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Applied Intelligence

Lessons Learned

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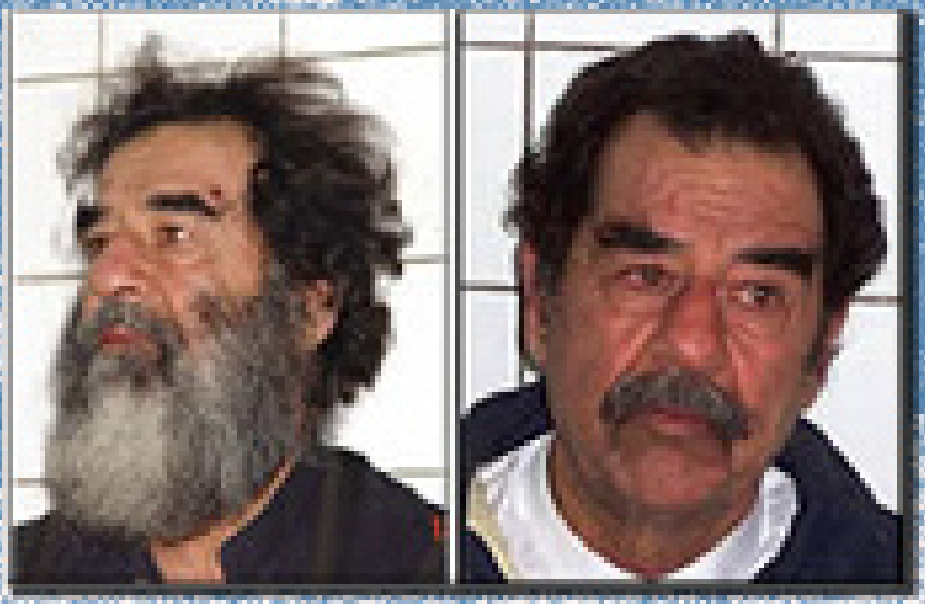

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From the Editor

Some think that what they are experiencing today is so new that doctrine does not apply; bluntly, that is wrong thinking. In the storied past of the U.S. Army, these are not the first desert engagements, the first effort in conducting occupation and pacification, the first involvement with counterinsurgency operations or other forms of stability operations and support operations, or even our first nation-rebuilding effort. None of this is particularly new. Doctrine does apply; the wise commanders and staff officers understand and modify doctrine to the particular circumstances—this is METT-TC (mission, enemy, terrain and weather effects, troops, time available, and civil considerations).

It is prudent, at times, to rethink one's position and, if necessary, to relearn. After all, even the warrior-king and prophet David once wrote,

Blessed be the Lord my strength, which teacheth my hands to war and my fingers to fight.

— Psalms 144:1, King James Version, The Bible

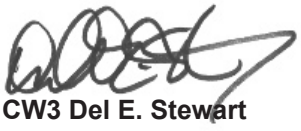
We all need instruction; for the art of war, the primary forms of instruction are training, personal study, and hard-won experience. It is the purpose of the Centers and Schools to provide both training and a solid doctrinal understanding to the United States' most precious national resource: our sons and daughters. There is no greater national treasure and, therefore, no greater honor and responsibility for our efforts.

At the U.S. Army Intelligence Center and the School at Fort Huachuca, Arizona, we are striving to capture the valuable lessons learned from recent and ongoing engagements, and incorporating them into the various Special Texts and Field Manuals we develop. We still reach out to you, our readership, for your contributions and insights. Because many of the lessons learned are sensitive, we have referenced the protected websites that authorized users may access to acquire the full documents.

"Murphy's laws" of land combat are frighteningly true; one of the enduring maxims is: "*If it's stupid, but it works, it ain't stupid.*" Some of you may think your "fix" is not sophisticated enough, the insights not profound enough, and therefore you refrain from writing. Please, share. Knowledge is power; by sharing, you increase the knowledge of the whole team while enhancing your reputation.

It is now time for this cantankerous, broken-down Cold War relic to move on. It has been fun—very different from conducting counterintelligence investigations, and not a task for which I had any formal training. I hope my modest efforts were of some service. I took seriously my charge to bring forward the doctrinal underpinnings behind the efforts in the field; to tell the stories of my fellow warriors; and by the telling, to effect positive change. The good changes will continue under the leadership of my successor, Ms. Cynthia Collard. You can contact her at cynthia.collard@us.army.mil. She recently served as the Lessons Learned Team Leader, which makes her of incredible utility in this capacity.

Wherever you are and wherever your mission leads, success to you in all your endeavors on behalf of this great Nation.



CW3 Del E. Stewart
Managing Editor

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FEATURES

DEPARTMENTS

Purpose: The U.S. Army Intelligence Center and Fort Huachuca (USAIC&FH) publishes the ***Military Intelligence Professional Bulletin*** quarterly under provisions of **AR 25-30**. ***MIPB*** disseminates material designed to enhance individuals' knowledge of past, current, and emerging concepts, doctrine, material, training, and professional developments in the MI Corps.

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Always Out Front

by Major General James A. Marks
Commander, U.S. Army Military Intelligence Center and Fort Huachuca

In the last issue of MIPB, I cited some future themes in my column, *Always Out Front*, and authored an article (with LTC (P) Peterson) on *Six Things Every "2" Must Do—Fundamental Lessons From OIF,* both based on initial Operation Iraqi Freedom (OIF) lessons learned. For this issue, I want to talk about an important doctrinal concept and the U.S. Army Intelligence Center's (USAIC) implementation of some solutions to a pressing issue for current operations in Iraq.

Stability Operations (Phase IV)

Let me propose something here. We are the best Army the world has ever seen and we are getting better. Our soldiers, specifically our intelligence soldiers, are a talented and unprecedented group, unmatched in history. As an Army populated with heroes like we have—an ability to execute and win decisively in combat operations, or Phase III—is and never will be in question. In Operation Iraqi Freedom, our ground forces took Baghdad and crushed the oppressive Ba'athist regime of Saddam in 21 days. However, the stability operations, or Phase IV, will be ongoing for several years. Our Army will be a part of these stability operations in Iraq and elsewhere around the globe.

If it is a given that we will continue to train and prepare for Phase III operations anywhere in the world, then we must certainly be prepared for the inevitable commitment of our Army for Phase IV. The investment in doctrine, organization, training, materiel, leadership, personnel, and facilities for Phase IV must equal or be greater than our investment for Phase III.

When we were younger, every officer regardless of branch and every intelligence noncommissioned officer (NCO) and soldier could template and knew how to fight the Soviet Rifle Regiment (preparation and training for Phase III). But we never even contemplated stability operations following the destruction of that Soviet Rifle Regiment. We no longer have that luxury. We must figure out how we will execute Phase IV operations. "Every soldier is a collector" in Phase IV. Every soldier helps paint the picture of the "enemy" and the environment in Phase IV. There must be a renewed focus on Human Intelligence (HUMINT)—all aspects of HUMINT and how it supports and often leads planning during stability operations. We are taking this issue on right now in Iraq and Afghanistan. USAIC is leading, out front!

As operations have unfolded, we have learned that there is not enough pure HUMINT capability. Normal unit patrolling and other operations must help fill the information gaps. Therefore, we need to better define and train some basic soldier, small unit, and tactical level S2 skills. This concept is built on the foundation that "every soldier is a collector"; that is, a source of information. Small units contribute to situational awareness in a number of different ways.

Unit Support to HUMINT Collection

Through observing and interacting with the local environment during the conduct of missions, handling enemy prisoners of war (EPWs)/detainees, and handling captured documents, soldiers serve as the commander's "eyes and ears" whether—

- ❑ Performing traditional offensive or defensive operations.
- ❑ Performing a patrol in a stability operation.
- ❑ Manning a checkpoint or a roadblock in a support operation.
- ❑ Occupying an observation post.
- ❑ Passing through an area in a convoy.
- ❑ Performing any operation that involves observing and reporting on elements of the environment and activities in the area of operation (AO).

Two means of interacting are talking to the local population and initially questioning EPWs/detainees; both

(Continued on page 4)

CSM Forum

by Command Sergeant Major Lawrence J. Haubrich
U.S. Army Military Intelligence Corps

The mission and scope of the All-Source Analysis System (ASAS) Master Analyst Branch (AMAB) is to manage the master analyst program and track student assignments and class attendees. The ASAS Master Analyst Course (AMAC) supports positions in the Analysis and Control Element (ACE) at division, corps, and echelons above corps, in the Analysis and Control Team (ACT), and now additional positions in the Stryker Brigade Combat Teams (SBCTs). AMAB also advises the Commanding General, Deputy Commanding General, and Commander, 111th Military Intelligence Brigade, and staff on ASAS training policy. Some of the AMAB forums used to get information to "big Army" are the ASAS Users Conference, Command Sergeant Major (CSM)/Sergeant Major (SGM) Conference, G2/Senior Leaders Conference, and AMAC web site.

The AMAB is solely responsible for executing training for the AMAC and the ASAS Instructor Certification Course (AICC). Additionally, the AMAB performs all the training and courseware development for both courses, as well as being responsible for procurement of all training systems. The Branch also consistently provides instructor support to the MI Officer Basic Course (MIOBC) and the Warrant Officer Basic Course (WOBC) on a continual, as needed, basis. AMAB instructors are also U.S. Army Communications-Electronics Command (CECOM)-authorized testers for development of ASAS software. The AMAB instructors test pre-release software to ensure it meets field requirements before release to the warfighter. AMAB instructors have worked closely with, and provided system and analysis training to, CECOM software developers to ensure that software development is functional and applicable to the operational needs of the intelligence analyst.

In the field, the Master Analyst responsibilities include being an analyst, trainer, and troubleshooter. The Master Analyst has to plan and supervise ASAS intelligence operations to include intelligence preparation of the battlefield (IPB), enemy situational development, collection synchronization, and the intelligence communications and processing architecture. The Master Analyst trainer must plan, supervise, and instruct the unit ASAS sustainment training program as well as to evaluate unit and individual performance. The Master Analyst troubleshoots, isolates, and resolves software anomalies and hardware faults; and directs the conduct of organizational maintenance of ASAS components.

The AMAB course primarily trains 96B (Intelligence Analyst), 98C (Signals Intelligence Analyst), 350B (All-Source Intelligence Technician), and 352C (Transcription Analysis Technician) Soldiers. The 96B and 98C receive the additional skill identifier (ASI) 1F upon completion of the AMAC. Before graduation, training conducted by AMAB is diverse and complex to a high degree. It requires a great deal of operational experience by all cadre members to ensure that all individual blocks of training complement each other and tie in with advanced analytic concepts. Each block of training must reinforce information engineering concepts and communications architectural problem sets. Among the advanced analytic concepts taught within the AMAC is intelligence support to the contemporary operational environment (COE).

The training delivered here at Fort Huachuca, Arizona, includes course introduction, analysis, and doctrine training during the first week. Additionally troubleshooting techniques on the ASAS All-Source, Single-Source, Remote Workstation, ASAS-Light, and the Communications Control Set make up the majority of the course's systems instruction, followed by a capstone exercise.

(Continued on page 5)

(Always Out Front continued from page 2)

actions normally occur with the help of an interpreter. For inclusion into immediate training and doctrine, we have termed this action as "tactical questioning."

Tactical questioning is the expedient initial questioning for information of immediate value. When the term applies to the interaction with the local population, it is more conversational in nature. This task can be designed to build rapport as much as to collect information and understand the environment.

Tactical questioning should not be confused with HUMINT operations and does not include running sources—that is dangerous in many ways. Soldiers conduct tactical questioning based on the unit commander's priority intelligence requirements (PIRs) and mission.

ISR Operations

The information that soldiers report as a result of tactical questioning form a vital part of planning and operations. Careful and quick handling of EPWs/detainees and documents also helps the intelligence, surveillance, and reconnaissance (ISR) effort. There are four levels of tactical reporting:

- ❑ Immediate reporting of information of critical value, based on PIRs.
- ❑ Normal reporting, submitted before the unit S2 section performs the debriefing.
- ❑ Patrol debriefings conducted by the S2 section.
- ❑ Follow-up reporting, submitted after the unit S2 section performs the debriefing.

The four levels of reporting facilitate the unit S2's all-source intelligence fusion and analysis, future planning, and dissemination to others. This aspect of tactical intelligence is the backbone of the "mud-to-space" intelligence paradigm. Therefore, the unit S2 must proactively and meticulously lead a unit-debriefing program. There are many enablers that facilitate debriefing: Force XXI Battle Command Brigade and Below (FBCB2) on vehicles that are equipped with this Blue Force tracking capability, Personal Digital Assistants (PDAs), memory sticks, and the good old analog debrief. Figure out what you as an S2 will use and get on with it. Be redundant!

Intelligence Center Solutions

Because of the stability operations we find ourselves in today as well as in the future, we have initiated a number of worldwide actions in order to maximize the effectiveness of HUMINT collection and unit support to HUMINT collection:

- ❑ **Tactical Questioning Handbook and Smart Card.** In order to meet an immediate and critical requirement, the 111th MI Brigade developed a Smart Card and a Tactical Questioning Handbook. Already these smart cards and the handbook have been distributed worldwide.
- ❑ **Mobile Training Teams (MTTs).** USAIC has provided and will continue to provide MTTs to units scheduled to deploy or already deployed in support of OIF and OEF on HUMINT operations and unit support to HUMINT collection. This training has been highly successful and well received. Additionally, we developed a handbook designed to facilitate the commander's employment of HUMINT and CI and the employment of tactical questioning skills within his formation.
- ❑ **Doctrinal Changes.** USAIC will now work with all the other proponents to embed their doctrine with this concept of tactical questioning and "every soldier a collector." As a starting point USAIC included this concept in our most fundamental doctrine, FM 2-0, Intelligence. We will also replace the Tactical Questioning Handbook with a Special Text, ST 2-91.6, Small Unit Support to Intelligence, in the next few months. Additionally, we are working on new HUMINT doctrine in FM 2-22.3, HUMINT.

There is still much work to be done but we are moving out sharply to get this done and get it done both quickly and correctly. The entire Intelligence Community can be proud that we are all playing our part and showing the Army …

I GOT IT!

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(CSM Forum continued from page 3)

The importance of the ASAS Master Analyst spans the entire Army operational spectrum. Their skills developed during diverse and challenging training programs on ASAS and implementing that training to senior intelligence analyst-level bridges the intelligence training gaps the Intelligence Center faces. These individuals have been and will continue to be in high demand by field commanders for future operations and in exercises to come. Master Analysts integrate the most current software and numerous other legacy systems still incorporated in the Army today. Master Analysts' unique ability to construct communications architecture, troubleshoot intelligence systems, and implement training for new and existing Army battlefield command systems sets them apart from other Military Intelligence professionals. Commanders relied significantly on those abilities in past conflicts and in recent hostilities in Iraq. They provide the Military Intelligence community with timely, accurate, relevant, and predictive intelligence to answer commander's priority intelligence requirements.

The Master Analyst in your formation is truly a "Combat Multiplier/Crew-Served Weapon." We need the SGMs to ensure that when the Master Analysts arrive at their units, they assign them to the 1F positions and employ them to maximize their abilities as Master Analysts.

During the past few months, I had the opportunity to visit several of our great MI warriors either returning from or preparing for deployments in support of the Global War on Terrorism. I visited Cuba (Guantanamo Bay; Cuba, or GITMO); McDill Air Force Base (U.S. Central Command and U.S. Special Operations Command); England (Joint Analysis Center at Molesworth), Belgium (650th MI Group); Bosnia-Herzegovina and Germany (66th MI Group, 205th MI Brigade, and 101st MI Battalion at 1st Infantry Division). As always when talking with our MI warriors in your formations, they all continue to amaze me with their drive and determination to be the best of the best in Military Intelligence. Thank you all for what you do and continue to do for our MI Corps and our Army. Remember, let's take care of each other and our families. You train hard, you die hard; you train easy, you die easy. Peace needs protection.

ALWAYS OUT FRONT!

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Intelligence Battlefield Operating System Lessons Learned: Stability Operations and Support Operations During Operation IRAQI FREEDOM

by Lieutenant Colonel DJ Reyes

Intelligence played a critical role in the success of the 101st Airborne Division (Air Assault [AASLT]) during Operation IRAQI FREEDOM (OIF). From mission planning in June 2002 through operations as of August 2003, the Division's intelligence officers, noncommissioned officers (NCOs), and Soldiers streamlined intelligence standing operating procedures (SOPs) and tactics, techniques, and procedures (TTP) to best support all operations. Since the Division's main efforts currently involve stability operations and support operations in northern Iraq, this article addresses lessons learned in this specific area. The intent is to share the TTP and lessons learned, and to offer these to the intelligence community for its thoughtful review as our senior leaders prepare for future military operations.

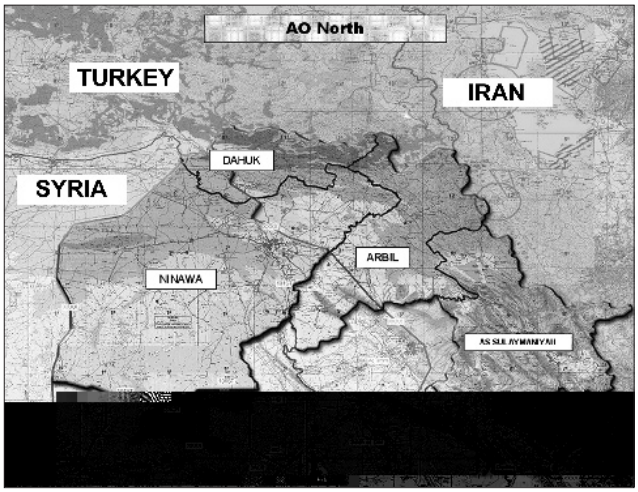

Figure 1. 101st Airborne Division (AASLT) Area of Operation in August 2003.

