting a State-Level National Guard Reaction Force

COL Peter C. VanAmburgh

The operational concept for employing a battlefield surveillance brigade (BFSB) continues to evolve. BFSBs organized across the Army and Army National Guard (ARNG) are maturing as they provide support to Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF), to exercises within the continental United States (CONUS) and outside the CONUS, and to defense support to civil authorities (DSCA) within the ARNG. The BFSB's design as a tailorable, multi-disciplined organization provides flexibility of employment to commanders. This article will focus on the employment of a BFSB as a command and control (C2) and operational headquarters employing its organic assets as a National Guard reaction force (NGRF). The lessons should be applicable to all CONUS BFSBs and, particularly, to those assigned a mission of supporting the NGRF.

The 560th Battlefield Surveillance Brigade

On 1 October 2007, the 560th BFSB organized from existing and experienced military intelligence (MI), long-range surveillance (LRS), and cavalry (CAV) units of the Georgia Army National Guard. The brigade is located in facilities within a 40-mile radius of the Atlanta metropolitan region (560th Headquarters and Headquarters Company, 230th Brigade Support Company [BSC], and 221st MI Battalion [BN] at Fort Gillem, GA; 3-108 CAV Headquarters and Headquarters Troop and LRS company at Fulton County Airport, GA; A and B Troops, 3-108 CAV at Douglasville, GA; and the 420th Network Support Company [NSC] in Cumming, GA). The brigade has operational experience with the 221st MI BN and the LRS company. Both units have deployed to OIF/OEF twice since 2003, and the brigade headquarters conducted the Army's first BFSB bilateral overseas exercise (Operation North Wind) in Japan in 2008. The brigade's location in and around Atlanta and its ability to quickly maneuver ground forces (CAV), communicate over distances (CAV and NSC), and self-sustain (BSC) made it a natural choice for the DSCA mission in Georgia.

National Guard Reaction Force and Battlefield Surveillance Brigade Core Mission Essential Task List

All states, territories, and the District of Columbia are required to prepare and maintain an NGRF capable of responding and assisting in the protection of critical infrastructure and other state and national assets or assisting with any other missions as directed to promote stability and security in the states, territories, and nation within existing fiscal resources.

An NGRF consists of 300–500 personnel and associated organizational equipment, and the force is largely dependent on the state's strength and assets. The vast majority of mission essential tasks for an NGRF are common Soldier skills. Each state identifies an appropriate organization based on the unit's mission essential task list (METL), resources available, and ability to respond (based on variables such as location and cycle within Army Force Generation). In most cases, a unit's METL will not change, but the conditions in which they perform many mission essential tasks will change. As opposed to the theater of war, the domestic environment adds supplemental NGRF training to a unit's basic METL that includes nonlethal weapons training, military assistance for civil disturbances (MACDIS) training, and NGRF exercises. Several of the BFSB core mission essential tasks readily lend themselves to an NGRF mission, and the 560th BFSB made a few adjustments to support the requirement.

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560th BFSB Core METL

20-CC-00001	Perform Intelligence, Surveillance, and Reconnaissance (ISR)
20-CC-00002	Support Targeting
20-CC-0003	Protect the Force
20-GM-0001	Conduct C2
20-GM-0003	Provide Sustainment
01-CC-0009	Conduct Civil Support Operations
AUTL ART 2.1.1	Conduct Mobilization of Tactical Units

560th Battlefield Surveillance Brigade Mission and Commander's Intent for National Guard Reaction Force

When employed, the NGRF is best characterized as a battalion task force (TF) that provides direct support to an incident commander in an operational control (OPCON) or tactical control (TACON) arrangement. Under the battalion TF construct, the BFSB serves the role of a force provider leveraging all assets within the brigade to support the NGRF requirement.

The 560th BFSB assigned the NGRF lead to the reconnaissance and surveillance squadron (3-108th CAV), thereby placing a battalion-level headquarters to control the maneuver and support assets in a TF configuration. Additionally, the organization was required to develop a 75–125 member Soldier quick reaction force (QRF) that would act as a "9-1-1" element for the state and would deploy anywhere within eight hours of alert. The remaining NGRF elements follow and reinforce the QRF 24 hours after alert. Extracts from the operation order (OPORD) are below.

> **2.b. Mission:** On order, the 560th BFSB provides a NGRF and a certified QRF for DSCA within the Georgia National Guard area of operations in order to maintain a secure and stable environment.
>
> **3.a. Commander's intent:** I intend to meet or exceed the Adjutant General's expectations for 300–500 trained Soldiers available anywhere in Georgia within 8 hours for the QRF and within 24 hours for the NGRF. The 560th BFSB will be a force provider and responsible for training and certifying NGRF/QRF; facilitating maneuver to the response location; establishing communications; and preparing for reinforcement from the 230th BSC, the 420th NSC, and the 221st MI BN as necessary. We will accomplish this by employing the 3-108th CAV as the main effort and NGRF response headquarters. All other elements of the 560th will support the 3-108th NGRF to meet operational and directed "boots on ground" requirements. I expect that the 3-108th NGRF will assemble required forces and stage for movement at Charlie Brown Airfield (CBAF). I intend to have the 3-108th NGRF proceed safely from CBAF to the response location via directed or organic transportation assets. Once at the response site, the 3-108th NGRF will establish liaison with the supported agency, provide local security and C2 assets, and communicate with higher headquarters.

3.a.1. Shaping operations:

3.a.1.a. Exercise alert/communication system on a monthly basis.

3.a.1.b. Pre-package sustainment supplies for 72 hours of operations prepped for air and/or ground movement.

3.a.1.c. Pre-package nonlethal sets.

3.a.1.d. Identify logistics personnel and stage equipment and vehicles at CBAF.

3.a.1.e. Issue OPORD via video teleconference and electronically (BB Version).

3.a.1.f. Establish liaison with joint force headquarters joint operations center (JOC).

3.a.2. Decisive operations:

3.a.2.a. Alert 100 percent of NGRF.

3.a.2.b. Assemble a minimum of 75 QRF passengers (PAX) within 8 hours and 300+ NGRF PAX within 24 hours.

3.a.2.c. Link up maneuver elements of NGRF with logistics support.

3.a.2.d. Transport committed forces via ground or air.

3.a.2.e. Safely move to response location.

3.a.2.f. Establish liaison with supported agency and JOC.

3.a.2.g. Establish communications link to squadron, brigade headquarters, and JOC.

3.a.3. End state: The 560th provided the QRF/NGRF within the expected timeline and successfully conducted DSCA and returned the area of operations to a state of normalcy. The 3-108th NGRF has successfully conducted relief in place/transfer of authority (RIP/TOA) and safely returned to home station without loss of any sensitive items, and all personnel and equipment have been accounted for. All reports have been completed.

Two key concepts drove the planning, C2 arrangements, and the development of NGRF battle drills within the 560th BFSB: (1) The entire BFSB will be used as a force provider, and (2) The 3-108th CAV's headquarters at Fulton County Airport (CBAF) will serve as the NGRF mobilization platform and aerial point of debarkation (APOD) for any deployments.

The short-notice deployment schedule for the QRF/NGRF places the burden on resource availability within the alerted organization. The logical solution for filling requirements is to exhaust the alerted unit first and then move to a higher echelon to leverage additional resources as needed. This approach plays out in the following manner: The NGRF is the force pool to fill the QRF, while the entire BFSB serves as the force pool to fill the NGRF. Upon alert the QRF assembles, and at a predetermined decision point (H+4), they either have the requisite 125 certified Soldiers or not. If not, the NGRF commander leverages available Soldiers from within

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the NGRF to fill the requirement. Along the same line, at H+14 the NGRF commander either has enough Soldiers to fill the 500 PAX requirement or not. If not, the NGRF commander requests forces from the BFSB commander who, in turn, levies the requirement brigade-wide. Throughout a deployment, it is the responsibility of the BFSB to rely on the entire brigade's assets and resources to sustain the NGRF at full capability.

The NGRF mission requires a timely response to employment requests. The H-hour sequence has the potential for maneuver interference from environmental conditions or other hazards. Placement of the NGRF reception, staging, onward movement, and integration (RSOI) location becomes important for planning and facilitating movement to the response location. The 560th BFSB chose the 3-108th CAV headquarters to serve as the mobilization platform and APOD for the NGRF. Fulton County Airport, located at a key interstate juncture, is capable of supporting C-130 airlift, which makes it optimal for staging all assets prior to movement (air or ground). The central RSOI site also provides a known location for coordinating law enforcement escort as needed and pushing additional resources, such as personnel or rolling stock from brigade units, or special items needed for the mission (boats and chemical protective suits).

Individual Soldier Preparation for Defense Support to Civil Authorities and Military Assistance for Civil Disturbances

The 560th BFSB identified a host of individual and unit capabilities that would be necessary to support DSCA and MACDIS if employed. Individual certification in nonlethal weapons, communications training across the brigade, air-load planning, access to critical infrastructure information, and leader familiarization with incident management and incident command were all critical for QRF/NGRF employment. The following paragraphs summarize the specific individual training members of the 560th BFSB conducted to support DSCA and MACDIS.

Nonlethal weapons

The 560th BFSB used a train-the-trainer approach to certify members of the NGRF on nonlethal weapons to prepare for MACDIS. Brigade leadership identified two instructors per unit to complete the U.S. Marine Corps Nonlethal Weapons Instructor Course. The Forced Continuum Concept governs the use of nonlethal weapons and directs that the minimum amount of force be employed to modify behavior, create a distraction, or create standoff. Nonlethal weapons are an alternate use of force for the commander. Nonlethal weapons include but are not limited to mechanical advantage control hold (MACH) techniques, oleoresin capsicum (OC) (pepper spray), and the neuro-muscular incapacitator (Taser). The NGRF nonlethal weapons training requires a full weekend drill period. Students are required to negotiate an obstacle course consisting of blocks, strikes, and MACH takedowns while suffering the effects of pepper spray. The Soldiers are struck with the Taser, fire the Taser at targets, and administer inert OC on one another. Priority for training was to the QRF within the NGRF. Completing the instruction provided a one-year certification for nonlethal weapons usage.

Communications training

During the preparation phase for assuming the QRF/NGRF mission, the 560th BFSB was simultaneously conducting new equipment fielding of high frequency (HF), frequency modulation (FM), and tactical satellite systems. Operator training was a focus area as the new equipment training teams scheduled events. In addition to training the users on unit organizational equipment, the brigade conducted individual training on the state's Contingency Response Communication System (CRCS), which links civilian and tactical radio systems. The CRCS also has a mobile satellite data link for Internet protocol traffic. The brigade also conducted individual familiarization on Nextel push-to-talk phones to ensure leaders had multiple methods to communicate and maintain situational awareness among deployed elements.

Air-load planning

The NGRF required that quartermaster Soldiers become trained, certified, and current as air-load planners for U.S. Air Force aircraft and become familiar with cargo and passenger capabilities of medium and heavy lift Army helicopters as well as the C-23 and C-27J cargo planes. Several Soldiers completed the Air Load Planners Course and were the primary leads for the planning and rehearsals conducted at the NGRF headquarters. Pathfinder training throughout the BFSB is another vital skill in a DSCA mission and involves rotary-wing support because of the likelihood that pickup zones and landing zones will not be at an established airfield. A likely scenario would require the aircraft to land at an area large enough to handle the aircraft in use, such as a ball field, parking lot, or public school. The 560th BFSB units should strive to obtain and use the Automated Airlift Planning System software.

Critical infrastructure and asset information

The state-level requirement for a QRF/NGRF specifically addresses the use of these assets to protect critical infrastructure. Members of the brigade S2/S3 and reconnaissance and surveillance squadron S2/S3 sections were provided training and access to the Constellation Automated Critical Asset Management System (C/ACAMS). The C/ACAMS is a Web-enabled information services portal that helps state and local governments build critical infrastructure/key resource (CIKR) protection programs in their local jurisdictions. C/ACAMS provides a set of tools and resources that help law enforcement, public safety, and emergency response personnel collect and use CIKR asset data, assess CIKR asset vulnerabilities, develop all-hazards incident response and recovery plans, and build public-private partnerships. Using C/ACAMS also provides state and local jurisdictions with a practical way to implement the National Infrastructure Protection Plan (NIPP), including the NIPP risk management framework. The training and access to C/ACAMS allowed 560th BFSB staff elements to gather information to prepare the QRF/NGRF to enter potential sites.

Leader training in National Incident Management System and Incident Command System

The 560th BFSB leadership recognized that a QRF/NGRF callout would likely involve support to law enforcement or emergency responders, which would necessitate familiarization with the National Incident Management System (NIMS) and Incident Command System (ICS). Individual leaders sergeant first class and above were required to complete the online NIMS and ICS courses through the Federal Emergency Management Agency Web site. The NIMS and ICS courses provide a consistent nationwide template to enable all government, private sector, and nongovernmental organizations to work together during domestic incidents. Requiring all key leaders to have a working knowledge of NIMS and ICS will allow for smooth integration into DSCA operations and facilitate unity of effort.

Battlefield Surveillance Brigade Collective Exercises for Defense Support to Civil Authorities and Military Assistance for Civil Disturbances

In addition to the individual training requirements for participation in DSCA and MACDIS, the 560th BFSB executed a number of exercises to test the plans and capabilities of the staff and subordinate commands within the brigade. Over a six month period, the 560th BFSB conducted a tabletop exercise (TTX), capabilities exercise (CAPEX), and communications exercise (COMEX). All training culminated in a readiness exercise (READEX) designed to test the brigade's ability to alert the NGRF, assemble the force, mobilize assets, deploy via air and ground, and conduct DSCA and MACDIS.

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Tabletop exercise

The TTX provided a forum for all elements of the brigade to identify capabilities required, conduct battle drills, and develop a synchronized operation plan (OPLAN) that would turn into an OPORD upon direction from the Adjutant General (TAG). Key lessons from the TTX included the importance of having a staging area, also referred to as a mobilization platform, to launch the NGRF for missions internal to the state or external under an Emergency Management Assistance Compact or at the direction of Northern Command. In this case, the 3-108th CAV headquarters was chosen for its strategic location at Fulton County Airport on the periphery of Atlanta and at a major intersection of Interstate 20 and Interstate 285, which provides east-west and north-south freeway access.

This location and facility provided the NGRF an ability to move by ground or air as necessary to meet employment timelines. The TTX also identified the need to stage equipment and assemble support elements of the 230th BSC directly with the 3-108th CAV to facilitate support to maneuver.

Capabilities exercise

The next phase of collective training involved the alert, assembly, and mobilization of the QRF of the NGRF. This CAPEX proved invaluable to the organization's learning and testing of orders, tactical command post (TAC CP), and unit-level alert and assembly battle drills. The event unfolded with a telephonic and electronic alert using a Blackberry and the Communicator Automated Alert System. The brigade exercised an orders drill upon alert, while the 3-108th CAV exercised assembly and mobilization drills. The CAPEX highlighted the time sequence and realistic expectations for the QRF to be ready for mobilization. The adjusted QRF H-hour sequence is depicted in Figure 7. The staging of the TAC CP with the 3-108th CAV proved useful for coordinating support and adjusting as the situation developed. Another key learning point was to have the NGRF commanders back brief the mission and any operational risks (personnel and equipment) to the BFSB commander prior to deployment.

Communications exercise

Following the CAPEX, the 560th BFSB required a test of the communications architecture over distance. The brigade employed systems using the primary, alternate, contingency, and emergency (PACE) approach to link all distal stations together. The COMEX tested FM, HF, satellite communications (SATCOM), and unsecure civilian systems (Nextel hand-held phones). Without a full complement of modified table of organization and equipment systems, the 560th BFSB also employed the state's CRCS to provide a SATCOM data link and the capability to cross military and civilian communications systems together. The COMEX proved extremely useful to force the development of BFSB signal operating instructions (SOI) and identify the importance of frequency management. The event ensured that operators could use the systems, PACE was covered, and Soldiers gained confidence in their equipment and ability to communicate across the state.

Readiness exercise

The culminating event to test the 560th BFSB's ownership and ability to deploy an NGRF was a READEX conducted within the annual state-level hurricane exercise. The overarching scenario involved a Category 5 hurricane impact on the coast of Georgia. The BFSB did not play a significant role in the hurricane relief portion but was called upon in a no-notice fashion to alert and deploy the QRF/NGRF for an interagency security mission. The scenario required the QRF to move via air and ground to the response location (Savannah, GA) and arrive approximately eight hours following notification to the brigade commander.

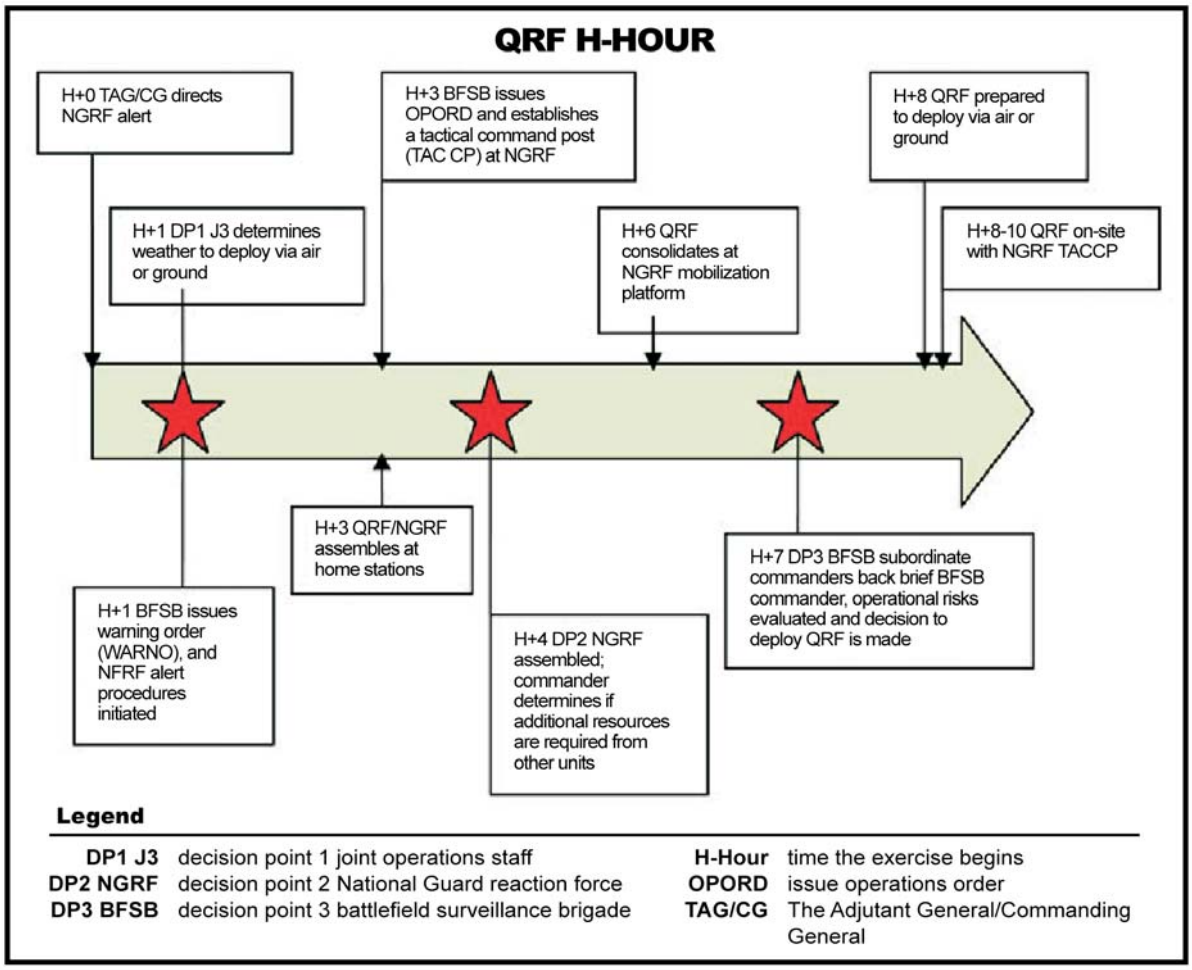

Figure 7

On 13 March 2009 at 0400, the alert was initiated and the H-hour sequence began. The process of alert, self-RSOI, and deployment worked as previously rehearsed and produced several lessons including the importance of personnel and medical screening and communications. The brigade headquarters produced the OPORD within its timeline, while the NGRF exercised its battle drills. The APOD operation at Fulton County Airport went smoothly despite weather issues that removed the rotary-wing options and forced a fixed-wing (C-23)-only mission. The QRF was fully prepared for this eventuality and knew exactly where to make the cut in personnel and equipment to facilitate the movement. Two C-23s carrying a QRF platoon and the 3-108th NGRF TAC CP were launched. The remaining elements and support package deployed via convoy. Once elements moved from the APOD and mobilization platform, they began a TACON relationship with the state's joint TF. The role of the 560th BFSB shifted slightly to ensure the capabilities of the NGRF (personnel and equipment) were maintained throughout the TF's employment.

The QRF platoon reached the response site at H+8:10 and immediately integrated into the incident command post and began security assistance operations. The QRF convoy sustained itself throughout the movement using the 230th BSC's support team for refuel and recovery. PACE communications were exercised throughout the mission, and each medium was both tested and required as the various systems temporarily failed because of weather and operator

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familiarity. The variety of communications ensured that the various maneuver elements maintained contact throughout the operation. The entire QRF linked together at H+16 and performed its DSCA mission for the 24 hours until conducting a RIP/TOA with another ARNG unit dispatched to the location. At that point, the QRF recovered all personnel and assets and returned to home station via ground convoy. Several tactical lessons are outlined below.

Tactical lessons from READEX:

- Soldiers anticipated the alert. Operations may not be as fast for a real contingency callout.
- Pre-formatted warning order and OPLAN facilitated distribution during crisis.
- Alert confirmation is necessary from company level up to brigade level.
- H-hour sequence does not allow for much variance or unexpected events.
- First personnel status report should flow to brigade at H+3.
- Assembly battle drill rehearsals and by exception Soldier readiness processing hastened the deployment of the QRF.
- Use of mobilization platform works as an outstanding control point for operations and support.
- Brigade SOI needs to incorporate Nextel and any other nonstandard communications devices.
- Brigade staff should prepare and facilitate convoy clearances for QRF/NGRF.
- BSC fuel distribution and hauling assets should be in the lead serial of convoy movement to allow for set-up and quick service of trail elements.
- BSC Soldiers attached to the QRF/NGRF should be fully trained and prepared for any security roles assumed by the TF.
- Air-load plans must incorporate a “bump” plan for both personnel and equipment.
- An operational risk analysis back brief is necessary to determine the readiness of the QRF/NGRF to deploy.
- Reconnaissance and surveillance squadron should post a liaison officer at the JOC if the QRF/NGRF works in OPCON/TACON relationship with the joint TF.
- RIP/TOA should be a briefing format, and the gaining unit should have a standing operating procedure in hand upon arrival.

Conclusions

The BFSB has the potential to perform in a variety of roles for DSCA. The brigade headquarters is robust and can command and control its organic units and potentially others as necessary. The BFSB communications architecture and combination of distal options is a significant value in an environment where civilian communications are spotty or nonexistent. The maneuver assets are light and when combined with support elements from the BSC can operate independently for

limited periods of time. The BFSB's inherent ISR capability is not likely to be exercised in a DSCA role, but the ability of the brigade headquarters to plan for employment of its assets, evaluate hazards, and create effects is not diminished.

A BFSB can readily support a state-level NGRF mission with a simple task organization and a rigorous individual and collective training regimen. The 560th BFSB's use of the reconnaissance and surveillance squadron supported by a slice of the BSC for the QRF/NGRF proved a very capable and useful alignment for the NGRF requirement. Individual training coupled with the TTX, CAPEX, COMEX and READEX were important forums for the brigade to prepare for execution of this unique, on-call mission. The individual and collective training activities for the QRF/NGRF, while time consuming, were supportive of other BFSB mission requirements and, therefore, enhanced the unit's capabilities.

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Collection Report: 525th Battlefield Surveillance Brigade, Operation Iraqi Freedom 07-09, Center for Army Lessons Learned, March 2009

Executive Summary

The 18–19 Feb 09 conference provided an open forum for Training and Doctrine Command proponents from the intelligence, armor, and infantry schools and centers as well as emerging battlefield surveillance brigade (BFSB) commands to interface directly with key command and staff individuals and discuss the organization and operation of the BFSB. The purpose of the conference was to develop recommendations for future mission and organization development. This collection effort was focused on two intelligence warfighting function issues from the Combined Arms Center potential issues list (PIL).

Mr. Lloyd Lietz, Lessons Learned Integration analyst for the Center for Army Lessons Learned (CALL), stationed at Fort Bragg, attended the conference and assisted with the collection of the two PIL based on collection plans and questions provided by Ms. Gabriele Griffiths, Intelligence Analyst, Integration Division, CALL. The two issues are as follows:

Issue: Airborne intelligence, surveillance, and reconnaissance (ISR) assets are not providing required support for division and brigade combat teams (BCTs) currently involved in counterinsurgency (COIN) operations.

- Airborne ISR training was not part of the predeployment training because there was no initial ISR mission assigned to the unit; had to draw on internal residual knowledge.
- The Task Force (TF) ODIN (observe, detect, identify, neutralize) Web site was heavily used by the members of the 525th BFSB fusion cell.
- Officers did not have the basic understanding of the “nuts and bolts” aspects of requesting a mission or the limitations of the assets.

Issue: BCTs lack sufficient human intelligence (HUMINT) collection teams (HCTs) to effectively collect intelligence data in a COIN environment.

- HUMINT personnel shortage in the 525th BFSB hindered the overall collection mission.
- Splitting the HUMINT teams into smaller units to spread the collection capability resulted in lack of experienced supervisors available for teams, thus lowering the quality of collected data.
- Selected BFSB Soldiers need to be trained on properly conducting highly sensitive intelligence collection within policy and legal constraints.

Airborne ISR Support

Background

Airborne ISR refers to aerial observation. It can be manned or unmanned, a fixed wing or rotary wing aircraft. The 525th Battlefield Surveillance Brigade was a BFSB in name only—it deployed to Iraq organized as a legacy military intelligence brigade (MI BDE). As such, the unit served as a force provider in theater, which is the classic MI BDE mission, but later the unit was used for all intents and purposes as a BFSB. During the tour, the BFSB was moved to

Multi-National Division–North (MND–N) and assigned responsibility for an area of operations (AO). The BFSB area of responsibility was the dead space between the areas controlled by the BCTs. The BFSB did not have the organic airborne ISR assets necessary to perform the mission. Attached to the 525th BFSB was an aerial exploitation battalion (AEB), but the BFSB only had administrative control (ADCON) over the unit because it was a corps asset. The AEB contained all the unmanned aircraft system platforms available to the BFSB. The corps developed an allocation matrix for airborne ISR resources and prioritized assets based on unit missions. After the BFSB moved north and took responsibility of an AO, the BFSB competed against other units for airborne ISR assets, with a very low priority comparative to the combat formations.

TF ODIN was attached to the BFSB but as a self-sustaining unit. Observation aircraft (C-12s, C-7s) were contracted. They could be entered into the corps allocation matrix if available. TF ODIN performed its own aircraft maintenance.

Question: Did the unit's predeployment training prepare the unit staff for the theater mission by working with airborne ISR assets?

Response: As stated above, since the brigade was a BFSB in name only, there was no mission requirement for predeployment training with airborne ISR assets. Later in the deployment, the 525th was assigned an AO in MND–N as if it were a fully organized and equipped surveillance brigade. This change of mission required the unit to be able to request and manage airborne ISR assets in the AO. When the brigade assumed this new mission, there were enough officers and noncommissioned officers (NCOs) in the unit with the requisite expertise. The brigade cobbled together a scratch or "pick-up" team to create an ad hoc fusion cell on the brigade staff. The members were mostly former company commanders and other available analysts.

Question: How well did the training replicate the insertion of assets and theater conditions?

Response: No initial ISR assets or mission requirements were assigned to the unit before deployment, which negated the requirement for predeployment training.

Question: How well did the unit staff train and understand the communications and the counter-improvised explosive device capabilities of TF ODIN?

Response: The TF ODIN headquarters was very capable in executing the TCPED (tasking, collecting, processing, exploitation, dissemination) mission As above, the unit did not conduct any predeployment training on TF ODIN.

Question: Did training scenarios allow the unit to plug and play with interagency and inter-service elements utilizing the TF ODIN assets?

Response: No, initial ISR assets or mission requirements were assigned to the unit before deployment, which negated the requirement for predeployment training.

Question: Did the National Training Center allow for a testing of the unit's communication lines and systems that interface with TF ODIN assets?

Response: No, the 525th BFSB did not conduct its predeployment mission rehearsal exercise (MRX) at a combat training center. The MRX was conducted at Fort Bragg.

Question: Did the unit receive a standing operating procedure (SOP) for TF ODIN operations? Was a SOP requested for TF ODIN?

Response: TF ODIN has its own SECRET Internet Protocol Router (SIPR) Web site and its own servers. This very reliable capability allows TF ODIN to push out its products very rapidly. The TF ODIN SOP is on its Web site, and the 525th BFSB fusion cell used it frequently.

Observations:

Collection mangers have to understand capabilities and restrictions of the assets available for tasking. ISR managers need to be trained not to ask for more hours of flight time than are available. Although officers and NCOs are well trained on how to develop and use airborne ISR products, they often did not have the basic understanding of the "nuts and bolts" aspects of requesting a mission. Often officers forgot to factor the flight time from the asset's landing field to the target. This training should be incorporated into the basic and career courses. Officers need to move beyond the principles of ISR application and train by using real-world examples and practical exercises. Officers need to gain experience in the practical application of air asset management.

The COIN environment is layered, and there is little or no doctrine to deconflict overlapping unit responsibilities. There is confusion about whether airborne ISR is an intelligence collection tool or a command and control (C2) tool that allows the tactical commander to "see" the battlefield from the C2 node.

Low-Level Human Intelligence Collection

The questions in this collection plan are more applicable to a BCT than to a BFSB; however, the following observations are provided.

Question: Did you have enough HCTs to conduct the collection mission for your unit and higher headquarters?

Response: There was a shortage of HCTs in theater. The shortage is a result of the Army's manpower requirements in the intelligence field for COIN operations.