	Current Situation	Working Issues
Public Services Water, Electricity, Gas, Oil Not Functioning. Water, Electricity, Gas, Oil Functioning.	▪ Benzene and propane resupply from Turkey. ▪ Power returned >90% of Mosul, but with rolling blackouts. ▪ Freedom Dam secure and functioning. ▪ Operational water treatment plants. ▪ Payroll started for govt functions.	▪ Reliable/Sustainable supply of benzene and propane. ▪ Restoration of power to rural areas of Ninawa Province. ▪ Restoration of govt facilities: (Police HQs/Precincts – 14; courthouse, city hall, central bank, etc.).
Establishment of Civil Order No civil order/ control, crime rampant, no employment for civilians. Civilian Police Force active; civilians working; looting stopped; schools reopened.	▪ Temporary prison operational, repairing permanent prison. ▪ Transition jail identified. ▪ Police Academy Training started 5 July. ▪ FPSF securing limited sites. ▪ JISC: 1 x company trained, 3 x companies being fielded. ▪ Prison guards trained. ▪ Border guards being hired.	▪ Restructuring and training of police force. ▪ Complete repairs to courthouse and permanent prison (4-6 months). ▪ Eliminate looting.
Humanitarian Needs Food, water shortage, medical care not available. Food, water, available; Hospitals reestablished.	▪ Hospitals/clinics open, some repairs and Class VIII supplies required. ▪ Operational water treatment plants. ▪ TF Neighborhood on-going. ▪ Thousands of IDPs in AO. ▪ NGOs increasingly engaged in Mosul.	▪ Alleviation of pockets of need (water and food). ▪ Facilitate the annual harvest (May-Jul), grain harvest complete; other crops continue. ▪ Tripartite exec/coord committees.
Inter-Ethnic / Religious Conflict Ethnic groups attacking one another; civilians caught in crossfire. Ethnic violence minimized; religious intolerance; extremists marginalized.	▪ Ethnically diverse interim city govt. ▪ "Stay put" policy to halt reverse Arabization. ▪ Kurd-Arab disputes under control, pending resolution of property disputes. Flash-point village housing management. ▪ Imam support; reporting of pending Ba'athist anti-coalition attacks.	▪ "Property Rights" (Arab/Kurd). ▪ Pending national/legal policy on Arabization.
Ex-Regime Security Forces / Non-Iraqi Forces Forces maintain freedom of movement and control of certain urban areas; incite violence. Forces unable to mass in larger than squad size; no enemy freedom of movement; no control over civilian population.	▪ Increased willingness of populace to report suspicious individuals/caches. ▪ Limited acts of violence directed against coalition forces. ▪ Occasional anti-coalition broadcasts. ▪ Mortar fire vic DREAR.	▪ Apparent Ba'ath Party reemergence under new names. ▪ Competing forces in N. Iraq. ▪ Early indications of surveillance of coalition sites (FRL, etc.).
Key Focus Area Overall Read		

Note: See the glossary at the end of this article for expansion of acronyms in the Figures.

Figure 2. Status of Key Focus Areas in Division AO North.

Factors	Southern Iraq	Northern Iraq
Environment	Open Desert, Flat, Dispersed Cities/Towns	Rolling Hills/Mountains/Vegetation Urban Environment
Enemy/High-Value Targets (HVTs)	14 MECH, Medina 15 MECH, Hammurabi Saddam Fedayeen/Paramilitary Regime/Ba'ath	Political/Ethnic/Religious Factions Former Regime/Paramilitary Forces Black Market Activities Weapons Cache (Bazaars)/UXO
Key Terrain	FARPs, LOCs, Towns - An Najaf, Al Hillah, Karbala, South Baghdad	Public Opinion TV/Radio Station Power Plants Communications Network Food Distribution Network Propane Distributions
ISR Enablers	National Systems Theater Systems (JSTARS, RJ) Corps Systems (GRCS) Division (EAGLE-I/EMITT, Prophet, PPS-5 B/D)	CI/HUMINT/Linguist Teams Civil Affairs PSYOPs Information Operations Infantry Patrols
Division Targeting Process	Targeting Board (Lethal Focus)	Integrated Effects Working Group (IEWG – lethal and non-lethal focus)

Figure 3. Southern Iraq (Combat) Versus Northern Iraq (Stability Operations and Support Operations).

To put the missions into perspective, the 101st Airborne Division (AASLT) conducted fluid combat operations throughout the depth of Iraq. These covered more than 1,200 kilometers from the Kuwaiti border to northern Iraq. As of August 2003, the Division's current area of operations (AO) is approximately 418 kilometers from west to east, and more than 214 kilometers from north to south. This encompasses northern Iraq, comprised of the Ninawa, Dahuk, Arbil, and As Sulaymaniyah governorates or provinces, in the Kurdish Autonomous Zone (KAZ), and the Syrian (west), Turkish (north), and Iranian (east) border regions (see Figure 1). A major challenge is balancing the requirements for aggressive law enforcement of common criminals, former regime loyalists (FRL), and Islamic fundamentalists or external "bad actors" against the task of rebuilding and sustaining an economic, business, education, law enforcement, border defense, and military infrastructure. The goal is for all Iraqi people to live in a free and democratic society. Figure 2 depicts how the Division currently tracks its efforts in promoting a "safe and secure environment."

Stability Operations and Support Operations

On 22 April 2003, the 101st Airborne Division received orders to deploy north from Baghdad to Mosul, Ninawa Province. The new mission was to provide for a safe and secure environment. Since the G2 focused the Division's main intelligence efforts in southern Iraq and Baghdad, we were not fully prepared to provide map, imagery, or detailed intelligence analysis products to all units immediately. Fortunately, the U.S. Army Central Command (CENTCOM) Forward Land Component Command (CFLCC) Term Fusion Cell provided us with great baseline products to start our mission planning. We also looked outside the supported theater and received good information from the Joint Analysis Center in Molesworth, United Kingdom (a European Command [EUCOM] element), which complemented CFLCC's information. However, the two different environments still presented unique challenges for the Division's Intelligence battlefield operating system (BOS) (see Figure 3). The principles of intelligence analysis remained the same, but the TTP varied in order to obtain and assess vital information quickly to provide the best support to stability operations and support operations. This article discusses the five factors listed in Figure 3 and some additional lessons learned.

Environment. Although southern Iraq was mainly flat and open terrain, the Division conducted the majority of its combat operations in selected towns and cities. The units gained valuable lessons learned during the battles of An Najaf, Karbala, Al Hillah, and southern Baghdad, and applied these to urban combat in northern Iraq's urban environment. However, for the most part, the significant change in physical terrain—from flat and open in southern Iraq to mountainous, heavily vegetated, and urban in northern Iraq (see Figure 4)—forced the Division to readjust its intelligence collection priorities and task organization. This affected the various technical intelligence platforms' performance and level of fidelity. We adjusted by integrating other intelligence, surveillance, and reconnaissance (ISR) enablers into the collection plan and by receiving good information that focused on anti-coalition rhetoric,

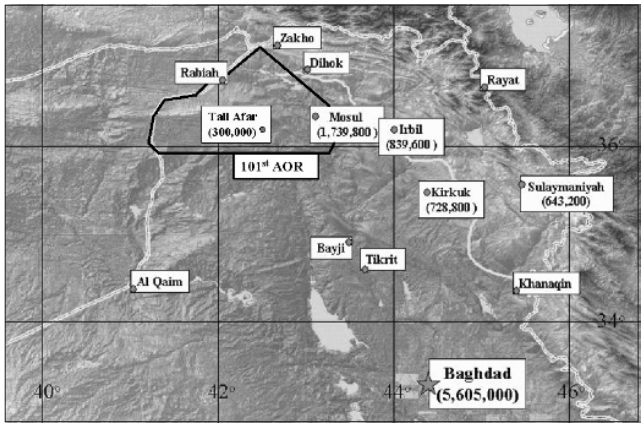

Figure 4. Major Cities in Northern Iraq.

hostile faction activities, and intentions (discussed below).

Enemy High-Value Targets (HVTs). The Analysis and Control Element (ACE) quickly responded by conducting a "political intelligence preparation of the battlefield (IPB)" in order to aid understanding of the various Arabic, Kurdish, and Turkoman factions, as well as religious, extremist, and FRLs—all HVTs vying for power and influence immediately following the Regime's collapse. Figure 5 outlines the various tribal factions existing in northern Iraq. Of note is the diverse Mosul region mainly comprised of Sunni Kurds, Sunni/Shia Arabs, and Turkomans. The challenge of understanding the religious, social, and cultural dynamics directly impacted our ability to provide timely, accurate, and predictive intelligence analysis throughout the 101st area of operations (AO).

As we developed situational awareness, we better focused our priority of effort. For example, we developed the Division's priority intelligence requirements (PIRs) based on the new mission. These PIRs focused our combat patrols in Mosul (see Figure 6), and supported the Division's ISR collection plan and efforts throughout the city. We also tracked the major incidents (see Figure 7), and developed good trends and patterns as well as predictive analysis based on periods during our presence in the city (see Figures 8 and 9). This helped the G2 ACE better assess the effectiveness of 101st combat patrols, tactical human intelligence (HUMINT) team (THT) coverage, the information operations (IO) campaign, psychological operations (PSYOPs), and civil-military operations (CMO). Additionally, at the higher security levels, the Division worked with the National Security Agency (NSA) in developing specific link analysis and association matrices based on communications use. This highly reliable intelligence collection source, coupled with other governmental agency (OGA) HUMINT reporting, enabled the 101st to focus on specific target areas and HVTs, and interdict them with synchronized Air Force, Infantry, Army Aviation, and Special Operations Forces (SOF).

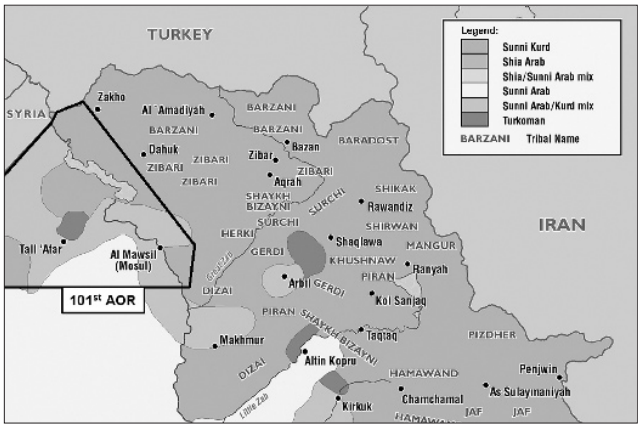

Figure 5. Demographics in the 101st Airborne Division (AASLT) Area of Responsibility.

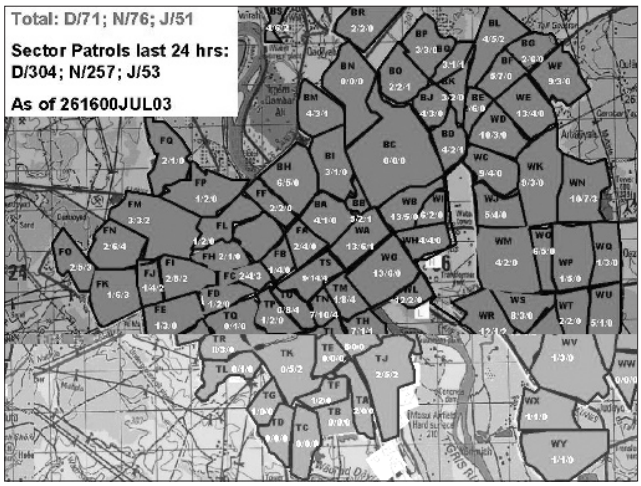

Figure 6. Mosul patrols.

Iraq, the G2 identified key intersections and towns presenting important chokepoints along major avenues of approach. The G3 incorporated this information into the Division's offensive strategy as the brigade combat teams (BCTs) conducted combat operations throughout southern Iraq and into southern Baghdad. In contrast, the G2 assessed key terrain in northern Iraq as those critical infrastructures that, if controlled, would affect the local populace's attitudes toward coalition forces and their mission to provide for a safe and secure environment. To accomplish this mission, the Commanding General (CG) embarked upon an ambitious campaign to—

- Rebuild destroyed communications and food distribution networks.
- Reestablish the commercial trade and the benzene and propane distribution to and from the Syrian border.

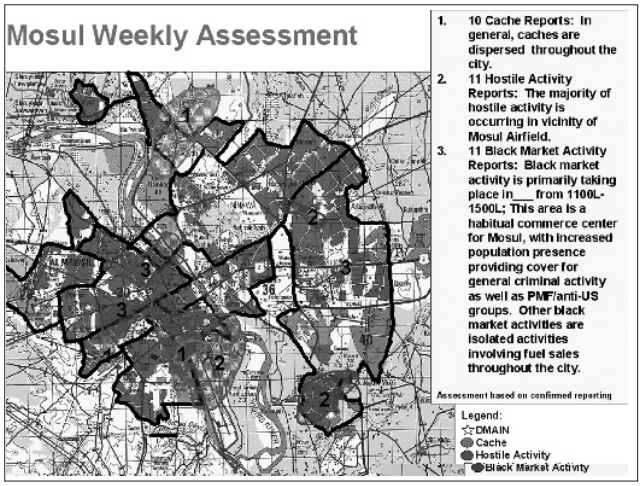

Figure 7. Mosul Weekly Assessment (Based on Confirmed Reporting).

- Reestablish vital power to the communities.
- Rebuild Mosul University and assist in the timely graduation of students.

The CG further engaged with the local television station and scheduled daily broadcasts covering coalition projects in an attempt to "win the hearts and minds" of the local populace (the most critical key terrain).

ISR Enablers. The physical terrain also restricted our initial ability to provide useful signals intelligence (SIGINT) and imagery intelligence (IMINT) support to the BCTs. During the next few months, we further refined the AO IPB and integrated national SIGINT, IMINT and HUMINT into BCT operations. As a result, we were successful in selected HVT interdiction and capture missions.

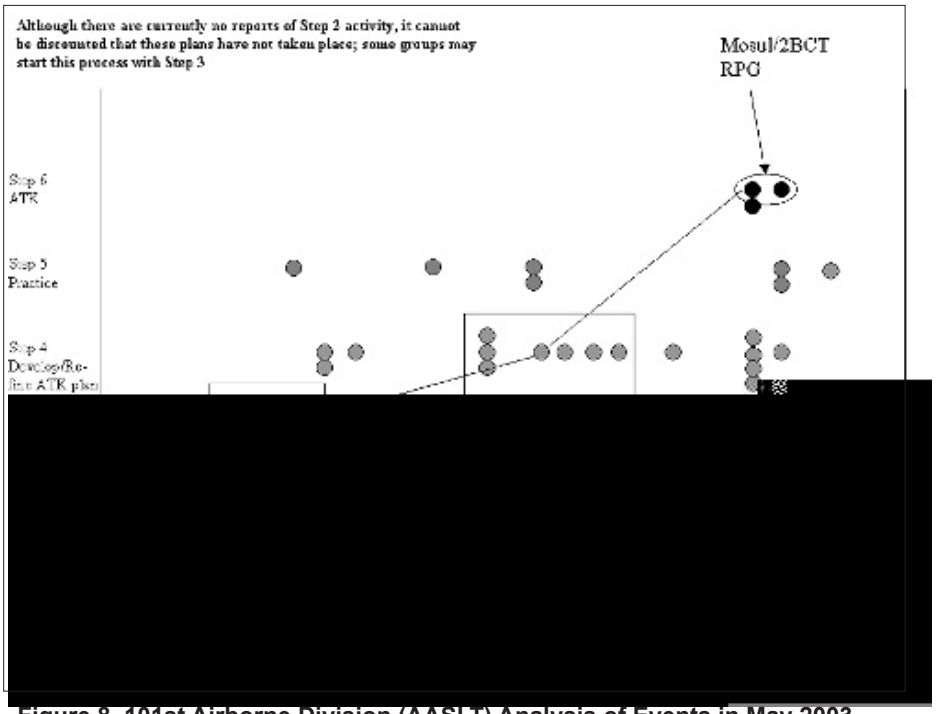

Figure 8. 101st Airborne Division (AASLT) Analysis of Events in May 2003.

Generally, however, the low technology, HUMINT-rich nature of stability operations and support operations mitigated (and at times negated) the effectiveness of our technical intelligence platforms. Thus, over time, the HUMINT collector proved to be the "ISR collector of choice" (see Figure 10).

The Division's organic ISR HUMINT collectors include more than just pure intelligence assets. Figure 3 above lists other non-intelligence assets whose collection provides "critical pieces to the stability operations and support operations puzzle." Examples of these enablers include the following:

- Infantry patrols (provided security presence and assisted in neighborhood projects).
- Unit ministry teams (UMTs) (coordinated with the local mosques and Imams).
- Attached civil affairs (CA) teams (worked with local government, schools, and public utilities companies).
- Public affairs (coordinated with local media for information dissemination).
- PSYOPs teams (worked IO in various neighborhoods).
- Unit staff judge advocate (worked with the local judicial and law enforcement systems).
- Collected information from all HUMINT sources helped answer the Division's PIRs, and focused efforts toward providing for a safe and secure environment.

Doctrine Note: While the human assets listed did provide intelligence that answered intelligence requirements, these were not doctrinally HUMINT collectors.

One "good news" story involved the organic and attached Long-Range Surveillance (LRS) Detachment (LRSD) and Company (LRSC), respectively. To support the Division's mission of providing border control-point security, the 311th MI Battalion was tasked to identify, vet, hire, train, and emplace former Iraqi military soldiers along the Turkish and Iranian borders. The LRS Soldiers also collected intelligence on the status of border sites, which included the various factions in camps or defensive positions along the borders. As of this writing, the 311th MI Battalion developed a comprehensive training program and is training Iraqi candidates on required border guard skills.

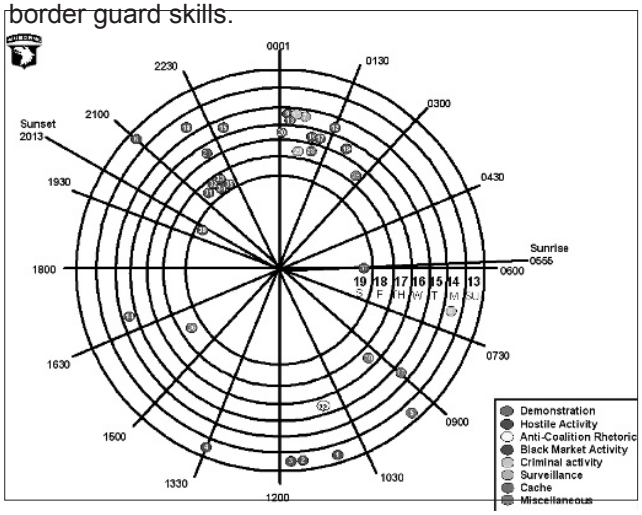

Figure 9. 101st Airborne Division (AASLT) Pattern Analysis in July 2003.

- Rapid and complete Infantry battalions, MP battalion, Artillery battalion, air cavalry.
- Day, night, and joint sector patrols (U.S. with Iraqi Police).
- Roving traffic control points.
- Enablers include other governmental agencies (OGAs), THT, long-range surveillance (LRS), civil affairs (CA), psychological operations (PSYOPs), and unit ministry team (UMT) support.

Figure 10. ISR HUMINT Collectors.[1]

Perhaps the most effective ISR HUMINT collector in the stability operations and support operations environment to date is the THT. The G2 employed these teams in both direct support (DS) and general support (GS) modes to answer the CG's force protection (FP) PIRs in the 101st AO. GS-reinforcing THTs and GS THTs from Combined/Joint Task Force (C/JTF) -7 further strengthened the Division's HUMINT efforts. (Note: The THT's direct "value added" was the recent vetting of a walk-in source who ultimately led this Division, the OGA, and SOF to the successful interdiction of HVTs 2 and 3.) Additionally, the THTs' mission also expanded to vetting former Iraqi Army soldiers (currently unemployed) for various employment opportunities. The THTs prescreened each candidate for past affiliations with the Ba'ath Party and FRL, extremist factions, etc. Both Division GS and DS THTs conducted the screenings and entered the information into the Counterintelligence (CI)/HUMINT Information Management System (CHIMS). This developed the CI database, exercised the CI systems architecture, and established good connectivity with C/JTF-7.

A unique enabler was the G2X. This officer coordinated interagency intelligence support from other Department of Defense (DOD) and non-DOD organizations to identify anti-coalition individuals and factions. This proved critical, as the 101st Airborne Division quickly identified the crucial players in the political process and helped establish the political conditions for a democratic mayoral election in Mosul. The G2X was instrumental in coordinating with the OGA collectors, and amassing vital information that the G2 ACE used in developing the political IPB. The G2, armed with this analysis, provided the CG with assessments on the various political parties' intentions. This complemented the CA assessments, and helped the CG to see the total picture as he shaped the foundation for the Mosul Mayoral elections. Incredibly, the Division accomplished this within two weeks after our arrival in Mosul (see Figure 11), and included the establishment of a representative Ninawa Council (see Figure 12) as well. These two actions, along

Major General David H. Petraeus, the 101st Airborne Division Commander, congratulates the Mayor of Mosul, Ghanim al-Basso, on 5 May 2003.

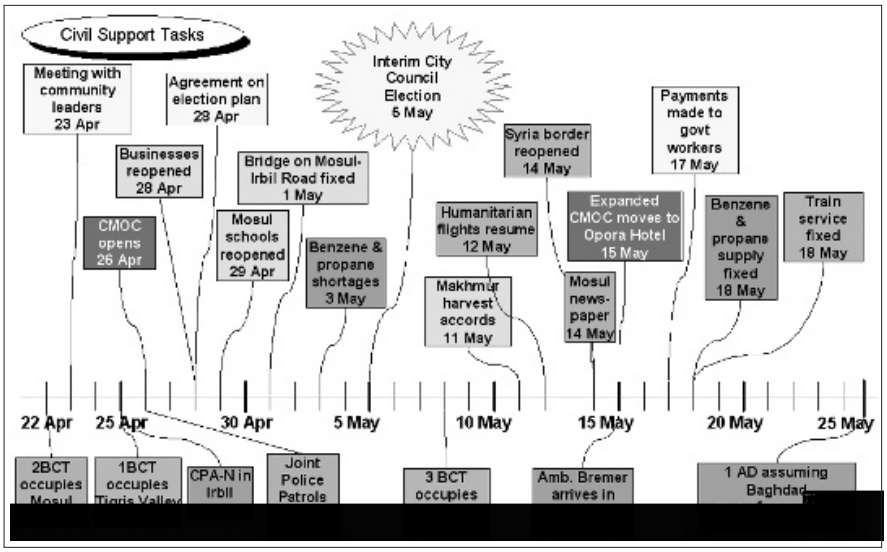

Figure 11. Aggressive Implementation in AO North: Early Wins in the First 30 Days.

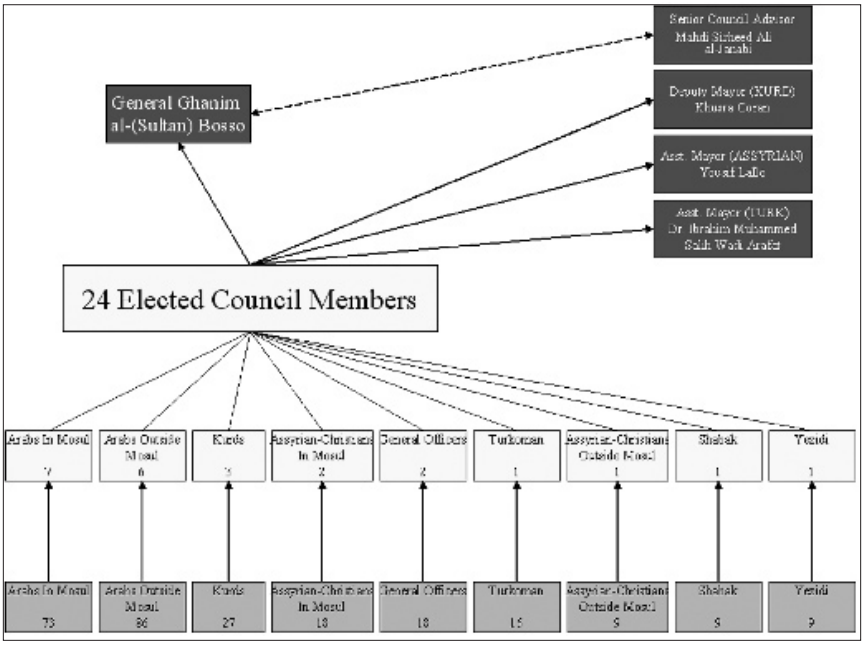

Figure 12. Mosul Election Results on 5 May 2003.

with other infrastructure accomplishments proved significant in further promoting the region's safe and secure environment.

Division Targeting Process. The Division targeting process included the combat phase and the stability and support operations phase. During the **combat phase**, we planned for conventional targets out to 96 hours. Before execution, the Division staff (G2, ACE, G3, division fire-support coordinator (DFSCOORD), division artillery, aviation, and air liaison officer) briefed the CG on each BOS staff "Go-No Go" criteria. The DFSCOORD then presented the CG with a compiled staff recommendation whether to execute the mission or not.

Intelligence

GO	NO GO	N/A	Conditions
			No mechanized/armor vehicles on LZs
			No more than an infantry squad (1 x SA-7 ea) on LZs
			No dug-in heavy machine guns around the LZs
			No more than 1x AR/MECH platoon within 10-minute reaction time on FOB 5
			No battery or larger artillery capable of massing indirect fires on FOB 5
			All enemy ADA radars that can range FOB 5 and flight routes are destroyed
			Identification, location and status of enemy helicopter LZs vic FOB 5
			VISOPs located and targeted for lethal and non-lethal fires
			SSM/SRBMs incapable of affecting FOB 5
			No mines/barriers/obstacles on LZs
			LZs free of NBC contamination
			GPS jammers not active
			DC flow along MSRs will not disrupt the operation
			Weather
			JSTARS Link/Coverage on approach over FOB 5, 8 hours prior to SP
			Theater ELINT coverage to IDfjam radar systems on LZs available 2 hours prior to SP
			UAV link/coverage on approach over FOB 5/LZs 6 hours prior to SP
			LRSD/SR assets in position to provide I&W on FOB 5

Figure 13. Division Intelligence BOS Considerations for Mission Execution.

Figure 13 illustrates the Intelligence BOS considerations in determining mission execution.

During the **stability operations and support operations** phase, the composition and emphasis of the targeting group (i.e., the Information Environment Working Group [IEWG]) significantly changed due to the target audience and our mission. Rather than destroying tanks, other armored vehicles, and armed insurgents, we refocused on "winning the hearts and minds" of the population by providing for a safe and secure environment, and focused on assisting in the rebuilding of those vital infrastructures to get the country back onto its feet. The IEWG made use of both lethal (see Figure 14) and non-lethal (e.g., information operations [IO]) (see Figure 15) methods to accomplish this mission. As previously discussed, we aggressively used other non-MI enablers that provided useful information in support of the stability operations and support operations mission.

Other Critical Lessons Learned

Joint Interagency Coordinating Group (JIACG) Liaison Officer (LNO). We were fortunate to have a JIACG LNO during the stability operations and support operations phase. He facilitated coordination between the 101st Airborne Division (AASLT) and the various Department of Defense (DOD) and non-DOD agencies. His most significant contribution was obtaining Federal Bureau of Investigation (FBI) analytical support for the G2 ACE in order to develop criminal pattern and association link matrices.

One critical lesson learned is that DOD and interagency operations are fast becoming the norm rather than the exception in contingency operations. Therefore, we recommend that all divisions formally establish relationships with supporting agencies, and fully integrate them into their training cycles in advance of deployment. Combat training center and command post (CP) exercises are great opportunities to work through the coordination and support piece. Although we easily accommodated the FBI analysts with class support, interagency planners should also plan for communications, automation, transportation, and security clearance requirements.

OGA Coordination. This article discusses three aspects of division coordination with other governmental agencies: HUMINT Infrastructure, single-source vice multisource cueing, and communications.

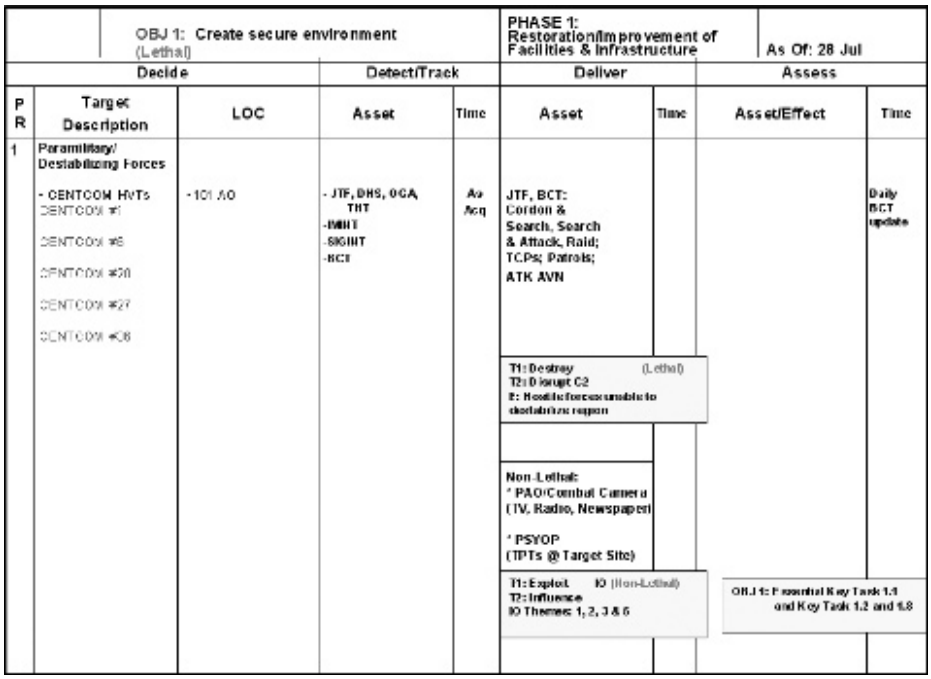

Figure 14. Creating a Secure Envir nracking Matrix for Mbjective 1.

HUMINT Infrastructure. A major intelligence challenge in the stability operations and support operations environment was establishing a HUMINT infrastructure where none previously existed. As the Division assumed the Ninawa Province mission, the G2 immediately conducted liaison with U.S. national intelligence agency representatives (DOD and non-DOD) in Mosul and Irbil. The main purposes were FP, information vetting and sharing, joint targeting in support of operations, and source deconfliction.

Single-Source vice Multisource Cueing. Another major concern was the definition of "actionable intelligence." The Division's definition was clearly defined: SALUTE (size, activity, location, unit, time, equipment [spot report format]) compatible information verified by other intelligence sources, and that a well-placed or reliable informant submits to coalition forces. The OGAs' definitions were less stringent—in many cases, a target's name and grid location or a picture of the target's residence sufficed for immediate targeting. Unfortunately, the Division experienced instances where OGA intelligence did not materialize. The results were often the loss of critical time and Division resources committed to capturing or neutralizing a target. To minimize future problems, we increased our interaction with the OGAs using the following meetings to ensure full cross talk and synchronization: daily (G2X), weekly (G2 and Assistant Division Commander Operations), and bimonthly (CG situation updates).

Communications. The OGA and the Division did not initially share compatible, secure communications (voice or digital/data). To overcome this deficiency, we obtained commercial cell phones (unclassified) for basic communications. We later provided a digital nonsecure voice terminal (DNVT) phone to the OGA that allowed both units to discuss collateral Secret information. Finally, we continue to transmit classified information via Joint Worldwide Intelligence Communications System (JWICS) to an Army tenant unit that is currently sharing lodging facilities with, and passing the classified information to, the OGA. The suggested long-term solution is to request an OGA liaison element to the Division. These
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nicationC, and area studies.

Open-Source Intelligence (OSINT) nd Political Analysis Cell (PAC). The Division also achieved situational
monitoring the public press (television, radio, newspaper Internet). Our immediate challenge was inadequate person el staffing to support the OSINT Cell. Since the Division ssault Command Post (CP) and Division main (DMAIN) combined CPs in the Mosul Palace, we task-organized ACP InDelligence Analysts (96Bs), and a c M l MIraqi translators OSINT mission. This Cell merged with the IO Media Monitoring Translation Cell, and provided the CG with a dail transltion and analsis of al local Iraqi, theter, and international press c Mmf OIF and Division actions. TheOSINT Ce alo monitore a local"hotne phone that any person c M

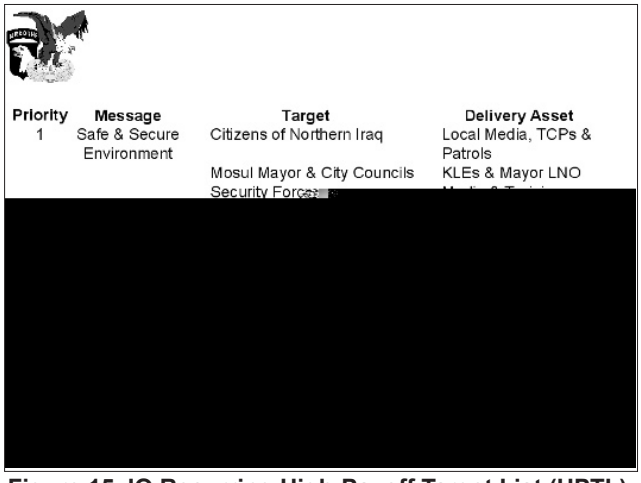

Figure 15. IO Recurring High-Payoff Target List (HPTL).

cerns. Although a majority of the calls dealt with infrastructure concerns (e.g., electricity, water), the Cell also fielded calls regarding security concerns and information on FRLs and assorted criminal activity. The Division merged this information with the ACE analysis and presented it to the IEWG for targeting consideration.

In addition, the G2 ACE task-organized its Electronic Intelligence (ELINT) Interceptor/Analysts (98Js) not performing ELINT analysis, and formed the PAC. This ad hoc cell's mission was to analyze all incoming message traffic on individuals, events, locations, and time, and to develop a pattern and link association matrix to show the relationships among all of the above. The end state is to build and maintain the anti-coalition order of battle database, and to develop predictive analysis for future threat, political, and socio-cultural activities in order to enhance situational awareness and FP. The PAC provided an added dimension to current intelligence analysis and helped confirm or deny the impact of coalition efforts in Iraq.

Linguist/Translator and Document Exploitation (DOCEX) Support. During home-station mission analysis, we factored in our linguist and translator requirements down to the platoon level. A contracted corporation provided the required support, and we linked up with our augmentees in both Kuwait and Iraq. In stability operations and support operations, language is crucial in successfully dealing with the local host nationals and in establishing a safe and secure environment. As of August 2003, the Division has hired more than 535 local Iraqi translators, and 53 U.S. citizen linguists (Category 2 – Secret level clearance).

Another lesson learned is that the Division requires a DOCEX team to support all unit cordon and search missions. A majority of these missions disclosed various documents, articles, equipment, and assorted paraphernalia that needed immediate exploitation for time purposes. Since the Division had to tag and transfer detainees and documents to the rear, we may have lost valuable time in analyzing the captured material; this information could have been invaluable in supporting the Division's FP posture. Therefore, we recommend that the corps and theater forward-deploy these intelligence assets to the Division before actual deployment into the theater.

Conclusion

The G2 and Intelligence BOS continue to provide timely, relevant, and predictive intelligence analysis to the Division's stability operations and support operations efforts in northern Iraq. Although the operational tempo is high, and the Division's commitment is extended for a year from initial deployment (February 2003), morale and mission focus remain high because the Soldiers understand that mission success is the only viable alternative. To further underscore this commitment, in the finest tradition of the "Screaming Eagles," the CG personally swore-in

more than 158 reenlistees as part of the 4th of July celebration at Mosul Palace.

From Bastogne through Baghdad to Mosul, the 101st Airborne Division (AASLT) Screaming Eagles continue to bring hope and promise to the Iraqi people for a brighter future.

Glossary of Acronyms and Abbreviations Used in the Figures

Acq – Acquired
AD – Armored division (e.g. 1 AD)
AO – Area of operations
ADA – Air Defense Artillery
Amb. – Ambassador
AOR – Area of responsibility
AR – Armored
ATK – Attack
AVN – Aviation
BCT – Brigade combat team
C2 – Command and control
CA – Civil affairs
CENTCOM – [United States] Central Command
CI – Counterintelligence
Class VIII – Medical material
CMOC – Civil-military operations center
coord – Coordinating
CPA-N – Coalition Provisional Authority-North
DC – Displaced civilians
DHS – Defense HUMINT Service
DIV – Division
DMAIN – Division main
DREAR – Division rear
EAGLE-I – Real-time ELINT data for the tactical commander
ELINT – Electronic intelligence
EMITT – Enhanced Mobile Integrated Tactical Terminal
exec – Executive
FARP – Forward arming and refueling point
FOB – Forward operating base
FPSF – Foreign Protection Security Force
FRL – Former regime loyalists
govt – Government
GPS – Global Positioning System
GRCS – Guardrail Common Sensor
HQs – Headquarters
HUMINT – Human intelligence
HVT – High-value target
I&W – Indications and warning
ID – Identify
IDPs – Internal displaced persons
IEWG – Integrated Effects Working Group
IMINT – Imagery intelligence
Int'l – International
IO – Information operations
ISR – Intelligence, surveillance, and reconnaissance
JISC – Joint Iraqi Security Company
JSTARS – Joint Surveillance Target Attack Radar System (Joint STARS)
JTF – Joint task force
KLEs – Kurdish law enforcement
LNO – Liaison officer
LOCs – Lines of communication
LRS – Long-range surveillance
LRSD – Long-range surveillance detachment
LZs – Landing zones
MECH – Mechanized
MP – Military police
MSRs – Main supply routes
NBC – Nuclear, biological, and chemical
NGOs – Nongovernmental organizations
OBJ – Objective
OGAs – Other governmental agencies
PAO – Public affairs office
PMF – Paramilitary forces
PPS-5 B/D – AN/PPS-5 B/D ground surveillance radar
PR – Priority requirement
PSYOPs – Psychological operations
Pubs – Publications
recon – Reconnaissance
RJ – Rivet Joint
RPG – Rocket-propelled grenade (launcher)
SIGINT – Signals intelligence
SJA – Staff judge advocate
SP – Start point
SRBMs – Short-range ballistic missiles
SSMs – Surface-to-surface missiles
TOC – Tactical operations center
TCP – Tactical command post
TF – Task force
THT – Tactical HUMINT team
TPT – Tactical PSYOPs team
U/I – Unidentified
UAV – Unmanned aerial vehicle
UMT – Unit ministry team
UXO – Unexploded ordnance
vic – Vicinity
VISOPs – Visual operations
WARNO – Warning order

Endnote

1. Photographs courtesy of PAO, 101st Airborne Division (AASLT), Major Trey Cate. All graphics are from the author.

Air Assault!

Lieutenant Colonel (P) DJ Reyes is currently serving as the G2, 101st Airborne Division (AASLT), Camp Eagle, Mosul, Iraq. He deployed with the Screaming Eagles as they crossed the Kuwaiti berm at the onset of combat operations on 19 March 2003, and subsequently deferred senior staff college attendance in order to complete two years as EAGLE 2 deployed in northern Iraq. Preceding this assignment, LTC (P) Reyes served in a variety of staff, S2, and command assignments in support of infantry, special forces and special operations, and MI units, at the detachment, company, battalion, brigade, group, division, major Army command, and joint staff levels. Readers may contact the author via E-mail at darryl.reyes@us.army.mil.