The 525th BFSB deployed with 43 HCTs. Each five-member team included an experienced NCO, some recent advanced individual training (AIT) graduates, and a Category II interpreter. A Category I interpreter is a local national with no security clearance. A Category II interpreter is an American contractor with a secret clearance. The corps commander retained control of four teams, which received technical oversight from the 525th BFSB. The division commanders and BCT commanders were always requesting additional HCT support.

The shortage of HCTs was aggravated by the successful COIN procedure of splitting up the teams so there would be an MI presence in each of the contingency operating bases/combat outposts/ joint security stations mandated by COIN doctrine. The procedure resulted in very junior and inexperienced Soldiers being separated from their NCO supervisors/mentors and sent out on their own to support the troop units. The inexperienced Soldiers produced a lower quality of intelligence at the lower level as they learned to do their jobs on the move.

Breaking up the teams in this manner also separated them from their Category II translators (with secret clearances). Any interaction by the Soldiers with local nationals was restrained and circumspect because of the Category I translator's lack of a security clearance.

Question: Would you support a training program that would train unit members to collect and pay for information? In other words, would you allow non-HUMINT personnel to conduct low-level collection by conducting source operations?

Response: Selected Soldiers within BCTs should be trained on intelligence actions that missions may require them to perform, particularly in highly sensitive missions pushing policy and legal constraints. They must:

- Know the intelligence requirements.
- Only ask questions.
- Be trained on the Department of State rewards program.
- Don't task the source to do something (very important).
- Bring information back to the S-2 or S-2X.

It is one thing if a Soldier is gaining information when his "friend" the local barber or shopkeeper volunteers it. It is something else entirely for an untrained Soldier to send a volunteer to do something or perform a mission. Untrained Soldiers can risk the lives of sources by not properly briefing the source on operational security. This level of HUMINT collection probably cannot be trained in a short HUMINT course in a classroom environment.

This training would also include how to prepare collection reports. Corrupt information from an untrained Soldier can result in corrupt intelligence.

During the predeployment training, commanders, staffs and Soldiers involved in collection activities need to be trained on HUMINT collection so they know what they can and cannot do.

Question: How would you fix the current shortage of HCTs?

Response: From the 525th BFSB's perspective, the shortage of HCTs was an overall shortage of HUMINT-qualified Soldiers needed for the COIN conflict. One BFSB in Iraq was barely adequate. Once the Multi-National Force–Iraq commander began the surge strategy of operations, the troops spread out into the neighborhoods, and the manpower requirements for HUMINT operators increased exponentially. At that point, the additional HUMINT requirements could have been satisfied with the deployment of an additional BFSB into Iraq. There were never enough HCTs.

Observations:

The 09L program is very good—sustain and increase. Prior to OIF, doctrine provided for the HCT members, military occupational specialty (MOS) 35M, to serve as collectors with language skills. Initially, demands for the collector skills of the 35Ms outweighed their language training, so often a Spanish- or Russian-speaking 35M would arrive to serve on the teams. The Army met this challenge by contracting for Arabic-speaking translators (see discussion above.) The Army also began recruiting and training Arabic-speaking Soldiers and awarding them the MOS 09L. The advantages of using a 09L over a contractor are that 09Ls have security clearances, their skill sets include military intelligence training, and above all they are U.S. Soldiers. Too often Category II contracted translators did not have the physical stamina to perform their duties with the BCTs. All too often, if they didn't like the environment, they quit their jobs and left the team short-handed until anther contractor could be recruited.

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Currently, 35M collectors do not receive advanced source operations (recruitment) training in AIT. This training is provided in a course later in a Soldier's career. Slots in these advanced courses are limited. As discussed previously, when HCTs are dispersed across the COIN environment, MI skills sets and experience are diluted. One glaring drawback is that too often junior 35M Soldiers are sent out on their own and do not have the requisite skill set to perform vital collection functions. The advanced source operations (recruitment) training should be added to AIT because Soldiers will need it in their initial 35M assignments.

For further information please contact Mr. Patrick Shaha (913-684-3570, DSN 552-3570, e-mail patrick.shaha@conus.army.mil), CALL Integration Division.

The Battlefield Surveillance Brigade in the Attack? 560th Battlefield Surveillance Brigade Lessons from Exercise North Wind 2008, Iwate, Japan, and Employment of Attached Maneuver Forces

COL Peter C. VanAmburgh

The Army's battlefield surveillance brigade (BFSB) has a primary mission of conducting intelligence, surveillance, and reconnaissance (ISR) operations to enable a division (DIV) or joint commander to focus combat power. The organization is designed with a baseline capability and has the potential of receiving and employing additional assets to satisfy requirements and account for the variability of the spectrum of conflict. The result is a tailorable, multi-disciplined organization with the potential for assignment of additional roles beyond directing, coordinating, and synchronizing ISR elements. This article will focus on a role not envisioned for a BFSB—a brigade-level screen exercised in a multilateral venue—with implications for the future employment of the BFSB.

Unit Background

The 560th BFSB formed on 1 Oct 07 at Fort Gillem, GA. Staffing for the brigade (BDE) headquarters company, 230th BDE Support Company, and 420th Network Support Company (NSC) came from personnel transfers within the Georgia Army National Guard (ARNG). The two major subordinate elements of the 560th were resourced from the transformation of the 221st Military Intelligence (MI) Battalion (BN) from the legacy tactical exploitation battalion (TEB) structure to a BFSB MI BN. The long-range surveillance (LRS) company was removed during this transformation and became the base of the 3-108 Reconnaissance and Surveillance Squadron. At the time of transformation, both the 221st MI and LRS companies had completed two deployments in support of Operation Iraqi Freedom and Operation Enduring Freedom. It is important to note that the 560th BFSB formed directly into its objective BFSB design without the interim BDE structures associated with the 525th, 504th, and 201st MI BDEs.

Exercise North Wind 2008

During the period of 27 Feb–18 Mar 08, the 560th BFSB sent a command and control (C2) cell to participate in U.S. Army Japan Exercise North Wind 2008. The operation was a bilateral field training exercise with active Army and ARNG Soldiers training with the Japanese Ground Self-Defense Force (JGSDF). The 560th BFSB exercised overall command and acted as the higher headquarters for the exercise and the brigade response cell for the staff exercise and collective training. The units involved included the 35th Combat Sustainment Support Battalion; 1-297th Infantry (Alaska ARNG); various ARNG Soldiers from California, Florida, and Nebraska; and the 5th Regiment/9th DIV, JGSDF. North Wind 2008 was held in the Iwatesan training area in a remote and mountainous part of north Japan. This was the first known U.S. Army exercise to employ a BFSB as a higher headquarters and as part of a bilateral operation.

The North Wind 2008 scenario generally involved an invasion of Japan by an external threat using conventional and unconventional forces. The bilateral U.S. and Japanese response was designed to remove the threat forces and secure the land area of Japan. The mission assigned to the 560th BFSB within the greater campaign plan was as a covering force to screen then pass the JGSDF 9th DIV to expel the threat from the Iwatesan area. This mission involved a near simultaneous requirement of offense, defense, and stability operations in the BFSB's area of operations (AO). The 560th received maneuver forces, fires, and combat air support (CAS) to augment its ISR assets to accomplish the exercise mission. Extracts from the operation order are listed below.

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560th Mission and Commander's Intent
North Wind 2008

Mission: On or about 12MAR08 560th BFSB initiates movement in order to (IOT) attack to destroy 1/181st Mechanized (MECH) BN (enemy) vic Nishine-Ashior area IOT conduct forward passage of lines (FPOL) with the 9th Division (DIV) and facilitate their destruction of the 181st MECH BDE.

Commander's Intent: It is my intent to conduct an aggressive in-depth ISR fight to provide early warning of enemy repositioning forces. Ensure Japanese forces are the lead in all civilian personnel interaction. Ensure thorough rehearsals and coordination tasks are conducted for synchronization with JGSDF IOT prevent fratricide and loss of momentum. Plan to integrate all assets available to achieve mission end state (i.e., CAS, mortars, human intelligence [HUMINT] and signals intelligence [SIGINT], etc.).

Key Tasks

Shaping operations:

- 221st MI BN conducts SIGINT operations in support of attack.
- 221st MI BN provides HUMINT support to Task Force (TF) 35 vic Objective (OBJ) Pound (Barra Barra town).
- 3-108th Cavalry (CAV) conducts screen operations on designated named areas of interest.
- TF 35 establishes liaison officers with 5th Combat Team (CT), JDSDF, IOT synchronize the attack and FPOL.
- TF 35 direct liaison authorized with 5th CT.
- TF 35 establishes detainee operations cell IOT facilitate intelligence collection.
- TF 35 conducts threat assessment of Barra Barra (OBJ Pound).
- 420th NSC provides communication support to TF 35.

Decisive operations:

- 3/108th CAV identifies composition/disposition of enemy vic OBJ Cat and OBJ Bird.
- 3/108th CAV conducts reconnaissance, surveillance, targeting and acquisition (RSTA) to identify and destroy enemy artillery and command post (CP) vic OBJ Bird.
- TF 35 destroys enemy vicinity of OBJ Cat in coordination with 5th CT.
- TF 35 conducts FPOL with 9th DIV.

End State: The 560th BFSB has destroyed 181st MECH BDE in a coordinated attack with 5th CT. All units maintained 75 percent of combat power and personnel. AO is cleared of enemy capable of impeding the 9th DIV attack. Passed the 9th DIV Fwd to destroy enemy forces and ultimately recover control of the AO Mori area.

The exercise proceeded successfully with all the normal lessons learned (i.e., coordination, control measures, and rehearsals) at each echelon and between the bilateral participants.

A BFSB with "Teeth"

North Wind 2008 provided the 560th BFSB an opportunity to go beyond the operational and organizational (O&O) concept for the BFSB and incorporate ownership of fires and combat forces into the operational planning. In essence, the mission exercised the staff's ability to put "teeth" into a BFSB organization. While not practical in most situations or environments, a BFSB with ability to fire and maneuver on actionable intelligence in a stability and support venue may be a viable alternative to conventional wisdom.

The O&O concept for the BFSB outlines two major roles for the brigade when supporting the division or joint commander: a force provider and operational headquarters, with or without an AO. In the role of operational headquarters with an assigned AO, the BFSB has a tremendous amount of ISR resources to employ within its region and the ability to search into and beyond its borders into the area of interest (AI).

One outcome of employing a BFSB with maneuver forces in North Wind 2008 was to intuitively determine the potency of a BFSB with process ownership of not only organic ISR assets but also of maneuver forces that can act on the intelligence derived from its collection apparatus. One can surmise the impact of such a force in an environment where little or no population control requirement existed. The territory was vast and rural, and the threat forces functioned as small units only massing for short periods of time. In this scenario, the ability to see first and subsequently act first would provide a significant if not decisive competitive advantage over the threat forces' ability to remain undetected and maneuver.

A major question regarding a BFSB with additional assets concerns the ability of the staff. Is the BFSB staff robust enough to handle maneuver and fires control and coordination while synchronizing ISR? North Wind 2008 appeared to determine a BFSB staff is indeed capable of employing ISR while simultaneously conducting current operations and planning future activities to maneuver its combat forces and mass effects.

Another major issue involved the supporting forces that were augmenting the 560th BFSB. In the North Wind Exercise, the 560th BFSB support provided to combat forces was successful because it was augmented with a combat support battalion (CSB). Under its normal configuration, the BFSB is assigned a brigade support company (BSC) and not a CSB. Unless the BFSB is augmented with a CSB, the BSC will not normally have the capability to support units augmenting the BFSB unless those units come with their own support packages.

Conclusion

The BFSB has a tremendous capability to "see first" but cannot act on its intelligence without the addition of fire and ground combat capabilities. North Wind 2008 provided an opportunity to exercise a BFSB in an unlikely scenario and see the potency a BFSB may possess when the organization can not only "see first" but subsequently "act first" on the intelligence derived by its sensors. In essence, it provides process ownership of intelligence and the ability to mass effects under one commander. In an operational environment where the enemy forces are elusive, dispersed, normally operate in small units, and work to remain undetected, a BFSB with a limited amount of ground forces, fires, and means to maneuver may be a viable option to conventional employment of a brigade combat team and a subsequent economy of force.

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Chapter 2

Maneuver Enhancement Brigade

The Maneuver Enhancement Brigade

COL Charles A. Williams and Mr. Joe Crider

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The Army is in the midst of a transformation process that moves it to modularity, the adoption of the six warfighting functions, and a creation of new and special organizations. One of those new and special organizations is the [maneuver enhancement brigade]… designed as a [command and control] headquarters with a robust multifunctional brigade staff that is optimized to conduct maneuver support operations. Maneuver support operations integrate the complementary and reinforcing capabilities of key protection, movement and maneuver, and sustainment functions, tasks, and systems to enhance freedom of action.

—Field Manual (FM) 3-90.31, *The Maneuver Enhancement Brigade*

The intent of this article is to provide a basic understanding of the capabilities and doctrine of the maneuver enhancement brigade (MEB) and its role in the modular Army. It offers a basic description of the MEB's unique capabilities, relevance to the current force,[1] and importance to the United States Army Maneuver Support Center (MANSCEN).

The evolution of the MEB traces its roots to the Army's transformation initiatives, which identified modularity as one of its primary goals. The Army's goal in developing modular units was to serve the specific needs of combatant commanders by providing tailored forces[2] to support full spectrum operations. The Army's leaders envisioned modularity as a bridge linking current capability requirements with those anticipated for the future. This strategy culminated in the Army's decision to limit its brigade force structure to the following five distinct types:

- Infantry brigade combat teams (IBCTs)
- Heavy brigade combat teams (HBCTs)
- Stryker brigade combat teams (SBCTs)
- Functional brigades
- Multifunctional brigades

As one of five multifunctional brigades, the MEB is the only one designed to manage terrain, a capability it shares with the brigade combat teams (BCTs).

With no antecedents, the MEB represents a unique and at times somewhat misunderstood organization. It is a dynamic and multifunctional organization, predicated entirely on tailored forces task-organized for a specific objective. In many ways, it is an organization like no other, offering a tremendous variety of functional and technical depth coupled with significant lethality. The MEB delivers critical complementary and reinforcing capabilities in a flexible and scalable manner that is essential to conducting full spectrum operations. Included in these capabilities is the capacity to deliver any combination of lethal and nonlethal effects.

The MEB's critical missions or key tasks include maneuver support operations, consequence management operations, stability operations, and support area operations. A common thread among each of these missions is the obvious capability requirements of MANSCEN's three proponents—chemical, engineer, and military police.

What the MEB Is

- The MEB is designed as a unique multifunctional command and control (C2) headquarters to perform maneuver support, consequence management, stability operations, and support area operations for the supported force, normally the division.

- The MEB is a bridge across the capability gap between the more capable functional brigades and the limited functional units, such as chemical, biological, radiological, and nuclear (CBRN); engineer; and military police of the BCTs. This headquarters provides greater functional staff capability than BCTs, but usually with less than a functional brigade. The key difference between the MEB and the functional brigades is the breadth and depth of the MEB's multifunctional staff. The MEB provides complementary and reinforcing capabilities. The MEB staff bridges the planning capabilities between a BCT and the functional brigades.

- The MEB is an "economy of force" provider that allows BCTs and maneuver units to focus on combat operations. It directly supports and synchronizes operations across all six Army warfighting functions. For example, economy of force missions might involve support to counterinsurgency or other "terrain owner" missions. The MEB serves a vital economy of force role by freeing the BCT to concentrate on its priorities when adequately sourced with maneuver formations and other capabilities such as intelligence, surveillance, and reconnaissance (ISR); fires; information operations; and medical.

- The MEB is similar to a BCT, without the BCT's maneuver capability, providing C2 for an assigned area of operations, unlike other support or functional brigades. Unique staff cells such as area operations, fires, air space, and liaison officer (LNO) assets give the MEB a level of expertise in area of responsibility and terrain management uncommon in a functional brigade.

- The MEB is capable of supporting divisions and echelon above division (EAD) organizations as well.

- The MEB is able to conduct combat operations up to the level of a maneuver battalion when task-organized with a tactical combat force (TCF) or other maneuver forces.

What the MEB Is Not

- The MEB is not a maneuver brigade but is normally assigned an area of operation (AO) and given control of terrain. The MEB's only maneuver is defensive, with very limited offensive maneuver when it employs its reserve (response force or TCF) to counter or spoil threat. When the situation requires, the MEB executes limited offensive and defensive operations, using response forces or TCF against Level II or III threats.

- The MEB is not mainly composed of organic assets but rather a tailored set of units.

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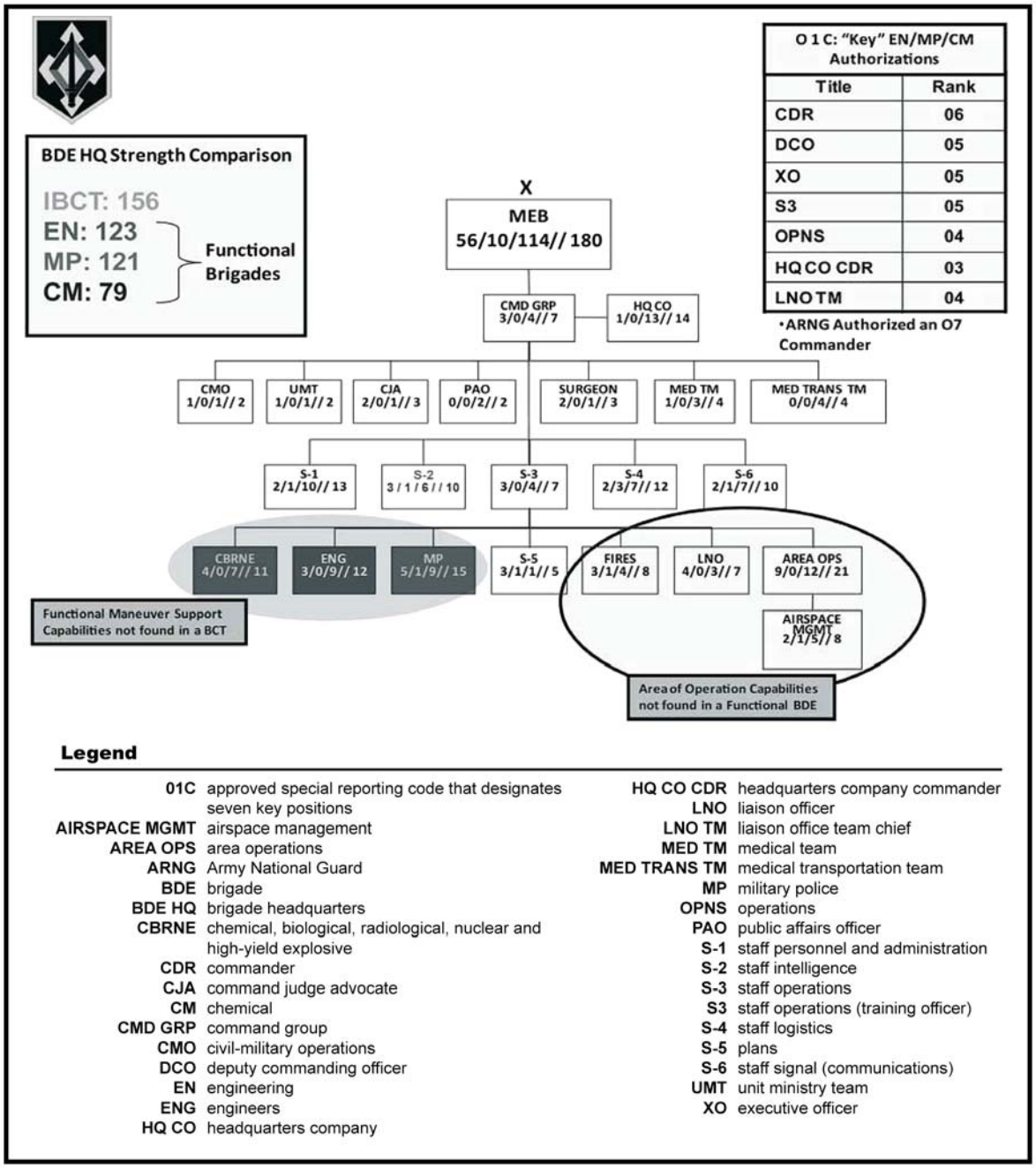
- The MEB is not typically as maneuverable as a brigade. Instead, it is designed to be assigned an AO and C2, with higher headquarters assigned tactical control for security of tenant units.
- The MEB is not designed to conduct screen, guard, and cover operations, which are usually assigned to BCTs.
- The MEB is not a replacement for the functional brigades, especially at EAD.
- The MEB is not a replacement for functional brigades for missions such as counter chemical, biological, radiological, nuclear, and high-yield explosive (CBRNE) weapons and threats across the entire operational area; major complex CBRNE or weapons of mass destruction (WMD)-elimination operations; major focused combat and/or general engineering operations; brigade-level internment/resettlement operations; or major integrated military police operations (each involving three or more battalions); missions requiring increased functional capabilities and staff support, or exceeding the C2 focus of the MEB.
- The MEB is not replaceable by a CBRN, engineer, or military police brigade to perform other functional missions within its own AO or at other selected locations within the division AO.
- The MEB is not a replacement for unit self-defense responsibilities.

MEB Headquarters

Of particular significance to MANSCEN proponents and stakeholders is the MEB's robust headquarters design. Currently numbering nearly 200 Soldiers, noncommissioned officers, warrant officers, and commissioned officers, the MEB headquarters is among the largest in the Army's brigade inventory. The majority of these coded authorizations specifically require chemical, engineer, and military police personnel. To further extend its utility, force developers included authorizations for several other functions—such as fire support coordination and air space management—that lend the MEB unique planning and execution capabilities necessary to support its own AO. The robust planning and C2 capabilities organic to the MEB headquarters serve as its primary attributes, making it ideal for complex missions requiring a flexible response and scalable effects along the spectrum of conflict. For example, the MEB may conduct missions ranging from support such as police or civil engineering to a host nation to support to a division conducting a deliberate river crossing. The relevance and potential of the MEB continues to evolve, particularly in the realm of support to civil operations, as evidenced recently in the requirement for the MEB to provide support to a CBRNE consequence management response force (CCMRF).

Organization

The MEB's central purpose is to provide tailored support to the modular division and corps (supported force) in order to meet wide-ranging requirements in support of full spectrum operations. To support this need, the MEB maintains a robust headquarters design composed of multiple coordinating and special staff cells. Included in the headquarters is a broad range of functional expertise that enables the commander to optimize his capabilities and tailor his response (see figure on page 38).



These cells provide the MEB with unique capabilities such as the following:

- Fire support element cell. Provides indirect fire coordination (tube, rocket, or rotary-wing); enables the commander to extend protection throughout the support AO; enables mitigation of a host of threats, including support to a TCF (when assigned) in mitigating a Level III threat.

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- LNO cell. With permanently assigned LNO personnel, coordinates and establishes liaison vertically with senior and subordinate commands and horizontally with joint, interagency, intergovernmental, and multinational (JIIM) or other agencies located in its AO.

- Area operations cell. Provides the commander with added flexibility on planning and coordinating activities related to terrain management while not distracting the operations and training cell or civil affairs cell from their primary focus.

- Airspace management cell. Coordinates air operations during support area operations or when the MEB is assigned an AO.

The "01C Initiative" is an approved special reporting code that designates seven key positions—commander, deputy brigade commander, executive officer, training officer, operations officer, headquarters company commander, and LNO team chief—within the MEB to be filled by chemical, engineer, or military police officers. The rationale for this initiative extends from the understanding that the majority of the MEB's capabilities involve maneuver support. Limiting these billets to chemical, engineer, and military police officers is a way to assure technical and functional expertise within the seven most critical command and senior staff positions (see figure on page 38).

Beyond the headquarters nucleus, the MEB is a task-organized unit tailored to meet a specific mission requirement. To ensure flexibility, the designers of the MEB structure limited its organic composition to a headquarters, a headquarters company, a network support company, and a brigade support battalion. Though mission, enemy, terrain and weather, troops and support available, time available, and civil considerations (METT-TC)-dependent, a typical MEB task organization would likely include chemical, engineer, military police, and explosive ordnance disposal (EOD) assets. Also based on METT-TC, it could include air defense artillery, civil affairs, and a TCF.[3]

Doctrine

The doctrine portion will summarize major points contained in FM 3-90.31 and information illustrated in the MEB commander's briefing. Nearing its final edit, the FM is set for publication in fiscal year 2009. The major tenets of the FM include the following:

- Maneuver support operations. These operations integrate the complementary and reinforcing capabilities of key protection; movement and maneuver; and sustainment functions, tasks, and systems to enhance freedom of action. For example, these key tasks may include area security, mobility, and internment and resettlement operations. Maneuver support operations occur throughout the operations process of planning, preparing, executing, and assessing. The MEB conducts maneuver support operations and integrates and synchronizes them across all the Army warfighting functions in support of offensive and defensive operations and in the conduct or support of stability operations or civil support operations.[4]

- Combined arms. The MEB is a combined arms organization that is task-organized based on mission requirements. The MEB is primarily designed to support divisions in conducting full spectrum operations. It can also support operations at EAD, including corps, theater, Army, joint, and multinational C2 structures. Still further, it is ideally suited to respond to state and federal agencies in conducting civil support operations in the continental United States. The MEB has limited offensive and defensive capabilities in leveraging its TCF (when assigned) to mitigate threats within its AO.[5]

- Support area operations. The MEB conducts support operations within the echelon support area to assist the supported headquarters to retain freedom of action within the areas not assigned to maneuver units. When conducting support area operations, the MEB is in the defense, regardless of the form of maneuver or the major operation of the higher echelon. Support area operations include the need to—
    - Prevent or minimize interference with C2 and support operations.
    - Provide unimpeded movement of friendly forces.
    - Provide protection.
    - Conduct operations to find, fix, and destroy enemy forces or defeat threats.
    - Provide area damage control.[6]
- Terrain management (conducted in the support area). The MEB's tailored capabilities enable it to assume many of the missions formerly performed by an assortment of organizations in the division and corps rear, such as rear area operations and base and base cluster security. Usually assigned its own AO to perform most of its missions, the MEB can also perform missions outside its AO. Normally, the MEB's AO is the same as the supported echelon's support area. Within its AO, the MEB can perform a host of missions, though it is better suited to perform one or two missions simultaneously than several at the same time. Some of the missions assigned to an MEB within its AO include movement control, recovery, ISR, and stability operations. The MEB defends the assets within its AO, including bases and base clusters. Outside of its AO, the MEB can provide military police, EOD, or CBRN support to the supported commander.[7]
- Movement corridors. One of the ways that the MEB performs protection missions is by establishing movement corridors to protect movement of personnel and vehicles. The MEB provides route security and reconnaissance and defends lines of communication. The Figure offers a greater overview of the MEB's mission capabilities, depicting its core capability mission-essential tasks (CCMETs) and the supporting task groups.
- Interdependencies. The MEB, like all the other modular brigade structures, relies on others for some of its support. When needed, the MEB must leverage fire, medical, aviation, and intelligence support from adjacent functional or multifunctional brigades. As the likely landowner of the support area, the MEB will not only have to provide support throughout the division area of responsibility but also to the other modular support brigades residing within the support area as part of its support area operations mission.

MEB Limitations

The MEB is not a maneuver organization. Although it harnesses sufficient C2 and battle staff personnel to employ a TCF in a limited role (when assigned), it does not seize terrain and it does not seek out a Level III threat. It is important that MEB commanders and staff can clearly articulate the differences between the MEB, the other modular support brigades, the functional brigades, and the BCTs.

The Way Ahead

The future of the MEB appears very positive. Its capabilities are relevant and indispensable to combatant commanders conducting full spectrum operations. The MEB receives frequent

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accolades from an expanding chorus of general officers. Just recently, General William S. Wallace, then commanding general of the United States Army Training and Doctrine Command, and Major General Walter Wojdakowski, Chief of Infantry and commander of the Maneuver Center of Excellence at Fort Benning, Georgia, strongly supported the need for more MEBs. Their belief is that the current and future operational environments—increasingly asymmetrical and complex—require more MEBs. In sharing their experiences from the major combat operation phase of Operation Iraqi Freedom (OIF), they remarked that an MEB or two could have played a key role during the march to Baghdad. Their assessment was that the MEB is uniquely configured to command and control all the maneuver support capabilities required to support Army operations. During the early phases of OIF, all the critical maneuver support functions now resident in MEBs were managed in composite fashion. Most frequently, functional or maneuver brigades would assume these functions as an additional mission. Performing these vital missions was necessary to ensuring that the lines of communication remained open and the rear area remained secure. Typically, units performed maneuver support operations and support area operations missions as a secondary effort, taking their focus away from their primary mission—the march to Baghdad.

The MEB's unique design ensures its place in the Army's force structure to provide maneuver support to division and corps for the current force and for years to come. A central concept of the modular force is for each of the modular support brigades to provide seamless support to the supported commander. For its part, the MEB's tailored design assures that it can provide all essential maneuver support functions to the supported commander. While the MEB is only one part of a division force package, it too is required to ensure seamless support to the division across the spectrum of conflict. At present, there are 23 MEBs in the total force—four in the Active Army, three in the United States Army Reserve, and 16 in the Army National Guard. We began to activate MEBs in 2006 and will continue to activate them through 2012. Currently, 14 MEBs have been activated and several have already deployed.

The MANSCEN challenge now is to develop a culture of leaders who can visualize, describe, and direct the many capabilities resident in the MEB to support a transforming Army.

Endnotes

1. "Our Army at War: Relevant and Ready," *Soldiers Magazine,* January 2004.

2. Field Manual Interim (FMI) 3-0.1, *The Modular Force,* 28 January 2008.

3. FM 3-90.31, *The Maneuver Enhancement Brigade,* final draft October 2008.

4. Ibid.

5. Ibid.

6. Ibid.

7. Ibid.

Note: This article was originally published in the Winter 2009 edition of *Maneuver Support.*

Modular Engineer Structure in Divisions

COL Jeffrey R. Eckstein

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I recently completed a deployment to Iraq as the division G7 and the division engineer for the 25th Infantry Division, which served as the Multinational Division–North (MND–N) headquarters at Contingency Operating Base (COB) Speicher and covered an area equivalent to the size of Pennsylvania. The division converted to the modular structure and deployed after a mission rehearsal exercise and, during the tour, it commanded and controlled four to six modular brigade combat teams (BCTs). From my perspective, I think the modular engineer force structure is about right. I offer the following observations based on my 15 months in Iraq.