DIGITAL BATTLE COMMAND: BAPTISM BY FIRE

by Lieutenant Colonel John W. Charlton

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My Conversion to Digital Battle Command

I had thirteen separate map sheets in the bustle rack of my Bradley when I crossed the line of departure (LD) into Iraq. Each sheet was specially cut and numbered so that my Task Force (TF) operational graphics lined up correctly on the map. I had the current map sheet on my 18-inch by 24-inch mapboard while the extra map sheets were in a map case. When I reached the end of a particular map case, I had to take the mapboard apart, pull the adjacent map sheet out of the map case (hence the numbering system), and attach the new map to the mapboard. Invariably, these map changes usually happened on the move and at night. My driver and I spent nearly two days cutting, aligning, and marking these map sheets before the start of the war. Leaders everywhere were doing the same drill. We were using 1:100,000-scale map sheets for the operation. When you have to travel more than 700 kilometers, you make some sacrifices in detail to limit the number of map sheets you have to carry. We compensated for the lack of detailed maps by using imagery and engineer terrain team products.

Sometimes I had to juggle both my mapboard and the imagery at the same time such as when we began our attack into Talil Airfield on the first day of the war. We had crossed about 200 kilometers of open desert enroute to our objective and then attacked right into a dense urban environment. I was using the 1:100,000-scale maps for the long approach march and imagery for the actual attack. Since it was a night attack, I was also trying to maintain control of a small flashlight so I could see all these battle command aids.

What I should have spent the entire time focusing on was the small screen attached to my coaxial machine-gun door. It had been accurately tracking my location as well as the location of my essential leaders and adjacent units the whole time. It contained a database of maps of various scales and satellite imagery for all of Iraq. Of course, I am describing the Force XXI Battle Command Brigade and Below (FBCB2) system. The 3d Infantry Division received a "dumbed down" version called the "BLUEFOR tracking system." It did not have all the "bells and whistles" of the full FBCB2 suite but it did offer basic messaging and situational awareness capabilities. Contractors installed the systems in crucial leaders' vehicles throughout the division and gave us crash courses in how to use the system as well.

So why was I not using the system that much on the first attack of the war? The answer is simple: confidence or a lack thereof. I had only received a short burst of training on the system and had never really put it to the test. I knew how to use it but did not have enough experience with this new battle command system to give me the confidence to rely on it in combat. As a result, I fell back on my "Old School" battle command techniques of juggling maps in the turret of a Bradley. I did not completely ignore the new system…I just did not fight with it. I managed to make it through the first couple days of combat using my trusty map sheets but little did I know that my days of relying on paper map products were about to come to an end. My own personal transformation to digital battle command came during our operations in a little Iraqi hotspot called "As Samawa."

Task Force 1-15 Infantry initially was not supposed to fight in As Samawa. We were headed northwest to linkup with the 2d Brigade Combat Team (BCT) south of Karbala. However, shortly after we began our movement west, we received a fragmentary order (FRAGO) to move to As Samawa and relieve 3/7 Cavalry. Our mission was to isolate As Samawa from the V Corps main supply route to the south. Saddam Fedayeen forces had infested As Samawa and posed a tremendous threat to logistics units moving along the supply route. The problem was that I did not have any imagery of the town since we had not planned on fighting there. This meant we had to use our 1:100,000-scale maps to produce operational graphics. The graphics were almost useless since the maps showed virtually no detail of the As Samawa urban area. Fortunately, one of my company commanders was getting pretty skilled at using the FBCB2 graphics feature and he transferred my acetate graphics to digits. What an amazing difference it made. We could switch map scales and even use digital imagery allowing us to see every street in the town in relation to our graphic control measures. We used the Mission Data Loader (MDL) to transfer the graphics to every system in the TF and we were ready to go.

Even though I was impressed with the abilities of the FBCB2 system, I still was not confident enough to go fully digital—I was still fighting off my mapboard. My complete conversion to digital battle command would not happen until the infamous sandstorm of 23 March 2003. We were conducting a reconnaissance in force to find and destroy Saddam Fedayeen forces. I was planning on using the sandstorm as cover for our movement and we would use railroad tracks as a "handrail" to guide us into our positions. I had two scout sections along to provide surveillance on the objective. Both company commanders and the scouts had FBCB2, as did my track. We were all using FBCB2 1:50,000-scale maps to track our movement since the sandstorm created "zero visibility" conditions. We were literally dead-reckoning through the sandstorm using the FBCB2 system.

We ran into problems about halfway through the movement when we tried to navigate around the As Samawa train station since even the 1:50,000 maps did not show all the details of the station. Vehicles were getting stuck on the converging tracks and had to maneuver around several buildings that were not identified on the maps. The sandstorm made it impossible to see our surroundings and we had several breaks in contact. One of the company commanders suggested we all switch from maps to imagery and we would then be able to see the details of the train station to help us get around it. We were literally maneuvering by instruments like pilots do in bad weather but the imagery and Global Positioning System (GPS) functions of the FBCB2 system allowed us to bypass the train station in the middle of a sandstorm. The experience of being forced to use and rely on FBCB2 during a combat mission under impossible weather conditions completed my conversion to digital battle command. I never used another paper map product for the rest of the war and fought every fight thereafter using FBCB2.

Digital Battle Command: What Works Well

FBCB2 has revolutionized tactical battle command in many ways. I have already mentioned the digital maps and imagery as being a tremendous capability. I literally had images of the entire countries of Kuwait and Iraq at my fingertips. I could pan across the maps, zoom in, change to imagery (and zoom in on the imagery too), change scale, and even change the color of the grid lines on the map (actually a very handy feature). I did not have to worry about changing map sheets because the screen updated as I moved. I did not need the flashlight to read the maps and imagery since the screen had an adjustable backlight. The FBCB2 imagery was not quite as clear as a hard copy product but it was definitely suitable for every mission we executed. It enabled us to navigate through the narrow streets and alleys of Baghdad and determine if a canal road was suitable for tracked vehicle movement. I relied solely on FBCB2 imagery for all urban operations. If I had to pick the single best thing about FBCB2, it would be the maps and imagery capabilities.

Although I had a limited number of these systems in the TF, FBCB2 greatly improved our ability to battle-track friendly units and improved our overall situational awareness. I not only knew where my scouts and company commanders were, I knew the location of all adjacent units and command posts (CPs). This greatly facilitated linkups. I did not have to call to get a company commander's location. I could see his icon on the screen and FBCB2 would guide me to his location. I am certain that FBCB2 battle-tracking capabilities were instrumental in preventing fratricide. This was particularly important in urban areas where friendly units frequently converged and buildings and other structures often masked them. Finally, FBCB2 allowed me to track the progress of the battle and know if things were going according to plan. When my TF seized a critical highway intersection south of Baghdad, I could see the company commander icons at each blocking position and I knew we had control of the objective. That cut down on a lot of radio traffic and allowed leaders to concentrate on the fight instead of giving frequent situation reports.

Shortly after arriving at As Samawa, my TF received the mission to send a company-sized force to seize a piece of terrain to the west and establish blocking positions. The mission was similar to the one the TF had in As Samawa: isolate the built-up area and protect the V Corps supply route to the south. I had four companies (two armor and two mechanized infantry) so the loss of combat power would not degrade my operations in As Samawa. The problem was that the company's objective was seventy kilometers (km) west of As Samawa and there would be no way to communicate with the separated company using our organic frequency modulation (FM) radios. Even using a retransmission station, the distance was too far (FM radios were typically good for about 10 to 20 km during the war). The company's enlisted tactical air controller had satellite communications but that could only be used for controlling close-area support and for emergency medical evacuations. The only way I could maintain daily communications with the company was through FBCB2. Because the FBCB2 system we were using was all satellite based, distance was not an issue and I was able to send and receive text messages with my separated company. The TF was eventually pulled from As Samawa and we moved about 200 km to linkup with 2d BCT south of Karbala. I still had a company securing the separate objective but we were able to maintain continuous communication and FBCB2 allowed them to linkup later with us south of Karbala. The entire separate company mission simply would not

have been possible without the satellite communication capabilities of FBCB2.

Digital Battle Command: What Needs Fixing

The biggest problem I observed with FBCB2 is that our digital pipe was too small. This caused many problems with communications, battle tracking, and navigation. We were forced to limit our message size to a few hundred bytes. Message header information consumed much of that allocation. The result was that the lack of bandwidth limited the typical free-text message to only a couple of paragraphs. Even the most simple FRAGO had to be segmented and sent in several messages. The effect on sending graphics was even worse. A standard set of battalion operations graphics required several separate messages to comply with the bandwidth limitations. Obviously, every digital system will have some limitations but FBCB2 must allow the transmission of basic FRAGOs and operations graphics to be a truly useful battle-command tool.

The lack of bandwidth also hampered navigation and battle tracking. My position would update about every 10 to 15 seconds but all the other friendly icons would update about every few **minutes**. This really made battle tracking on the move difficult. For example, during one of our attacks, my icon appeared to be leading the TF even though there were other elements in front of me. This happened because FBCB2 was updating my position faster than the other systems around me. Even the short delay in updating my position caused problems while navigating in dense urban areas. It was easy to miss a turn because the FBCB2 updated too slowly relative to the actual position of the vehicle. Ironically, my $100 Magellan GPS (my digital backup) was updating my position in real time down to one-meter accuracy while my sophisticated digital battle-command system could not keep up with the pace. One of the FBCB2 technicians told me that this was a software problem as well as a bandwidth problem. Either way, it is a serious shortcoming and should be fixed immediately. FBCB2 should be able to update all friendly unit positions in real time.

Everyone I talked with about FBCB2 complained about the operating system and graphical user interface (GUI). It is about the most non-intuitive operating system and GUI I have ever used. Even the simplest task took multiple steps to accomplish and some of the procedures simply did not make sense. Useful features like “drag-and-drop” and “right-click menus” are nonexistent in the FBCB2 GUI. The FBCB2 developers really need to work on making the GUI more intuitive and user-friendly. One should be able to customize the interface and put links to frequently used applications right on the desktop. Perhaps designing it to resemble a web page would help. Virtually everyone in the United States knows how to navigate the Internet and is very familiar with the functions of a web browser.

The operating system also appeared to be very unstable. If users did not follow the shutdown procedures explicitly, bad things happened the next time they tried to boot up. Somehow, improper shutdowns created bugs in the system and we had to wipe and reload hard drives several times to correct the problem. The operating system simply needs to be more robust and forgiving. Another annoyance was that it seemed to take forever for the system to boot up.

The message applications need much improvement. The messages are so cumbersome that nobody used them. The only formatted messages I received throughout the entire fight were the chemical downwind messages from the 3d Infantry Division Main CP; everything else was free-text messages. One of the FBCB2 technicians told me that 90 percent of the messages sent by the Fort Hood units during FBCB2 testing and training were free-text messages. I believe that completely—all the other message formats are too complicated and take too long to fill out to be useful. The easiest fix for this problem would be to eliminate the standard messages completely and design the system so units could install their standing operating procedures (SOPs) message formats. Units train with their SOP message formats and are able to use them to communicate information quickly and effectively. FBCB2 would only enhance the utility of unit message SOPs. The combat messages (medical evacuation [MEDEVAC], spot report [SPOTREP], etc.) were more useful but they too need to be simplified to make them more user-friendly.

The FBCB2 graphics application also needs a drastic update. It did not contain all the graphic control measures and unit symbols found in **FM 101-5-1, Operational Terms and Graphics**. Many of the symbols could not be manipulated. For example, I could not label my attack-by-fire positions. I used a work-around involving other graphic symbols but it took a lot of extra time just to perform this simple task. The graphics application also needs more free-form drawing tools and it must incorporate “drag-and-drop” features. Users should be able to quickly duplicate graphic control measures and rotate or flip them as required. If this sounds like I am describing basic PowerPoint features, you are right on track.

The FBCB2 system we used during the war lacked any type of collaborative planning tools. One FBCB2 system was in my S3’s M577 and there was one FBCB2 laptop for the tactical operations center (TOC). The laptop was not wired into the FBCB2 network and was only for creating orders and graphics. The problem was that

only one person could work on it at a time. Each staff officer had to wait to type in his section of the FRAGO. It would have been much better to have a networked laptop with each staff section and mission planning tools that allowed those staff sections to collaborate and assemble their products digitally on FBCB2.

The FBCB2 system is physically too large for use in combat vehicles. The central processing unit (CPU), bolted next to the radios in the rear of the turret, was about the size of an average desktop computer. The monitor screen was attached to the coaxial (COAX) machine gun door and the antenna bolted onto the outside of the turret. Multiple cables connected these components and would frequently fail or come loose causing system malfunctions. During one firefight, my COAX machine gun door jammed and I spent a few very long minutes trying to get the FBCB2 screen out of the way so I could open the door and clear the malfunction. Today we have palm-sized personal digital assistants and tablet personal computers. There should be no reason why the entire FBCB2 system cannot be in one small, thin, package. It should also be portable so users can dismount with the system to attend order briefings or just go over the digital map with subordinates on the ramp or hood of the vehicle.

The Mission Data Loader (MDL) is too large, slow, and unreliable, and the procedures for transferring files are tremendously difficult. We actually had to print a separate instruction page just to show users how to transfer and load files to and from the MDL. The cable connections were very unreliable. Sometimes we had to connect the MDL to the CPU while other times we could only get the MDL to work when we attached the cables to the FBCB2 display connections. FBCB2 should use infrared ports for data transfer just like all PDAs use today. Users could dismount their "all-in-one" FBCB2, carry it to the operations order brief, and get the new order "beamed" into their machines. The file transfer software should be cleaned up and offer "drag-and-drop" features so it is more user-friendly and intuitive.

The Road to Digital Battle Command

It may seem that the purpose of this article is to nitpick and find fault with the FBCB2 system. While the system certainly has many shortcomings, they should be relatively easy to correct. More importantly, FBCB2's capabilities were **decisive** during combat operations in Iraq. Never before have ground commanders been able to navigate, maintain situational awareness, and communicate to the degree they could using FBCB2 during Operation IRAQI FREEDOM. This was the first time we employed the system on a large scale in combat and it was a huge success. FBCB2 helped prevent fratricide and enabled U.S. commanders to conduct operations at a much more rapid pace than the enemy. I simply never want to go into combat without FBCB2—it is that good.

The real purpose of this article is to provide feedback on the advantages and benefits of using a digital battle-command system in combat. This issue goes beyond the context of a particular machine or system. The compelling issue is that the Army and Department of Defense need to increase the funding and fielding priorities for digital battle-command systems. I would include intelligence, surveillance, and reconnaissance (ISR) systems in the top priority category as well but we will stick to digital battle-command systems for now. Simply put, we need to convert our entire military to interconnected digital battle-command systems. Every tank, helicopter, ship, supply truck, and CP should be equipped with some type of digital battle-command system. It is a tragedy that our mechanized TOCs are still based on archaic M577s and modular tents. Every CP in the military must be mobile, survivable, interconnected, and digital. The real challenge will be providing digital battle-command systems to dismounted infantry and special operations forces but today's technology has solutions for them as well.

Digital battle command must be fully integrated into our doctrine and our institutional training. Officers and enlisted Soldiers at every level should have training on these systems and how to use them to enhance planning and execution of military operations. Our Army and joint doctrine should be updated to exploit the capabilities of these new systems just as we update doctrine to exploit the capabilities of new weapon systems. Our training and doctrine should allow our soldiers to master digital battle-command systems so they are not forced to convert to its use during combat like I did.

Maybe I did not have enough training or did not fully understand the complete capabilities of the FBCB2 system and perhaps the "FBCB2 Lite" version that we were using pales in comparison with the real thing. All that is probably true but misses the point. I fought in OIF combat with a very good digital battle-command system that had some minor problems and, based on my experience, I am convinced that digital battle command is the key to success in current and future conflicts. As we look at lessons learned from Operation IRAQI FREEDOM, we need to embrace digital battle command and recognize its importance in 21st century warfighting.

Lieutenant Colonel John Charlton is the commander of 1-15 Infantry, 3d Infantry Division (Mechanized). His Battalion recently returned from 13 months of training and combat operations in Kuwait and Iraq. Task Force 1-15 Infantry fought eight major engagements during 21 days of intense combat during Operation IRAQI FREEDOM and it was the first U.S. unit to attack across the Euphrates River toward Baghdad. He has a Master of Science degree in Computer Information Systems and is a graduate of the Army's School of Advanced Military Studies. Readers may contact the author via E-mail at john.charlton@us.army.mil.

Lessons Learned from Afghanistan: A Battalion S2's Perspective

by Captain Gregory J. Ford

In November 2001, elements of the 1st Battalion, 187th Infantry, from Fort Campbell, Kentucky, deployed to Pakistan in support of Operation ENDURING FREEDOM (OEF). This article provides lessons learned information from the author's perspective covering predeployment, deployment, and post-deployment operations.

Predeployment

The mission of the 101st Airborne Division (Air Assault) is to deploy within 36 hours, worldwide, to defeat the enemy forces and control land area. We heard rumors about a possible deployment and took the proactive steps necessary. The first things we created were country studies for all the countries in Southwest Asia and the Middle East. These country studies would form the basis of any intelligence preparation of the battlefield (IPB) products we would need to assemble during an N-hour deployment sequence and covered geography, weather, culture, military, and any significant issues such as revolution or other internal affairs.

Once these were complete, we created a generic cultural primer for the region. This primarily focused on Islam and its impact on the area. "Leader Six" (the Battalion Commander) wanted each Soldier who would be in the Task Force (TF) to understand the cultural sensitivities of the region and how our actions could affect the mission.

The battle staff had served together for approximately four months before the deployment; the majority of the battle staff had been together through two brigade-level training exercises. However, in order to maintain proficiency, the S3 and the author as S2 designed a Joint Army Navy Uniform Simulation (JANUS) exercise at the Fort Campbell Battle Simulation Center (BSC). This exercise forced the staff through a military decision- making process (MDMP) and focused on synchronization. In the JANUS exercise, the Battlefield Information Coordination Center (BICC) officer served as the opposing force (OPFOR) commander, which provided him additional insight into the enemy's mindset. The crucial payoff of this exercise was bringing the staff beyond the planning process. It allowed the TF to fight the battle from the tactical command post (TAC), while allowing the tactical operations center (TOC) to monitor the fight and focus on future requirements. The exercise focused on what we thought would be potential missions in the region.

During the division ready brigade (DRB) process (see Figure 1), we worked with the line companies to ensure they updated their high-value item (HVI) sheets, privately owned vehicle (POV) storage sheets, and any intelligence requirements they generated. Preceding the deployment, the battalion moved into new barracks with which the previous seal system would not work; therefore, we devised and ordered a new system of tamper-resistant labels.

In addition to the physical security requirements, the Battalion S2 section provided the commanders' daily intelligence updates. Arriving early to the office each day, I sent them open-source updates via E-mail and then gave a classified update during the Battalion command and staff meetings. This allowed them to focus on preparing their companies for deployment.

Consequently, we were prepared for the deployment warning order and could focus on "loading out" the section. We worked with the Brigade and Division intelligence staffs, obtained maps for the area of operations (AO), and received detailed briefings on what we could expect. In addition, a four-Soldier ground surveillance radar (GSR) and Remotely Monitored Battlefield Sensor System (REMBASS) team from Delta Company, 311th MI Battalion, augmented our Battalion. This team enhanced our force protection posture by covering dead space in our defensive perimeter. The stage was set for 13 November 2001, when the lead elements of the Rakkasan Leader Battalion boarded the aircraft for our next "rendezvous with destiny" in Afghanistan.

Deployment

The S2 section had only three personnel assigned—the S2, the BICC, and the noncommisioned officer in charge (NCOIC). We worked out the deployment plan so that the S2 was on Chalk 1 (the first aircraft), the NCOIC was on Chalk 2 with our vehicle, and the BICC was on Chalk 10. We manifested the BICC on the last chalk in order to ensure we satisfied all physical security requirements before the Battalion's closure from Fort Campbell.

Upon our arrival in Pakistan (see Figure 2), we conducted changeover briefings with our U.S. Marine Corps counterparts. The Marines were very professional. We were familiar with the situation since they forwarded many of their intelligence products to Fort Campbell in advance of our departure. The handover was smooth and seamless, with the majority of the time spent on our host-nation relationship with Pakistan. The Marines were operating the Joint Coordination Center (JCC) with the Pakistanis to coordinate the defense of the airbase.

Ensure that you are very familiar with your intended AO. Commanders will consider your section the subject matter experts. The country studies the S2 section assembled provided a base of knowledge for the analysts to draw on when presented information requirements.

Know the MDMP and how your unit implements it. Battle staff training in MDMP pays substantial dividends. Time is a limited resource; understanding what products you need to produce and when you need them is essential.

Understand that physical security is a critical portion of any S2's job. Our section was prepared for a deployment. I knew the BICC and NCOIC had the training; all we had to do was execute the plan. The majority of the physical security requirements falls upon the company commanders.The S2's responsibility as the security manager is to advise. Make sure they understand their requirements and assist them however you can. Be proactive on finding solutions to problems. Sealing rooms in a new barracks was a serious issue that we were fortunate to recognize early. We also reevaluated the N-hour sequence to ensure the Soldiers had adequate time to store their POVs, clear their rooms, and conduct any other physical security issues.

Keep your commanders informed. The battalion commander is your boss and needs to maintain situational awareness; however, keep the company commanders and battalion staff in the information loop. They can bring a new perspective and help you see issues in a different light. This S2's philosophy was to provide them as much information as possible, based upon their requirements.

Understand and know how to employ the MI assets organic to your division. The Rakkasan Leader Battalion was offered many different collection assets to support our mission; however, GSR/REMBASS best suited our requirements. In the end, the GSR/REMBASS team was all we took when we deployed. We based that decision on the mission requirements, force package, and the Battalion Commander's guidance and intent.

Figure 1. Predeployment Lessons Learned.

This was where my counterpart spent most of his time—I would also.

The JCC was the point where our two cultures and two militaries met, and we coordinated our defenses and resolved any issues that might arise inside the Exclusion Zone (EZ). The Pakistanis partitioned their base into two parts: the EZ, which was exclusively U.S. personnel and Pakistanis who wore issued badges, and the Pakistani Zone. The Pakistani official military language is English, which made our lives tremendously easier.

However, since we were working in a joint and coalition environment, there were plenty of misunderstandings and difficulties. It was just as likely to be a misunderstanding between the Air Force and the Army as between the U.S. personnel and Pakistanis. Accordingly, the S2 spent the majority of his time either working in the JCC or going to coordinate directly with the Pakistanis. Once the BICC arrived in country, this became his primary task. He served as the JCC action officer and I served as the security officer. This was akin to the "good cop, bad cop" method. He would try to fix an issue and then clear it through me. If it were not conducive to our security, I would tell our allies that we could not do it. This worked reasonably well; however, the Pakistanis often insisted on coordinating with the senior military leader. Thus, they often consulted the Battalion Commander for issues that a lower level could have resolved. Once I became the security officer, I took over those small issues, enabling the Battalion Commander to address the big ones.

Often these small issues resulted from misunderstandings or our zealousness for security. The most common problem was our security force being too zealous and the S2 would find a solution or issue the apology. This arrangement served two purposes, it allowed the BICC to develop and maintain good rapport with the Pakistanis and saved the Battalion

Photographs courtesy of the U.S. Army.

Leader 6 explaining the Multiple Radar Emitter System (MRES) to our Pakistani counterparts.

Commander from dealing with small issues. However, he was intimately aware of all the activities in the JCC and prepared to discuss with senior Pakistani officers' issues that were not getting proper resolution.

Once we resolved the JCC and security issues, we began our contingency planning. Being one of the largest forces available, we received a variety of missions to plan. This enabled the battle staff to maintain situational awareness inside the Combined Joint Operations Area-Afghanistan (CJOA-A). Our best source of information was the Secure Internet Protocol Router Network (SIPRNET). When we received a warning order for a mission, the S2 section would access the SIPRNET and immediately begin pulling maps, imagery, and intelligence updates. Maps were in high demand and not readily available, so this was a great innovation to provide our unit a 1:50,000-scale map on an 8- by 11-inch sheet of paper.

We also performed some downed aircraft recovery missions while operating in Pakistan. We did this on three separate occasions that took the battle staff from its daily defensive mission to conducting simultaneous operations. This subsequently proved beneficial when the Battalion divided later.

Split-based operations began in February 2002, when the Battalion TAC deployed to Bagram Airbase to link up with our Charlie Company as it returned from a mission. The S2 went forward with the TAC, leaving the BICC and NCOIC with the battalion TOC to conduct the security mission in Pakistan. However, the S2 section NCOIC left in March to attend the Basic noncomissioned officer Course (BNCOC), so the BICC eventually assumed responsibility for defensive operations.

While we were in Bagram, planning for Operation ANACONDA began. The Rakkasan Leader Battalion served as the forward planning and coordination team for TF Rakkasan (3d Brigade Combat Team [BCT]). TF Rakkasan was in Kandahar (minus a small cell in Bagram consisting of the Brigade Executive Officer and a forward support battalion team) so we were able to provide face-to-face coordination with our higher headquarters, Combined/Joint Task Force (C/JTF) Mountain (10th Mountain Division (Light)) for 3BCT. This time allowed the S2 to meet and work with the 10th Mountain Division (Light) G2 section and to help tailor their products for air assault operations.

Maps were in short supply and their accuracy was in doubt since they were not WGS-84 compliant. The tactics, techniques, and procedures (TTP) we devised to overcome this obstacle were to create 1:50,000-scale maps developed using National Geospatial-Intelligence Agency (NGA) (formerly the National Imagery Mapping Agency [NIMA]) data and FalconView software. The S2 labeled specific points with the digital grid on the map as target reference points, which would enable us to communicate with the Apache pilots using a common reference since they used the Global Positioning System (GPS) grid from their systems and we used the digital grid from FalconView. This ensured we had a common picture of the battlefield. Imagery from NGA also enabled the S2 section to create sketches of villages in the objective area. In accordance with the Brigade's tactical standing operating procedure, we numbered each building and marked the corners. Additionally, the S2 section put the grid coordinates of each building corner on the map. Again, this was to ensure that when we talked with U.S. Air Force assets or Apache helicopter pilots, we had a common point of reference.

When Operation ANACONDA started, TF 1-187 was in reserve. We had five different planning priorities and had developed plans for each. The S3 and S2 spent the bulk of the time the first day going back and forth between the Division and our planning cell preparing for our mission. FalconView was again critical as we conducted IPB to locate landing zones (LZs) near the objective (the Whale). FalconView provided us the ability to visualize the terrain more clearly than the maps enabled.

On the second day of the operation, we inserted TF 1-187 INF (-), which consisted of two rifle companies, a scout platoon, and the Battalion TAC. Our initial mission required us to maneuver into a canyon and destroy two caves. This was due to reports of mortar fire coming from these caves onto the LZs. Upon completion of that mission, we received a fragmentary order (FRAGO) to move and assume blocking positions in two passes. One blocked an egress route and the other provided overwatch over the villages of Sherkan Khel, Marzak, and GINGER pass. We established these positions and made contact with the enemy, experiencing our first firefight. The majority of the fire was small arms, AK-47 rifles, and DShK machine guns; however, they also fired aerial burst RPG antitank grenade launchers and mortars.

At this point, the author realized how limited our communication links with our higher headquarters were—we had a single-channel tactical satellite (TACSAT) as our link to the Brigade. This served as the brigade command net, so the Battalion Commander passed the majority of the situation reports (SITREPs) to the Brigade Commander on this net, depending on his location. The S2 was able to pass intelligence reports (INTREPs) to the Brigade S2 on a few occasions but the majority of intelligence passed was from commander to commander. The Brigade S2 did a good job of pushing the higher headquarters picture of the battlefield down to us.

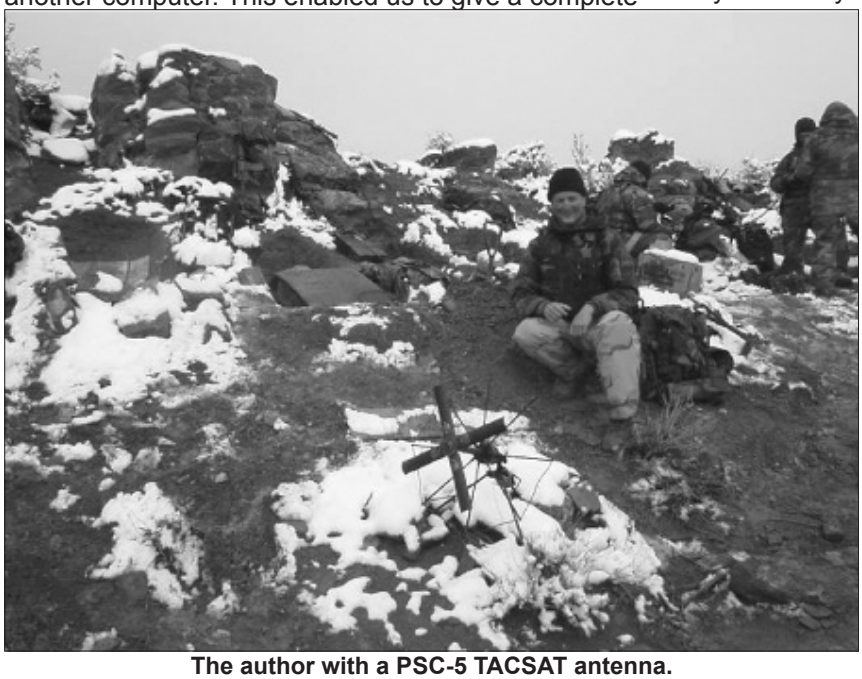
The TAC during this time comprised the Battalion Commander, the S3, the Command Sergeant Major, the U.S.

Air Force (USAF) enlisted terminal attack controller (ETAC) team, three radiotelephone operators (RTOs), and the S2. The ETACs were a crucial component of the TAC because of their competence, the USAF ability to deliver ordnance on call, and their communications package. The ETACs had a robust communications package that enabled them to communicate with our close-air support (CAS), the Airborne Warning and Control System (AWACs), and the Combined Air Operations Center (CAOC) to obtain near-real-time intelligence updates. The ETACs also communicated directly with our AC-130 Spectre gunship support. The AC-130 enhanced our ability to conduct nighttime operations by identifying threats and neutralizing them. They also passed suspected enemy positions as they acquired them. The support from the ETACs, Brigade, and higher echelons continued until we extracted from the area and was exceptional.

Leader 6 distributing humanitarian assistance.

After the extraction, we refitted and prepared for the next mission, Operation MOUNTAIN LION—a mission to clear caves within Zhawar Kili. Parts of this mission had been conducted on two previous occasions; however, enemy activity was observed in the area again around the caves. We would again go in with TACSAT; however, we now had a ViaSat cable that allowed us to send digital information from a computer via TACSAT to another computer. This enabled us to give a complete report to the Brigade S2 without tying up the net. In addition, the BICC was in Bagram conducting liaison with C/JTF Mountain and other governmental agencies. This was critical since he was the link for higher echelons to communicate requirements with us. When we sent out intelligence items of value, he was there to meet each shipment and ensured it went to the correct recipient.

Operation MOUNTAIN LION was also interesting because of the amount of contact we had with the average Afghan militia member. We spent our time during this operation under the constant eye of the local Afghans. They were very cooperative and the militia assisted us in the clearance of the caves and villages in the area. They were very polite but spoke very limited English. Our civilian contract linguist broke the language barrier. Our contract linguist and a chief warrant officer two (CW2) came to us as a human intelligence (HUMINT) package and provided great support in hasty interrogation. This enabled us to significantly increase our language capability since we had two Arabic linguists. We also had a psychological operations (PSYOPs) section attached, which allowed us to focus on portraying the right message to the Afghans. The HUMINT and PSYOPs teams enabled us to break through Afghans' initial fear and suspicion. We gained



The author with a PSC-5 TACSAT antenna.

Train your section. Cross-train your section on intelligence functions. Do not count on augmentation. The fact that the S2 section personnel had the necessary training and were ready to assume each other's jobs enabled us to perform as well as we did.

Be ready to work in a coalition environment. Soldiers operating in a coalition environment need to understand the cultures they will encounter. The Pakistanis were very ready to assist. They were very inquisitive and asked many personal questions. We therefore ensured that all personnel tasked to work in the JCC understood what they could and could not say. Regardless, the Pakistanis continued to be very curious about U.S. Soldiers, especially life in the United States. As S2, I had the mission to serve as spokesperson with the Pakistanis for any security-related issues. This meant that most of my conversations had the potential to disrupt in our work environment so I was very careful to be polite yet forceful when discussing our security.

Understand all levels of the Army. When we arrived in Pakistan, we were reporting directly to Third U.S. Army, Combined Forces Land Component Command (CFLCC). For the Battalion S2 section, this meant that our higher intelligence source was the Analysis and Control Element (ACE) supporting CFLCC. They were great and supportive; however, it was a big change going from working with a Brigade S2 to dealing with a Theater ACE. SIPRNET is not usually available down at the Battalion level, so it was a great asset enabling the section to coordinate and interface with higher echelons.

Keep your MDMP skills fresh. Just as the training on MDMP in predeployment built the foundation, MDMP in deployment ensured that we were trained and ready. Our careful planning also ensured that we understood the environment into which we eventually deployed. When we participated in Operation ANACONDA, the S3 and I conducted MDMP. Split-based operations limited the amount of personnel we could spare, thus we went with a very austere TAC. The abbreviated MDMP skills that we exercised and trained on back at Fort Campbell enabled us to perform successfully while understrength.

Bring the ETACs into your planning and executing process. Our ETAC support arrived in advance of our deployment. While they were both extremely competent and enabled us to leverage their abilities as much as possible, we would have benefited more had a habitual relationship existed preceding the deployment. We had rapport by the time we left the valley; however, we could have been much more effective earlier in the fight. By the end of the fight, I was standing next to the ETAC and pointing out targets on which to bring ordnance. It would have been much more effective had I understood their capabilities earlier.

Leverage technology to enhance your situational awareness and that of your higher headquarters. I admit that I looked like an MI geek when I stepped on board the CH-47 Chinook with my M4 carbine in one hand and my laptop in the other; however, the laptop and ViaSat provided a better picture than my words over narrow-band TACSAT ever could. In addition, we were always short maps. With FalconView and SIPRNET to access the right datums, the S2 was able to manufacture maps for the Battalion. Be sure you understand what is out there and how it can assist you and your section.

Understand what other battlefield multipliers bring to the fight. The PSYOPs and HUMINT teams provided tremendous insight and helped focus our message. The Battalion Commander relied upon to me to make him knowledgeable on their capabilities and to provide them initial guidance on how our Battalion operated. When we began our targeting meetings during Operation MOUNTAIN LION, we did so with a greatly expanded team. Again, had I known more about the capabilities of this combat multiplier, I could have made better use of them sooner in the fight.

Rotate personnel from an operational deployment without a designated replacement. When the section NCOIC rotated back to the United States to attend BNCOC, his departure had a severe impact on operations. The BICC had to ensure the security of Jacobabad and conduct his JCC liaison duties without any support. It also left the S2 one deep inside Afghanistan while preparing for combat operations. I would recommend only sending personnel to training when you have a designated replacement enroute to your location. Luckily, the GSR Section Sergeant was able to assist the BICC in Jacobabad.

Figure 2. Deployment Lessons Learned.

their trust when we communicated in Arabic. Previously we had detained any Afghans (including members of their village) who spoke Arabic. Once they understood that we were there to help, they began to cooperate.

The change in the targeting meetings from Operation ANACONDA to Operation MOUNTAIN LION was dramatic for the TAC. The focus shifted from delivering munitions to a theme of cooperation and help. We left the Zhawar Kili area with several garbage bags full of documents and other items, and we had destroyed caves. Most importantly, though, we left the local population with a positive attitude toward U.S. forces, which met the Battalion Commander's intent—successfully providing needed humanitarian assistance and without making promises we could not keep.

After defending Kandahar for a few weeks, we moved back to Pakistan to prepare for our redeployment back to Fort Campbell. In Pakistan, we began to collect all the classified information that we had accrued and continued our work in the JCC to maintain our joint

(Continued on page 33)

by Captain Matthew T. Gill

The current operational environment in Operation IRAQI FREEDOM (OIF) is not like anything seen recently in the unmanned aerial vehicle (UAV) community. The most similar conflict in recent history would be in Kosovo or Bosnia-Herzegovina, although differing in sustained levels of intensity. With the advent of the Shadow 200 Tactical UAV (TUAV) system, the Army has placed a most valuable tool in the hands of the maneuver brigade commander. The design of Shadow TUAV is for employment in a specific manner; however, the means to achieve successful TUAV operations in the current operational environment requires intelligence professionals to overcome some significant obstacles:

- Modifications and additions to the current TUAV platoon modified table of organization and equipment (MTOE).
- Maximization of the split-based operational capability.
- Requirement to provide non-doctrinal TUAV support.

The Shadow is so new to the Army inventory—not yet four years old—that most fielded units have only rudimentary training on the system and almost no operational employment experience or conceptual knowledge of how to integrate the system into the intelligence fight. The present and the likely future combat environment have confronted the TUAV community with some significant challenges. The tactics, techniques, and procedures (TTP) of the Shadow TUAV system have seen a change from its anticipated doctrinal use through the combined experience of individuals with prior Hunter experience, civilian contractors, and sometimes just the creative imagination of today's Intelligence leaders.

The 1st Cavalry Division deployed 1st Platoon (TUAV), Alpha Company, 312th MI Battalion, to Iraq in support of the 313th MI Battalion, 82d Airborne Division, in September 2003. Having only one TUAV Platoon, the Division employed it as a general support (GS) intelligence collection asset. One of the first challenges faced was the conceptual employment of the TUAV outside of the proposed doctrine shown in the concept of operations (CONOPS) document provided by the U.S. Army Training and Doctrine Command (TRADOC) System Manager (TSM). The Army designed the Shadow TUAV to be the brigade commander's TUAV; however, what do you do when you only have one in the Division? Actually, you employ it the same way. If you consider the CONOPS, the Division would be the intended "Brigade level" and the Brigades are the intended "Battalion level." The issue then centers on space, distance, and complications inherent with employing a system not designed to operate in an area father than 50 kilometers from the Ground Control Station (GCS).