Staff Organization

The engineer expertise on the division staff in the modular structure resides in the two tactical command posts (TACs), the division operations center, and the division engineer cell. By the modified table of organization and equipment (MTOE), engineers support other sections within the headquarters and are not a staff section such as the G1 or G4. We did not operate this way. The division engineer section became the G7 reconstruction, not the information operations (IO) section. The IO section was part of G3. The MTOE engineers assigned throughout the division headquarters worked within the G7. The exception was the engineer planner, who remained a member of the G5.

The G7 included the engineers, the traditional G9 section, and several civil affairs personnel. The figure on page 49 depicts the areas of G7 responsibility. The G7 section coordinated reconstruction efforts at the division level as well as the traditional engineer and civil-military operations functions. Placing all of the engineer personnel within the G7 allowed the engineer section to battle-track, coordinate engineer support, provide resources to the BCTs, and execute nonstandard missions as assigned. The G7 provided personnel to the division operations center and executed the traditional roles of maintaining situational awareness of the current fight, providing engineer input for the staff battle drills, and briefing the commander. The G7 also coordinated with the assigned engineer brigade headquarters and corps for additional engineer capability as required for the mission or as requested by the BCTs.

Resourcing in Iraq is requirements-based. Many of the resources required by engineers were construction materials, particularly barriers. These were justified through the Division Acquisition Review Board (DARB) or the Joint Acquisition Review Board (JARB), depending on the monetary thresholds. The engineers provide input for the division-level approval or process the requests going to corps for their action. In addition to the material requests, an engineer reviewed all construction requests and conducted a work classification to ensure compliance with statutory construction limits. Within Iraq, the Logistics Civil Augmentation Program (LOGCAP) is a source of base camp support. As part of our division-level review process, the division engineer validates all LOGCAP requests over $100,000.

The G7 in MND–N was responsible for oil and electrical infrastructure. This nonstandard mission entailed tracking the progress of improving crude oil exports, distribution of the refined product, and production and distribution of electricity. The MND–N area included one of the largest refineries and power plants in Iraq as well as the Kirkuk oil fields. The G7 staff section provided our general officers and higher headquarters with accurate and timely oil and power information. This information assisted leaders at all levels in their engagements with Iraqi officials, resulting in improved production, security, and reliability over the course of our deployment.

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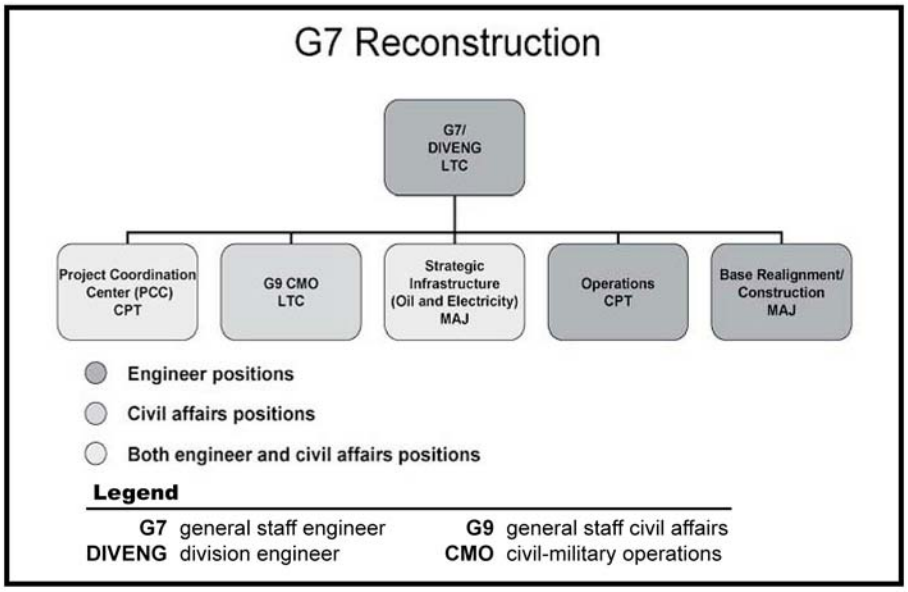

The G7 also supervised the Commander's Emergency Response Program (CERP), another nonstandard mission. This involved tracking all BCT projects, facilitating the approval of projects over $100,000, funding all projects in conjunction with the G8 CERP manager, and maintaining the Iraq Reconstruction Management System (IRMS) database. This was no small task because the division executed more than 3,000 projects in one fiscal year. Civil affairs personnel augmented the engineers in order to accomplish these nonstandard missions.

The division engineer section accomplished all of these tasks because all the engineer personnel on the division staff worked for the division engineer in G7. If personnel work according to their MTOE assignments, the engineer contribution to the division commander and staff is limited to battle tracking and coordination for engineer support. The consolidation of engineer personnel enabled the sourcing and execution of the nonstandard task.

Multiple vs. Consolidated Command Posts

The modular MTOE for the division does provide adequate engineer staffing, but the organization supports three separate command posts, which are critical for a mobile fight. In Iraq, we did not need the capability to conduct mobile operations, so we formed one staff from the three command posts and formed new cells as required by the mission in Iraq. Over the course of 15 months, two cells did form that operated separately from the division headquarters. Although referred to as TACs, these cells supported leader engagements rather than coordination of tactical operations. Additionally, the division formed the Iraqi Security Force (ISF) cell, the improvised explosive device (IED) defeat cell, the Project Coordination Center (executed CERP), and the reconciliation cell. With the consolidation of all engineer personnel in one staff section, we supported all of these cells with appropriate coordination, as well as controlling the Project Coordination Center. The G3 controlled the other cells.

Manning

My assessment is that the MTOE for personnel provides adequate expertise and leadership to execute engineer planning, integration, and support at the division and brigade levels. Discussions are already underway to modify the organization at division and BCT levels. Unfortunately, none of the BCTs or the division staff was manned according to their MTOEs.

Non-career course graduates often filled the captain positions, and career course graduate captains filled the major positions. Only one Stryker BCT had the required major, one of one. Engineer officers were in great demand as liaison officers (LNOs) and military transition team members and for fulfilling branch qualifications in branch-immaterial positions (brigade special troops battalion [BSTB] or special troops battalion [STB] executive officer [XO]/operations officer [S3]). The same situation occurred with captains, although not to the extent of the majors. Many of the problems we experienced with communication and coordination would be alleviated by having more senior personnel on the staff. It is critical that the brigade and division staff positions are filled at the appropriate grade, not just with an engineer. I recommend consolidation of the division engineer personnel into one section, the G7, but retain the current MTOE authorizations. At the BCT level, I am hesitant to suggest a different force structure for the officers, but I would add a construction-type noncommissioned officer.

Battalion Headquarters in a BCT

Most engineer and maneuver commands commented on how they needed more engineers and how they missed having the attached engineer battalion in the BCT. With a properly manned brigade staff, the engineer battalion headquarters is not required to support the modular BCT. An engineer battalion headquarters is appropriate because engineer elements assigned to the BCT increase based on the assigned mission set. What is not required for the one or two organic engineer companies is an engineer headquarters element. A BSTB headquarters provides the required command and control. The knowledge and experience of an engineer battalion commander within a BCT is invaluable and is a tremendous advantage. But that capability is not worth the detachment or company that comes with the commander. A better solution is to place a high-quality, potential battalion commander on the BCT staff as one of the assigned majors. At BCT level, there are either one or two engineer majors depending on whether it is a Stryker, infantry, or heavy BCT. I suggest providing two engineer majors on the MTOE, regardless of the type of BCT.

Engineer Capability in a BCT

Another common complaint with the new modular structure is the lack of engineer capability. In Iraq, I believe our problems are not a result of modularity. Engineers are in high demand in counterinsurgency operations. Because a BCT requires additional engineers to support missions, the BCT must wait, share, or simply do without the requested engineer capability. Providing additional organic capability to the BCT is not a viable solution. We must remain flexible and agile to match the engineer capability to the BCT requirements at the correct time. As BCT missions require additional forces, the BCT receives engineer forces with the appropriate command or control relationship. The only capability I would suggest is additional horizontal capability within the engineer company.

Engineer Brigade Headquarters

The one required force structure change is the engineer brigade headquarters at division level, and there are many ways to provide this command and control headquarters. I suggest an arrangement similar to that of the sustainment brigades. Each division has a habitual relationship with an engineer brigade. The current four engineer brigades on active duty are not enough. Every division in Iraq, except the surge infantry division, has had at least one engineer brigade or group assigned to it to support operations. That fact should validate the requirement. Similar to the sustainment brigades, these engineer brigades do not require organic units. The division's mission dictates the allocation of additional engineers. With the already lean organic engineer capability of the BCT, divisions will require additional engineer units for nearly every assigned mission. These modular brigades accept the additional engineer capability required to support operations. The modular engineer brigade is not integral to the division headquarters and will

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remain able to command and control engineer operations across the division area of operation. Typically, divisional engineer brigades provided their assigned engineer battalions to the BCTs and usually requested engineer groups as additional engineer battalions supported the division. Previously, we had an engineer command and control headquarters at division level, but we requested one more headquarters. What we really need is more company- and battalion-level capability; one engineer brigade headquarters per division is adequate.

Summary

I believe the modular concept and capability within the division and BCT is about right if properly manned. It is critical to have 100 percent manning on division and BCT staffs with the appropriate grade personnel. At division level, consolidate the engineers by MTOE into one section, nominally the G7. Provide some additional horizontal capability within the organic BCT engineer company. I would not attempt to provide the organic engineer battalion headquarters to a BCT. I would increase the number of engineer brigades in the structure to match the number of divisions and would continue with efforts to increase the engineer force structure. My experience in Iraq reinforces that we do not have enough engineers in the force structure; engineer Soldiers deploying every other year deserve the additional force structure. The modular construct is valid and does not require major reworking or debate within the regiment. We should first focus on bringing back engineer capability at the company and battalion levels.

CALL analyst's note: Since the publication of this article, there have been changes to the division design, e.g., there is now only one TAC at division level. The modular engineer brigades referred to above are now called maneuver enhancement brigades for which there are four in the Active Component.

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Chapter 3

Fires Brigade

Transformation of Artillery: Continuity and Change

LTG Wilson A. Shoffner, Retired

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... and the lady seated next to Mr. Churchill said: "Mister Prime Minister, you are disgustingly drunk." And Winston Churchill replied, "Yes lady, you are right. I am drunk, and you are ugly. But tomorrow morning I will be sober."

When dealing with any transformation, some things change and some stay the same. Will it be done with wisdom to recognize what should not be changed and with the fortitude to deal with that which must change? This is the challenge facing the artillery as it goes through major transformation in the post-Cold War era. The purpose of this article is to address that challenge.

In this post-Cold War period, a radical change in the nature of the threat has claimed the attention of most free countries. Today, we are engaged in the War on Terrorism (WOT). The Army must be transformed to deal with emerging threats around the world while it is conducting WOT—not an easy job. Artillery transformation began from a posture with programs and structures designed for a very different enemy than we now face.

The Cold War threat was a massive, complex structure that outnumbered and outgunned allied forces. For the artillery, it was particularly challenging with enemy artillery numerical advantages of five to one and sometimes as high as nine to one—that sets the starting point for artillery transformation. Following are my thoughts on how this transformation is proceeding. To keep it simple and focused, I will give you "three ups and three downs"—the three things that are going well and must be sustained and the three things that are not going well and should be corrected.

Up Number One: Flatten Command and Control (C2)

Flatten C2? As the proverbial saying goes, "When the captain said to flatten C2, what did he mean?" He means that if someone in a fight in his area of operations (AO) needs something that is available within his AO, he ought to get what he needs when and where he needs it. That is what the captain said." Wow, that is a big deal and not easy, but what a remarkable capability that would be.

The complicated C2 system connecting the many different parts must be "flattened" as a set to ensure operational and technical connectivity demanded. In Thomas Friedman's book, The World Is Flat, he points to the impact of the global Internet on business, where information is shuttled around the world at the speed of light for a variety of business transactions. If the multinational mercantile guilds can achieve interoperable global networks with unique currency and language systems, then one should expect some headway for joint and coalition commands.

The truth of the matter is that remarkable progress has been/is being made to flatten C2 within a theater of operations. Just as the need to associate guns and targets on a "common grid"—so that any gun within range can be brought to bear—was recognized by the prescient General Leslie J. McNair before WWII, today the artillery has recognized its new challenge and again is leading the way. With the advent of Global Positioning System (GPS), networking, and satellite

communications, we can see the remarkable benefits of what is emerging as a "joint common grid." General McNair would be pleased to see contemporary gunners expanding his original concept to that notion. Realization of the power of a "joint common grid" on a joint and coalition battlefield is much more significant than any other development in the Army. Some of the work being done to flatten C2 and achieve the joint common grid is highlighted below.

Joint fires instruction. At Fort Sill, Oklahoma, you find two new courses of instruction on the business of integrating joint fires. One is the Joint Operational Fires and Effects Course (JOFEC) that covers the skills, techniques, and procedures needed for effective planning and application of joint fires. The second is the Joint Fires Observer (JFO) Course. Observers are trained to call in targets to a variety of fire assets.

This is the prompt institutional response to battlefield lessons learned that will be required to "flatten C2." It is also a giant step forward in integrating joint fires and maneuver forces. In fact, JFO course-qualified forward observers (FOs) and fire support noncommissioned officers (NCOs) now are deployed to Iraq and Afghanistan and putting their new skills to work every day.

Changes in tactics, techniques, and procedures (TTP). Excellent progress is being made to flatten C2 through revision to TTP. Remarkable examples have come from combat experiences in Afghanistan and Iraq, and TTP are being updated to capture them. TTP are being updated to capture lessons from the field so that they can be taught in the schoolhouse, reflected in revisions to doctrinal publications, and practiced at combat training centers.

Recent examples of such TTP are from the Battle of Fallujah, where Task Force 2-2 Infantry Battalion Fire Support Element (FSE) operated as a mini-brigade FSE. The FSE coordinated the effects of Army, Air Force, and Marine assets more autonomously than the traditional doctrinal battalion-level FSE—a model of joint interdependency and flattened C2. Mortars of 2-2 Infantry were an integral part of indirect fires; danger-close missions were the rule with l55-mm and l20-mm fires—often within 200 meters of friendlies.

Organizations—Fires battalions and fires brigades. Similarly, combat experiences are being reflected in the redesign of Army force structure with adaptive, modular units. Most significant are the brigade combat teams (BCTs) and fires brigades. BCTs are the centerpiece of the ongoing modularity reformation. Within the BCT, the previous direct-support artillery battalion has been made organic to a BCT as its fires battalion. This preserves habitual association of the fire support team with maneuver counterparts, so critical to integrating fires effectively with maneuver. Additional sensors and communications were added to streamline the field artillery battalion's responsiveness.

At echelons above the BCT, fires brigades have been formed with the capabilities for providing fires at depth and for close support. Fires brigades have organic necessary means, such as sensors and communications, to link the planners directly with the shooters.

Up Number Two: Concept of Fires

The concept for fires is being updated. In its most basic form, battle is all about orchestration of maneuver forces and fires to close with and destroy the enemy. For fires to be effective, they must be integrated closely with maneuver forces at the required time and place—not an easy task.

Today's battlefield construct is no longer an array of large combat formations. Rather, large areas are not occupied by contiguous forces, and battles may be occurring simultaneously in several different areas throughout an AO. There is little distinction between rear and deep

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battles. Targets appear any place within the AO. Today's tempo is often greater. Combat operations may be in one sector while stability operations are in another. Clearance of fires is more complex in contemporary operations. In today's environment, we see an increasing number of time-sensitive, high-payoff, and point targets (some of them hard). Where fights do occur, it still remains a close-battle problem of fires and maneuver. To capture these changes, a new concept of fires has emerged.

Fires concept—close and deep. Today's battlefield yields two classes of fires: (1) close support fires and (2) fires at depth. Thinking of fires in these two forms simplifies the concept. The notion of counter fire could be either close or deep. In both classes of fire, considerations for unwanted collateral effects are greater than before.

Thinking of fires as either outgoing or incoming further clarifies the challenge of integrating air defense artillery (ADA) and field artillery (FA). At a recent seminar at Fort Sill, the Commandant of the Field Artillery School articulated his concept of fires and introduced the Virtual Center of Excellence for Fires. It is imperative to get the concept about fires right before tackling the sticky organizational issues. Establishing this integrated concept as a preamble to physically moving personnel and functions to collocate ADA and FA schools is a smart idea.

The proposition to begin thinking of fires as fires and not as ADA fires or FA fires is the right move. Conceptually, they have the same focus. Fires are fires, whether for close support, at depth, or to deny incoming fires (from whatever source). The concept of fires is all related to supporting the force commander and protecting the force.

Simplifying the battlefield. Long-range precision fires, immediately available 24/7, are an example of simplifying the battlefield. Planning, coordinating, and executing long-range fires are much simpler tasks than other alternatives for fires at depth. Coverage of several battles in various directions is not a challenge with the longer-range, precision weapons. Precision fires have proved invaluable in counterinsurgency operations where clearance of fires is particularly difficult. Long-range fires organic to formations are not limited by problems of weather, sortie generation, attrition rates, flying hours, on-station time, or mid-air refueling.

Counter rocket, artillery, and mortar (C-RAM). Perhaps the best example of the new concept of fires is the work being done on the program known as C-RAM. This initiative integrates air defense, sensor, communication, C2, FA, and intelligence functions into one package. It smoothly provides the ability to kill not only the incoming arrows, but the archer who shot them as well and to provide a warning to those who may be in an impact area.

C-RAM now is being fielded to combat AOs as the capability continues to be further refined and deployed. Following a traditional approach for developing this capability would have taken decades, but the forward-thinking leaders driving this initiative are breaking new ground on the way to develop, acquire, and field new combat capabilities. They are doing the smart, right thing.

Up Number Three: Integration of Fires and Maneuver

My third up is the remarkable improvements in the integration of fires and maneuver.

Special operations forces (SOF). Sensitivity to specific examples precludes elaboration in this article, but suffice it to say, there are field experiences of improving the integration of fires, especially precision fires, with SOF that are very encouraging. One must be especially pleased with the use of long-range, precision fires and the capabilities of the High-Mobility Artillery Rocket System (HIMARS) to support SOF. The mobility of HIMARS and the advantages of its long-range, precision munitions have been recognized and cleverly employed by SOF.

BCTs. The formation of the BCTs is a great step forward in integrating fires and maneuver. Transitioning the direct support battalions of the divisional artillery (Div Arty) to organic fires battalions of the BCT cements that capability. Moreover, the integration of sensors and enhanced communications into the fires battalion further streamlines the close-support fires organization and enhances integration.

Fire support elements (FSEs) and fires brigades. Reorganizing artillery to deal with the new strategic environment has resulted in accepting the risk of eliminating Div Arty and corps artillery organizations. The critical need to include planning, coordination, and integration of fires with maneuver at echelons above brigade has been enhanced with the colonel and brigadier positions for FSEs at division and corps. These are important measures to assure proper integration for fires at depth.

Similarly, fires brigades now being formed have organic the required sensor and communications means to streamline finding and executing time sensitive targets at depth. Personally, I think this may prove to be the smart decision in the long run. This action in artillery transformation powers down and places greater responsibility on leaders at lower levels. Fortunately, equipment needed for C2 of the new structures is being provided as well. Leaders in the field are demonstrating they have the capabilities to make this a good decision.

Down Number One: Leader Development is Unhinged

There is a critical problem associated with leader development. With the elimination of the Div Arty commands, the progressive assignment for successful FA battalion commanders is unhinged. Failure to provide progressive and sequential assignments adversely impacts leader development.

Analysis of fiscal year 2005 (FY 05) command selections. The most recent command selections for FY 05 illustrate the problem. From the data, one discerns significant differences in the opportunity for command of tactical units at the colonel level. Army average for opportunity to command is reasonable, but differences between combat arms are of concern: infantry is 50 percent, armor is 25 percent, and FA is 8 percent. Differences in opportunity to command a tactical brigade by these margins will be perceived as an unfairness that portends major retention challenges of successful FA battalion commanders.

An “equal opportunity” solution. A solution would be to provide opportunities for FA colonels to compete for selection to command combined arms brigades. Designating commanders of infantry, armor, and FA brigades as “combined arms brigade commanders” is the first step. This would provide for successful commanders of infantry, armor, and FA battalions to compete equally for brigade command—each with a 30 percent opportunity.

With a current Army average of 28 percent, an equal opportunity among infantry, armor, and FA battalion commanders of 30 percent would rectify a significant imbalance in the opportunity to compete and continue to serve at the senior levels. Appropriate guidance to the FY 06 selection boards could correct this problem. (**Editor’s Note:** Subsequent to this article’s writing, the U.S. Army Chief of Staff announced a policy change that allows FA colonels [and selects] to compete for BCT commands.)

Down Number Two: Failure to Emphasize the Urgent Need to Lighten the Force

The second down is an urgent need for modernizing fires for light forces and an overall need to lighten the entire force. The Army is moving out smartly to modularize fighting forces and is making progress. There is also investment to develop a Future Combat System.

But what is missing in both of these initiatives is emphasis to reduce the logistics tail, lighten the entire force, and reduce the cost of ownership. What fraction of the U.S. Army's total budget goes to logisticians and their processes? What fraction of strategic lift goes for tail, what fraction for tooth? A historic number of trigger-pullers to supporters has been one to seven; what is it today? What should it be? These are relevant questions. Cost of ownership is growing because of the cost of manpower. In time, the manpower intensive tail will begin consuming the tooth if this growth is not stopped. Why continue to support massive logistics tails without understanding their true costs and implications? This is an Army problem, not just an artillery matter. We must insist on working the complete picture to lighten the force and reduce the cost of ownership.

Fires for light forces. For the artillery, there is a critical need to lighten the fires component for light forces. Serious thought needs to be given to affordable precision mortars (affordable is defined as $1,500 per round in lots of 100,000, not $100,000 per round in lots of 1,500). The 120-mm mortars are inherently flexible, very effective, easily transported, and the least costly in terms of resupply effort. Precise munitions lighten the logistics tail and enhance agility of the force.

Additionally, it is time for a new, modern howitzer for light forces. These troops have the greatest likelihood of being deployed early. Why not put our highest priorities on properly equipping them with affordable, precise mortars and munitions and the urgent development of a modern light howitzer?

Reduce the ammo logistics tail. The large, complex logistics tail of the Army is a critical concern and adversely impacts artillery. Long-range, precise rockets and missiles help because of their long range, precision, ability to shift rapidly, and inherent 24/7 availability—more affordable solutions would increase their benefit. These weapons significantly lighten logistic burdens.

Further, their cost of ownership, strategic lift, and manpower costs of long-range precision fires are minimal compared to alternatives. Compare total life-cycle costs of owning a HIMARS unit with owning a slice of an air wing with equal effectiveness—there is an enormous saving for the nation.

Reduced cost of ownership. Major initiatives to reduce the costs associated with owning the Army's equipment are sorely needed. This matter is bigger than just the artillery. Any development or procurement should have the cost of ownership spelled out before a decision is made to accept the system. Today we do not have the means to see and control these costs of ownership.

Most modern successful businesses set their costs for general and administrative expenses at something less than 12 to 15 percent. By my approximations, the Army's general and administrative costs are more than 60 percent. A no-nonsense look is sorely needed at the Army's true operating costs, both peace and war times, and a modern plan for controlling them.

To compare the cost of the Army's logistics operations with a modern company of comparable scope, I have compared my estimate of the cost of Army's spare parts operations with that of Caterpillar Logistics, which supports a fleet of equipment of comparable size to the Army. The costs of Caterpillar Logistics suggest they are accomplishing a mission of similar scope at less than one-tenth the cost of the Army's and with responsiveness standards far superior to the Army's.

Moreover, the Army's costs will continue to grow because of manpower content and the extensive costs to recover from recent combat operations. This growing operations and support cost of the Army will continue to demand payment at the expense of investment accounts for future capabilities. Estimates that I have calculated would suggest that if things continue

unchecked, the investment accounts will disappear by 2019 because of the burgeoning operations and support costs.

Down Number Three: Ossified Development and Acquisition Apparatuses

The third problem is focused on the means for development and acquisition of future capabilities. This, too, is an Army-wide problem, not just an artillery matter. During the Cold War, extensive effort was placed to achieve the greatest performance. The supporting scenarios, analyses, and algorithms represented attrition warfare between large formations. For that problem, these tools served us well. But today they are not relevant, and their use can lead to improper conclusions.

Similarly, the concept-based requirements system required projections of threat and technology well beyond the next decade. And the materiel development, testing, and acquisition processes supporting the requirements system become extensive, expensive, and burdensome. These massive apparatuses for development and acquisition, which took decades to develop, are not relevant today—they must be abandoned as soon as possible. The ideas underlying transformation are forward looking, but the apparatuses for development and acquiring the capabilities are backward thinking. We can no longer afford to wait 17 years from concept formulation to fielding. Much of tomorrow's technology will be obsolesced within that 17-year period. Gaining the future combat capabilities is not limited by technology or funding but by our wrong-headed processes and decision-making schemes.

The path ahead. My proposition is simple but difficult: completely discard the current development and acquisition systems. The first step is to establish a small board empowered to perform triage on the current programs and salvage those few that are relevant and can be fielded within three to five years. Terminate the remainder, accept the loss, and reset the entire process of developing capabilities and acquiring materiel. It is time to reboot the entire process.

Back to basics. Go back and reexamine the excellent roots from where the processes originated. They started from sound propositions and were initially fairly responsive. The Army needs to reset the fundamental operations analyses with relevant scenarios, redefine the analytic and war-gaming algorithms, and establish legitimate battle labs properly resourced and instrumented with modern capabilities.

Because the fundamental elements of battle are fire and maneuver, we need two primary, properly resourced battle labs—one for maneuver and one for fires. The two could operate in a virtual battlespace to examine integrated combined arms issues. A third overarching laboratory for integrating command, control, communications, and intelligence (C3I) should then be established as part of the Combined Arms Center, Fort Leavenworth, Kansas.

Using modern technologies and distance-learning techniques, these battle labs could run virtual and live experiments and, in a timely manner, generate the necessary intellectual, analytic, and technical underpinning for capabilities-based developments. Further, in this new model, the senior Army leadership should make the chiefs of fires and maneuver the service acquisition authorities. Modern, competent battle labs with decentralized acquisition authorities could bring modern capabilities to the field before the technology is obsolete.

Leverage modern tools and procedures. Many of the old tools and processes should be scrapped. New simulation, development, and testing processes with embedded six-sigma concepts can reduce testing significantly and provide remarkable improvements in production time and costs as well as reduction of operating and ownership costs. The performances being seen in all walks of industry today bear witness to these facts.

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There are a few, piece-wise pockets of excellence within Army Materiel Command, but a holistic Army-wide initiative is needed. One can only hope that the senior stewards of the Army no longer will tolerate incompetent processes and organizations while being fully aware of the remarkable capabilities within industry around the globe. If they can demonstrate the fortitude, we then will see some hard-nosed programmatic triage followed by bold, courageous reformation of the ossified processes while on their watch. It is incomprehensible that in this third millennium we should take 15 to 17 years before fielding modern capabilities.

The artillery is at a cross roads and faces choices of historic consequence. An opportunity of this magnitude comes along ever so seldom. The good news is that those responsible have selected the correct path(s), are making good headway, and getting some things right.

The collocating of the two branches again is the right thing to do. The joint common grid is the largest combat multiplier of this era, and the progress in integrating fires and maneuver will enhance combat operations. Hopefully, wisdom and common sense will prevail, and the leader development glitch soon will be resolved fairly.

But the bad news is that if there is not a major Army-wide initiative in the near term to reduce the growing cost of ownership and massive logistic tails, none of this good work will matter. The Army's tooth-to-tail ratio will dwindle to a small fraction as the tail continues to grow unchecked. If our senior stewards can muster the fortitude to leverage what is already available, demonstrate wisdom in programmatic triage, and empower bold reformation of ossified processes, then our Soldiers will have only the finest combat capabilities our country is paying for.

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Massed Precision Fires: A New Way of Thinking

Vincent R. Bielinski

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During the Meuse-Argonne campaign (26 September to 11 November 1918), 20,000 guns firing a three-hour preparation supported the initial nine-division assault. The field artillery's (FA) role was to provide close support to the maneuver forces, which it tried to accomplish through massive doses of indirect fire planned ahead in great detail and delivered with as much flexibility as communications and command and control permitted at the time. Mass was the key to success (See Donald E. Ingalls, "Artillery Innovations in WWI," *Field Artillery Journal,* September–October 1974, 54–57).

Those golden years of massing fires and honing their execution during the following decades remain a fond memory of every artilleryman. The capability exercises held at Fort Sill, Oklahoma, between 1987 and 1991 for artillery students and even for Command and General Staff College students from Fort Leavenworth, Kansas, displayed the might of the field artillery as the fires of a dozen battalions massed on a single "time on target" fire mission. Maneuver commanders also were included so they could witness the awesome might of the King of Battle. Everyone, even experienced artillery commanders, left impressed.

Today's Environment

Today, however, FA no longer masses a large number of rounds fired from dozens of guns to engage targets. Modularity is one of the principle reasons. The Army no longer has the number of division artilleries or corps artilleries with several FA brigades and their subordinate battalions as in the past.

Now, most fires battalions are organic to their brigade combat teams, and the division commander seldom takes them away from the brigade commander to mass fires. Division commanders may receive a fires brigade to support its force, but the number and type of units within that fires brigade is tailored to the division's mission.

The second argument against massed fires is the contemporary operations FA supports. The rules of engagement (ROE) and the requirement to minimize collateral damage in most cases prevent the employment of large amounts of artillery in an area to neutralize or destroy enemy targets.

The final "nail in the coffin" of massed fires is the development and fielding of precision munitions. There is no need to expend large amounts of "dumb" artillery rounds—those following an unaided ballistic trajectory—into an area when a single precision munitions can achieve the desired effect.

But are massed fires truly consigned to history? Or is there just another way of thinking about massed fires? How can FA mass fires using precision munitions? At first, the questions seem rhetorical because of the argument that "precision weapons were the final coffin nail" of massed fires. However, "how do we achieve the effects of massed fires using a small number of precision munitions" is the actual question.