The 82d Airborne Division area of operations (AO) is more than 150 square miles. There was no feasible means to employ the TUAV over such a wide area without constantly jumping launch and recovery sites (LRSs) in accordance with the Division's priority of support to the main effort. The 313th MI Battalion chose to deploy a TUAV command and control (C2) cell with a signals intelligence and electronic warfare (SIGINT/EW) officer (35C or 35D, Captain) and TUAV operations technician (350U, Chief Warrant Officer Two) in order to establish the base TUAV footprint and confront the various issues concerning employment.

The TUAV C2 cell conducted mission analysis of the operations area and recommended employment of the

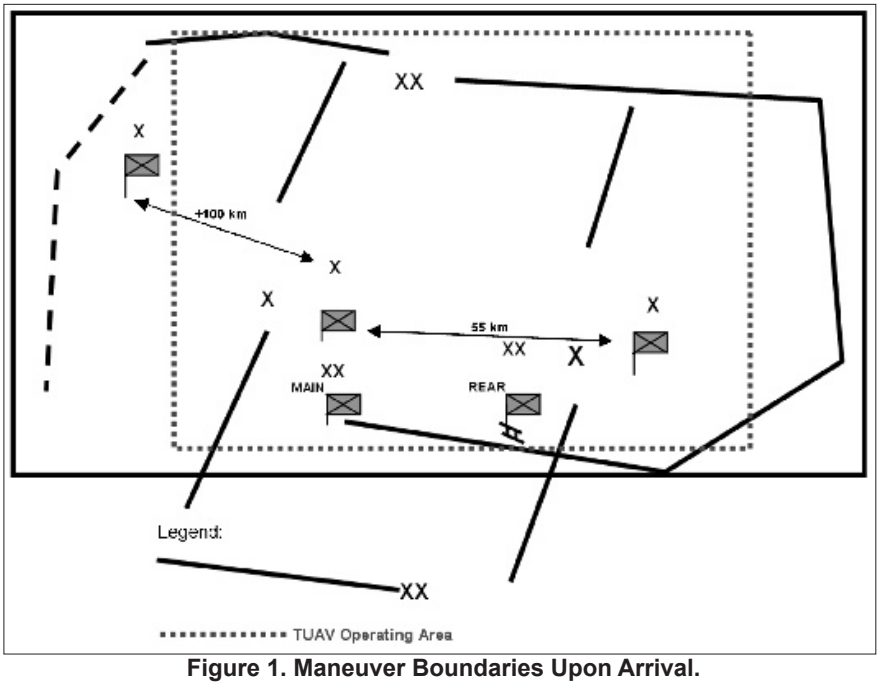


Figure 1. Maneuver Boundaries Upon Arrival.

TUAV in the area with the highest concentration of coalition forces. With the operational boundaries remaining static and offensive operations conducted mainly at the company and platoon levels, the TUAV C2 cell recommended that the TUAV coverage focus on the two brigades operating within 50 kilometers of each other. Through coordination with the Division Collection Manager, the third brigade—which was more than 100 kilometers from the other two—became the priority of the Hunter UAV support. This allowed the Division to provide UAV focus for all three brigades simultaneously (see Figure 1).

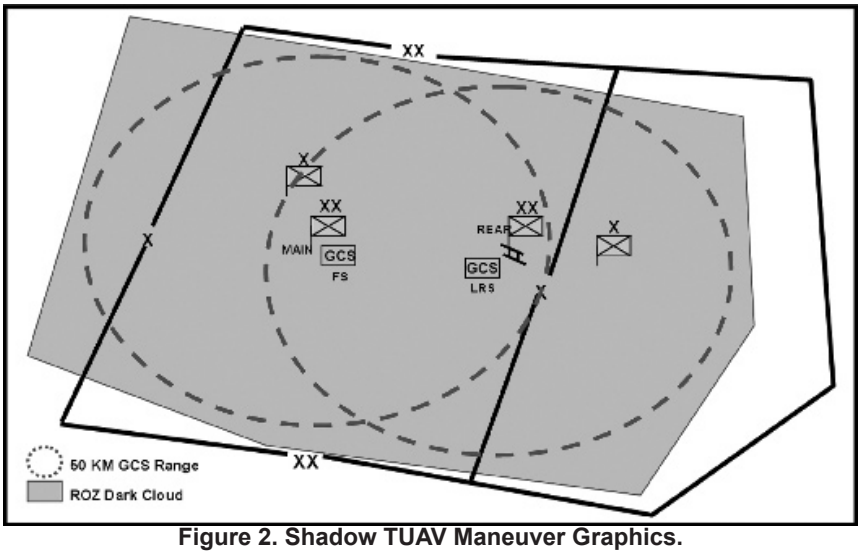


Figure 2. Shadow TUAV Maneuver Graphics.

This narrowed the TUAV operations area to roughly 70 square kilometers. The primary concern to meet this requirement became placement of the Ground Control Station (GCS). (While the GCS Range is approximately longer, the CONOPS calls for 50 km with 4 hours on station.) Among other things, the GCS provides terminal guidance to the TUAV and is the downlink station for video and telemetry. Given the ability to conduct split-based operations (see below for specific enablers), the Platoon could feasibly employ the two GCSs per system up to 35 kilometers apart. With 3d Brigade, 82d Airborne Division, operating in the vicinity of Fallujah and 1st Brigade, 1st ID, and the Division Main Command Post (CP) operating near Ar Ramadi, the LRS would need emplacement somewhere in between. Logically, with the Division Rear and Aviation Brigade conducting operations from Al Taqaddum Airbase, Habbiniyah, the Platoon established the LRS with the MI Battalion Rear element on the south side of the Airfield. The TUAV Platoon then emplaced the TUAV forward site (FS) at the Division Main CP. We placed a 50-kilometer planning radius over the FS and LRS to determine asset operational capability. We established Restricted Operating Zone (ROZ) "Dark Cloud" to provide the Platoon with the ability to cover 70 square kilometers of Division battlespace (see Figure 2).

With the FS and LRS approximately 34 kilometers apart, the Platoon needed to overcome significant asset and communications obstacles. From initial mission analysis, the 312th and 313th MI Battalion TUAV leadership identified the following issues:

- ❑ What modifications does the Platoon need to make to adjust for mission requirements?
- ❑ What additional assets are required to maintain the extended split-based operational capability?
- ❑ How do we conduct TUAV flight operations to fulfill the non-doctrinal mission requirements the maneuver units are requesting we conduct?
- ❑ How do we properly sustain the TUAV Platoon for extended split-based operations?

Modifications to the Platoon MTOE

The bottom line is that the Platoon MTOE will not provide sufficient mobility for its Soldiers and equipment. By MTOE, the Platoon vehicle complement provides 12 seats. All cargo space is required to carry Soldier and Platoon equipment. The cargo high-mobility multipurpose wheeled vehicles (HMMWVs) do provide seating for 22 personel, but there are challenges in getting all equipment and combat load in too. We tried many courses of action and all came to the same result: the MI Battalion would have to provide the TUAV Platoon with three additional cargo vehicles. In addition, one of those vehicles must be some form of "up-armored" with crew-served weapons capability (dependent on Combined/Joint Task Force [C/JTF] 3 convoy and movement security requirements). Given the distance between sites, the FS received one of the additional HMMWVs for personnel and cargo transport.

TSM Note: This is a new requirement as of OIF and Operation ENDURING FREEDOM.

Communication between the FS and the LRS is an operational requirement at all times but also poses a significant challenge to maintaining an operational capability. Both sites must have the same mission orders and graphics, as well as the ability to conduct basic communications procedures with each controlling station and the air vehicle (AV). In a perfect case, both sites would be next to a major communications node such as a small extension node or dismounted extension node. Both communications assets provide the Platoon with the necessary capability to conduct communication—via Digital Nonsecure Voice Terminal (DNVT) and Secure Internet Protocol Router Network (SIPRNET)—and to facilitate dissemination of intelligence products into

the Division local area network (LAN). Normal radio communications are possible if the FS and LRS maintain line of sight (LOS). Platoons should be prepared to provide two DNVTs, one DR-5 cable reel with WF-16 wire, and five DR-8s with WF-16 wire to compensate for any distance from the TUAV asset and the communications node. The MI Battalion should also be prepared to support both sites with tactical satellite (TACSAT) capability in the event the LAN is not functioning or LOS communications are not available.

The Platoon MTOE provides four laptops with capabilities comparable to most average commercial off-the-shelf computer systems. To meet modern command, control, communications, computers and intelligence (C4I) capabilities, the MI Battalion must be ready to provide one additional laptop. In the most minimal configuration, the Platoon MTOE laptop capability can provide for two laptops per site, furnishing—

- Forward Site:
  - Mission Commander (mIRC Chat[2] and FalconView Capable)
    - Mission Execution
    - Immediate Mission Coordination
  - TUAV C2 (mIRC Chat and FalconView Capable)
    - Mission Planning
    - Intelligence Production
    - Administration
- Launch and Recovery Site:
  - Platoon Operations Center (mIRC Chat and FalconView Capable)
    - Mission Planning
    - Administration
  - Maintenance
    - Frequency Installation
    - MAG CAL
    - Maintenance Records

The one additional laptop computer will allow the Platoon Leader or the TUAV Operations Technician to conduct targeting and further facilitate rapid mission planning in a sustained high-operational-tempo environment. It is critical that we integrate the FS and LRS into the Division Tactical Network or any web-based information transfer platform the maneuver unit is using. The transfer of mission orders, graphics, and messages via E-mail or a web-based system is critical to successful mission conduct.

Extended Split-Based Operations

Split-based operations should be the standard employment mode for the TUAV system. It offers multiple controlling nodes and, if employed correctly, a larger operational area. The maximum distance between the FS and LRS should be set at 35 kilometers in a desert environment where LOS over long distances is available. Inherent in extended split-based operations is the lack of adequate communications equipment organic to the Platoon. To overcome the communications issues, the TUAV Platoon will need to establish SIPRNET connectivity, Platoon internal frequency modulation nets, DNVT at each site, and TACSAT as a fallback device. The Platoon establishes internal communications between sites with the OE-254 acting as the antenna capability. If available, OE-254s should be on the highest point of buildings and the MI Battalion must augment the standard OE-254 kit with additional poles to enable added extension.

The Ground Data Terminal (GDT) also depends on LOS with the AV. In an open desert environment, the GDT can sometimes provide terminal guidance to the AV out to 50 kilometers but in an urban or semi-urban environment, the maximum effective range of the GDT is dependant upon how high the GDT can be. In the 82d AO, most houses have short three- to four-foot barrier walls extended above the roof. To provide the FS GDT with LOS, we placed it on the roof of the Division Main CP and emplaced it at a point where obstructions on the roof did not conflict with its ability to "communicate" with the AV. Given that this was much farther from the GCS than is normally the standard, the Platoon used the W205 (GDT telemetry), and W207 (video) cables (listed in the manual as the backup cables) to make the connection from the GCS to the Data Interface Box (DIB). The standard cables are fiber optic but are prone to damage by personnel. To negate the use of a generator to power the GDT on the roof, the Platoon fabricated a power cable using the W234 and or W235 20-amp cables to provide power from the GCS to the GDT J-Box.

When the GCS system will be in place at the same location for long durations, units will find that the 10-kilowatt generator that normally provides power to the FS GCS is not an adequate long-term power source. The Platoon placed the FS GCS next to the Common Ground Station (CGS) and used the CGS 30-kilowatt generator to provide power to the GCS system. The Platoon FS Electronic Warfare/Intercept Systems Repairer (33W) fabricated a W3 (50-amp) shelter power cable.

Non-Doctrinal Mission Requirements

The Shadow TUAV provided GS to offensive and stability operations. Current tactical identification (TAC-ID) and reconnaissance instruction provided to entry-level UAV Operator (96U) personnel applied to our AO but only at basic levels (-10 level trained Soliders). During this phase of the war, the Platoon did not use the TUAV to identify T-72 Main Battle Tanks or D-30 towed artillery systems but rather to identify an 82-millimeter mortar in the bed of a pickup truck or suspicious individuals emplacing improvised explosive devices (IEDs) at the side of main roads. The doctrinal dimensions for zone

and area TUAV reconnaissance are much too large to facilitate accurate identification of specific target descriptions for unconventional forces and equipment. The three standard TUAV mission requests are countermortar, counter-IED, and direct action observation (see Figure 3). One can best describe these three mission requests as area and point reconnaissance.

To conduct countermortar TUAV operations, the maneuver element supported must provide the following:

- ❑ Pattern analysis of the activity by time and location.
- ❑ TUAV nested into the collection plan for redundancy or observation dead space.
- ❑ Three to four point targets prioritized per mission.
- ❑ Accurate target description and any previous imagery of the target area.
- ❑ Connectivity via mIRC Chat with the maneuver battalion S2.

TUAV capabilities for countermortar TUAV operations include the following:

- ❑ Observe, track, report, any element of the target description.
- ❑ Cover observation post (OP) dead space (in which they cannot observe).
- ❑ Employ terminal guidance provided by maneuver S2.
- ❑ Provide thorough coverage for up to two target areas, minimal coverage for three or more.
- ❑ Observation of routes into the target area.

Indicators the TUAV can identify conducting countermortar operations

- ❑ Recent (past 3 hours) unusual ground scatter.
- ❑ Suspicious vehicles stopping and emplacing mortars (requires longer time on target).
- ❑ Possible threat OP over-watching mortar site (requires longer time on target).
- ❑ Vehicles with mortars in the back.

Indicators the TUAV can identify conducting counter-IED operations

- ❑ Unusual ground scatter (evidence of digging).
- ❑ Suspicious vehicles stopping and emplacing IEDs (requires longer time on target).
- ❑ Possible threat OP over-watching IED site (requires longer time on target).

Indicators the TUAV can identify conducting direct-action observation operations

- ❑ Habitual security measures in target area.
- ❑ Identity of individuals with weapons.
- ❑ Vehicle color and type (requires daytime flight).
- ❑ Choke points, road obstructions, static operations on rooftops.
- ❑ Weapons protruding from windows.
- ❑ Friendly movement.
- ❑ Egress of personnel.
- ❑ Unobstructed routes for friendly movement.

Figure 3. TUAV Indicators.

To conduct counter-IED TUAV operations the supported maneuver element must provide the following:

- ❑ Pattern analysis of the activity by location and time.
- ❑ TUAV nested into collection plan for dead space of redundancy.
- ❑ Prioritized two to three target areas per mission.
- ❑ Accurate target description, any previous imagery of target.
- ❑ Contact via mIRC Chat with ground maneuver unit S2 and TUAV C2 cell.

Capabilities the TUAV provides for counter-IED TUAV operations include the following:

- ❑ Observe, report, and track known indicators.
- ❑ Employ terminal guidance provided by maneuver S2.
- ❑ Provide thorough coverage for up to 2 target areas, minimal coverage for 3 or more.
- ❑ Can perform route reconnaissance in concurrence with IED reconnaissance.

To conduct direct action observation TUAV operations, the supported maneuver element must provide the following:

- ❑ Target description to include personnel, vehicle, crucial indicators of the presence of high-value target (HVT).
- ❑ Provide critical events and times list for synchronization.
- ❑ Imagery of facilities and vehicle types used.
- ❑ Know threat security and defensive plan.
- ❑ One route reconnaissance and one point target per mission.
- ❑ Contact via mIRC Chat with ground maneuver unit S2 and TUAV C2 cell.

TUAV capabilities for counter-IED TUAV operations include the following:

- ❑ Route reconnaissance of friendly ingress route one to two days before and the day of mission.
- ❑ Observe target at standoff distance in order to verify the arrival of the specific HVT.
- ❑ Observe egress of personnel and vehicle from target.
- ❑ Identify last-minute changes to target description.
- ❑ Employ terminal guidance provided by maneuver S2.

Sustaining the Extended Split-Based Operations Capability

The Shadow TUAV system is a parts and petroleum, oil, and lubricants (POL)-intensive organization. To facilitate proper sustainment of the Platoon for extended split-based operations, the Platoon must deploy with adequate POL and Class IX (repair parts and components). Additionally, the Program Office must establish a forward resupply area, and the Platoon must establish a maintenance plan that includes AV rotation and periodic maintenance standdown days.

Before deployment, the Shadow Platoon must ensure that all Class IX prescribed load lists (PLLs) lines are full in accordance with PLL lines established and provided during the fielding. In a desert environment, the Platoon must double the propeller PLL line from 4 to 20 since sand and small rocks can severely damage the propeller during recovery operations. The propeller will be the most-replaced PLL line. The Platoon and MI battalion leadership must take into account the difficulty in acquiring parts for the Launcher and Remote Video Terminal (RVT). The launcher will always be the single point of failure for the TUAV Platoon since there is only one. Platoons must also deploy with increased stocks of de-icer for carburetor de-icing (the unit deployed with 480 bottles) and oil for the AV (the unit deployed with 25 gallons), neither of which can we order through the Army Supply System at this time.

The Program Office must establish a forward resupply area (FRA) centrally located in the C/JTF AO. It must be next to a secure airfield that is capable of establishing an express-delivery reception station. In addition, the MI Battalion must plan for and conduct air movement operations for resupply of TUAV parts. The Program Office representative or Field Service Representative must be available to travel to the FRA for initial coordination and continuous resupply. The FRA point of contact can call the requesting unit and notify them of the arrival of parts. The MI Battalion then coordinates for air movement to the FRA to pick up requested parts.

In addition to external support, the TUAV Platoon must establish an AV rotational maintenance program to ensure AVs maintainers are conducting the required 125-hour inspections. Several catastrophic failures of the TUAV in recent months require the MI Battalion and Platoon leadership to be cognizant of the results of these investigations. In recent months, several catastrophic failures of the Wankle rotary engine and mounting brackets on the Shadow have required the UAV community to develop a robust and stringent maintenance program. The battalion and platoon leadership need to be aware of the procedural changes that develop from accident investigations and to ensure they exhibit proper attention and focus in the platoon maintenance program. The implied task is nonrecurring intelligence production requirement (NIPR) availability to receive and distribute technical field notices that address procedural and equipment changes. We usually receive two a month with most of them requiring a checklist and -10 and -20 level technical manual changes. Once the investigation findings become public, the TUAV Platoon must include these faults as additional routine maintenance checks. The best means to keep all TUAV personnel informed of the investigation results and additions to maintenance checks is to post updates in the flight crew information file (FCIF).

Conclusions

The Shadow TUAV is so new to the Army inventory that we have not established complete doctrine and procedures to facilitate appropriate employment and integration of the TUAV into the current combat operations environment. MI leaders must establish communications with those units that have recent combat experience. Units with recent combat experience and those currently in the C/JTF-7 area of responsibility must develop and produce similar articles and after-action reviews for specific TTP not currently taught at the U.S. Army Intelligence Center schoolhouse. To make the TUAV a successful asset in the Intelligence battlefield operating system, TUAV personnel must conduct information-sharing with units that are currently or will be fielding the system.

The Shadow 200 is still in the stages of infancy in developing doctrine and procedures that allow it to focus in an asymmetrical, nonlinear battlespace. The current environment in OIF facilitates the need for new doctrine and TTP to be developed and shared throughout the Intelligence Community. Every unit that is currently employing TUAVs in a combat environment has the inherent responsibility to share what works and what does not, help develop it into doctrine, and teach it to the next generation of TUAV leaders, operators, and maintainers.

The 1st Platoon, Alpha Company, 312th MI Battalion, and the 313th MI Battalion have and will continue to conduct successful TUAV operations in the 82d Airborne Division AO by—

- ❑ Continually modifying the TUAV Platoon MTOE to meet the combat environment and increasing intelligence needs.
- ❑ Enabling the Platoon to conduct extended split-based operations by providing the Platoon with the necessary assets to meet the mission.
- ❑ Working directly with the maneuver unit to integrate the TUAV properly as a part of the continually changing threat environment.
- ❑ Establishing a continuous resupply plan and a viable maintenance plan to cycle AVs through mission and maintenance phases properly.

The author wishes to thank the other members of the 82d Airborne Divison's TUAV C2 Cell for their input: First Lieutenant Christina van Langenberg (currently the TUAV Platoon Leader for 1st Platoon, Alpha Company, 312th MI Battalion), Chief Warrant Officer Two James Harris (currently a TUAV Warrant Officer for the 313th MI Battalion), and Warrant Officer One Richard Stultz (currently the TUAV Platoon Warrant Officer for 1st Platoon, Alpha Company, 312th MI Battalion).

Endnote

1. *Editors note: See the April-June 2004 issue for CPT Gill's article on the Shadow TUAV mission process.*

(Continued on page 33)

Opening the Eyes of the Battlefield: System Modifications for Conducting TUAV Operations in OIF

by First Lieutenant Christina van Langenberg and Warrant Officer One Richard D. Stultz

The information age has made linear battlefields obsolete, and asymmetrical battlefields in a stability and support operations environment are the norm for future operations. The focus of the modern military has become the development of procedures and equipment that will provide organization of thought and action in an otherwise chaotic environment. A common operational picture (COP) of the battlespace is perhaps one of the most vital elements of the commander's immediate decisionmaking process. The collection media behind the COP has changed dramatically through the years; its value has not. On the forefront of modern collection is the Shadow 200 Tactical Unmanned Aerial Vehicle (TUAV), an asset designed to be the brigade commander's "eyes on the battlefield." The TUAV provides the commander real-time video, allows for near-real-time (NRT) decisionmaking, and assists other Intelligence battlefield operating systems in verification and validation of targets and decision points.

As the fifth TUAV platoon in full operation, the 1st Platoon, A Company, 312th MI Battalion, deployed as a part of the 82d Airborne Division conducting offensive and stability operations in support of Operation IRAQI FREEDOM (OIF) immediately after completion of fielding. The fielding of this asset sparked a number of unanswered questions, and allowed for the development of new techniques and procedures in the employment of the "eyes of the commander" in a desert combat environment. This article addresses the specific modifications incorporated by the 1st Platoon (TUAV), A Company, 312th MI Battalion, in order to successfully integrate the Shadow TUAV system into the maneuver commander's view of the battlespace.

Predeployment

As with any unit, load plans are central to the movement of the Shadow TUAV platoon. The unit must identify required space early and procure additional space if the modified table of organization and equipment (MTOE) systems and equipment are not sufficient for the unit's needs. The mode of deployment is also a consideration as packing restrictions differ from sea movement to air movement. Sea movement may require storage such as "quadcons" or military-owned demountable containers (MILVANs) for the platoon because we cannot always pack the vehicles to full capacity.

Our platoon conducted an air movement into the theater using one C-5 Galaxy. Initial load planning revealed that it was not feasible to transport all TUAV equipment, Soldier equipment, our initial supply of petroleum, oils, and lubricants (POL); nuclear, biological, and chemical (NBC) equipment; ammunition; Class I (subsistence and health and welfare items); and all Soldiers with the six-vehicle configuration as dictated by the requirement to deploy in not more than three C-130 Hercules aircraft. We added one M1097A2 and one M1025 high-mobility multipurpose wheeled vehicle (HMMWV) to the platoon to ensure appropriate space for our needs. In addition, the M1025 has a mount for an M2 .50-caliber machine gun, which provides an additional benefit to the platoon in the form of force protection. A basic description of our load plan for air movement is as follows:

- Ground Control Station (GCS) 1: GCS equipment.
- GCS 2: GCS equipment.
- Air Vehicle Transport (AVT) and Launcher: air vehicle (AV) equipment.
- Cargo HMMWV 1 and Trailer 1: life support equipment.
- Cargo HMMWV 2: life support equipment, medical supplies.
- Maintenance section multifunctional (MSM): carries tools and equipment POL.
- Additional Vehicles:
  - Cargo HMMWV 3: Soldier equipment, Soldiers.
  - Hard-shell HMMWV: administrative supplies, Soldiers.

The MTOE vehicles provide 12 seats if the backs of the cargo HMMWVs are not included (packed with equipment or hauling fuel). Soldier equipment includes such things as deployment bags, NBC equipment, ammunition, water, and meals, ready-to-eat. The additional vehicles have proven invaluable for transport of troops from living areas to work areas as well as for resupply operations.

Movement

Movement of the Shadow platoon takes some special consideration. There are a number of transportation documents and waivers available from the Program Manager that will apply to air, sea, and ground movement. Of particular interest are the nitrogen cylinder and the AVT vent kit. With memorandum DOT-E 13002 from the Department of Transportation dated 15 August 2002, the

platoon can transport the nitrogen cylinder on the launcher. Additional cylinders must adhere to the appropriate hazardous material (HAZMAT) documentation (Shipper's Declaration for Dangerous Goods for Air Movement or DD836 for ground movement) and packing requirements. Before deployment, the unit should assess the need for additional cylinders. Length of deployment, supplies in theater, status of current cylinder(s), and ability to request additional nitrogen should all be decision criteria. Other useful documents include a memorandum from the Department of the Air Force, Subject: Tactical Unmanned Aerial Vehicle System, dated 3 May 2002, which lists the expected transportation dimensions, including size and weight, for each component of the system. A memorandum from the Department of the Army, Subject: Packaging Waiver PSCC-02-05, dated 28 May 2002, lists the requirements for transporting the system with motor gasoline (MOGAS) in the side tanks of the AVT and residual fuel in the aircraft and fuel pumps. A copy of these waivers must accompany all shipping documentation with the unit movement officer. The platoon can obtain these documents from the Program Office.

The AVT has a venting system to allow for the escape of MOGAS fumes while in transit. There are two MOGAS fuel tanks on the AVT as well as residual fuel in the aircraft. Air movement requires proper ventilation of the AVT. The platoon comes with a vent kit, and during air-load planning, the AVT must be at an appropriate location on the transport aircraft so the vent kit will reach the vent ports. If the fuel bowser (part of the Mobile Maintenance Facility, the general support maintenance vehicle) has pumped fuel, it also requires venting. The maintenance noncommissioned officer in charge (NCOIC) must ensure selection of the correct setting to vent the fumes into the vent hose, and not directly out into the open.

Emplacement

Designed to be a tactical, mobile system, the Shadow TUAV does not include a large portable maintenance facility. Such a facility can limit the platoon's ability to move on short notice and also requires additional cargo space. However, an assessment of the forecast operating environment may reveal that moving the launch and recovery site (LRS) is not necessary to support operations effectively. We are using a large-frame tent for maintenance operations; the nomenclature of this tent is "tent: lightweight maintenance enclosure (LME)." The LME provides parking space for all four aircraft and storage for spare parts, tools, and maintenance records. The alternative is to manage all maintenance actions from the shelter of the maintenance vehicle and over the long term, this can become difficult due to lack of space. The LME also protects the aircraft from the harsh elements of the desert without disassembly and storage in the AVT.

Prior coordination of airspace is crucial, especially if operating in a high air-traffic area. We were able to establish which means that we have an altitude block that we "own" and can fly in without prior coordination to move from one target to the next. This facilitates relief on station (continuous coverage) and dynamic retasking. Frequency management is also a point of concern. Units must request and have assigned frequencies before deployment to facilitate conducting magnetic calibrations immediately following arrival in theater. Coordination between TUAV platoons is also essential to ensure sufficient separation of frequencies. The AV can operate with both continental United States (CONUS) and outside CONUS (OCONUS) frequencies, providing two different range sets. We operate with CONUS frequencies because the bandwidth allocated for OCONUS frequencies has less range than that allocated for CONUS—every Shadow unit supporting OIF uses CONUS frequency sets for this reason.

The platoon operates in two groups, the LRS and the forward site. The LRS houses the aircraft and maintenance assets, and its primary use is to launch, recover, and maintain aircraft. It also has the ability to fly missions if necessary. The forward site houses the command and control (C2) cell and manages all missions. We fly missions from the forward site when possible. The composition of each site depends largely on mission requirements. If the LRS will fly missions with frequency, the platoon should divide operators accordingly to maintain operational capability at each site. The forward site package consists of one GCS, one cargo HMMWV, and one trailer, which provides room for all personal equipment and Soldiers. The personnel with this package include six UAV operators (96U); one Electronic Warfare/Intercept Systems Repairer (33W) as command, control, communications, computers and intelligence (C4I) technician; the TUAV Operations Technician (350U); and the All-Source Intelligence Officer (35D) as platoon leader. The remainder of the platoon is with the LRS.

Communication between the two sites is primarily via frequency modulation (FM) radio. The communications personnel must allot the platoon two secure nets: one for mission and platoon command and one for preflight. We restrict these nets so only the platoon can operate on them to eliminate unnecessary traffic to the operators before and during flight. We emplaced our LRS 34 kilometers from the forward site. Each site has an OE-254 antenna built on top of buildings or as high as gravity will allow, yet we still have difficulty with FM communications depending on atmospheric conditions. For this reason we recommend the maximum operational

limit between the two sites be 35 kilometers to ensure reliable communications.

In order to maximize the range of operations, the platoon should balance the distance between the LRS and the forward site: close enough to maintain communications integrity but far enough to extend coverage by allowing the LRS to fly missions as well as the forward site. If the unit's area of responsibility is particularly large, flying missions from both sites will be a must. To do this effectively, the orders dissemination must be thorough and timely. Both sites need detailed target descriptions as well as imagery and maneuver graphics when available. Other forms of communication that increase effectiveness are mIRC32 programs via Secure Internet Protocol Router Network (SIPRNET) and voice communications using the Mobile Subscriber Equipment Digital Nonsecure Voice Terminal (DNVT). The mIRC32 is a chat program that allows operating units and agencies to communicate instantaneously without range limitation. The TUAV platoon maintains a chat room for missions where the supported unit could focus collection as needed. The staff weather officer is also available in this chat room for instant weather updates. The platoon deconflicts airspace during flight in the air traffic control chat room. We currently do not have SIPRNET connectivity at our LRS, which limits the ability of the supported unit to direct missions flown by the launch site. We solve this by receiving directions from the supported unit at the forward site via mIRC32 and relaying the information to the LRS via FM radio or DNVT.

In a combat environment, noise reduction and fuel conservation are imperative. One way we minimize noise is by eliminating the 10-kW generator that powers the GCS by drawing power from the Common Ground Station's (CGS) 30-kW generator. In a tactical operations center (TOC) setup, the GCS and CGS will generally be close because the CGS imports the feed from the GCS as part of the C4I architecture. A 50-amp W3 power cable—the Shelter Alternate Power-Source Cable—makes the connection from GCS power plug to the World-Wide Power Interface Unit (WWPIU) on the CGS generator. We also opted to use the 100-foot W234 20-amp power cable fielded with the system to power to the Ground Data Terminal in lieu of the 2-kW generator.

Operations

Before conducting operations in a new theater, the unit must conduct magnetic calibrations on all aircraft. This procedure tells the aircraft where it is in space and the more accurately the unit does it, the more accurate the payload telemetry will be. This is particularly important in a military operations on urban terrain (MOUT) environment, as most targets are single houses or buildings in the midst of many. The system will accept one and three- quarters of a degree of error on cardinal headings during the magnetic calibration process; however, in our experience units should make all efforts to establish the most accurate magnetic calibration because the Shadow consistently displays a high target location error (TLE).

One problem we did not expect to encounter but have become accustomed to is prolonged navigational errors. There are a number of locations where the AV cannot acquire satellites in our area of operations, and this leads to difficulty in locating targets using the AV's navigational aids. This problem is of special concern when the GDT loses link with the AV and it enters return-home mode. Return-home coordinates are preprogrammed into the AV and will allow the AV to loiter in an area until either the GCS regains control or the AV runs out of fuel. Navigational error keeps the aircraft from accurately recognizing where it currently is so if the aircraft goes into return-home mode, chances are it will not fly to the preprogrammed return-home coordinates. While experiencing this problem, it became readily apparent that TUAV operators must have a developed skill in map-to-video correlation. Map-to-video correlation allows the operator to navigate using terrain association instead of coordinates that tell the aircraft where it is and where the camera is looking. The use of an imagery program such as FalconView is invaluable when telemetry from the AV is inaccurate due to navigational error. The mission commander can talk the mission payload operator (MPO) in to a target using this type of detailed imagery and the camera as a guide. The air vehicle operator (AVO) must also manually track the aircraft with the controlling antenna (Ground Data Terminal) located with the GCS.

Another common occurrence during flight is loss of link over highly populated areas. While the cause of interference is unknown, one may attribute it to the higher levels of radiofrequency interference in urban areas. In order to maintain maximum target observation, we plan our flights around urban areas rather than through or over them. This also applies when there is a large urban area in between the AV and the GDT. This generally does not limit the ability to collect on targets inside urban areas.

Another method is to operate in return-home delay mode. The return-home mode leads the aircraft back to a preplanned point immediately after loss of link while return-home delay, however, will allow the AV to stay on target for an additional 30 seconds before actually returning home. This is especially applicable with flight patterns that break the line of sight between the GDT and the AV with the wing while banking.

The "points navigation" option allows the AVO to loiter the aircraft around a selected point for the entire duration of the flight. Points navigation reduces the need to navigate the aircraft manually, and allows the MPO a good view of the target. However, the points navigation

selection establishes a loiter radius of 1.3 kilometers from the target and operators cannot change this value. We have identified that this distance is too close to the target in a combat environment, especially in rural areas where noise is low, because the aircraft is audible. For most missions silence is of the essence. We have found that a 2.5- to 3-kilometer standoff is optimal at 5,500 feet above ground level (AGL); this level minimizes noise yet observation of the target is ideal. In addition, in order to combat the signature of the Shadow, we found that flying without navigation lights and strobe light were an absolute necessity. We operated out of a medium traffic airfield that serviced both fixed- and rotary-wing aircraft and activated the navigation lights at 500-feet AGL and below during launches and recoveries for collision avoidance. We do not use the strobe light at any time during flight.

The use of computers, as with most operations, is vital in the TUAV platoon. The platoon fields with four laptops. We distributed these laptops as follows:

- Maintenance (loading frequencies, magnetic calibrations, maintenance tracking, and records keeping).
- Platoon sergeant (administrative files, used in the platoon operations center at the flight line).
- Standardization Pilot (SP) (administrative files, training records).
- Forward site (missions).

The forward site laptop can run an imagery program while conducting the mission and communicating with the supported unit via SIPRNET. Personnel from the GCS can configure a file transfer protocol (FTP) and use this laptop to connect to that link and download national imagery transmission formats (NITFs) for use in the post-mission intelligence summary.

The Army fields the Shadow TUAV system with four remote video terminals (RVTs) that allow the customer to view real-time video and adjust collection as necessary via telephone, radio, or SIPRNET. We recommend distribution of these four be one to each maneuver battalion and one floater for the main effort (we can sign it down to a maneuver company); we use a television in the TOC as opposed to the RVT in order to provide this floater. The unit should assess the possibility of moving RVTs between units ahead of time in order to provide training for all units on the operation of the RVT. The brigade may also assign operators to travel with the RVT as the priority of collection changes from unit to unit. Training on RVTs should occur before a field problem or a deployment. Supported units must identify two or three Soldiers to train, preferably with a Military Intelligence or automation background. Preceding departure for a field problem or deployment, the supported units should sign out RVTs. Another consideration is the lack of availability for RVT parts. The waiting time on these parts is considerable and the platoon may have to use the fourth RVT for spare parts. We recommend putting all four RVTs into operation until spare parts are necessary and establishing a priority for which unit's RVT will be the first used for parts. Subordinate units should develop the capability to use the RVT in a remote role. Emplacement at the company TOC for a raid is one example of how to get the video to the lowest level user.

Many stability operations and support operations missions rely on extremely accurate telemetry and focus on individual buildings and maneuver graphics, for these types of missions are invaluable. Imagery such as FalconView provides accuracy in finding 1 house in the midst of 20. In addition, operational graphics allow the mission commander to communicate with the supported unit in terms of building numbers and route names. We suggest that operational graphics should be a requirement when submitting a mission request.

The Army trains UAV mission commanders (MCs) during fielding and at the unit level before deployment operations. Each MC must be on orders signed by the commander to perform those duties. Due to the operational differences between the LRS and the forward site, we established a set of grading criteria that incorporated tasks to perform at each site. We base the responsibilities and duties of the forward site MC on mission criteria and requested intelligence products. The forward site MC-grading criteria is a compilation of 1,000-level Soldier tasks, 3,000-level unit tasks, communications, and safety procedures annotated on a DA form 7120-1-R (Crew Member Task Performance and Evaluation Requirements). It requires a separate annotation that states "Qualified to perform duties as a forward site mission commander on RQ-7A" in the crewmember's training folder. RQ-7A is the Shadow 200 TUAV designator.

Conclusion

Today's battlefield is evolving at a higher rate than ever before. Elements essential to the commander's fight are flexibility and NRT intelligence. The Shadow TUAV system provides the commander with a highly maneuverable asset that can react to and shape an asymmetrical battlespace. A combat environment is the true facilitator for identifying what works and what does not, and it allows leaders to develop standing operating procedures (SOP) tempered with operational need, common sense, and safety. The combat environment forces identification of necessary system modifications and enhances development of valid SOPs for the system. Flexible and versatile, the Shadow is quickly stepping to the forefront of NRT intelligence collection. The ultimate goal is to put real-time imagery data into the hands of the maneuver commander

and provide him with the means to make an accurate decision at a decisive point, saving lives, equipment, and time by opening the "eyes of the battlefield."

The author wishes to thank the members of the 312th MI Battalion TUAV Platoon for their contributions to this article.

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(Battalion S2's Perspective continued from page 23)

Leave back personnel trained on physical security.

Leave the S2 NCOIC at home station. I recommend this because he knows and understands physical security requirements since that is his garrison mission. In addition, he is senior enough in rank that he can ensure implementation of his recommendations. I know it cuts the S2 section strength by 20 percent but the S2 shop went into combat short by 40 percent—the section can absorb the "pain."

Have trained and certified armorers on rear detachment. This will ensure that you will have minimal arms room issues.

Figure 3. Post-Deployment Lessons Learned.

relationship to provide a strong security posture. After a 107-mm rocket attack on the compound, we requested an increase in the security posture. The Pakistanis immediately complied and we experienced no additional attacks during our tenure. The last element of 1-187 INF flew out of Pakistan on 11 June 2002.

Post-Deployment

The recovery of privately owned vehicles and personal property went smoothly. The primary difficulty we had was official property accountability as we were trying to consolidate two separate property books and other issues (see Figure 3). Another area that presented a problem was physical security. Being gone for seven months without an S2 or physical security representative was too long. The arms room had fallen behind on proper procedures and needed to return to standard.