Massing Precision

Instead of those 20,000 guns from the Meuse-Argonne preparation, how does FA achieve the effects desired by a single division by three or six fires battalions? In current and near future operations, FA likely will support smaller maneuver forces, for example a combined arms

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battalion, a company, or even a smaller unit. FA must leverage the accuracy and flexibility afforded by precision munitions. FA must accurately locate a number of enemy targets that support a maneuver operation and time the attack of these targets with precision munitions.

One example would be an operation to grab a high-value individual (HVI) in a sparsely populated rural town. Intelligence identified the building where the HVI will sleep that night. The intelligence sources also identified the locations of the HVI's command post, quarters for his escort, and fortified buildings that control access to and from the town.

The maneuver plan is for Soldiers to rappel from a helicopter assault onto the HVI's building and capture him along with any material he may have. Electronic attack against cell phone capabilities forestalls any early warning of the approaching friendly force. The fire support plan employs precision munitions to attack the command post, escort quarters, and fortified buildings less than one minute before the assault force arrives. These precision weapons do not exceed ROE and collateral damage estimates.

The simultaneous attacks on the enemy forces provides the shock and surprise to enable the assault force to capture the HVI quickly, perform a hasty sensitive-site exploitation, and egress. Additional precision munitions may be planned as "on call" to re-attack the barracks and fortified buildings to aid in the assault force's departure.

Consideration

Ideally, a fires brigade would be the preeminent organization to plan and execute these precision massed fires. The fires brigade could plan, prepare, and execute the fires of Excalibur, Guided Multiple-Launch Rocket System, and Non-Line-of-Sight Launch System for the supported division. These missions require detailed planning for the munitions to arrive at the specified time. For the old massed fire missions—those that involved munitions that follow unaided ballistic trajectories—the only variable was time of flight, and each unit fired based solely on this event. For the massed precision fires missions, time of flight is not the only consideration but also launch axis, flight path, way points, and airspace de-confliction. Because the Army and FA cannot guarantee the presence of a fires brigade, the ability to conduct massed fires using precision munitions is a task that each fires battalion must be able to accomplish.

Has the time of massing "dumb" artillery fires passed? Years ago, some pundits said that the Air Force's dumb bomb went the way of the dinosaurs and that only precision munitions would be used in future wars. The pundits seemed to be correct until B52s dropped both guided munitions and large numbers of dumb bombs and changed the mind of the Taliban in Afghanistan. Other soothsayers called for the demise of the tank because future operations would never need armored vehicles. They argued the high mobility multipurpose wheeled vehicle would be sufficient for everyone in every operation. This author does not have to tell you how that forecast turned out. FA may not conduct massed fires often in the future, but it must never lose the ability to train for and employ them.

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The Fires Brigade: A Critical Capability in an Era of Persistent Conflict

COL Samuel R. White Jr.

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The Army's field artillery (FA) Soldiers and units are engaged around the world. From Korea to Iraq, from Afghanistan to the Horn of Africa, artillery Soldiers are providing lethal and nonlethal fires, manning radars, delivering supplies, securing convoys, staffing command posts, conducting patrols, safeguarding facilities, helping our allies build capacity, regenerating battalions, and any number of other critical traditional and nontraditional tasks. Artillery units have become the Army's "switch-hitters" of choice for those missions because of their functional adaptability and multifunctional capability.

Despite these successes, changes created by persistent conflict, the unanticipated effects of modularity and the artillery's expanded skill sets have placed a strain on the artillery force. The artillery is "out of balance" and is not postured for the future—there are capability gaps in the formation. Eliminating a senior artillery headquarters' relationship and responsibility has created inadequate training and readiness oversight (TRO) for the artillery and fires system within brigade combat teams (BCTs).

In addition, a combination of reduced force structure and piecemeal commitment of fires brigades into the current fight has left insufficient force field artillery headquarters (FFA HQ) to support divisions and corps. Lastly, the era of persistent conflict also reinforces the requirement for right-sized and multifunctional headquarters that are capable of coordinating lethal and nonlethal actions across the spectrum of conflict.

Capability Gap

In the past, the division artillery (Div Arty) and the corps artillery filled both the TRO and FFA HQ roles. When the Div Arty and corps artillery formations were removed from the Army structure, these requirements still existed, but a replacement capability was not developed. It was assumed that BCTs could provide sufficient TRO for their organic fires battalions and that a limited number of fires brigades could function as an FFA HQ for a greater number of divisions, corps, and joint headquarters. Operational experience is revealing that these assumptions were not valid.

These capability gaps are beginning to have consequences across the operational force. Observations from the combat training centers and a recent Rand study on core skills competency reveal a marked decrease in fire support proficiency within BCTs. BCT and division commanders highlight the lack of an oversight and training capacity for fires battalions as the key contributing factor to the loss of proficiency in fires battalions and the key component in rebalancing the artillery.

Repetitive deployments conducting nonstandard missions have left most artillery battalions untrained in their core tasks and drills—at both the individual and collective levels. A generation of junior and mid-level officers and noncommissioned officers has almost no experience in their FA duties. There are S3s who executed only nonstandard missions as battery commanders and battery commanders who have not fired an artillery round since their officer basic courses.

In the past, a senior artillery commander and his staff would provide the experience and capacity to train these battalions. This is not possible now, and the experience drain has rendered many fires battalions severely crippled in reestablishing lethal core competencies—or "healing" themselves.

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Division and corps commanders' observations highlight the importance of an FFA HQ in their operations. An FFA HQ ensures seamless fire support for divisions and corps (and Marine expeditionary forces or MEFs) and synchronizes lethal and nonlethal fires across their formations.

Typically, a division is deploying with five to seven BCTs. Division commanders want an FFA HQ to turn to for fires synchronization across their areas of operation (AOs). While it was assumed fires brigades would fill this role, the supply of fires brigades neither is adequate nor postured properly to meet this demand. This capabilities gap is an unanticipated effect of modularity.

> Adaptable and multifunctional organizations like fires brigades give the joint force commander a core lethal and nonlethal fires capability when he needs it …

Force Limitations

There are only enough fires brigades in the Army structure to allocate one to each division committed to major combat operations. Current operations in theater, however, require an FFA HQ to ensure synchronization of the myriad of widely dispersed fire support assets in a division's AO—across the full spectrum of operations. All division commanders deploying to Iraq have requested this capability, and Multi-National Corps–Iraq has urged every division to deploy with a fires brigade—for the FFA HQ capabilities as well as the multifunctional headquarters capability.

From a force structure perspective, this is not possible. The current fires brigade operational tempo indicates that the Army does not have the capacity to sustain the enduring fires brigade requirements with the current resources. Every fully fielded brigade, active, and Army National Guard (ARNG) is committed decisively to the fight or is on a deployment order. There are no reserve fires brigades.

Compounding this challenge, fires brigades are being dissected and deployed in pieces. Battalions, batteries, and platoons routinely are separated from their parent modular organizations and deployed with another headquarters, while the fires brigade headquarters is split up to augment other brigade, division, or corps headquarters. In some instances, brigade and battalion commanders are deployed without their brigades or battalions, or their units are split up and deployed without them. The net result is that even though an entire brigade's worth of capacity is being deployed, the combatant commander is not gaining a brigade's worth of capability; and there are no fires brigades available to help division and BCT commanders as an FFA HQ.

Apart from the obvious impact on sustaining the current fight—we are consuming brigades faster than they can be regenerated—fires brigade commanders are hard-pressed to develop their own trained and ready units for the long term. For example, one fires brigade is or soon will be deployed in platoon and battery-sized units, and the brigade commander and a portion of the staff is deployed already in support of another headquarters. Ensuring this brigade's Soldiers are prepared adequately to execute their missions is a challenge now and in the future. Even if no further deployment orders are received by any elements of this brigade, the commander still will not have his entire organization together to begin retraining until June of 2010.

Increasing the Capacity

The demand for fires brigades looks to remain high for at least the next 10 to 15 years in the current strategic environment. Adaptable and multifunctional organizations like fires brigades give the joint force commander a core lethal and nonlethal fires capability when he needs it and the flexibility to apply the fires brigade against a range of brigade missions with a more efficient footprint than a BCT. To realize these capabilities, the Army must increase its capacity to generate fires brigades. This requires a two-pronged approach.

Increasing the Number of Fires Brigades

The Army must increase the inventory of active component fires brigades from six to 10. It is time to revisit our force structure assumptions based upon the requirements of an era of persistent conflict. Currently, the Modular Support Forces Analysis and Grow the Army initiatives identify the need for one ARNG and one active fires brigade to support the rotational base (ongoing operations). The actual rotational requirement is much higher.

At present, seven fires brigades are deployed in some capacity. As a consequence, the number of fires brigades available to meet the deter, major combat operations, and strategic reserve missions is reduced significantly and will remain so for the long term. Adding three additional active fires brigades to the Army's structure would allow the Army to meet a sustainable fires brigade demand—four per year (three active and one ARNG)—during an indefinite period of time, reconstitute the strategic reserve, and provide a sustainable FFA HQ capability to division commanders as well as a regional command and control capability to joint commanders.

A tenth active component fires brigade could provide a forward-based, non-rotational fires brigade. The requirement for detailed knowledge of the friendly and enemy situations, a complex environment that demands continuity during the long term, and the need for a developed working relationship with host nation forces are strong reasons for maintaining a forward-based fires brigade.

There is no need to include rocket battalions as part of the increase in structure; the organic rocket battalion in the brigade can be supplied from the existing force pool of rocket battalions. The four additional fires brigades should include only the brigade headquarters, brigade support battalion, signal company, and target acquisition battery—a total of approximately 635 personnel per brigade. The unmanned aircraft system (UAS) unit is not resourced at this time and would be allocated based on plans and missions (Figure 8).

Employing the Fires Brigade as a "Package"

As an essential component of the Army's long-term rotational strategy, the Army must establish fires brigades in Army force generation (ARFORGEN). Generating and deploying fires brigades as part of an ARFORGEN force package, rather than in pieces spread out overtime, provides a sustainable capability and is the most efficient use of a modular unit. This allows fires brigades to develop and maintain established TRO relationships with divisions and BCT commanders as well as support theater commanders with a right-sized regional headquarters—generating the best capability for the supported commanders.

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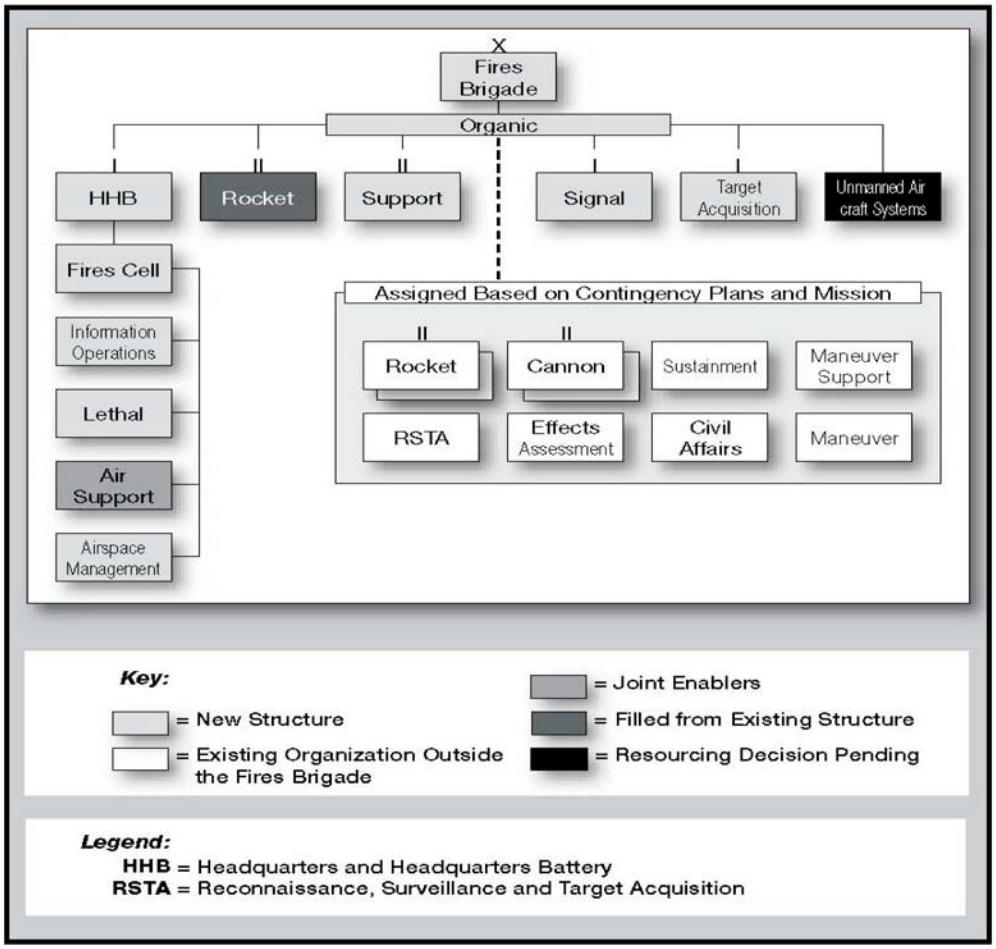

Figure 8. Tailored fires brigade

Critical Capabilities

An inadequate supply of fires brigades and a non-modular approach to fires brigade employment has induced significant risk to predictable, long-term readiness and created capability gaps for the force. Fires brigades provide critical capabilities that can rebalance the artillery (close the gaps) and set the conditions for the future.

Senior Artillery Command HQ

A senior artillery command HQ is needed to help division and BCT commanders regenerate trained and ready, lethal, and nonlethal fires capabilities. The complexity and scope of providing TRO for fires across a division and inside BCTs requires the experience and resources of a senior artillery commander and his staff. An unintended consequence of modularity is that our Army lost this capability.

Our fires battalions are organic to our BCTs, and there is little capacity or capability within the BCT for self-assessment of the fires system. Our BCT commanders are not trained and do not have the expertise to provide training oversight of a fires battalion because modularity assumed that the fires battalion commanders would be capable of training and certifying their battalions without outside help. In some instances, this is proving to not be the case.

After almost five years of executing nonstandard missions, it is likely that within the next year some of our battalions will be commanded by officers who may have never performed artillery tasks as an S3 or executive officer. The same holds true for battery commanders—their first day in a firing battery could be as the battery commander. Predictably, this lack of core competency experience at the battery and fires battalion level introduces risk into our BCTs.

Fires brigades can mitigate some of this risk. The fires brigade commander can help the BCT commanders certify their fires battalions and apprise them on the readiness of their fires systems. The fires brigade commander can mentor fires battalion commanders' execution of their duties and provide much needed technical oversight in support of the BCT commander.

Across the division, the fires brigade commander can help the division commanding general establish training and certification standards for the division fires systems—and then help assess the state of training. He can be the BCT and division commanders' eyes and ears for lethal and nonlethal fires.

While there is a colonel authorized on the division staff as the fire support coordinator—sometimes filled by a lieutenant colonel—he does not have the necessary expertise on his staff or sufficient numbers to leave required duties to oversee training on a routine basis. Further, the staff officer is disadvantaged when implementing changes because he lacks the commander-to-commander "opportunities" to help the BCT commanders train their fires battalions.

Division commanders see the need for a fires brigade to support their operations and desire a training and support relationship with a fires brigade. They actively are tapping into fires brigades now to help train their fires battalions and cells before deploying and to regenerate them once they return, but there simply are not enough fires brigades to meet the demand. Without additional fires brigade capability to help them, division and BCT commanders have limited options in regenerating artillery core competency in their organizations.

Division commanders also want to deploy with a fires brigade when they go to Iraq. They note that fires brigades would be their "ace in the hole"—a responsive precision capability and an adaptable organization well-suited for the variety of stability tasks that BCTs are performing. The fires brigade gives division commanders options.

An FFA HQ

An FFA HQ helps plan, coordinate, and execute precision lethal and nonlethal fires for divisions, corps, MEFs, and joint and combined force commanders. The fires brigade is designed to integrate and execute joint lethal and nonlethal precision fires across a supported commander's AO (300 kilometers x 300 kilometers). It has a rocket and missile battalion, support battalion, signal company, target acquisition battery, UAS capability, and a robust command and control structure. These organic capabilities permit the fires brigade to be the commander's "one-stop shop" for lethal or nonlethal fires integration and application and provide a menu of capabilities across multiple mission sets.

A fires brigade permits maneuver commanders to be extraordinarily agile and flexible. The brigade's responsive precision fires provide support when needed and allow the supported commander to deploy fewer forces across a wider area. As forces are withdrawn from theater, the need increases for immediately responsive precision protection for those dispersed forces that remain. This also includes protection from enemy indirect fires.

If employed as a unit, the fires brigade can integrate fires requirements for multiple operating bases and outposts and serve as the indirect fire protection (counter-fire) headquarters for a

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division or corps, providing training and operational oversight for dozens of counter-fire radars and counter rocket, artillery, and mortar (C-RAM) systems and tying them into a division-wide or corps-wide effort—a capability that does not exist in theater currently.

The fires brigade also addresses a current theater operational need for responsive indirect fires for combat support (CS) and combat service support (CSS) units. These units do not have organic indirect fires yet routinely require support as they make contact with insurgent forces. The fires brigade can execute the precision fires for the CS and CSS units and provide planning and coordination for other joint fires in support of CS and CSS units without a fire support element.

Additionally, the fires brigade can be tailored with a variety of systems—rocket and cannon, Excalibur and guided multiple-launch rocket systems, electronic warfare, and UAS—to provide the right capability to the right unit. In essence, using UAS and a variety of fires systems, both lethal and nonlethal, a fires brigade could provide precision overwatch of CS and CSS elements as they man checkpoints, conduct convoys, repair roads, and any number of tasks that require a rapid and precise response.

A fires brigade in theater also allows "flattening" of the lethal and nonlethal fires process. Because there is no fires brigade in Iraq operating as such, all deploying divisions and corps increase the size of fires cells and fire support elements in their headquarters to account for the tasks that a fires brigade would doctrinally accomplish, routinely adding dozens of additional personnel to the staff. Consequently, each division or corps HQ conducts planning and execution tasks which should be performed by a fires brigade—most notably, FFA HQ, counter-fire headquarters, and detailed lethal and nonlethal targeting and execution.

By transferring these functions to a fires brigade, one organization can develop the target; plan and execute reconnaissance, surveillance, and target acquisition; conduct coordination; synchronize the execution; exploit the success; and assess the effect—all from a single headquarters with significant targeting expertise and understanding of lethal and nonlethal fires integration.

A Regional HQ

The fires brigade's multifunctional staff, integrated battle command, efficient footprint, significant sustainment capabilities, and nonlethal expertise make it well suited for accomplishing regional stability missions. In current operations, as Iraqi forces assume greater responsibility for their own security, it is likely we will withdraw BCTs and eventually divisions from Iraq and replace them with regional stability headquarters. These headquarters will work with provincial reconstruction teams (PRTs)—similar to those operating in Afghanistan. The fires brigade staff structure is a valid blueprint for these regional stability HQ. The brigade staff structure is robust, multifunctional, and expandable enough to interact with a number of PRTs. Because of its personnel's experience and familiarity with coordinating joint and combined fires across many echelons, its staff is very capable. If necessary, the fires brigade also can coordinate and execute lethal and nonlethal joint fires in support of joint or coalition operations. It was designed to have the systems in place to coordinate nonlethal activities across multiple headquarters and integrate these activities with joint headquarters and multinational partners (Figure 9).

Fires brigades are executing these very missions in the current fight with tremendous success. In one instance, a fires brigade HQ with 20 subordinate units is partnered with a 30-person PRT to help the Iraqis build essential capacities in their region. Unlike BCTs that concentrate their efforts on a particular town or portion of a city, the fires brigade and its partnered PRT are

focused more broadly, building regional security, governance, finance, medical, infrastructure, and essential services capacity.

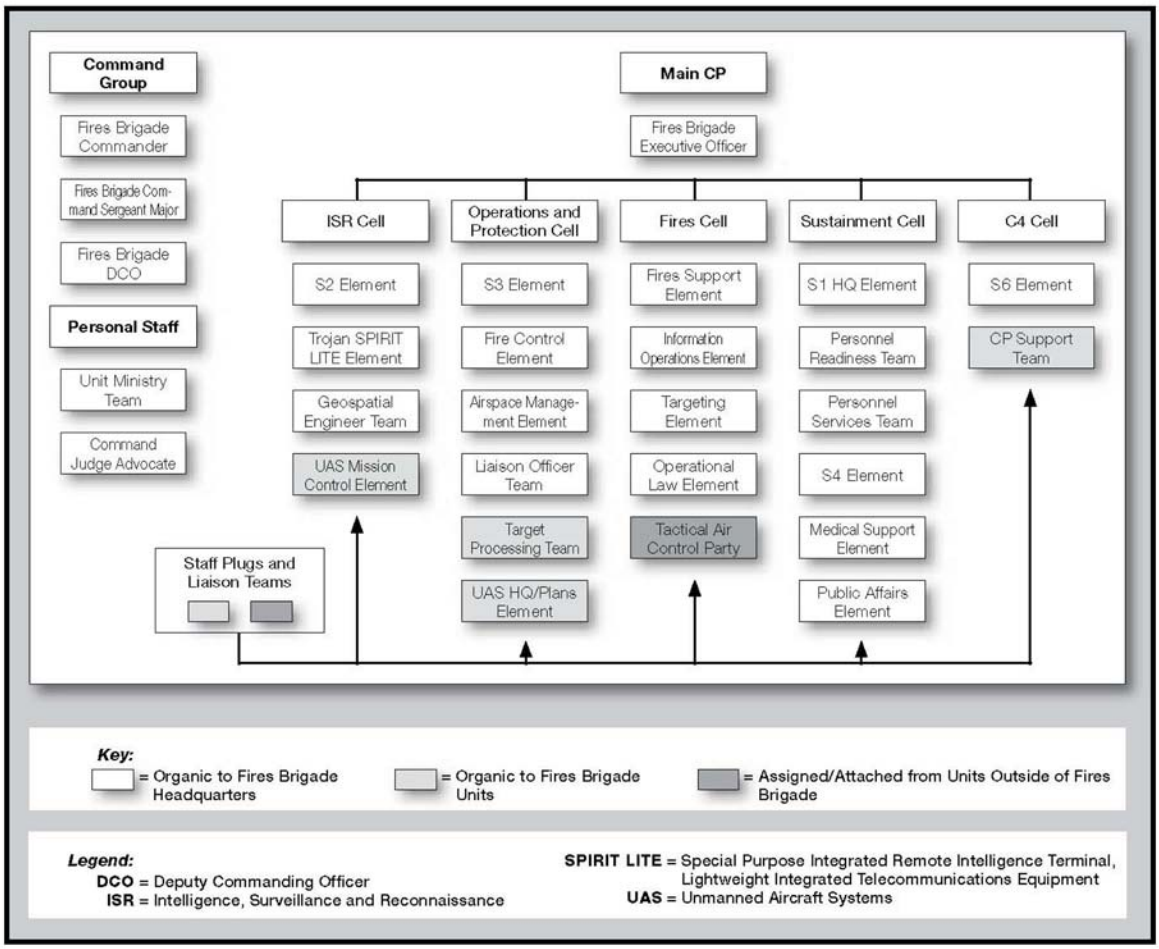

Figure 9. Fires brigade command post

This fires brigade has leveraged its regional (division and corps) fires integration expertise to develop regional capacity nonlethal actions integration expertise. The fires brigade commander and the rest of his brigade staff have been culturally programmed to be very effective in this environment. The fires brigade commander understands the cause and effect of the multitude of activities across the region because he has spent his career managing, integrating, and assessing lethal and nonlethal effects as a fire supporter.

The fires brigade structure also is well suited to provide the right-sized force for a variety of stability missions. In support of the peace engagement, the organic rocket battalion can put enough boots on the ground to provide a visible presence in the AO without supplanting local authority or enforcement. Integrating the fires brigade into the ARFORGEN cycle would allow the battalion to train for this mission. The brigade HQ can function as a military area command for geographic regions and can easily receive additional units and capabilities as the mission demands.

In support of stability, reconstruction, or humanitarian assistance efforts, the organic forward support battalion can provide almost 100 trucks in support of regional reconstruction programs,

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including fuel and water support. The brigade support battalion can receive any number of additional sustainment capabilities. A robust signal capability is expandable to allow to the fires brigade to establish multiple points of effort for reconstruction or humanitarian support, allowing communication with a multinational HQ as well as provide reach-down capability to reconstruction or relief teams.

The network operations section in the brigade S6 manages the network, giving the fires brigade the ability to expand the network as new teams join and new communications capabilities are added. The brigade can use UAS to help extend the situational awareness of the brigade, providing overwatch of the relief teams and helping in relief or reconstruction efforts in remote areas.

For current operations, as we continue the transition process in Iraq, fires brigades should be an integral part of the Army's solutions. They are being studied now as enduring solutions to the enduring regional headquarters requirement because they are suited for a variety of missions that no other brigade can perform—specifically, as a headquarters integrating lethal and nonlethal capabilities to facilitate stability, governance, essential services, and coordination in support of nongovernmental organizations.

They are performing these missions in theater right now with resounding success. To ensure these requirements are met with the right capabilities, ARFORGEN should transition to match force generation with required capabilities. In an environment where deployment numbers are scrutinized continually, a fires brigade will emerge as a tailor-made and cost-effective capability. With less than one-third the personnel footprint of a BCT, it can provide capabilities needed and enable BCTs the opportunity to train their forces and prepare for more suitable BCT missions.

Fires brigades can be integral enablers for the modular force. They are battle-tested in the current fight and are proven effective. Commanders want fires brigades in their formations; division commanders want them as FFA HQ to train and synchronize the fires for their division and BCTs, and theater commanders view them as a viable solution to a regional headquarters as forces draw down in Iraq.

Fires brigades can be integral enablers for the modular force.

Fires brigades provide three critical capabilities for the Army and close existing capabilities gaps—a senior FA commander to advise the maneuver commanders on fires application and training, an FFA HQ for synchronization of lethal and nonlethal fires, and an enduring right-sized capability for regional stability missions.

These capabilities meet warfighters' needs today and will continue to do so in the future—but supply must meet demand. As the Army grows, its fires brigade capacity must grow as well. The Army must ramp up its ability to generate brigades by increasing the number of active fires brigades to 10 and integrating fires brigades into ARFORGEN as an essential component of the Army's long-term rotational strategy. Doing so will generate a critical capability demanded by operational commanders to meet current and emerging requirements in Iraq.

Fires brigades will be a foundational capability in posturing the Army for enduring success in an environment of persistent conflict.

Note: This article was originally published in the May–June 2008 edition of *Fires.*

Chapter 4

Combat Aviation Brigade

The Changing Face of Army Aviation

BG Stephen D. Mundt with LTC Fred V. Manzo Jr.

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When first approached to write this article on the transformation of Army aviation and the Global War on Terrorism, I thought to myself, "Everyone knows about this topic already and what a dry subject...who would really want to read this article?"

Aviation's Beginnings

One would say this all started with the termination of the RAH-66 Comanche program on 23 February 2004—but did it really?

Since the beginning of Army aviation, we have continued to evolve over time from the Army Balloon Corps that served us so well in the Civil War; to the Army Air Corps of World War I; and then the Army Air Forces of WWII, which gave birth to the world's preeminent air power, the U.S. Air Force; to our early reconnaissance, lift, command and control, and medical evacuation helicopters of the Korean War; to the addition of attack aviation to an already stellar forces of the Vietnam War.

The point is we have always been about change and adapting to provide the very best support to the Soldier, Sailor, Airman, or Marine on the ground. We have changed from an Army-centric force to a joint and combined force that meets the needs of the joint force commander in ways our forefathers never envisioned. We are the "best in the world" because we embrace change.

An Evolving Need

Changes over the last 20 years, and for the next 10 to 15 years, could be defined in terms of persistent conflict and the counterinsurgency fight. Some might even posit that our force and Army aviation ought to be designed around the fights in Operation Iraqi Freedom or Operation Enduring Freedom. While it should be informed and influenced by the events of the Global War on Terrorism (GWOT), it cannot be based solely on those fights anymore than it could on operations in Grenada and Panama, or Operations Desert Shield and Desert Storm in Kuwait, or to Somalia or in the Balkans.

The bottom line is that aviation is proving daily that it is a relevant and a critical member of the joint and combined arms teams these days in the GWOT in Iraq and Afghanistan and globally today and tomorrow.

As the Army surged from 15 to 20 brigade combat teams (BCTs) in Iraq, aviation has surged with modular force structures such as medical evacuation (MEDEVAC) and lift assets. While the surge has placed increased demands on aviation, the role that the branch has played has been critical in success of the surge.

Based on this success and as forces begin to draw down, the demand for aviation force structure will not necessarily reduce as the number of BCTs decline, but will in all likelihood stay the

same level or go up because of the speed and flexibility it provides to the joint task force commander.

Six years of combat operations have reinforced the fact that Army aviation is a combat multiplier, and our forefathers in aviation would be proud of how much you all do with the people and equipment you have on hand. So if we are to be informed by the events of the past while ensuring we have a full spectrum force to meet the demands of tomorrow, what have we learned?

Embracing the Unmanned System

The need for situational awareness and understanding has never been higher; the need to close the "sensor-to-effects timeline" is paramount in fighting a thinking and fleeting enemy. Thus, the reliance on manned and unmanned aircraft systems (UAS) has changed the face of modern warfare.

Aviation has been a full partner in this change and is harnessing and leveraging the technological innovations brought to the fight in terms of UAS. We are focused on the tactical fight with the Raven and Shadow and now Sky Warrior extended range, multi-purpose UAS; but the real power of these systems comes from sharing the information both vertically—and just as importantly, if not more so—is the horizontal sharing of the information.

We do this today through proprietary systems with our platforms, but soon because of the tactical common data link, we will be able to see and possess some level of control over all the UASs through the One System remote video transceiver, the common ground station, and the AH-64D aircraft. We will expand this to the ARH-70A armed reconnaissance helicopter and the Army Airborne Command and Control System.

We need your lessons learned and experiences to remain a relevant and ready force, to integrate these critical capabilities into our formations to ensure we meet the commander's expectations, and to support the Soldier we put out on point for this nation.

Army Aviation Task Force

In August 2003, Army Chief of Staff GEN Peter J. Schoomaker established the Army aviation task force under then Major General (MG) J.D. Thurman to refocus the branch on core competencies. GEN Schoomaker directed we ensure that aviation was a capabilities-based maneuver arm optimized for the joint fight with a shortened logistics tail.

I think we can all say we are a capabilities-based modular force optimized for the joint fight and that with the advent and fielding of our new systems coupled with condition based maintenance efforts we will shorten the logistics tail.

The task force took this challenge under great leaders like MG Thurman and followed by MG Jeffrey J. Schloesser and developed and implemented a plan to reorganize aviation force structures into robust combat aviation brigades—providing the cornerstone in the joint fight.

This reorganization included a complete doctrine, organization, training, leadership and education, materiel, personnel and facilities (DOTMLPF) solution to include modularizing, modernizing, and enhancing the aviation fleet with new technologies. We had to recapitalize older airframes to reduce our logistics tail. We are also looking at common baseline configurations for our airframes to reduce our maintenance, sustainment, and training challenges.

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In addition, we have invested heavily in aircraft survivability and communications equipment and in differing munitions to ensure our aircrews had the best this nation has to offer when we put them in harm's way to support the GWOT.

The structure design was also supported by the split-transfer of proponency for aerial MEDEVAC from the Medical Service Corps and the transfer of UAS proponency from the military intelligence branch to the aviation branch.

We have a great legacy with the addition of this force structure into our ranks and need to thank both branches for all they have done and all they continue to do in making us successful. We cannot rest on the laurels of what has been done in the past; we must continue to embrace change and adapt to a thinking and adaptive enemy while ensuring we can still meet all the requirements of the joint warfight across the spectrum of conflict. The evolving Aviation Transformation Plan is nested in the Army Campaign Plan and continues to be based on a full DOTMLPF analysis.

The Combat Aviation Brigade

Army aviation has transformed from small theater, corps, and divisional force structures to modular, robust division-centric combat aviation brigades (CABs). The CAB is considerably larger than the former heavy or light division aviation brigades, and the numbers of aircraft and personnel have almost doubled.

The CAB now has assets organic to it that were previously attached from corps or echelons-above-corps units. This new organization provides better support to the joint task force commander and the BCTs. But the key to our success has been the level of air-ground integration we have today and which must be sustained through habitual relationships with these units.

The CAB, unlike the former division aviation brigade, has an organic aviation support battalion, an air traffic service company and signal company, and an enhanced brigade headquarters capable of conducting 24/7 operations. In addition, aero-medical evacuation and CH-47 companies (formerly organic to corps' battalions) are now organized into companies of 12 aircraft in the CAB's general support aviation battalion.

In the near future as Sky Warrior is fielded, each CAB will integrate its division's Sky Warrior company into its organizational structure.

The plan restructured aviation warfighting units (active and reserve components) into CABs, but did we go far enough in modularity to ensure the aviation units are interchangeable (modular), capable, lethal, tailorable, and sustainable? Do we need more medium CABs and less expeditionary, light, and heavy?

Recapitalizing on the Future

The termination of the RAH-66 and the technological innovations available were only possible when understood that the risk in terminating Comanche could be mitigated if we accepted the need for Block III Apache, ARH, and Sky Warrior.

The proliferation of the UAS has unleashed a new capability, greatly improved manned and unmanned teaming, increased the commander's situational awareness, and enabled a dramatic reduction in the sensor-to-effects timeline. By leveraging the UAS's inherent flexibility, connectivity, and integration with the ground commander's scheme of maneuver, unmanned aircraft have become an integral component in the commander's arsenal to perform the tactical reconnaissance, surveillance, and target acquisition mission while supporting the information flow for the operational and strategic level fight.

Next Generation Aircraft

The Army is currently fielding the CH-47F model Chinook and the UH-60M model Black Hawk. It is hard to describe the vast differences found in these new platforms from their predecessors, but suffice it to say this is not your mom or dad's Chinook or Black Hawk.

We are fielding the LUH 72-A Lakota, which is providing the needed aviation capability in the permissive environment at a much reduced cost, thereby freeing up our UH-60s for the war fight and allowing us to retire our workhorses of the past, the OH-58A/C Kiowas and the UH-1 "Huey," reducing our logistics tail while improving the capability of our platforms.

The joint cargo aircraft, the C-27J Spartan, is under contract to replace our aging C-23 Sherpas, C-12s, and C-26s, with the first aircraft delivered this fiscal year.

We are working the ARH as fast as is humanly possible to get this great capability in the hands of our Soldiers and to retire the aging OH-58D, but based on the requirement and the fielding timeline, we will not meet the retirement goals for the Kiowa Warrior until 2020 or beyond.

In the meantime, we're improving the capabilities of this proven warhorse. While we are modernizing to meet the needs of today, we have to stay in synch with the future force. Interoperability is key to our future success. While we led the way in digitization with the AH-64, we did not stay in synch with our ground component and thus lost a desired level of interoperability.

This is a lesson we must not forget as we rush to add technology to our fleet. Army aviation is a member of the future force of our Future Combat Systems with the Stryker and the light and heavy BCTs. We must also stay linked with the joint force as understood by those who led the way on the aviation task force.

UAS Interoperability

The Army's UAS have provided us a perfect example of how hard it is to maintain this balance, but what a high payoff you get for the warfighter if you do this right. The foundation of Army UAS interoperability is the One System Ground Control Station (OSGCS).

Interoperable with Shadow, Hunter, and Sky Warrior systems, the OSGCS is the Army's common ground control station, facilitating unprecedented interoperability while supporting the Army common operator military occupational specialty and streamlined institutional training requirements.

Flexible, highly mobile, and with plug-and-play interoperability with the Army Command Post of the Future and Distributed Common Ground System–Army, the OSGCS meets the modular, tactically tailorable, and decentralized execution of operations required in a dispersed noncontiguous environment. With assignment to the fires brigade and battlefield surveillance brigade, the OSGCS further links the battle commander, sensor, and effects together.

Team Work

Although transforming aviation while simultaneously fighting the Global War on Terrorism has led to challenges in manning, equipping, and funding aviation's future, the branch and fleet continues to remain a relevant and ready force for both today and tomorrow, and this is because of what each one of you do day in and day out.

This is a team sport and we are winning because of the team—whether we are speaking about the team with Congress, industry, the media, Defense Department and the Joint Chiefs of Staff, or the joint and combined arms team; or the team between the Army staff, Army Materiel Command, Aviation and Missile Command, Program Executive Office-Aviation, the Aviation Warfighting Center, and this office.

While multiple and extended deployments have taken a toll on our equipment, aircrews, and families, it is your pride and professionalism that has allowed us to say, "We are Above the Best."

Note: This article was originally published in the February 2008 edition of *ARMY AVIATION*.

Transforming Aviation Support Battalion Maintenance: Times Have Changed

MAJ Rogers L. Stinson Jr.

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Top of the morning! It's 0630 and the sun has just risen over the horizon east of the Bagdad International Airport in Iraq. The sound of a pneumatic rivet gun rings throughout the 100,000-square foot hangar used by Company B, 603rd Aviation Support Battalion (ASB).

The hangar had once housed Iraq Airways jets as well as Saddam Hussein's personal plane. A CH-47D Chinook sits parked in the first bay by the door undergoing its 400-hour phase maintenance inspection led by a team of L-3 Vertex civilian contractors. Parked on the opposite end of the hangar sits an AH-64D Longbow in the process of tear-down as the staff sergeant phase team leader prepares for a 500-hour maintenance inspection.

Several other aircraft—Black Hawks, Longbows and Chinooks—sit in their assigned maintenance bays, all in various stages of their scheduled inspections, some led by Army "green" maintenance teams and others by entirely L-3 civilian contract "blue" maintenance teams. Each phase inspection follows its respective P4T3 (problem, people, parts, place, tools, time, and training) plan and is tracked hourly throughout the process.

During garrison operations back at Hunter Army Airfield, GA, the line battalions executed all of their own phase maintenance inspections, relying on Company B as a pass-back capability when resources required them to do so. Now Company B is the sole provider of the phase maintenance in the 3rd Combat Aviation Brigade (CAB).

Each deployment presents unique challenges that demand units consider all aspects of the mission, enemy, terrain and weather, troops and support available, time available, and civil considerations (METT-TC) when developing courses of action.

Formerly known as the aviation intermediate maintenance (AVIM) company, Company B became the 3rd CAB's aviation support company and aircraft maintenance lifeline throughout Operation Iraqi Freedom (OIF) V-VI from May 2007 to August 2008. During this combat rotation, Company B experienced remarkable successes—the brigade flew in excess of 100,000 combat hours in support of the Multi-National Division–Center.

The Old Days

Under traditional aviation maintenance operations and guided by Field Manual (FM) 1-500, *Army Aviation Maintenance Operations,* before 9/11 happened, the aviation unit maintenance (AVUM) company or Company D executed scheduled maintenance commonly known as "phase maintenance" while the AVIM performed phase maintenance on assigned operational readiness float aircraft and the unscheduled "pass-back" maintenance support upon request from AVUM units.

FM 1-500 has since been superseded by FM 3-04.500, and now the AVUM company is doctrinally referred to as aviation maintenance companies (AMCs) while the AVIM company is now the aviation support company (ASC). Doctrinally, the AMC still performs the same functions it did as the AVUM company (scheduled and unscheduled maintenance), while the ASC focuses on AVIM and pass-back AVUM.

When the operational tempo (optempo) dictates, line units request back-up support from the AVIM to perform unit-level maintenance. Each battalion's AMC executes phase maintenance

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planning, often with civilian augmentation (both in garrison and combat) and with assistance from the assigned ASC.

Since the predeployment phase of OIF V-VI, the 3rd CAB has experienced a monumental shift in the roll of the ASC. In the old days of the Cold War era, the AVIM company was assigned to the division support command under the ASB or assigned to the corps as a separate company.

Modularity has reshaped the command relationship and eliminated layers of command while streamlining the planning, preparation, and execution processes linking Army aviation and its maintenance lifeline. Under modularity, the ASB is now organic to the CAB.

Today's Fight

Field Manual (Interim) 4-90.23 has replaced FM 62-23 as the doctrinal publication for ASB operations. Prior to OIF V-VI, Company B served in pass-back capacity and executed scheduled maintenance when the AMCs required assistance.

Since Company B presented their concept of support to the 3rd CAB commander at home station at Hunter Army Airfield, GA, Company B's primary mission was to perform all scheduled maintenance for the CAB and execute pass-back to the AMC when maintenance support requirements exceed the ASC capabilities. Although this is "doctrinal," it's a shift from the traditional method of employing the AVIM companies.

FMI 4-90.23 states, "During fast moving or combat operations, phase inspections/maintenance may have to be done at the ASB/intermediate staging base or even out of country.

When the AMCs are entirely absorbed with unscheduled maintenance, recovery, and high optempo, phase or progressive phase maintenance inspections may have to be done entirely by the ASB with augmentation of contractors."

In order to establish a clear understanding for planning purposes, we defined "scheduled" to be anything greater than a 500-hour inspection on an AH-64D, greater than 200-hour inspection on CH-47D, and UH-60A/L phase maintenance inspections 1 or 2.

Each AMC performed all inspections less than the previously described phase intervals. This also allowed each AMC to focus primarily on launch and recovery and unscheduled maintenance. The essence of our phase maintenance program was the P4T3 concept developed by then LTC Richard Cody, who is today the Army's vice chief of staff.

Deliberate planning and anticipated requirements ensured our aviation maintainers successfully met the demands of 3rd CAB's intense flying hour program. As of April 14 (at 12 out of 15 months in theater) we completed 157 phases, averaging 13 per month for all airframes (UH-60A/L, CH-47D and AH64D).

While the production control section directed the overall effort, the sheer number of phases performed was a combination of using either the green or blue phase teams and at times combining blue and green phase teams (about 320 Soldiers and 148 civilian contractors).

Almost immediately upon our arrival at the international airport, L3 contract maintenance personnel performed scheduled maintenance while our Soldiers received our equipment and set up command and control nodes and work areas. If it had not been for civilian contract maintainers augmenting our company, we would have faced significant challenges during the occupation phase of the deployment

Recipe for Success

The creed "leadership, standards, and discipline" was the cornerstone of our operation according to LTC William D. McGarrity, 603d ASB commander. Our aircraft maintenance officers and noncommissioned officers executed superbly, asserting leadership at the decisive points during operations to sustain maximum combat power.

Standards across all maintenance operations, regardless if military or contract teams, remain an essential ingredient in the quality maintenance the aviation battalions expect and deserve from their combat support units. There should be no distinction in the quality of maintenance by Soldiers or civilians. The axiom "training is maintenance; maintenance is training" applied during our deployment.

Every procedure was a training event and an opportunity to improve. We exercised discipline in our maintenance practices and at times raised the standard. Developing, capturing, and sustaining effective maintenance practices to facilitate safe and efficient maintenance were all vital to our success. Commanders had to know they were getting a quality product, for the air crews who pilot the aircraft as well as the Soldiers they support deserved it.

It's a Technique

This article illustrates one technique for deploying an ASB to a combat environment, but is not the only means for success. Our employment of the 603rd ASB in Iraq proved successful; however, each unit must consider METT-TC and determine the appropriate course of action given their resources. In the end, our greatest resource and center of gravity was our talented and dedicated Soldiers. They are truly the ones who made it happen.

Note: This article was originally published in the June 2008 edition of *ARMY AVIATION.*

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Chapter 5

Sustainment Brigade

Modular Transformation and the 3rd Sustainment Brigade

COL Darrell K. Williams, LTC Lillard D. Evans, and CPT Brittany R. Warren

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The transformation of the 3rd Infantry Division Support Command (DISCOM) into the 3rd Sustainment Brigade as part of the Army's modular logistics transformation is complete, and our assessment is that the new modular design is a resounding success. The 3rd Infantry DISCOM was the first logistics brigade in the Army to begin modular conversion (in conjunction with the modular conversion of the 3rd Infantry Division's headquarters and brigade combat teams [BCTs]) shortly after its return from Operation Iraqi Freedom in 2003. Nearly four years after its transformation began, the 3rd Sustainment Brigade became the first completely modular sustainment brigade deployed to Iraq or Afghanistan. The transformation was completed with the transfers of authority between the 125th Finance Battalion and the 82d Financial Management Company on 30 July 2007 and between the 22nd Personnel Services Battalion and the 101st Human Resources Company on 28 November 2007.

The 3rd Sustainment Brigade accepted the reins for sustainment of coalition forces within Multi-National Division–North (MND–N) in Iraq from the 45th Sustainment Brigade on 26 June 2007, and its tour ended in September 2008. This article discusses the brigade's experience operating within this multi-capable, extremely robust headquarters. We will also discuss areas of particular strength from our vantage point and adjustments we made to the structure to meet our specific mission and responsibilities.

Admittedly, our analysis of the 3rd Sustainment Brigade's experience is colored by the conduct of the brigade's three distinct missions: sustaining coalition forces throughout MND–N and beyond as directed, providing mayoral and life support to 6,000 coalition forces personnel, and executing aggressive base defense and force protection operations on Contingency Operating Base (COB) Qayyarah West (Q–West) as the senior mission headquarters. The mayoral and base defense functions significantly increased our sustainment brigade headquarters' responsibilities beyond the sustainment mission. Yet, we accomplished all three mission sets with zero degradation in support. Much of this is a tribute to the increased capability of the modular design within the brigade staff, the flexibility of combat sustainment support battalions, and the addition of a special troops battalion to the sustainment brigade structure.

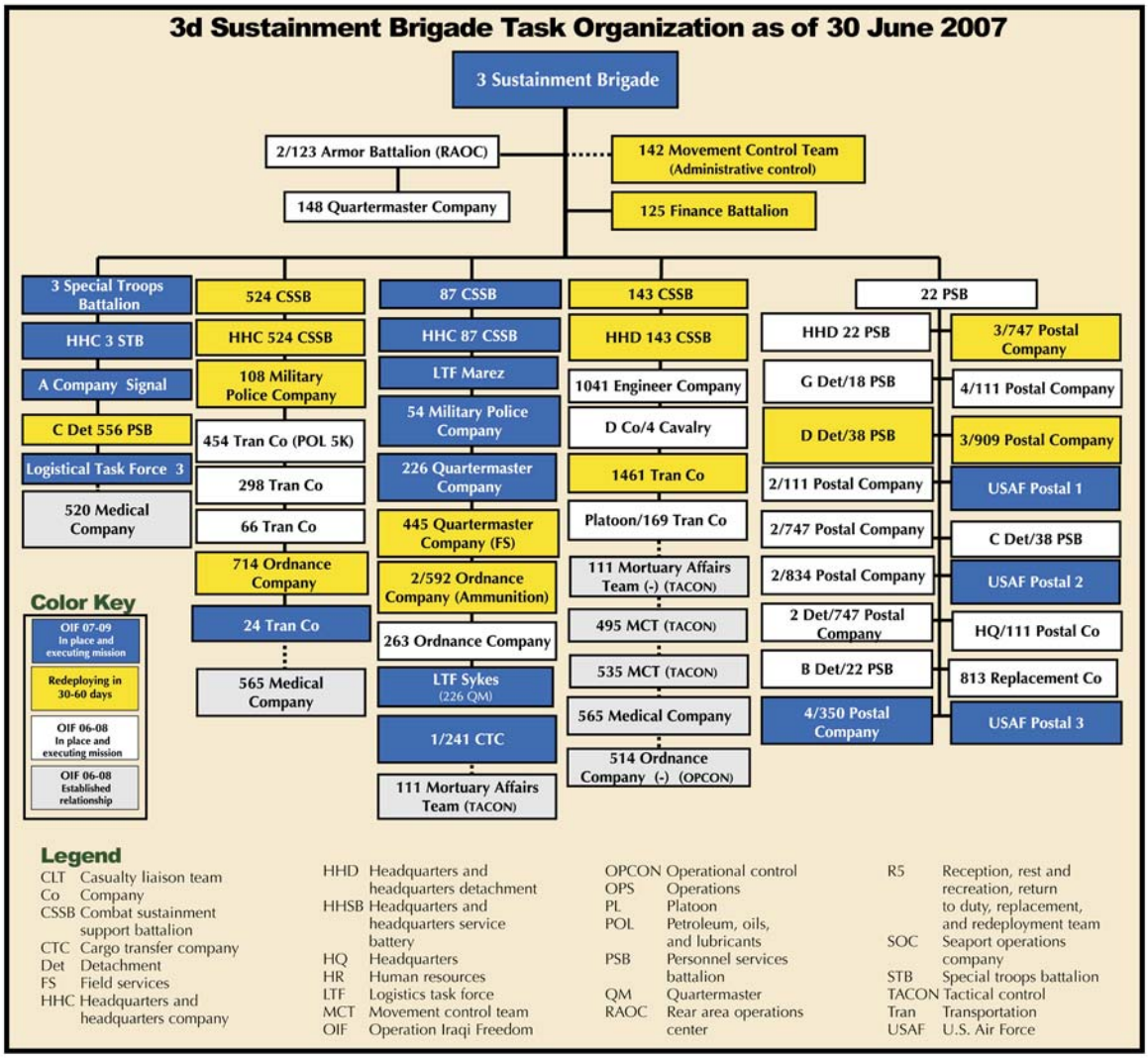
Brigade Staff Changes

Within the brigade headquarters, several key enhancements allowed the brigade to successfully absorb complex, and in some cases nonstandard, mission sets. The increased capability in the support operations (SPO) section permitted greater oversight and execution of logistics operations, while the structure as a whole also allowed for better command and control of very diverse formations. The most significant adjustments were made in the S3 section and the command group.

The S3 was responsible for tracking the large number of relief-in-place and transfer-of-authority actions of subordinate units—an exceptionally critical task for deployed sustainment brigades. Tracking force rotations is, in fact, an S3 task. However, it was the volume and fluidity of the unit transitions throughout our tenure that made this such an important requirement. Our S3

transitions cell oversaw and synchronized the movement of 130 separate units into and out of the theater of operations over the brigade's 15-month deployment, including 12 transitions between battalion headquarters.

Other missions for the S3 included supporting the Iraqi Security Forces through the use of logistics transition teams and logistics training and advisory teams and incorporating nonlethal engagements into the operations. The S3 section was enhanced with several key junior officers to manage these functions, and communication between the S3 and the SPO was increased to facilitate the information flow required for success.



These charts show how the organizational structure of the 3rd Sustainment Brigade changed over a year in Iraq. The 3rd Special Troops Battalion was the only unit organic to the brigade; all other units were task-organized based on mission requirements.

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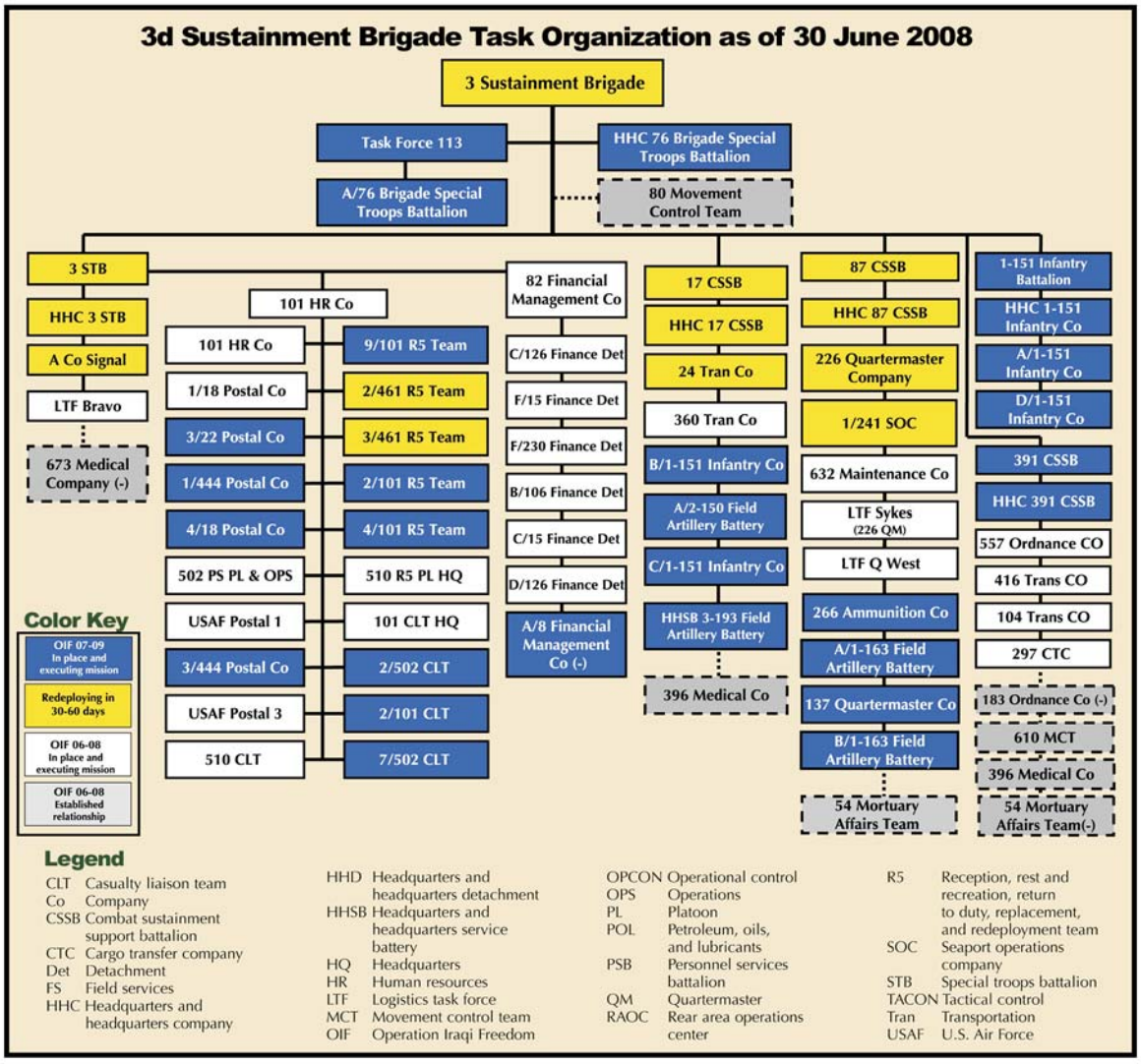

In the command group, two new positions were created to assist with the command and control of the massive sustainment brigade footprint: the brigade executive officer (XO) and the adjutant. The deputy commanding officer (DCO) worked tirelessly to integrate the mayor cell and base defense operations center functions with brigade headquarters operations. He also exercised day-to-day supervision of the special staff, another extremely critical task. The XO, on the other hand, focused on overall staff coordination, acting as a discrete entity from the DCO. The brigade adjutant proved critical to synchronizing command group functions. With the sheer quantity of the command group's work, and given the requirements for rest and relaxation leave, battlefield circulation, and other factors that removed the command group from the headquarters for periods of time, the XO and adjutant positions proved to be priceless additions.

In all cases, the sustainment brigade headquarters structure proved to be fully adept at providing oversight of diverse mission sets; this included the battalion headquarters, which fell under the brigade to conduct COB mayor and base defense operations. The expansion of military police, civil affairs, engineer (both assured mobility and project management functions), and other capabilities enhanced our ability to coordinate both laterally with supported BCTs and vertically with higher levels (the support command [expeditionary] and the MND–N task force).

Combat Sustainment Support Battalions

Another area that has benefitted from the modular transformation is the combat sustainment support battalion (CSSB). CSSBs were the true lifeblood of general support (GS) logistics operations in MND–N. The CSSBs were extremely adaptable organizations that could deploy Soldiers to provide support away from their parent headquarters throughout the breadth of northern Iraq and often beyond. The 927th CSSB was located at COB Speicher, the 17th CSSB at COB Q–West, and the 87th CSSB at Forward Operating Base (FOB) Marez.

The CSSBs' operation of the GS hubs, along with their distribution support throughout MND–N and MND–Northeast (the Korean sector), was indispensible to the sustainment of coalition forces. They routinely conducted distribution operations across an area the size of Pennsylvania and on some of the most dangerous improvised explosive device-riddled roads in Iraq. Unquestionably, the distribution of key commodities and supplies was the sustainment brigade's center of gravity, but these units also conducted nontraditional missions, such as logistics training for Iraqi Army units in coordination with the BCTs and nonlethal engagements with Iraqi citizens in coordination with Iraqi Security Forces and coalition forces. The enhancements to the brigade staff described above allowed for coordination and communication over huge geographic areas. In truth, all of the 3rd Sustainment Brigade's units conducted these missions and worked to promote Iraqi self-reliance.

Special Troops Battalion

The most dynamic change as a result of modular transformation by far has been the inclusion of a special troops battalion (STB) in the sustainment brigade structure. The STB is the only unit organic to the sustainment brigade; all others were task-organized based on mission requirements. Before its deployment, the 3rd STB comprised a headquarters and headquarters company (HHC), a financial management company (FMCO), a signal company, a chemical company, and a movement control team; its total troop strength was 633 personnel. The STB evolved significantly in theater to include an HHC, a signal company, an FMCO, a human resources company, and a logistics task force providing life support at the strategic border crossing between Iraq and Turkey (the Harbur Gate).

The 3rd STB was spread out over 23 different FOBs and COBs throughout MND–N and MND–West and comprised over 800 Soldiers and Airmen. Command and control of these diverse mission sets presented a challenge, but through aggressive circulation across the battlefield by leaders, use of detailed personnel accountability procedures, and integration with liaison officers at each key location, the STB was able to conduct its mission very successfully. Make no mistake about it: the STB evolved into a direct support organization with area support responsibilities equally as complex as those of the three CSSBs.

Perhaps the most significant difference in the sustainment brigade structure was the modular transformation of the finance and human resources organization from battalions to companies under the command and control of the STB. The SPO section absorbed the technical oversight roles, while several critical functions from the personnel services battalion were moved to the brigade S1.

Our assessment after 15 months in the field in Iraq is that the new sustainment brigade structure is extremely flexible and capable of providing full-spectrum logistics, human resources, and finance support. Although there were some challenges to the modular transformation, the new sustainment structure truly works.

Note: This article was originally published in the January–February 2009 edition of *Army Sustainment* (formerly *Army Logistician*).

Engineers Breaking New Ground in the Sustainment Brigade

MAJ Anne V. Taylor

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In June 2006, the 3rd Sustainment Brigade began its transition from a division support command (DISCOM) to a sustainment brigade under the new modular concept. With this transition, the sustainment brigade gained an engineer element that was not available in the DISCOM. As the brigade engineer, I fell under the support operations section and was co-located with the plans cell.

In preparation for the 3rd Sustainment Brigade's deployment, the brigade commander decided to change the composition of the engineer section in anticipation of its role during the deployment. The first change made the engineer a separate S-staff, designated as the S7, aligned with division and corps engineer cells. The second change was to add several personnel to the cell. For the first 10 months of the deployment, the cell had an engineer major and a lieutenant; for the last 5 months, the cell was also assigned two noncommissioned officers.

3d Sustainment Brigade Engineer Functions

Most Army branches are categorized as being operations support; maneuver, fires, and effects; or force sustainment, but engineers have mission sets within each of these categories, particularly in areas such as mobility assurance and construction. Operations support engineers advise the maneuver commanders on the effective use of terrain, construction efforts, and the improvement and maintenance of routes, bridges, and airfields.

However, the 3rd Sustainment Brigade did not own any engineer assets, so all requirements for engineer support were coordinated through engineer brigades, division engineers, or corps engineers. The sustainment brigade engineer's primary responsibility during the deployment was coordinating for the maneuver enhancement function with engineers of combat heavy battalions and bridge companies. An engineer in a sustainment brigade has two main missions: assured mobility and construction project management.

Assured Mobility

Mobility is the ability of military forces to move in time and space while retaining the ability to fulfill their primary mission. Assured mobility is a relatively new doctrinal term. The imperatives and fundamentals of assured mobility enable friendly forces to exploit superior situational understanding and therefore gain unsurpassed freedom of movement. Assured mobility is vital to the success of convoys that operate on some of the most dangerous supply routes in Iraq. It involves coordinating with route-clearance assets; air weapons teams; and intelligence, surveillance, and reconnaissance assets. Being able to synchronize convoy schedules with these assets ensures the safety and security of our troops.

Not only did the 3rd Sustainment Brigade serve as the brigade in charge of sustainment operations in Multi-National Division–North (MND–N), it was also responsible for mayoral duties on Contingency Operating Base (COB) Qayyarah–West (Q–West). As such, the brigade engineer, in conjunction with the Logistics Civilian Augmentation Program contractor, the facilities engineer team, and the battalion-level mayor's cell, provided oversight of all construction initiatives on the base.

The 3rd Sustainment Brigade transported supplies and commodities in long convoys that traversed main and alternate supply routes daily. An immediate challenge to our freedom of

movement was the emplacement of improvised explosive devices (IEDs) in culverts. This particular enemy tactic was one of the more effective attacks on our logistics convoys because a deeply buried IED could potentially result in an underbelly attack with catastrophic results. This type of attack was of particular concern because over 1,500 culverts in MND–N were vulnerable to such enemy exploitation.

Addressing Culvert Threats

In July 2007, shortly after the 3rd Sustainment Brigade took the reins from the 45th Sustainment Brigade, an IED blew up a large culvert on an alternate supply route that the sustainment brigade frequently used. This experience highlighted the importance of linking sustainment with the engineers. For this particular situation, the affected unit reported the incident and gave an initial serious incident report. The sustainment brigade engineer then coordinated with the engineer brigade, which assigned one of its subordinate companies to repair the damaged culvert. The engineer company deployed to the site to assess the battle damage and determine if it could create a bypass sufficient to accommodate logistics convoys. The company then allocated the resources needed for repair and established a timeline and completion date for the repairs. This experience gave me the insight that I needed for future assured mobility issues.

As soon as a significant mobility issue arose, the sustainment brigade engineer would call the engineer battalion to alert it of the impending serious incident report. From this, the sustainment brigade engineer learned that giving the engineer battalion specific information, such as the impact on impending missions, enhanced its situational awareness and aided it in prioritizing the mission among the various demands on its assets. Engineer support is generally limited to one engineer battalion that can respond to mobility issues in an area of operations, making such prioritization essential.

By contacting the engineers directly, the brigade engineer also established points of contact for working on future assured mobility issues and receiving crucial updates and even photos of the battle damage. Taking this approach allowed the sustainment brigade engineer to give the commander and affected subordinate unit's instant feedback, which enabled the commander to visualize the damage, determine the impact on the mission, and decide on a course of action.

To deal with the colossal number of culverts and reduce the threat, the engineers accelerated the effort to make all culverts unusable for IEDs, starting with the main supply route and eventually branching out to the alternate supply routes. Various methods were used; however, the most effective method was to weld steel grates onto the culverts. This not only denied the enemy's access to the culvert but also left the culvert functional. Although these methods of denial were highly successful, the enemy still tried to breach the denied culverts in an attempt to place IEDs.

The enemy's attempts to breach the denied culverts resulted in an important lesson learned. Given the limited number of engineer assets in theater, the application of assured mobility was performed by all branches, not just engineers. Logistics convoys traveling on the main and alternate supply routes detected the attempted breeches, documented the grids, took photos of the tampered-with culverts, and passed this information to the S7. The S7 immediately sent this information to the engineer brigade and started coordination for reconnaissance and repair. The S7 also documented the incident, started a brigade tracker for all mobility issues, and immediately sent the information to all subordinate battalions.

As with the culverts, IEDs placed in previous blast craters were particularly problematic for logistics convoys. MND–N had hundreds of craters that added to the psychological effect on our Soldiers. The enemy would also bury large amounts of homemade explosives by digging on the side of the road, placing the material just underneath the pavement, and then backfilling with the same dirt to make the area seem innocuous. The enemy also marked the craters to make them

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appear as if they were marked by coalition forces. The difference was that our logistics convoys had become savvy enough to know what to look for. All suspicious craters were promptly documented, photographed, and reported to the S7 for action.

The Engineer Daily

As additional mobility issues began pouring in, and after receiving numerous emails requesting information on mobility issues affecting the brigade, the S7 decided to create the "Engineer Daily." The Engineer Daily addressed all engineer issues affecting the brigade, such as route clearance schedules and missions, engineer construction at various contingency operating bases, airfield information, route status, culvert and crater repair missions, route sanitation missions, bridging information, and any other mobility issues affecting the brigade. As more units became aware of what engineers brought to the fight, the S7 began to receive requests from subordinate units for engineer support, which the section coordinated through the engineer brigade.

The Importance of Points of Contact

In addition to the challenges posed by the numerous culverts and craters, we were also faced with the daily threat of attacks. We encountered hundreds of attacks during our rotation. This unfortunate situation would provide the section with yet another crucial lesson learned—the importance of establishing good points of contact and having open and honest dialog with the engineers. During a crisis is not the optimal time to establish contacts. When relationships are already established, problems tend to get solved more quickly because the engineers are more familiar with unit requirements.

Continuous attacks on our logistics convoys caused the S7 to become intimately familiar with both route clearance engineers and explosive ordnance disposal personnel. To help mitigate the daily attacks on our logistics convoys, the route clearance engineers and the S7 worked closely to coordinate route sanitation to complement convoy movements. Explosive ordnance disposal and route clearance representatives became permanent fixtures at sustainment brigade meetings and provided invaluable input.

Route Clearance

The S7's first experience in coordinating with the engineer brigade for route clearance was brought on by an IED concealed in bushes in the median. This experience demonstrated the importance of synchronizing route clearance. The S7 coordinated with the engineer brigade to have some shrubs and trees removed from the area. This was a somewhat tricky venture because we wanted to use a technique that would not allow the shrubs to return easily. Burning was considered but rejected because some locals felt that we were destroying the beauty of their country. Other techniques were tried to remove not only the shrub but also the roots. We ultimately succeeded by using a bucket loader. The lesson learned from this experience was to be proactive and aggressive in getting issues of this type to the engineers.

Construction Project Management

Compared to the section's assured mobility challenges, construction projects were uneventful. The heavy construction engineers were stretched thin as they built life support areas at combat outposts, erected traffic control points, conducted major runway repairs, and surrounded the entire city of Mosul with a berm that forced traffic into the traffic control points. The heavy construction engineer section's primary responsibility was to coordinate vertical support with the construction assets for units at Q–West. The major projects that the section coordinated included the new brigade tactical operations center, passenger terminal, and troop medical clinic. As for the traffic control points and berming operations, the section's task was to alert units that the

engineers would be working in those areas and let them know how the work would affect operations. This was particularly important for the airfield because the runway was closed during repairs. The key lesson learned from the engineer's construction projects was to get on the engineer brigade's distribution list to receive their construction schedule. The S7 simply inserted the slides received from the engineer brigade into the Engineer Daily and sent them to our subordinate units and roughly 100 other individuals who requested to be put on the S7's distribution list for synchronization purposes.

Bridging

Although the section's experiences with construction were relatively uneventful, its challenges with military bridging were anything but. Engineers are doctrinally responsible for gap crossing. The primary technique used for gap crossing was normally one of four types of bridging: armored vehicle launched bridge, dry support bridge, assault float bridge, or the Maybe Johnson bridge. In total, insurgents blew up five bridges in the 3rd Sustainment Brigade area of operations: Alqwair Bridge, Taji Bridge, Mosul Dam Bridge, Badoush Bridge, and Qayyarah Bridge, which was closest to home and had the most profound effect on the brigade. All of these bridges were successfully attacked twice within a relatively short time span. After the second attack on the Taji Bridge, military bridging was emplaced at the Mosul Dam, Badoush, and Qayyarah bridges.

The engineer section gained most of its experience and lessons learned while coordinating for bridge support for Qayyarah Bridge. Following the Qayyarah Bridge explosion, the brigade was immediately cut off from an alternate supply route, which forced it to either delay or cancel logistics convoys. The primary staff did extensive mission analysis and worked well into the night to determine a course of action sufficient to ensure continued support to outlying forward operating bases. The S7 was center stage as the section fielded wave after wave of questions concerning the capabilities of military bridging and other bridge-related questions. Most of the staff had never seen or heard of the kinds of bridges that were being proposed. Once again, the S7 relied heavily on the engineer brigade to provide information concerning the pending battle damage assessment, the extent of the damage, and an estimated timeline for repairs, all of which would factor into the mission analysis to determine a course of action.

The Qayyarah Bridge was eventually over-bridged with a dry support bridge and later replaced with an assault float bridge. The assault float bridge is a tactical bridge with a low silhouette that is not necessarily designed to remain in place for a long time. The Qayyarah assault float bridge was open to both military and civilian traffic. The bridge went down for repairs at least once a month because of conditions such as low water level, vehicles hitting the bridge, or extensive flooding. The average time for repairs was about two to three days. Perhaps the biggest challenge the bridge presented occurred in March, when the river flooded after several days of continuous rain. Most of the bridge's interior bays sank just below the surface of the water. Although this brought military traffic to a standstill, it did not deter the locals from wading across on foot.

The Future for Engineers in Sustainment Brigades

Undoubtedly, the most critical mission for an engineer in a sustainment brigade is coordinating assured mobility assets. The ability to synchronize the movement of logistics convoys throughout the area of operations was vital to the success of the mission and the safety of our troops. An engineer must know the location of every bridge, culvert, and crater within his sustainment brigade's movement area because each presents a significant vulnerability to mobility. Just as important is the relationship between the sustainment brigade engineer cell and the division- and corps-level engineer assets. The sustainment brigade engineer must know who

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to call and coordinate with for various assets, such as route clearance; intelligence, surveillance, and reconnaissance support; and crater and road repair.

The 3rd Sustainment Brigade had never had an engineer officer assigned; the engineer section was in uncharted waters with no template to serve as a guide. It faced many engineer challenges in construction and assured mobility during the 15-month rotation and managed to come through undaunted. The engineer section learned many invaluable lessons during the deployment and, if it is called on again, those experiences will undoubtedly serve the section members well.

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Transformation of Finance Operations

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With Army transformation, finance operations have become a sustainment function. When the 1st Sustainment Brigade deployed to Iraq in 2007, it was in the process of learning how best to provide financial support in a modular organization.

Faced with the challenge of transforming into an expeditionary, campaign-quality force, the Army replaced division support commands and other support brigades with sustainment brigades. For the logistician, this involved not only streamlining traditional systems for command and control, theater opening, and theater distribution but also integrating financial management operations as a new sustainment function. Within the sustainment brigade, a financial management support operations (FM SPO) section was added to the table of organization and equipment. This section was created to help the sustainment brigade command and control a financial management company (FMCO).

Finance Modularity

The financial management community transformed in order to adapt to Army modularity. Finance transformation was designed to help support and serve the Army and the Nation, provide modular, capabilities-based organizations, and increase the relevance and responsiveness of finance units to commanders. Financial management transformation eliminated finance commands, finance groups, and finance battalions. In their place, the Army created financial management centers (FMCs) that provide financial operations, theater policy, and technical oversight. The FMC is the theater link to financial management national providers such as the Defense Finance and Accounting Service (DFAS) and the Department of the Treasury.

The elimination of finance battalions resourced a total of 23 FMCOs (12 in the Active component) and 90 financial management detachments (33 in the Active component). FMCOs and financial management detachments have the same missions as the legacy finance structures, but provide greater disbursing capability at the detachment level and only limited military pay support because of the fielding of the Defense Integrated Military Human Resources System.

Predeployment Developments

The 1st Sustainment Brigade, formerly the 1st Infantry Division Support Command, was activated on 15 February 2007. Soon after the activation, we were notified of our deployment to Operation Iraqi Freedom (OIF) 07–09 to support Multi-National Division–Baghdad (MND–B). The 1st Sustainment Brigade was the second sustainment brigade to employ finance formations in combat operations.

The brigade commander decided to reorganize key staff positions for OIF 07–09. This decision was based on an earlier action that attached the 24th FMCO to the special troops battalion (STB) during its deployment. The logic was to give the STB commander the tools and resources needed to successfully provide command and control and technical oversight for financial management operations in his area of operations. Because of this reorganization, the FM SPO section was shifted from the brigade SPO section to the STB's as primary staff.

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Planning and Preparation

Before deploying, the FM SPO established communication with several financial management units—the 24th FMCO at Fort Stewart, Georgia; the 13th Finance Group (deployed to Camp Arifjan, Kuwait); and the 336th FMC from Lake Charles, Louisiana—with the intent of building relationships with nonaligned units before the deployment. Relationship building was key to our successful integration in theater.

Our initial contact with a unit that was in theater was with the 13th Finance Group. We contacted the group to gather information, theater policies, and the finance support matrix for the theater of operations. We sought to develop a better understanding of the working relationship between FM SPO and the finance group. We also gleaned this type of information from the 336th FMC, which visited us at Fort Riley, Kansas, and briefed the 1st Infantry Division and 1st Sustainment Brigade leaders on the financial management concept of support and modularity.

The 24th FMCO was task-organized under the 1st Sustainment Brigade for OIF 07–09. The FM SPO and the 24th FMCO discussed personnel and equipment issues and the company's predeployment training. The FM SPO began to integrate this information into STB training meetings, and a video teleconference was conducted to discuss current and future issues, working relationships between the FMCO and FM SPO, finance support in Iraq, and individual detachment strengths and locations.

The battalion commander, the FM SPO section, and the 24th FMCO commander and sergeant major went to Fort McCoy, Wisconsin, to observe Army Reserve finance predeployment training and to meet two Army Reserve detachments that would deploy with the 24th FMCO. The 336th FMC was still training at Fort McCoy, allowing the FM SPO section to meet its leaders and discuss theater finance policies, roles, responsibilities, and relationships. We also met the officer-in-charge of the Army Reserve finance training at Fort McCoy and his staff to discuss the training and tasks that all Reserve finance units must conduct before deploying. The visit also allowed us to meet the two detachment commanders who would be attached to the 24th FMCO in Iraq. We based our discussions on their training, Soldier and equipment strength, and the future concept of support to operations in Iraq.

> Finance transformation was designed to help support and serve the Army and the Nation, provide modular, capabilities-based organizations, and increase relevance and responsiveness to commanders.

The FM SPO section also initiated communication with the 15th Finance Battalion in Iraq to learn about reporting procedures and requirements, customer service workload, locations of detachments and their finance support teams' missions, the financial impact of the surge, guidance for the FM SPO section, and the transition process between the 15th Finance Battalion and the 24th FMCO.

Understanding Roles and Responsibilities

The 1st Sustainment Brigade deployed to Iraq with a finance battalion instead of a FMCO. This allowed the FM SPO within the STB to develop its internal standing operating procedures (SOPs), identify its roles and responsibilities, and learn everything it could from the finance battalion before the FMCO arrived. The FM SPO section quickly learned and understood the unique finance focuses, such as the merged accountability funds report, analysis of unmatched

transactions, and assignment incentive pay. We also began to learn how finance operations work in a deployed environment.

Functions of the FM SPO Section

By the time the FMCO arrived, the FM SPO section was operational and understood its tasks, roles, and responsibilities. We took the functions of an FM SPO found in Field Manual 1-06, *Financial Management Operations,* and used them as a guide to create the specific tasks the section would conduct. We noted that, in the sustainment community, receiving timely and relevant data is important. In the finance community that translates to tracking all Soldier and commander support statistics, including casual pay, check cashing, EagleCash card activity, paying-agent funding, and commercial vendor service payments.

These statistics quickly turned into tasks. The FM SPO section had to—

- Monitor and compile finance data through Diamond 2 reports.
- Develop trend and review-and-analysis briefs monthly.
- Monitor software and equipment (kiosks, the deployable disbursing system, paperless check conversion, point-of-sale devices, vaults, and cash counters).
- Plan finance support to respond to changes in the theater. As maneuver brigades shift throughout the battlefield, they can request finance support at remote combat outposts.
- Ensure that the brigade plans and coordinates with the brigade SPO and S3.
- Resolve FMCO issues. This task became necessary when the FM SPO section began supporting the FMCO. Each task had associated subtasks, and over time, we saw them changing as other priorities changed. These tasks were merely what we identified as our priorities during the first five months in Iraq.

Relationships

When we arrived in theater, the FM SPO quickly coordinated with outside agencies and units. These included the 316th FM SPO section (the 1st Sustainment Brigade FM SPO's higher headquarters); 336th FMC; 3d, 7th, and 640th Sustainment Brigade FM SPOs; 1st Sustainment Brigade staff (specifically the brigade SPO section); and 24th FMCO.

The FM SPO section communicated daily with the 336th FMC for policy and technical guidance. The 336th FMC served as the higher finance unit. Although it was not a command, the 336th FMC served as the financial management adviser for the theater. It provided technical oversight and coordinated with national providers such as DFAS, the Department of the Treasury, and the U.S. Army Finance Command (USAFINCOM). The 336th FMC was responsible for sending daily technical finance reports, chairing weekly technical update meetings, and publishing finance directives and policies to FM SPOs. The 336th FMC also served as the theater program manager for Federal Reserve System programs, EagleCash cards, and paperless check conversion.

DFAS, USAFINCOM, the Federal Reserve System, and the Department of the Treasury were important assets and force multipliers for us. They served as our technical experts and program managers and were a source for historical information. They were always responsive to our questions and concerns about operations and procedures. We communicated with all of the

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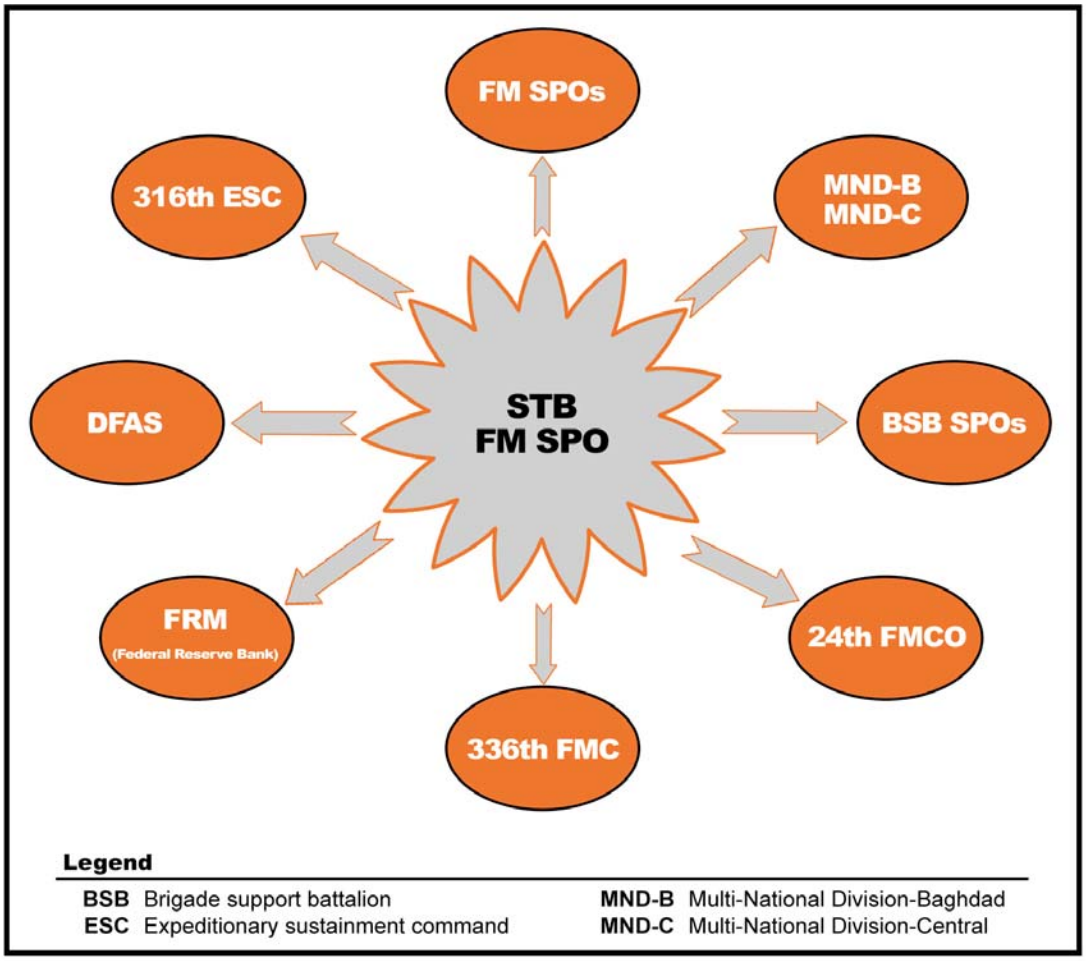
agencies regularly in either monthly or bimonthly teleconferences that served as a forum for us to convey our concerns.



This diagram shows all of the agencies that the FM SPO section works with or coordinates with on a regular basis.

In addition to our teleconferences with outside agencies, representatives from DFAS and the Treasury Department visited Iraq to provide assistance and implement new software. DFAS sent a Corporate Electronic Document Management System (CEDMS) team to set up a Web-based CEDMS application and a central repository for permanent storage of documents. CEDMS provides online access to disbursing vouchers and supporting documents to reduce the risk of lost documents and the time needed to access supporting documents for research and audits and work problem disbursements.

Another helpful visit was conducted by the EagleCash card team, which provided retraining to finance, postal, and exchange workers on end-user equipment relating to the EagleCash program.

The FM SPO section collaborated with other FM SPOs from the 3d, 7th, and 640th Sustainment Brigades. We shared ideas and SOPs and worked together to resolve finance issues as a group. We resolved cross-boundary finance support concerns before they became 316th Expeditionary Sustainment Command (ESC) issues. An example of coordination among all the FM SPOs

occurred in December 2007, when the 336th FMC hosted a planning conference to realign finance support boundaries and missions throughout Iraq. After the two-day planning conference, the FM SPOs briefed their FMCO, battalion, and brigade commanders on the draft courses of action (COAs). Each commander provided his input to his FM SPO, and the finance community reconvened via Breeze (Adobe Acrobat Connect Pro Web-conferencing software). The changes were briefed, agreed on, and merged, resulting in an approved COA. The 316th ESC published a fragmentary order directing the sustainment brigades to execute the boundary shifts and mission changes.

Although the FM SPO section was located at the battalion level, we were closely linked with the brigade SPO. We participated in the brigade SPO weekly collaborative sessions (a forum with all the subordinate brigade support battalion SPOs), coordinated and integrated our plans with the brigade SPO plans section, and participated in brigade operational planning groups. The brigade served as our link to future support requirements and operational plans for Iraq.

Functions of a Financial Management Support Operations Section

- Integrate all FM within the area of operations
- Plan employment of FM units
- Synchronize division of FM networks
- Manage all FM systems
- Coordinate FM requirements
- Coordinate operations and strategic FM support

—Field Manual 1-06, *Financial Management Operations*

Rules, Tools, and Procedures

The FM SPO section improved the reporting system by implementing the Diamond 2 report from the 336th FMC. This report was a consolidation of all finance data from the detachments and the FMCO. The type of data collected included customers served, casual pay, checks cashed, EagleCash card activity, paying agent activity, Commander's Emergency Response Program payment, and commercial vendor service activity. With these data, we were able to brief accurate review-and-analysis and trend information to the 1st Sustainment Brigade commander. Some key information collected included customer numbers for disbursing, paying agents, commercial vendor services, and military pay.

The automation tracker was used by tracking automation that belonged to the Federal Reserve System. The type of equipment tracked included kiosks, point-of-sale devices, paperless check conversion, and EagleCash cards. This ensured that the automation equipment was repaired or replaced as needed. Ensuring that the right equipment was at the right location was mission essential.

In an effort to track the more than 700 paying agents that supported the commanders on the battlefield, the FM SPO developed a paying-agent tracker. The system tracked paying agents by unit, assigned location, and fund-clearing status. This helped ensure that we knew who our

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customers were and how we could help them. It also helped us plan for future missions and the placement of financial management support.

We tracked our forward operating bases, combat outposts, joint security stations, and patrol bases by which financial management detachments directly supported them, what units were being supported, and population size. As the number of units in theater increased, we used this information to adjust where support was needed.

Financial Management Briefings

The development of our trackers and consistent monitoring of financial data evolved into the development of numerous finance briefs. The FM SPO prepared many financial management information papers for higher-level discussions and meetings. The FM SPO section attended monthly collaborative G–1 meetings for MND–B and MND–C and completed mission analyses and COA analyses for both MND–B and MND–C.

The FM SPO section also initiated communication with the 15th Finance Battalion in Iraq to learn about reporting procedures and requirements, customer service workload, locations of detachments and their finance support teams' missions, the financial impact of the surge, guidance for the FM SPO section, and the transition process between the 15th Finance Battalion and the 24th FMCO.

We developed monthly trends briefings that were shared among the brigade leaders to identify how to sustain and improve finance operations. The trends briefings covered vendor payments, EagleCash card loads versus cashier disbursements, paying agent support, and Soldier support disbursement.

In synchronization with the brigade SPO, we also developed a review-and-analysis briefing that showed all of the FMCO's technical statistics. The briefing covered the case management system, merged accountability funds report, analysis of unmatched transactions, the military pay accuracy rate, and Soldier support disbursements. This allowed the 1st Sustainment Brigade, STB, and FMCO commanders to see the macro-to-micro view of financial management support in our area of operations.

Challenges of Modularity

The financial management community has faced some challenges during the modularity conversion, the biggest being the transformation of financial management battalions to companies. This shift put FMCOs under the command and control of STBs. Reorganizing the financial management unit into a company has had some negative impacts on how the company is perceived and how assets such as housing and workspace are allocated. The STB has been very careful not to remove power from the detachment commanders and has even aligned their rating scheme with that of all other company-level commanders, having the FMCO commander as their rater, the battalion commander as their intermediate rater, and the 1st Sustainment Brigade commander as their senior rater

It was an educational process for both the sustainment community and the financial management community to understand each other's technical requirements and methods of thinking. The sustainment community did not understand financial management processes, regulations, and business rules, and the financial management units learned how the logistics community is a numbers-based organization that uses statistical data to analyze workflow, workload capacity,

customer service satisfaction, and proficiency. The FM SPO and the subordinate financial management units learned to analyze the data and use them to improve processes and procedures.

The 1st Sustainment Brigade's STB and FM SPO have embraced financial management modularity. We see the potential in applying modularity to the financial management structure throughout Iraq. Finance Soldiers are no longer administrative overhead; they are now increasingly critical warfighting enablers and should be considered as such by all. Finance functions are now in the fight, with a tighter link to operational and support planning in conjunction with the battle space management that the sustainment brigade provides. The sustainment brigade and the FM SPO have only begun to scratch the surface on exploiting the opportunities for the positive synergy that merging financial management into the sustainment community provides.

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Establishing Modular Human Resources Operations in Iraq

CPT Shaunarey Amos

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In order to deploy to Iraq as a fully modular unit, the 3rd Sustainment Brigade had to transform its human resources operations to make them modular as well. This represented a significant change in its human resources operational structure and procedures.

The concept of modular human resources operations was introduced to the 3rd Sustainment Brigade in the summer of 2006 before it deployed in support of Operation Iraqi Freedom (OIF) 07–09. Changes in human resources support resulting from personnel services delivery redesign and transformation to modularity made the creation of the human resources operations cell in the sustainment brigade a key element in integrating postal, casualty liaison, and aerial passenger accountability operations. Predeployment training, preparation, and education at all levels proved critical in integrating the human resources operations cell into the logistics environment for OIF 07–09.

The Human Resources Combat Organization

Field Manual (FM) 1-0, *Human Resources Support,* states that the human resources company can be task-organized to either the brigade special troops battalion (STB) or the combat sustainment support battalion (CSSB) for command and control. The 3rd Sustainment Brigade chose to task-organize the company under the STB because the 3rd STB shared a similar command relationship with the 24th Finance Company in garrison at Fort Stewart, Georgia. The 3rd STB took steps to form a relationship with the 101st Human Resources Company (organic to the 101st Sustainment Brigade) from Fort Campbell, Kentucky, in an effort to build a mutual understanding of operations and form the bond of a command relationship before deploying.

FM 1-0 also states that the human resources operations cell within the brigade support operations office (SPO) is to provide direct technical oversight to the human resources company that is task-organized to either a CSSB or STB in deployed operations. Although feasible, the technical channels as they were did not reflect the command and control relationships between the company, battalion, and brigade. The human resources company would be attached to the brigade STB for command and control during OIF 07–09. After further analysis, the brigade human resources operations cell was split between the STB and the brigade SPO to provide human resources technical expertise to both the company and the brigade.

Predeployment Training and Preparation

Since the human resources operations cell was a new element, it was unclear what type of training was needed to make the 3rd Sustainment Brigade successful as the first completely modular sustainment brigade with a human resources company in theater. The Human Resources Management Qualification Course at the Adjutant General School at Fort Jackson, South Carolina, was determined to be the best source of individual education on personnel services delivery redesign and modularity. This course gave the human resources cell officer in charge and noncommissioned officer in charge a broad knowledge base of the changes in personnel support in a brigade-centric Army. The course provided insight into casualty reporting using the Defense Casualty Information Processing System and into maintaining personnel accountability using the Defense Theater Accountability System.

Attending the Postal Operations and Postal Supervisor Courses was also deemed necessary because of the high level of technical expertise required to oversee all levels of postal operations

in theater. This education and the level of experience within the section led to a solid technical foundation for the first sustainment brigade human resources operations cell.

Collective training for the sustainment brigade had to change to reflect the new support responsibilities down range, which included the integration of human resources operations into training exercises. Changing the collective training proved difficult because of missing key elements and mission sets supported by the casualty liaison teams; reception, rest and recreation, return to duty, replacement, and redeployment (R5) teams; and postal platoons. The local training exercises were not sufficient to provide the human resources operations cell with real-world theater challenges.

Research within the adjutant general community led to the Silver Scimitar training exercise, hosted by the 3rd Personnel Command (now the 3rd Human Resources Sustainment Center) at Fort McClellan, Alabama. An annual training exercise for Army Reserve personnel and postal units, Silver Scimitar is a collective training experience for legacy personnel units on postal operations, casualty reporting, and personnel accountability in a simulated deployed environment. In the spring of 2007, legacy personnel battalions converted to modular human resources teams, creating a mixed training environment for Silver Scimitar and fostering an environment for learning the progression from legacy procedures to modular procedures. This experience proved to be beneficial to the 3rd Sustainment Brigade's human resources operations cell when it deployed.

Human Resources Operations in Iraq

In Iraq, the sustainment brigade SPO had a strong working relationship with the Multi-National Division–North (MND–N) G-4 based on the support provided to the brigade combat teams and operating bases within that division's area of responsibility. Lines of communication were established between the human resources operations cell and the MND–N G-1 to formally gauge the adequacy of human resources support provided to units throughout the area of operations for casualty reporting, aerial personnel accountability, and Army Post Office services and mail delivery. Modularity caused a migration of these services from direct support (services to a specific element) to a more general support (services to a specific area) role in theater.

The human resources operations cell served as a liaison between the sustainment community and the human resources company. This relationship easily facilitated the management of human resources support based on the needs of the supported units as units relocated on the battlefield. Open lines of communication with the division G-1 allowed the sustainment brigade to ensure that information was shared in order to continually improve the level of support provided within the shared area of responsibility. This also gave the division a point of contact in order to directly affect or change human resources support as the dynamics of the battlefield changed over time.

Lessons Learned in Theater

As the first completely modular sustainment brigade in theater, the 3rd Sustainment Brigade hosted a human resources summit in November 2007 to present lessons learned to the other sustainment brigades and to synchronize this effort with the 316th Expeditionary Sustainment Command (ESC) and the 8th Human Resources Sustainment Center. By capitalizing on the technical expertise that remained in the personnel services battalion and theater-level input from the 8th Human Resources Sustainment Center, the summit enabled critical discussions about the differences between doctrine and theater operations. The 3rd Sustainment Brigade proposed standardized reporting procedures for the Defense Casualty Information Processing System reports generated by the casualty liaison team, passengers who were processed through the aerial ports of debarkation and embarkation, and postal personnel. These reporting standards were

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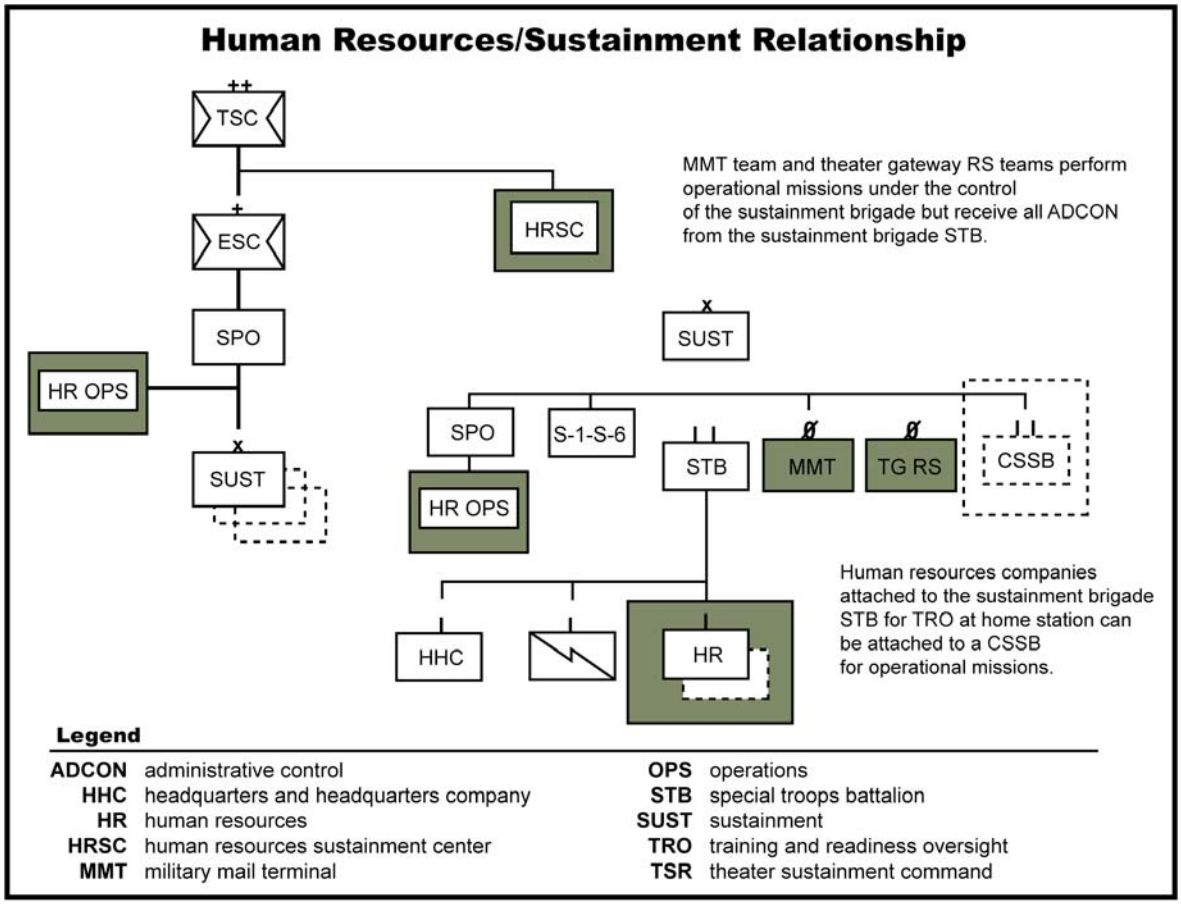
adopted by the 316th ESC as the theater standard for human resources reporting for all sustainment brigades.



A major challenge in theater was the arrival of the human resources company headquarters after all of its teams and platoons had completed their reliefs in place and transfers of authority. The headquarters element should have deployed in advance of its teams and platoons in order to establish the command and control and technical channels and to refine reporting requirements to higher headquarters. A legacy personnel services battalion remained in theater to receive each casualty liaison team, R5 team, postal platoon, and plans and operations section that would be task-organized to the human resources company. However, reporting procedures were already in place and a technical relationship was established without any input from the company commander because the headquarters was the last element to arrive in theater.

Under the modular concept, the 101st Human Resources Company headquarters deployed without its plans and operations section or any of the detachments and teams that it had habitual relationships with at Fort Campbell. Instead, the company, which was made up of detachments and teams from a variety of human resources units from across the continental United States and Europe, fell in on the plans and operations section of the 502nd Human Resources Company.

Training Needs

Deploying to Iraq to form a team out of these dispersed elements that had never trained together presented several challenges. Most notably, neither the 3rd Sustainment Brigade STB nor the 101st Human Resources Company could determine the level of training that each team or platoon had received. By contrast, deploying an organic company has the benefits of an established command and control relationship and the team cohesiveness that develops when units train and operate collectively.

Predeployment training, collectively and individually, should be based on the theater common operating picture. Human resources professionals at all levels must become familiar with sustainment brigade support operations, such as understanding how to coordinate transportation for mail movement and the relationships among the movement control team, the Air Force, and the R5 teams in the aerial passenger mission. The human resources cell gained a working knowledge of these processes during predeployment training exercises, but it did not gain a complete appreciation for all of the agencies involved in conducting successful human resources operations until after they arrived in theater.

Predeployment training should include providing mission oversight to contractors on the battlefield. During OIF 07–09, the missions of six Army Post Offices in the 3rd Sustainment Brigade area of support were partially transferred to Kellogg, Brown and Root under the Logistics Civilian Augmentation Program contract. In order to provide continuous oversight, human resources personnel had to be trained on the roles and limitations of contractors in the workplace and certified in contract oversight. Contracting officer's representative (COR) training was not a part of the predeployment training validation. This certification was available in theater; however, the CORs involved in human resources functions such as postal operations should obtain this training well before arriving in the area of operations. Education on the management of contractors should be incorporated into the predeployment training process in order to provide oversight to this portion of the human resources mission immediately upon arrival into theater. Smooth human resources operations depend on competent CORs.

The 3rd Sustainment Brigade officially assumed its mission in June 2007. Within 8 months, human resources support transitioned from a personnel services battalion of over 400 personnel supporting 12 locations in theater to a modular human resources company of just over 200 personnel responsible for the same 12 locations. Army Post Office contracting allowed almost 60 percent of the postal Soldiers to be reassigned in support of other human resources missions in the 3d Sustainment Brigade area of support.

Contracting in other areas of the human resources support mission would further increase the need for CORs within the human resources company and affect the force structure management of future human resources teams in theater. As the mission continues to change in theater, information must be shared in order to understand and integrate realistic human resources operations in the deployment training of the sustainment community.

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Human Resources Modularity Tested in Iraq

CPT Xarhya Wulf

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The Army's most recent transformation began in October 1999 when Chief of Staff of the Army General Eric K. Shinseki announced that the Army was developing plans to transform its Cold War organizations and equipment into a lighter, more responsive force to fill what was seen as a strategic gap in warfighting capabilities. However, it was not until 2003 that the adjutant general community offered Personnel Services Delivery Redesign (PSDR) as a solution to support the human resources (HR) area of the Army's transformation effort.

When PSDR was implemented in 2006, the Army G–1, Lieutenant General Michael D. Rochelle, said that PSDR "impacts how we support our Soldiers in the operational force. It is a revolution in how we deliver support. It is the most significant change in our business we have seen in our careers."

PSDR replaced the legacy structure that used multiple layers of paperwork that made personnel processing tedious, time-consuming, and slow. With PSDR, the personnel services battalions (PSBs) started to dissolve and were replaced by brigade S1s with the capability of providing essential personnel services and personnel strength accounting.

Of particular note was the creation of HR companies that formed the foundation of the new standard requirements code (SRC) 12 (Adjutant General's Corps) structure. Under the SRC 12 structure, HR elements deploy to theater and provide nonessential personnel services, including postal, casualty, and R5 (reception, replacement, return-to-duty, rest and recuperation, and redeployment). Multiple levels within the HR hierarchy provide technical oversight and guidance to SRC 12 units. The highest level in this hierarchy is at the human resources sustainment center (HRSC). Under the HRSC, embedded within the theater sustainment command, is the HR operations cell, which provides technical oversight to the HR support operations cells (HR SPOs) of the sustainment brigades.

In fiscal year 2006, the 15th PSB deployed to Iraq under the 15th Sustainment Brigade. Consequently, the new structures could not be tested until the 1st, 3d, and 7th Sustainment Brigades arrived in theater in support of Operation Iraqi Freedom, beginning in fiscal year 2007. As suggested in Field Manual Interim (FMI) 4-93.2, *The Sustainment Brigade,* each of those brigades has attached its HR company to its special troops battalion. The 1st Sustainment Brigade has found this command relationship to be very effective.

Predeployment Coordination

The 1st Sustainment Brigade was activated on 15 February 2007, but the HR SPO did not become fully activated and staffed with its eight personnel until May. Originally, doctrine stated that 12 Soldiers would be in the HR SPO. However, the doctrine has since been modified, and the following eight positions remain:

- Operations officer (O-4).
- Plans and operations officer (O-3).
- R5 and postal officer (O-3).
- HR technician (W-2) (military occupational specialty [MOS] 420A).

- Senior HR operations noncommissioned officer (NCO) (MOS 42A50).
- R5 operations NCO (MOS 42A40).
- Postal operations NCO (MOS 42A30).
- Information systems NCO (MOS 42A30).

With key personnel in place, the first task in the predeployment planning process was to define the roles and responsibilities at each level, from the plans and operations cell to the HR company and its postal platoons, R5 teams, and casualty liaison teams. Unfortunately, being the first iteration of new modular HR doctrine, Field Manual (FM) 1-0, *Human Resources Support,* was painfully devoid of detailed data. The only thing that the HR SPO cell knew with any clarity was the basic structure.

Therefore, the HR SPO staff—all newly assigned to the brigade—read postal, casualty, and R5 regulations as they sought to understand their roles in relation to the bigger picture, the scope of support, and the units to be supported. Each section NCO cross-trained all of the other team members in his area of expertise. Everyone took both the casualty and mortuary affairs operations center training offered online. They also became familiar with Defense Casualty Information Processing System reports, postal regulatory guidelines, and ongoing theater R5 policies and procedures. The casualty and mortuary affairs training was one of the most beneficial because, as the 1st Sustainment Brigade deployed into theater, a member of the HR SPO was lost from the cell. However, because of the cross-training and information sharing, the HR SPO was able to continue its mission without a moment's hesitation.

The special troops battalion (STB) commander and HR SPO representatives attended a mission readiness exercise at Fort Bragg, North Carolina, and an HR conference at Fort Jackson, South Carolina. The 510th HR Company commander and first sergeant visited the STB at Fort Riley, Kansas, and the HR SPO and the STB command team returned the favor by visiting Soldiers of some of the postal platoons attending training at Fort McCoy, Wisconsin. Initial contact was also made with the 15th PSB in Iraq, the 316th Expeditionary Sustainment Command (ESC), and the 8th HRSC. Through these meetings and contacts, the HR SPO established the foundation for a good working relationship with elements at every level of the HR hierarchy. From these early engagements, we created a staff mission statement and an initial HR SPO standing operating procedure, along with all the point-of-contact information needed to get up and running quickly.

Deployment

On 19 September 2007, the 1st Sustainment Brigade deployed to Iraq. One of the HR SPO cell's first accomplishments after getting connectivity was attending an HR conference that occurred during our relief in place and transfer of authority (RIP/TOA). The conference was attended by members from various divisions of the 8th HRSC (postal operations, R5, casualty liaison team, and plans and operations); the 316th ESC HR SPO; and the 1st and 3d Sustainment Brigades' HR SPOs.

At this conference, we were able to solidify the relationships that had begun in the continental United States. The event was necessary and proved to be a good beginning for the following reasons:

- It allowed members of the deployed HR community to meet their counterparts and foster working relationships.

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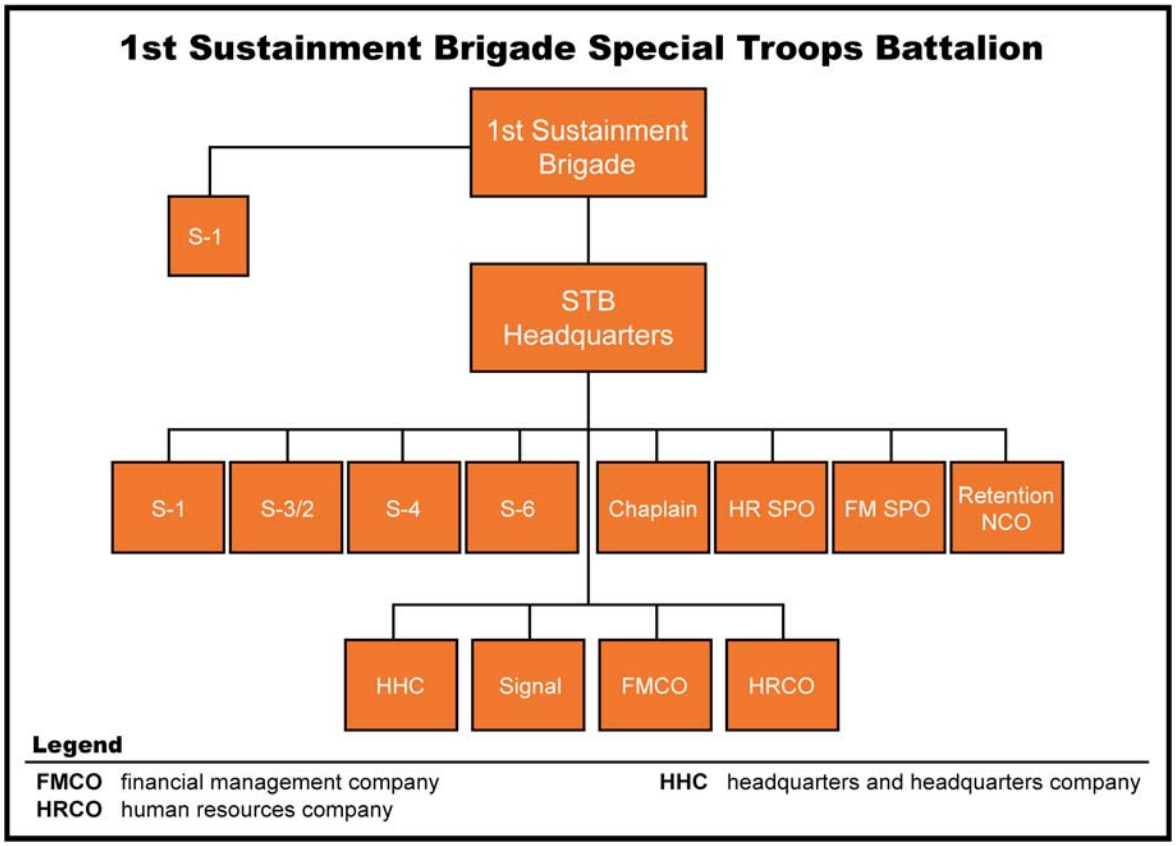
- It afforded the members an opportunity to voice their concerns, issues, and questions and then allowed leaders to discuss it in an open forum.
- Most importantly, it provided a common HR vision to all attendees.

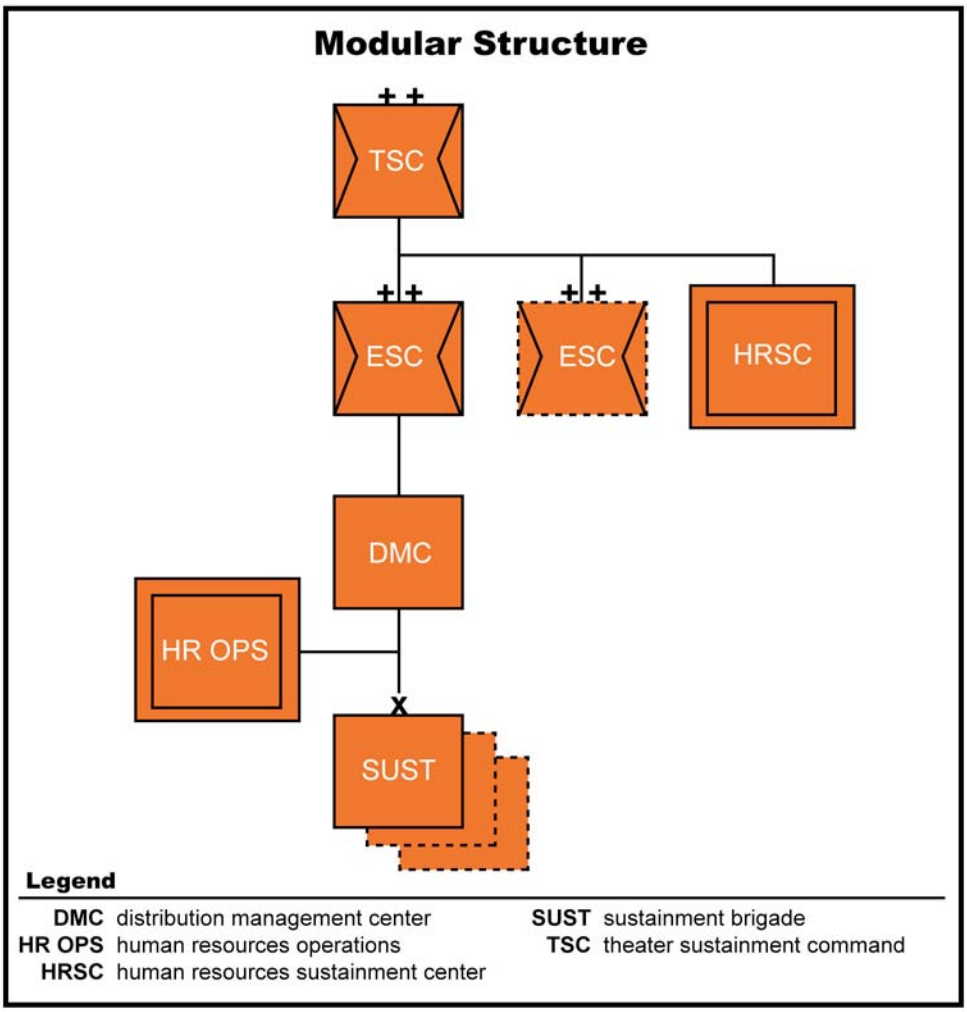


Other outcomes of the conference included guidance from the 8th HRSC on the way ahead and a standardization of reports to be used by all sustainment brigades.

As discussions proceeded, we soon realized that the makeup of the HR SPO had a couple of noticeable shortfalls and that each HR SPO had been embedded differently within its sustainment brigade or STB. The 1st Sustainment Brigade HR SPO was located in the STB and placed under the supervision of the STB commander, who was dual-hatted as the HR and financial management SPO. The 3d SB had placed most of its HR team members at the brigade SPO and one technician at the STB. Although the 7th Sustainment Brigade was not in theater at the time, we discovered that it was planning to leave its entire HR SPO at the brigade SPO.

The 1st Sustainment Brigade attached its HR company to the STB for command and control, although at the time doctrine stated that the STB should provide only administrative control for the HR company with retention of mission responsibilities and authority at the brigade level. This command relationship worked because it allowed the STB commander to have full control over the mission planning and execution of the HR company. The 1st Sustainment Brigade also retained its HR SPO under the STB because it provided the STB commander with the capabilities and expertise needed to more effectively employ his HR company.

After attending the conference, the 1st Sustainment Brigade HR SPO better understood the challenges it would face in the deployment. The biggest of these challenges arose from the fact that approximately 90 percent of the 510th HR Company elements had been deployed months before the arrival of the HR company headquarters. Since the 510th had to fall under the command and control of someone, it had been placed under the command and control of the 15th PSB. When the 1st Sustainment Brigade HR SPO arrived in theater, its leaders thought that they would conduct a RIP/TOA with the PSB. However, the PSB was waiting for the 510th HR Company headquarters, which was not scheduled to arrive in theater until the end of December 2007. This added layers of command and control that made the flow of information excruciatingly slow. The RIP/TOA process is designed for like units, which made the mixing of legacy and modular formations during the first few months particularly challenging for all.



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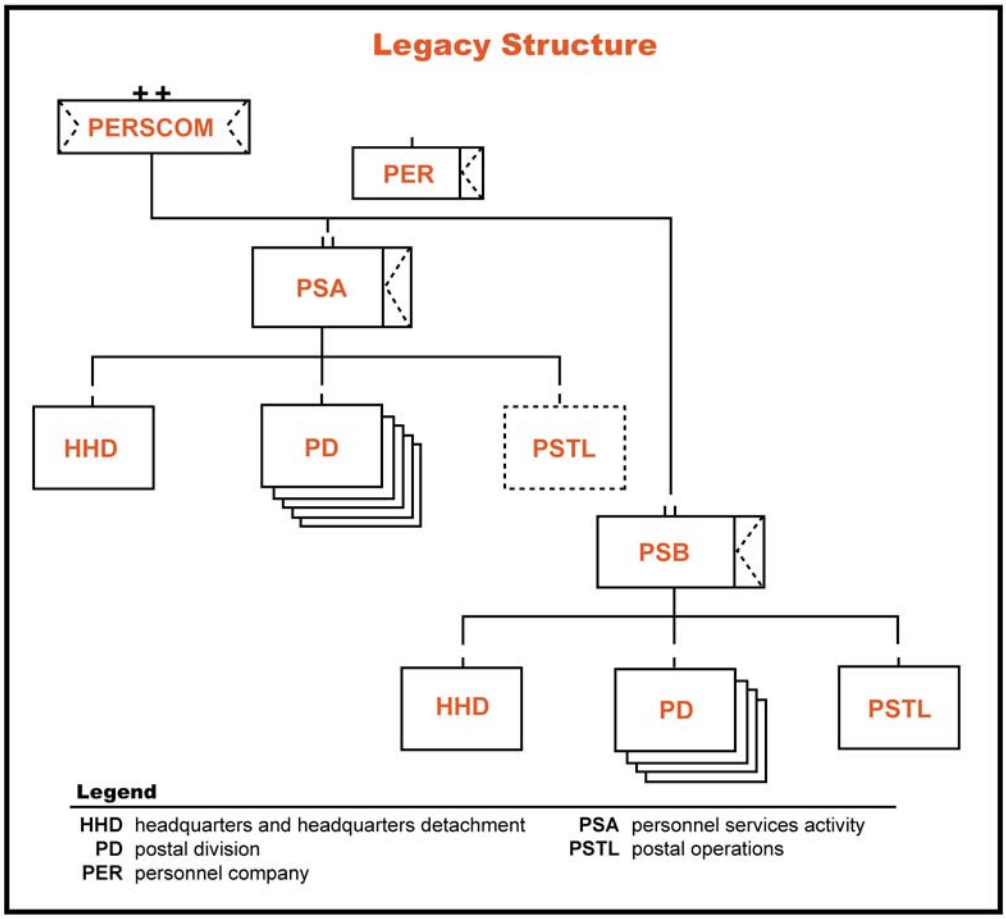

Postal Operations

From the beginning, the biggest part of the 1st Sustainment Brigade HR mission was postal operations. Concurrent with the RIP/TOA challenges, all Army Post Offices (APOs) within the 1st Sustainment Brigade footprint were in the process of transferring their missions to Kellogg, Brown and Root (KBR) in the midst of the Christmas surge. The primary glitch in contracting postal services was that KBR arrived understaffed and largely undertrained to fulfill their postal mission. As if that wasn't enough, the 1st Sustainment Brigade area of operations experienced a loss of air assets that had been used to deliver a significant portion of Soldiers' mail.

Despite these challenges early on, the postal mission during the Christmas surge was executed with unprecedented success. Two key factors contributed. First, quick changes to the distribution plan provided increased frequency and capacity of ground logistics convoys throughout the various destinations. Second, the HR SPO decided to keep some postal platoons working in the contracted APOs to assist the contractors with the mission.

These measures prevented any mail delays in theater and significantly decreased the average time of receipt of mail from the continental United States from what was already a good 10 to 12 days (the military postal standard is 12 to 18 days) to consistently under 8 days. Even during the peak of the holiday surge and on Christmas Day, many Soldiers received packages in only 5 to 6 days. In addition to providing regular APO services, the 1st Sustainment Brigade also executed an average of 21 mobile postal missions a week to units dispersed to locations where a regular APO could not be established.

One of the non-doctrinal positions that the HRSC created to assist the sustainment brigades is the regional director. Regional directors are postal experts who assist the HR companies and postal platoons with resolution of issues and provide postal advice and technical guidance as needed. The regional directors are instrumental in the success of APO inspections because they go out on staff assistance visits and ensure that the APOs comply with the regulations. This needs to be an actual authorized position for the HRSC.

R5

Personnel accountability is the most critical R5 task. The constant updating of the Deployed Theater Accountability System (DTAS) database as Soldiers move through the R5 process is supposed to allow near-real-time visibility of Soldier movement. The intent is to provide visibility of Soldiers as they move within the theater and record when they leave. In concept, this is a great idea. However, this process is not as well synchronized as intended.

The R5 teams were often undermanned when they arrived in theater and may not have operated at every key intra-theater in-transit node. Even areas with an R5 team were not always able to capture all passengers going in and out of a particular aerial port of debarkation. FMI 1-0.02, *Theater-Level Human Resources Support,* says that R5 teams will coordinate lodging or transportation of Soldiers delayed while transiting. However, most units at division and brigade level felt the need to put liaison teams at the R5 nodes to manage R5 functions for their Soldiers. This begs the question: Are R5 teams fulfilling their intended roles? To ensure that the R5 teams are properly structured, resourced, and employed to their fullest potential, FMI 1-0.02 should provide clearer, more concise R5 team roles and responsibilities.

Casualty Liaison Team

The 1st Sustainment Brigade was originally sourced with five casualty liaison teams (CLTs), but three were attached to Multi-National Division–Baghdad, Multi-National Division–Central, and Multi-National Corps–Iraq. The fourth CLT was reassigned to fulfill a different HR function outside the brigade. The remaining 1st Sustainment Brigade CLT consisted of five Soldiers who did much more than their doctrinal role. Once a casualty arrived at the combat support hospital, a CLT member interviewed the patient to get his vital information. This information was then entered into the Defense Casualty Information Processing System and sent to the necessary agencies within three hours.

While the patient was at the hospital, a CLT member entered a progress report every two hours. Once a determination was made as to whether the casualty would be medically evaluated or returned to duty, the CLT member submitted an additional report and contacted the Soldier's unit to coordinate pickup of the Soldier. The biggest issue in the CLT realm is the inability to rotate the teams with those in the division casualty cell to prevent combat stress that often affects Soldiers in these roles.

Recommended Changes

The HR SPO, the R5, and the CLT need defined missions. The HR SPO needs a better defined role at each level to preclude the duplication of duties that is currently happening in theater. The R5 and CLT plans and operations sections should be combined at the company level, and the sustainment brigade HR operations cell should be renamed as the HR SPO, with specific roles and responsibilities defined for each element.

The existing command and control relationship does not follow doctrine. In the 1st Sustainment Brigade, the HR company is placed under the STB for command and control because the STB commander has the authority and ability to provide more command emphasis and mission focus

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to the HR company. Doctrine should be changed to reflect this command and control relationship.

The casualty platoon consists of a platoon headquarters (with just a platoon leader and platoon sergeant) and one or more "plug-and-play" CLTs. In practice, this means that the platoon leader and platoon sergeant may not have a home-station platoon to lead or train every day and, if they do, likely will not deploy with it. The 1st Sustainment Brigade had a casualty platoon that was from one Active component unit, while its five subordinate teams were from four different Reserve component units. That required six separate unit requirement forms with six separate unit identification codes deploying at different times from five different locations to build one platoon of 27 Soldiers.

The HR company has no subordinate detachment command structure and therefore no reduction in the span of control for the HR company commander. This lack of detachment makes it difficult for the HR company to account for property, provide Uniform Code of Military Justice authority, or groom junior adjutant general captains to keep them competitive with their peers in other branches. A captain subordinate command should be established under the HR company. Similarly, since the CLT and R5 missions employ the same MOS (without the F4 and F5 postal additional skill identifiers), a single, larger, multifunctional, and multi-capable HR operations platoon would further reduce span of control, simplify force structure, and increase mission flexibility.

The primary missions of the HR operations cell's R5, CLT, and postal sections are executed during deployment. The HR SPO garrison mission is to train and prepare for upcoming deployments. The CLT, R5, and postal sections have no mission in garrison. All other garrison functions are executed by the Army Installation Management Command and the brigade or battalion S1s. This lack of garrison mission causes great angst among adjutant general professionals. What kind of deployment training should be conducted? If stabilization of units is 12 to 24 months before redeployment, is the garrison mission of training and preparing for deployment sufficient for an HR SPO?

Eight Soldiers are authorized for the HR SPO. The requirement should be changed to five Soldiers:

- One O-3 or O-4 to serve as the officer in charge.
- One W-2 to serve as the plans and operations officer or technician.
- One E-7 or E-8 to serve as the overall NCO in charge and casualty NCO.
- Two E-5s or E-6s to serve as the R5 and postal NCOs.

The 1st Sustainment Brigade leaders firmly believe that the success of the HR mission can be attributed to the fact that the HR SPO was placed under the STB. The STB is indeed organic to the brigade, and the brigade staff is assigned to the STB through the headquarters and headquarters company. The two are neither organizationally nor physically separated as they are in a combat sustainment support battalion. Therefore, the STB commander can operate (along with the HR SPO) as the brigade staff officer when collaborating with adjacent and higher organizations, while concurrently serving as the commander responsible for the HR mission. This arrangement has provided more synergy and an enhanced unity of effort than could be attained if the STB merely had administrative control.

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Commander's Interview: COL Mark Barbosa, Commander, 7th Sustainment Brigade, Iraq, 15 October 2008

LTC Tony Skubi, Center for Army Lessons Learned Theater Observation Detachment Liaison Officer to 3rd Sustainment Command (Expeditionary)

What would you say are the biggest issues that face our forces in combat today?

One of the big issues I see as a sustainment brigade (SB) commander is the impact of how the sustainment community has over modularized its force structure. The Army has a history of arranging its forces to meet the requirement of a given mission using the task force organization process prior to the modular process now in place for the sustainment community. I don't think we're doing anything we weren't doing before. The issue exists with the manner in which the sustainment community is employed in the Iraq Theater of Operations (ITO) today.

The 7th SB is stationed at Fort Eustis, VA. Its subordinate commands, normally under our home station command under the modular force, will now not deploy with this headquarters (HQ). Instead, the Army has elected to parcel its sustainment forces out, in many cases breaking pieces out of smaller commands to fit into the same role of another SB HQ already deployed overseas. The Army has executed request for forces (RFF) actions that task a platoon to work for a company that works for a battalion in theater. Unfortunately, none of whom have worked together in the past. This becomes problematic when the units shift alignments right up until the time they deploy.

I have talked to several brigade combat team (BCT) commanders here in the ITO and asked them how they would manage if they deployed as only a BCT HQ and would then receive their subordinate commands after arriving in theater, but also noting that those subordinate commands, all the way down to the platoon or section level, would be constantly rotating out with new elements coming in during the BCT's rotation. The consensus was that this process would make it near impossible for a BCT commander and staff to properly manage and ensure the effective leadership of their subordinate commands.

The issue of sustainment organization modularity and their deployment into theater also conflicts with the Army goals regarding certain key elements of leadership and training. The elements of unity of command, unity of effort, multi-echelon predeployment training, staff/team building, and leadership mentoring are all aspects that our sustainment commands don't get the benefit of during our home station training prior to deployment.

Please describe the predeployment process: notification to deploy, training, making up personnel and equipment shortfalls, predeployment site survey (PDSS), anything in this subject area that you would like to discuss.

Predeployment site survey: When we came into theater, we replaced the 82nd SB. That command did an awesome job exposing us to the areas of responsibility that they had so we could better prepare for our deployment and to address items that we hadn't focused on before the PDSS. I believe the PDSS event is critical to the unit's successful transition. One challenge is that an SB does not have any slots in our PDSS authorization to include a few personnel from each of the battalions who will work with us in theater. I think it would be very helpful and should be made available for battalion personnel to also participate in an SB PDSS event. For BCTs, they have fewer issues regarding the need for select battalion personnel being on their PDSS, as they have their subordinate commands with them at their home station and can ensure critical data can be passed to them directly as needed.

Personnel requirements with Human Resources Command (HRC): Our notification process went very well, and I saw no issues with that overall process for our deployment. However, our personnel fills were problematic, and we went to the HRC three times and had to repeatedly address our needs regarding our deployment timeline and our personnel needs. For some reason, the major logistics commands have fallen off of the patch chart (or were never included) of the Army's force planners, and there is no visibility on our personnel fills. That caused problems, as we constantly had to re-engage with HRC to keep the personnel branch focused on our needs. In our conversations, we had to continually show the personnel managers that the 7th SB was on valid deployment orders and that we needed to have our shortages filled. The current system tracks BCT patches on the HRC system, but our unit kept falling off of their radar, or we lost our personnel gains to other units as our patch was not visible to the HRC managers. We worked around those issues and found volunteers from units within the brigade with a lower priority and eventually completed our fills before deploying. Today, we still have problems with HRC, as there is nothing in the system that told them (other than our orders) that we are here for 15 months vice 12 months. We're still getting emails with assignment managers thinking we are coming back in October.

Repeated changes in theater assignment: Another issue was that prior to our actual deployment and arrival in theater, our theater location changed three times. Due to the surge of BCTs into Iraq and the subsequent extensions, our original deployment date was delayed by three months. The 7th SB was originally assigned to support the northern part of Iraq from the Qayyarah Airfield–West (Q–West) base for that sector. We prepared for that mission by contacting the subordinate commands we would work with and started our coordination processes. However, we then learned our location had changed to support the central sector at the Taji base site, so we changed our focus and started our preparations for that mission and location. We then went back and forth from Taji to Tallil until we received our final location had changed again to our current southern sector assignment at Tallil. That was a theater issue, but ultimately we were able to meet that challenge and adapt.

Validation exercise for sustainment units: We went to the National Training Center (NTC) with the 3rd SB, where we combined our staffs and executed the SB mission together. We got a lot of synergy from that exercise, and our strengths helped their weaknesses and vice versa. We got a lot of good training with the 3rd SB, and I thought it was a great exercise. We then went to our culminating mission readiness exercise (MRX) event down at Fort Bragg with the 316th Expeditionary Sustainment Command (ESC) where we were acting as one of their subordinate commands. However, that MRX event was not designed for an SB staff, as the focus was mostly on the 316th ESC staff processes.

Because of that higher command focus, we had to generate exercise events in order to get my staff spun up to the required level of normal daily work demands and operational tempo to stress the staff and provide them with some added value from the overall scenario experience. The exercise was good in that it enabled the SB commanders and staffs to network, but it didn't provide much value to the SB command overall. My staff could have easily spent most of the exercise sitting on their hands, as the MRX was not designed for them, and really never received the volume of expected activities that we would see once we deployed.

This situation highlights another systemic Army issue regarding the sustainment community in that there is no comprehensive validation exercise within the existing training system. There needs to be something that provides an SB with an Army Training and Evaluation Program (ARTEP)-type culminating event that gives the leadership chain a valid assessment of a unit's preparation for deployment. Our current system of a live training exercise or MRX event for deploying sustainment units simply panders to the Army's need to show that some form of command exercise takes place before a logistics unit deploys. At the time of my predeployment MRX, I spoke to the Combined Arms Support Command (CASCOM) Commanding General

(CG) and G4 about this issue. I believe they both agreed in principle with the need to establish a process that makes Fort Lee the lead command for developing this type of major ARTEP or MRX validating event for assessing SBs and their subordinate commands prior to deployment.

The exercise goal would be to spend a week each year on a major logistics exercise, involving the CASCOM at Fort Lee, plus the majority of active duty sustainment commands and as many Reserve Component commands that could attend. The CASCOM staff would be able to drive that major training event and to define desired exercise parameters, and it also provides the CASCOM CG, as the exercise director, with the ability to directly assess how the participating units are doing. I think this idea really makes sense since CASCOM is the center of sustainment excellence for the Army and the sustainment community. It also enables the senior logistics leadership to see across the board what the sustainment community is capable of doing. It enables commanders and staffs with recent combat experience to share those recent lessons learned; current tactics, techniques, and procedures (TTP); and other good ideas and nuisances to current doctrine with other leaders and staffs preparing to deploy.

This event needs to be in the field at Fort Lee with all of the communication systems in place. We need to have signal companies fully engaged in the exercise along with all of the levels of sustainment commands and their various command and control systems, like Command Post of the Future (CPOF), Blue Force Tracker (BFT), Standard Army Management Information System (STAMIS), and Battle Command Support and Sustainment System (BCS3), in use and operating like they would once deployed. From this major training effort, we can then determine what is or is not working for our logistics commands for standing operating procedures, doctrine, and recent theater lessons learned as well as learning how effective various pieces of equipment are that we are using to manage our sustainment operations in theater.

BCS3 and sustainment operations: That brings up another key issue in theater right now. The BCS3 system is a tool that is not effectively being used in the field by many sustainment and operational units. This is mainly due to the system's extensive learning curve and lack of intuitive user interfaces. It is a very expensive piece of equipment that only serves a very limited role in the normal SB operations in the theater. Right now, many brigade support battalions (BSBs) don't like BCS3 because that system is not easy for them to use. I cannot force that use upon them as they don't work for the SB commander. I have found that where one BSB will use BCS3 and will make it work for them, another command will eventually use the system to pass logistics information to the SB. This tends to occur only after using a more simplified version that they are more comfortable with, like an Excel spreadsheet or PowerPoint presentation, instead of using the current set of BCS3 reporting tools.

This problem gets back to the issue of those organizations or individuals who develop and design these systems for the military. There is a mentality within Department of Defense that seems to exist for every new automated system. The builders of those new systems don't determine what the real need is by asking the users what their needs or desires are. Instead they develop a system that solves a problem that is not relevant to the needs or real problem that face Soldiers on the battlefield.

Many system designers seem to have forgotten what is really needed to support the lower level operators who will use systems like the BCS3. This system, as the current tool, requires someone of a much more advanced grade and experience level than what is designed into a sustainment unit table of organization and equipment for personnel to man those systems. In my opinion, too much is top driver in the name of getting to a logistics common operating picture.

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Please describe the actual deployment: arrival in theater; reception, staging, onward movement, and integration (RSOI), relief in place (RIP)/transfer of authority (TOA) process, and so on. Please give us your opinion of the level of unit preparedness upon arrival in Kuwait for RSOI. What changes need to be made in order to improve unit readiness upon arrival in theater?

Kuwait training and RIP/TOA transition: Overall, I saw very little value in what our command got out of the basic training block at Kuwait. That said, the MPRI (Military Professional Resources, Inc.) team provided excellent training on their respective lanes and they did a good job in presenting their materials to our Soldiers. A lot of those materials were similar to the training that we received back in continental United States (CONUS) from the small training teams that came to assist us at Fort Eustis during our predeployment train-up. We also got some additional hands-on training with some of the equipment and vehicles that we would use in theater during that phase of preparation as well.

I think that the best way to train once deployed is to train in the environment that you will be working in. We got a very good train-up from the 82nd SB during our transition process. Our predecessor had an outstanding RIP/TOA plan in place once we hit the ground. They got us in, they got us engaged, and then they handed it off to us as they watched us work and provided feedback during the left seat/right seat process.

Contract management requirements: The only real surprise once we arrived in theater was in our role and responsibilities when it came to contracting. The 7th SB has 3,000 troops in the command and another 1,500 contractors supporting our operations each day that we directly oversee. The use of contractors is very prolific on the battlefield. Their work is critical to every place we operate in throughout our sector. We had to adjust very quickly to become contracting experts to oversee the contracting environment and to ensure that we got what we are paying for over here. And, make no mistake, we as taxpayers are paying a very high premium for what the Army receives regarding funds spent on contracted services in theater. We saw it as our job to ensure the quality and quantity provided was what we were paying for.

The contracting process is one in which the military oversight must be diligent in paying attention to what's being done and to monitor the process every day, or things won't be done. Unfortunately, it is human nature for people to slack off if someone isn't providing that daily oversight to ensure that the contract requirements are being met. This was very frustrating because the contracting management skills are not in our structure to properly manage what we are required to do here in the ITO. We were not prepared to work in an environment with the level or volume of contracts that are now in place. There are some significant challenges in how to manage this mission requirement when the Army has not provided the right modified table of organization and equipment (MTOE) assets to provide expert oversight and the ability to legally review capabilities to assess what's being paid for is being delivered.

Unfortunately, it seems that the Army's senior leadership does recognize this issue to be the serious one that it is. However, the feedback senior logistics commanders receive back from above are—you have told me your requirement, now tell me where you're going to cut something to fix it. I don't feel this is a fair delineation of responsibilities. We should be identifying a need based upon proven experience in theater and which should be addressed by those leaders responsible for the process of updating our manning documents. As a SB commander, I need someone in my command with the capability to advise me on the legal process of each contract. This must include that this contract is an efficient use of funds for the service provided, and to ensure that the command's contract implementation and oversight process is on track.

This leads to a related topic, which is that Logistics Civil Augmentation Program (LOGCAP) is not the solution for all of the logistics support requirements that we have here in theater. Right now, LOGCAP is an easy fix that is being used to solve our logistics issues at a premium price. It seems to be an issue that is just now getting attention with the arrival of the 3rd ESC. We should have been weaning the Army off of this system starting back in 2004. Instead, we have been growing by leaps and bounds ever since. As the commander of the Joint Contracting Command Iraq said to me almost a year ago, the Army should start looking for other options to LOGCAP shortly after hitting the ground—possibly local contracts at more reasonable costs.

The 7th SB serves as the primary sustainment command in an area support role with both direct and general support missions in support of various multi-national divisions within your sector in central and southern Iraq. Please give us your thoughts on the challenges the 7th SB faced assuming this mission and the actions you and your staff implemented to address them.

MTOE changes within the sustainment brigade: As noted previously, contracting is the number one challenge for the SB as we do not have the MTOE manpower to properly manage that critical task nor the inherent expertise in the Soldiers tasked to perform those duties. Training helps immensely, and the CASCOM commander is addressing that.

As for MTOE changes, our S3 section is not big enough and not manned to the level that is capable of running 24-hour operations while our support operations section is too big. However, we went ahead and fixed that issue to address those concerns that we saw needed to be changed.

We also need to address the need for an executive officer (XO) in our SB MTOE. All of the BCTs have an XO position on their MTOE and they are fully utilized. These officers manage the normal daily operations of their busy command sections. I believe every SB commander will tell you that this position is critical to mission success in theater. Every SB commander has created this XO position using internal resources, even though that has hurt them in other functions. The deputy commander is executing the command functions, as the brigade commander is typically out on the road so much while in theater. The XO position is there to handle all of the other normal staff operations that you cannot assign to a junior staff officer.

When the 7th SB first arrived in theater, we did not have the requirement to provide direct oversight to the convoy protection assets operating in our sector doing the security forces (SECFOR) mission. The 1/82nd BCT provided that mission oversight within our sector for SECFOR operations, but fairly soon after we arrived, that BCT moved under the Multi-National Division (MND)–Center. That change resulted in a new requirement for the 7th SB to manage the SECFOR mission for our convoys that were now pulling general support mission support for about 450 fuel and general commodity trucks daily. The BCT had been performing their convoy escort mission with 40 CETs (convoy escort teams—6 gun trucks) of gun truck teams operating under two battalions of these assets. However, when we assumed that mission, we only received 24 such assets operating under one battalion. That has been a challenge but we've adapted and are doing it very well. It increased our mission set tremendously, as our numbers of trucks operating each day went from 200 vehicles on the road to nearly 600–700 trucks at this point in time.

Please provide your thoughts on issues surrounding the human resource (HR) and finance management (FM) aspects of modular sustainment operations.

Operational oversight of human resource and finance companies: When we first arrived, the 7th SB did not have a HR or FM mission. But within 30 days of arrival, we received a company of each type and we picked up those added missions and drove on. We put those units in the special troops battalion (STB). I feel these companies are doing excellent work in our sector and are

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managed and cared for effectively in the STB. I like this organizational structure because I feel more comfortable with having a senior commander (battalion commander) to go to rather than having to go directly to a HR or FM company commander when problems arise. We have some excellent company commanders working in these areas, and they have really stepped up to the plate in accomplishing their missions every day. I have some exceptional Army Reserve and National Guard commanders who have demonstrated superior skills in performing their missions.

I know that the HR and FM communities have not agreed with the placement of those companies under the STB. I appreciate their comments and concerns on how we have organized these assets in my command. However, I have conferred with my peers in other SBs, and we have agreed that the sustainment commander must have the flexibility to use these assets in the manner that best works for that command. I feel that for normal operational requirements, the use of the STB commander for daily oversight enables me as the brigade commander to go to a battalion commander when I have to address operational issues rather than directly to a company level commander. I know that the 7th SB performs our FM and HR missions slightly differently than how our peers in the two other SBs who have that same mission set. However, I believe that the unique aspects of our sectors and sustainment requirements have driven those differences.

Finance management operations and the Iraqi Business Investment Zone (I-BIZ) Program: One significant new program working in our sector is the expansion of the FM mission, as our finance units are expanding their efforts with regards to the I-BIZ program. Our FM community is starting work with the Iraq banking industry to develop that critical industry, which right now is broken as a national institution in the south. Our finance commander is very articulate, highly intelligent, and has engaged with senior banking officials in Baghdad. We are working this effort very hard right now and are making some very positive inroads into getting electronic funds transfer (capability) thought out for our area of operations (AO).

How has the 7th SB been involved with contracting management (CM) during its deployment? What visibility do you have on the transition process between LOGCAP III to LOGCAP IV? How is the contract management process between the ESC and the 7th SB implemented?

We have not yet implemented the LOGCAP IV transition process, which I understand will take place sometime in 2009 and after we redeploy.

Contracting expertise in unit structures: Overall, we have no real problems in our interface with the ESC and SB in our CM operations. I believe that the ESC needs to have the experts in that area to provide the technical oversight and provide support to the brigades as needed. The 3d ESC likes to consolidate their CM activities, which is not necessarily bad, but it has expanded the timeline to process and approve the execution of the contract funds and the services or products desired at the SB level. At the brigade level, I don't need a certified, military occupational specialty-carrying person on our MTOE. That said, I do need some people with contracting expertise to support our operations down at the SB level. This could possibly be a comptroller position like some BCTs have in their organizations along with funds (something no SB currently has).

As a senior Army logistician, I feel we have the responsibility to build and develop efficiencies in everything we do and ensure that the taxpayer gets value for every dollar we spend. This also applies to how we manage our sustainment operations at every level of command. We constantly strive for positive impacts on how our battalions and companies are supporting the warfighting effort, and we look to maximize what we have and get more for less. We are always looking at how we can put the most on a truck safely, how we can add a truck or two to a convoy this week

but reduce the number of convoys moving between bases, all while ensuring we are still providing the best possible support to the battle space owner.

Budgets for sustainment commanders: I also see other brigade-level commanders at various garrisons here in Iraq, especially in the United States Air Force command system, having budgetary authorizations for purchases up to $200,000. This enables these O6 commanders to take advantage of opportunities to spend money as enablers to their missions. Right now, the SB commander has no authorized budget, nor does the ESC above us, that would provide us with that same flexibility. Instead, we have to ask for those funds that then have to come from an approved spending plan. I would like to see some money allocated down to the SB commander to enable the same type of flexible spending capability to enhance our local interactions with the Iraqi community. Give us rules on spending those funds, but provide O6 commanders with the ability to use funds to develop opportunities or address issues within our sectors. We are provided this "trust" in CONUS, but not here where the impact we can make is much larger.

I believe that this idea coincides with General Petraeus's overall initiative to develop the Iraqi First program. Unfortunately, I don't feel that this effort has been as productive as we might like nor do I believe it is in all cases meeting the original intent from the Multi-National Forces–Iraq commander. I see the current program has Iraqi companies being hired for purchases. They find out where we would have bought it from and they buy it from the same source. It is then marked up and sold to us for much more than it's worth. The Army then receives a product or service that could have been purchased cheaper from another source. We routinely see markups on products from Iraqi businesses that we could have purchased directly from the original source to save the Army money. Having a budget would provide the SB commander with more flexibility to buy from the local economy and get those dollars to initiatives that improve our relations with the community and its leaders.

Within the stability operations mission (in particular civil-military operations [CMO] and reconstruction/development), what impact did you observe that this mission had on the planning and execution of traditional Army missions?

Everyone in the Army is not equal when it comes to having personnel fills for these types of critical positions, and unfortunately, sustainment commands are not a priority for some of the lower density specialties like CMO. We are authorized a CMO section with a team of these essential personnel when we deploy. However, our personnel went to other units that Department of the Army has assessed to have a higher priority for fill, primarily BCT organizations, and we deployed without our authorized civil affairs staff. I think these positions are very important to the normal operating capabilities of a SB and they are a good team to have in our MTOE structure.

However, we did manage to find someone to fill one of our positions by the activation of an Army National Guard officer who happens to be married to one of my other staff officers. He is a special forces officer with a great deal of experience and skills in the CMO field and he volunteered to deploy with us. We went to Forces Command to get him authorized to fill for our position, and it took about five months to get him on active duty. He will work in our command for the last year of our 15 month deployment. He has been a great asset in our CMO planning and execution efforts. His skills and experience have been invaluable in our work to coordinate and work with the provincial reconstruction teams (PRTs) who operate within our AO.

Those PRTs have very limited capabilities to execute projects using their own resources and they have been working with the 7th SB to build or renovate facilities like soccer fields, schools, and water purification facilities. One good example is our work to develop a more cost effective system of potable water for an Iraqi city just outside our gate. We served as the go between

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facilitator for this project, managing the construction contract using Iraqi funding with the city officials. This project lowered overall costs to the community compared to the old process of trucking in fresh water. We also worked with this community to manage the maintenance of the facilities once completed. This included paying for the various filters required to operate the purification system using community funds.

All of these projects have improved our relations with those local communities in which the projects take place and have positively impacted on our operational environment. We had problems in some communities with rock throwing incidents and these projects have really helped diminish those conflicts as we interface with the sheiks and other tribal leaders to work on these types of infrastructure improvements. We have developed projects in almost every community in our area and those efforts have been very beneficial to lowering anti-coalition incidents and improved communication on potential enemy threats in our AO.

We also look at opportunities to deliver items like shoes, clothing, school supplies and toys like soccer balls and school supplies. We work with American communities or companies that wish to donate materials to Iraqi communities. They have provided a lot of these types of clothing or toys to us. We then take and distribute them on our nonlethal engagements to local Iraqi communities to share and develop greater good will for our forces in the region.

Do you have any insights or observations regarding biometrics and changes the Army should consider in doctrine, education, and training to better utilize this battle space tool?

We do not run any of the bases that our troops live on and that eliminates the need to run the biometrics program within our sector. Other agencies screen the local nationals who support forward operating base (FOB) operations. All of our forces that we support are green or military so we don't have that requirement.

What challenges did you face in establishing your rear detachment (RD) and family readiness groups (FRG) in preparation to deploy?

The typical assignment of staff and leaders to the RD usually focuses on putting a strong person in that role, someone who you can trust, who is competent, and who has the ability to manage the various issues that traditionally arise in the rear. If you don't, then the command team in theater will be trying to look both at the battlefield and to the rear, which is something that you can't afford.

This manning requirement, combined with our limited personnel resources within the unit's personnel structure, conflicts with our need to place good personnel at key locations or commands to serve as liaison officers to those critical junction points. The 7th SB has the responsibility to operate at nine separate FOBs, as well as, other critical commands like MND HQs and the ESC. Those Soldiers also need to be strong performers and we need those liaison officers to ensure good communication and coordination efforts throughout the sector. The question is where does the SB find that good person to fulfill that mission without taking something from the mission for whom they were sent to perform?

I would like to see the Army recognize this problem and develop a comprehensive system to answer this question for us. We need some sort of RD program that addresses our needs without pulling people out of our MTOE to stay behind to do this mission. In our case, we received help from the Fort Eustis CG who worked with the Army Reserve Command to receive an Army Reserve colonel who extended on active duty from a previous mobilization in Kuwait to remain behind and manage our RD mission. The 7th SB has six subordinate battalion commands that fall under us at Fort Eustis, but with the constant deployment rotation of these commands, trying

to give that RD mission to one of those battalion commanders would not be feasible. Those RD requirements would have had to constantly shift between battalions as they each deployed. Having the normal RD tasks added to a battalion commander who is preparing his or her command for deployment is not something that is really fair to that subordinate commander. I can't leave my deputy commander behind to perform that mission as I need that officer when we deploy.

What was the most striking or dramatic difference between your first deployment to OIF and your most recent deployment to OIF?

The 7th SB was a transportation group and we converted to a sustainment brigade, in October 2006, which changed our mission and changed our focus. In the command's previous deployment, we operated out of Kuwait, in 2005, and ran all of the truck convoys out of Kuwait up to Iraq. Those missions were totally different in the magnitude and responsibilities than what we do today. The transportation group command's previous deployments into theater before 2005 were focused on port opening services and terminal services in Kuwait and Saudi Arabia. Again, mission sets that are totally different than what the 7th SB does today in Iraq.

Did you or your team utilize any external resources such as the Center for Army Lessons Learned (CALL) to assist you in any of the phases of your deployment? If so, what resources did you find to me most useful?

I looked at the various 100-day books that CALL produces, but I felt that for the most part, those items were too generic in nature for my staff to benefit from their use. Overall, these booklets are good basic guides for commands that need that help in forming and building staffs or for new commanders. From my foxhole, they didn't provide much value to us or anything more than what we got from the 82nd SB on current operations or TTP now in place in theater. From my perspective, talking to the guy on the ground, that's doing what you're going to do. Getting his/her insight is absolutely critical. I looked at other sources like LOGNET (U.S. Army Logistics Network) and also found that the materials there were incredibly long and too out of date to be of much immediate value to our command. Also, I don't see much value in the experiences of those units who were here in Iraq, in 2004 or 2005, mainly because of the significant environment changes that have occurred since those deployment cycles. Their experiences make for interesting historical reading, but didn't really help us to prepare for this deployment as our mission focus is so different from theirs on a day to day basis.

Because of the constantly changing environment that exists in Iraq now, one in which almost everything changes so much and so quickly, we had to overcome the learning curve of differences that occurred from the time of our PDSS and the time we deployed. Our environment had changed dramatically in just those few months time. Further, over the 13 months of our current deployment, our operations have changed very dramatically again and have little in common with what we saw when we started back in late 2007. I believe in six months from now, the environment will be significantly different than they are now, and that our Soldiers will be flexible and adaptable enough to meet all of the challenges as they have already proven that they are capable of doing.

What did help me to prepare the 7th SB staff for deployment were the various training events we completed in our predeployment phase. The 316th ESC brought all of its SB commanders together on several occasions, for both exercises and senior leader meetings. Those gatherings provided me and my staff with the opportunity to network and exchange ideas with other sustainment commanders and senior staff members. They enabled us to share our thoughts and experiences on how we handled similar incidents or problems during previous deployments or current ones if already in theater. I felt these opportunities were very beneficial and provided me

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with that chance to compare ideas and possible solutions to issues now taking place in theater before we deployed the brigade into country.

Are there any additional things that you would like to discuss?

Garrison command of coalition bases: There needs to be a theater wide plan that addresses the management of coalition FOB operations. Right now, it appears that base operations are driven by the personality of the individual garrison commander, rather than by an overall theater development and planning process that ensures a uniform and efficient process for implementing base improvements across the ITO. I don't see a senior command level plan to effectively develop and manage spending plans for bases; much less manage the process of planning, contracting, and executing projects that improve life support and services for Soldiers assigned to our bases. Right now, the individual strengths and weaknesses of the garrison leadership tasked to run each FOB dictates how and when such improvements do, or in many cases, do not, get funded or completed on a FOB.

As an example, take Contingency Operating Base (COB) Adder, which is a convoy support center (CSC) in our sector. This base really acts as a logistics support area, and I really believe that a logistics unit should be running that base because of the critical support operations taking place there. However, that overall responsibility for running such a base comes with a lot of other tasks like SECFOR operations, the use of biometrics to screen local nationals working on the base, and a wide gamut of other demanding and time consuming requirements. The current Army selection process for picking commands to serve in this critical role appears to be one of assigning the mission to units that come into theater without a specific leadership role. It seems to be an ad hoc duty for the unit selected to serve as a base's garrison command structure. I personally don't want that role as a SB commander, but I feel that it is a role better suited for a SB that is better equipped to manage that mission than the units who are seemingly picked at random to run those bases. Of course, the critical piece would be the engineer expertise to ensure the FOB or COB is set up correctly. Right now, it appears that the commands that get the garrison mission are just being tapped as they arrive in country (I know, not always the case, but that's what happened here on Adder). I believe they are not being properly trained and prepared for this critical mission during their predeployment phase.

Another example of a personnel need, not presently addressed for base support operations, is the availability of engineers to the garrison command at each FOB. Engineers are absolutely critical in the development and improvement of FOBs. Their technical knowledge and skill sets help the garrison commander build efficiencies into the base support operations that make life on the FOBs more livable for the average Soldier. Facility engineer teams and facility engineer detachments are now here and making a positive difference.

Challenges of a multi-national division support mission: One of our biggest challenges we experienced on our arrival was that we had to support five different MNDs. We supported coalition commands like the Armenians, Australians, Georgians, Poles, Romanians, and Ukrainians who were scattered about our sector conducting their pieces of the mission in the center and south of Iraq. We developed unique logistical support plans to execute our cross servicing agreements with these coalition forces. We had to sign for those items for these forces, hand receipt the equipment over to them, and then help manage the maintenance process of that equipment as well. We had to build and equip over 400 gun trucks to support those coalition forces. Moreover, we also did life support missions; accounting for meals and the like and just about every supply commodity one can imagine.

All of these missions took place as we developed good working relationships with each nation. As those nations rotated out of theater or moved under the control of a different MND command,

we had to keep adapting our operations to meet those changing battlefield conditions. We had to do this in addition to developing relationships with our changing subordinate commands as well. They too were in a series of transitions. During the military operations that took place in Basra early in 2008, we had to send out support teams to coordinate our logistics efforts and to develop an awareness of the battlefield to ensure we could keep up with the battle space owners. It was a challenge, but one we were prepared for. Everyday these Soldiers make me proud. The environment is ever changing. What these young Soldiers are able to adapt and overcome astonishes me routinely.

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USAIOP is responsible for developing and documenting all IO requirements for doctrine, organization, training, materiel, leadership and education, personnel, and facilities; managing the eight personnel lifecycles for officers in the IO functional area; and coordinating and teaching the qualification course for information operations officers. Find USAIOP at <http://usacac.army.mil/CAC/usaiop.asp>.

U.S. Army and Marine Corps Counterinsurgency (COIN) Center

The U.S. Army and Marine Corps COIN Center acts as an advocate and integrator for COIN programs throughout the combined, joint, and interagency arena. Find the U.S. Army/U.S. Marine Corps COIN Center at: <http://usacac.army.mil/cac2/coin/index.asp>.

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