Conclusion

These are the lessons the S2 section learned during Operation ENDURING FREEDOM. Most, if not all, of these recommendations are common sense or the normal way an S2 section conducts business; however, seeing them stated may help make your next deployment easier or refresh your memory on how you want to do business.

I would like to thank Lieutenant Colonel Ron Corkran, Leader 6/TF 1-187 Commander; Major Paul Sarat, TF 1-187 Operations Officer, Major Jonathan Sweet, 101st Airborne Division (Air Assault) ACE Chief; and First Lieutenant Luke Frank, the BICC, for assisting me in writing this article.

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(TUAV Extended Split-Based Operations continued from page 28)

2. The expansion of "mIRC Chat" is Mardam-Bey's Internet Relay Chat. See for example, "Viral Contagia in Cyberspace" by Colonel John C. Deal, U.S. Army; Robin Schueneman; and Major Gerrie A. Gage, U.S. Army, in ***Military Review***, March-April 2001, <www.cgsc.army.mil/milrev/english/MarApr01/deal.asp///.

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Winning Through Logistical Support:
An Unconventional Approach

Photographs courtesy of the author.

Headquarters and Headquarters Operations Company (HHOC), 501st MI Battalion, moving north from Kuwait to Iraq.

by Captain David G. Ott

> *Before a commander can even start thinking of maneuvering or giving battle, of marching this way and that, of penetrating, enveloping, encircling, of annihilating or wearing down, in short of putting into practice the whole rigmarole of strategy, he has—or ought—to make sure of his ability to supply his soldiers with those 3,000 calories a day without which they will very soon cease to be of any use as soldiers; that roads to carry them to the right place at the right time are available; and that movement along these roads will not be impeded by either a shortage or a superabundance of transport.*
>
> **—Martin Van Creveld, Supplying War**[1]

Logistical support operations are rarely in the "spotlight." They are time-intensive, and no one is concerned until a vehicle does not start or dinner is late. Units usually complete the combat service support (CSS) portion of the operations order (OPORD) last, and it typically is unread. The bottom line is that for most military intelligence (MI) commanders, logistics is not the priority; their priority is intelligence systems and analysis. We are constantly pushing the systems and personnel to provide timely and accurate intelligence 24 hours a day. Commanders do not care how we do it so long as the intelligence had accurate analysis and we disseminate it to the right people in a timely manner.

Logistical Support is a Priority

During Operation IRAQI FREEDOM (OIF), logistical support to intelligence operations proved to be a continuous challenge. Intelligence operations were a priority for the 1st Armored Division, which resulted in a high operational tempo for everyone in the battalion. Resource requirements changed from Kuwait to Baghdad. Availability of resources defied every tactics, techniques, and procedures (TTP) developed preceding deployment. The purpose of this article is to challenge current TTP and conventional wisdom on the doctrinal use of a Headquarters and Headquarters Operations Company (HHOC). I believe that current doctrine does not adequately support the MI company. I propose that the Army develop and reinforce the HHOC focusing on the five tenets discussed below in order to provide the best support to the MI battalion. Additionally, I challenge the existing doctrine and argue that the best form of support would be a task-organized element from one's own unit.

Logistical support to the warfighter is a top priority. During OIF, large numbers of Soldiers and vehicles crossed a vast desert engaging a variety of enemy forces on different fronts. The logistical requirements were awesome. The initial lessons of OIF have shown that logistical support to operations is critical to the success of the mission. In that sense, logistical support to intelligence operations is even more critical because meeting the continuous requirement for timely and accurate intelligence is essential for the success of combat operations. Yet logistical support does not end with the "beans and bullets." That is just one facet of a larger microcosm that generates mission requirements for HHOCs in order to free up the other companies of the battalion.

> *Strategy is to war what the plot is to the play; Tactics is represented by the role of the players; Logistics furnishes the stage management, accessories, and maintenance. The audience, thrilled by the action of the play and the art of the performers, overlooks all of the cleverly hidden details of stage management."*[2]

The result is that to have a successful operation, whether with infantry or military intelligence, you must incorporate your logistics elements.

Developing Five Tenets for Logistical Support

In order to maintain an MI battalion in combat, the HHOC commander must develop new TTP to provide the most timely and accurate form of support. In doing so, we developed and refined five concepts that facilitated timely support to intelligence operations across the Division. These **five tenets** of effective logistical support to intelligence operations are—

- ❑ Maintenance support team operations.
- ❑ Security operations.
- ❑ Maintenance response teams.
- ❑ Command and control (C2).
- ❑ Training.

I developed each concept before deployment but refined them during operations in and around Baghdad. To

support the intelligence Soldier adequately, commanders must redefine and transform their HHOCs. They must push their support assets forward to free the MI companies from having to wait for logistical support.

OIF continues to challenge current doctrine and conventional wisdom, as well as creating new TTPs and redefining ideas we trained in the past. Logistics is part of that development, becoming a force multiplier in intelligence operations.

> *Combat service support (CSS) capabilities enable Army forces to initiate and sustain full spectrum operations…[they] must also be able to support all possible mixes of offensive, defensive, stability, and support operations. In some operations, especially support operations, CSS may be the decisive force of the operation.*[3]

During OIF, the role of HHOC became a critical piece in the ever-changing and developing situations that coalition forces faced.

The challenge was how to support constantly developing situations that could change from offensive operations to stability operations and support operations. To accomplish this task, training before development focused on flexibility and "push" packages. The intent was to push as much support forward as necessary to allow the commander the most flexibility in accomplishing his mission. The ARTEP (Army Training and Evaluation Program) and Military Intelligence Combined Arms Training Strategy (CATS) focused training at the company and platoon levels. HHOC MI doctrine was challenged to fit the ever-changing battlefield and in doing so, we created new TTP and standing operating procedures (SOPs) that focused on Field Trains operations and support missions. The critical component was to be as responsive as possible. When the situation or mission changes, support packages must be as quick to respond as is viable to ensure continued support for the companies.

> *Responsiveness, flexibility, and economy are key CSS characteristics that enable CSS forces to support an agile combat force and execute operations more swiftly than their opponents. They help get the force what it needs to initiate, sustain, and extend operations. Agile CSS forces allow combat forces to adapt quickly to full spectrum operations and missions, while expending as few resources as possible and minimizing the CSS footprint.*[4]

Structure of the MI Battalion in a Heavy Division

In order to understand the role of the five tenets in support operations, it is first necessary to have a basic understanding of a heavy division MI battalion force structure. An MI battalion consists of five organic companies: three direct support (DS) companies typically attached to one of the maneuver brigades, one general support (GS) company that provides intelligence and electronic warfare (IEW) support across the division area of operations, and one HHOC that provides maintenance, staff, and intelligence support to the battalion and division. un o d si u i ionsiii o d i suis !

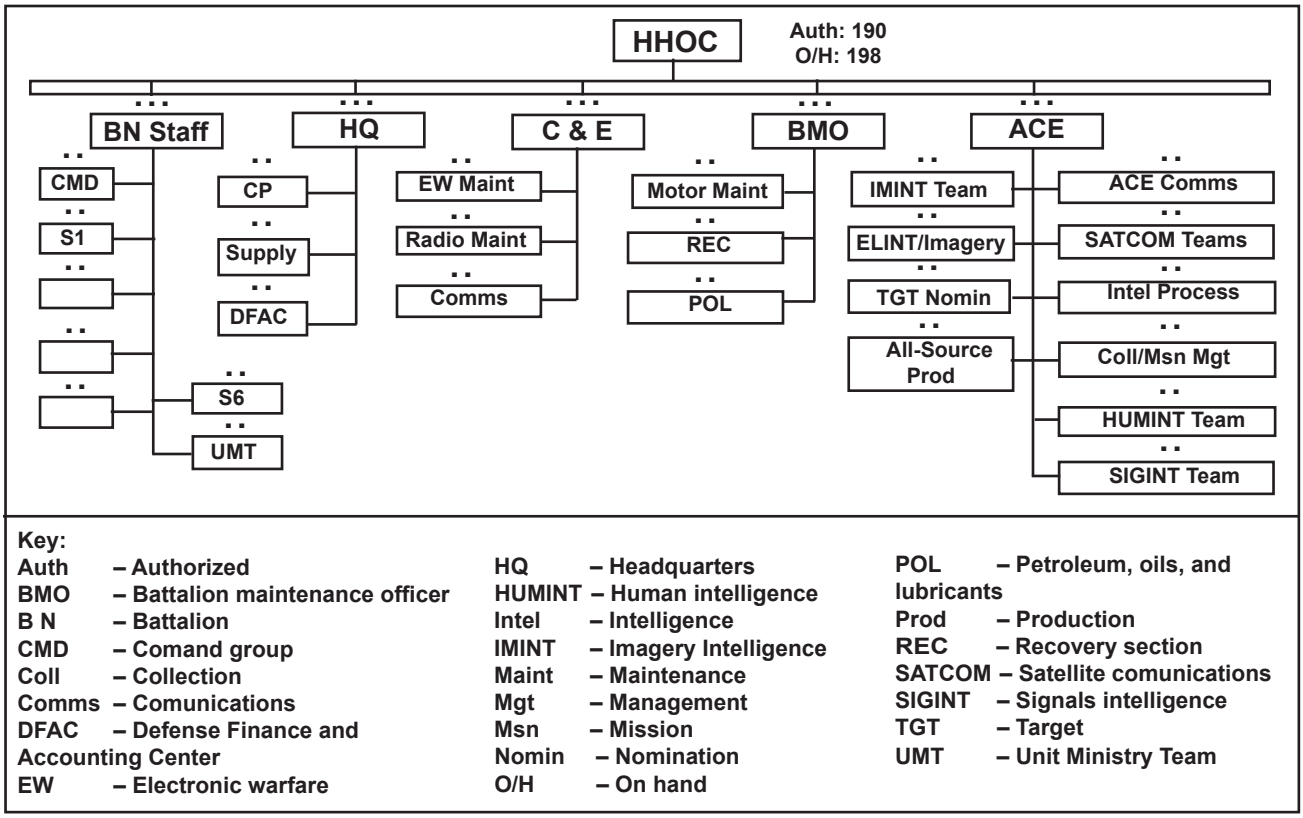

Figure 1. Structure of the HHOC, 501st MI Battalion.

in developing the tenets were that the company had to be responsive, flexible, and economical in order to meet an ever-changing environment. Current doctrine worked well at the combat training centers (CTCs) but did not apply very well to the sands of Iraq. Doctrine provided the baseline but our missions created the TTP, resulting in transforming the company into a highly mobile and responsive security and support company. These five tenets are not a checklist but serve as a guide for commanders to employ their HHOCs best.

Maintenance Support Teams (MSTs). How can one best support the military intelligence battalion? We attacked that question throughout the predeployment preparation. The dilemma was to create a system that would be a force multiplier instead of a hindrance. The answer was to establish MSTs from HHOC to provide maintenance DS to the MI companies. At the most basic level, these teams comprised task-organized mechanics and technicians that could provide primary support to a specific company. Each team consisted of mechanics, C&E technicians, and communications repair specialists. The teams carried their own tools and repair parts to reduce the time required to repair damaged equipment. The 501st MI Battalion attached an MST to each company providing continuity of care between the mechanics and technicians and the Soldiers of the supported company.

The creation of the MST ensured that logistical support was pushed to the MI company. MSTs were able to provide assistance at the critical moment because the assets were already there. If the MST could not handle the recovery operation alone, the team could request heavy assets from the Battalion. In addition, HHOC could reinforce an MST if that company was with the main effort. This type of flexibility allowed us to attack logistic problems rather than to react to a crisis. The MST became a force multiplier freeing the company commander from his logistic crutch. This added flexibility provided the commander with the ability to push his intelligence assets as far forward as possible in order to provide timely and accurate intelligence.

To sustain maintenance proficiency, we established a rotation schedule. Mechanics, C&E technicians, and communications specialists rotated to ensure that all of our personnel had cross-training in every facet of logistical support operations. Instead of creating chaos and loss of continuity as many suspected, the rotation schedule produced a larger cross-trained support force that could flex to any situation.

Responsiveness is providing the right support in the right place at the right time. It includes the ability to foresee operational requirements. It is the crucial characteristic of CSS; responsiveness involves the ability to meet changing requirements on short notice.

Anticipating those requirements is critical to providing responsive CSS.[6]

The result was a highly mobile support team the HHOC could reinforce and interchange while confronting logistic issues at the point of failure rather than waiting for a call.

Security Operations. Security operations became a focal point in Iraq. While the company initially conducted guard force missions, the requirements changed to force projection upon arrival in Iraq. The primary focus was on security of the life support area (LSA) and providing convoy security. The quandary was how to manage all the company requirements and still provide convoy security. The answer was the creation of the "gunship." The gunship was a sand-bagged, reinforced cargo high-mobility multipurpose wheeled vehicle (HMMWV) that provided escort security. Two gunships provided security for any mission leaving the LSA but the company had the ability to project up to six gunships for any type of mission. Each gunship consisted of a crew-served weapon, driver, vehicle commander, and two rear security Soldiers in the back of the vehicle.

The gunship vehicle framework ensured 360-degree security at all times. This display of force projection generated the perceived "hornets nest" concept—the concept centered on the general understanding that if any insurgents attempted to attack the vehicle, they would be met with a "swarm" of weapon systems. We chose gunship crews from within the company, which created a delicate balance because the company had to manage daily company requirements with mission support. Cooks, mechanics, administrative personnel, and technicians provided the base for security patrols.

To administer such a complicated system, C2 operations incorporated a series of synchronization checks. With the mobile company command post (CP), tracking charts were generated that tracked a variety of statuses to include vehicle status, personnel available, and weapon status. Besides managing gunships, the company CP controlled the force protection status and security force at the LSA. This centralization allowed for the sergeant of the guard (SOG) to have security visibility over the entire LSA. The SOG could report the company security posture at the LSA and in Baghdad to higher headquarters without ever leaving the CP.

Flexibility was the key to our success. The Battalion Commander or S3 and I as the HHOC Commander conducted daily synchronization meetings to ensure we addressed all requirements. Upon completion of the synchronization meeting, the First Sergeant (1SG) and I would meet to coordinate mission support obligations. The 1SG would then synchronize with the platoon sergeants to make certain they chose the right people for each mission.

Flexibility is the ability to adapt CSS structures and procedures to changing situations, missions, and concepts of operations. The CSS force provides support in any environment throughout the spectrum of conflict and adapts as operations evolve. When established procedures do not provide the required support, CSS personnel seek innovative solutions, rapidly devise new procedures, or take extraordinary measures to adapt to the situation.[7]

This type of adaptable information management ensured that the company was able to balance mission support requirements (security missions) with daily company requirements (vehicle services, food service operations, and staff operations).

Maintenance Response Teams (MRTs). While the MSTs provided forward support to the intelligence companies, one issue still remained unresolved. How do we provide a heavy-lift capability in the event the MST cannot recover a piece of equipment? Given our limited resources and multiple missions operating simultaneously every day, the task appeared daunting.

Resources are always limited. Economy reflects the reality of resource shortfalls, while recognizing the inevitable friction and uncertainty of military operations… Modular forces, split-based operations, and joint and multinational support coordination are some of the methods used to meet these goals.[8]

The solution was a combination of systems that we had already established. By reinforcing the MST with a heavy-lift capability and a gunship team, we conceived the "heavyweight fighter," the Maintenance Response Team. The MRT consisted of two heavy recovery vehicles, an MST, and gunships to provide security. The MRT provided the flexibility and responsiveness to assault any

A security patrol in Baghdad.

crisis "head on" like a charging bull. This heavy team could move forward quickly and recover a piece of damaged equipment without having to commit any additional resources—it was its own task force. Speed was essential. Once the unit identified the equipment needing recovery, the MRT could recover it and return back to the LSA quickly, thereby limiting its exposure to hostile forces.

The MRT first saw action on the move from Kuwait to Baghdad. The HHOC created two MRTs to support the Battalion's move north. The MRT reacted quickly to disabled vehicles and recovered every vehicle. The MST would quickly assess the vehicle to determine if the MST could repair it at its current location. If it could not be locally repaired, they towed the vehicle. The company Executive Officer was responsible for C2 during recovery operations. Every piece of equipment successfully completed the march to Baghdad. The MRTs were the unsung heroes of the company.

Command and Control. To maintain control and accountability of the numerous elements of HHOC, we had to establish a precise C2 system. We conducted missions during the move from Kuwait to Baghdad in which we had to maintain communications. The solution was to establish a company CP on wheels. Typically, the HHOC would collocate with the Battalion S4 in a Field Trains configuration consisting of several tents. This concept took too much time to establish and could not provide a rapid response to developing situations. We created a CP from a C&E sheltered 5-ton vehicle. Inside the vehicle, the company positioned radios and maps to provide updated information to the commander in a short amount of time. The HHOC CP was able to establish full CP operations within ten minutes of stopping.

Sustaining C2 from the CP was the first step in an aggressive C2 system. In addition to Single-Channel Ground and Airborne Radio System (SINCGARS) radios, the CP used hand-held radios to ensure that vehicles had primary and backup communications. In addition, we conducted rehearsals at the conclusion of every operation to guarantee that Soldiers understand their roles in the operation. The company SOP provided the tools to ensure that that C2 went beyond radios and the CP. The SOP linked every aspect of the company together to make certain that personnel and resources were coordinated, synchronized, and prepared for combat operations. The intent was that the company was able to project C2 through frequency modulation and synchronized movements.

Training. Training provided the link between the tenets. In order to achieve success, the company had to be ready and rehearsed. The training began in predeployment with the development and validation of the company SOP and TTP. Training focused on realistic training scenarios to prepare the Soldiers for a variety of operations. Upon arrival in Kuwait, training continued to focus on live-fire reaction drills, which led to refinement of the SOP and TTP again. In Baghdad, training continued as we again improved the TTP based on the current enemy situation. The bottom line was that training never stopped. Even when we began combat operations, training continued. The company SOP and TTP were continuously challenged to ensure that we conducted every operational facet properly. Furthermore, the HHOC established an effective cross-training program focusing on small-unit tactics.

> *Performance during battle is like the tip of the iceberg. It requires a whole lot of support—under the surface, behind the scenes—before the first round is fired. And the outcome of any battle is determined, with few exceptions, by how well soldiers and units and their leaders were prepared.*[9]

This type of training established the fundamental skills necessary to survive on the battlefield.

The more realistic the training, the more likely your Soldiers will come home. For example, training should ensure certification of your mechanics on every vehicle, they have training on fuel operations, and they are combat lifesaver-qualified. Conduct as many live-fire training and weapons qualifications as possible. This will instill in your Soldiers confidence in their skills and equipment so that they can act at that critical moment. Accept no excuses, everyone must train; do not give in to the daily demands of the Battalion. Focus the training on realistic missions and operations. Practice convoy operations, recovery operations, and recognizing security missions. Develop support plans in advance of deployment. Ensure that both the vehicle operator and vehicle commander are licensed on the vehicle. This type of aggressive in-your-face training will make certain that every Soldier has the skill and will to face combat.

Application of These Tenets

The five tenets can apply to any situation. Whether a unit is deploying to the CTCs or Iraq, the HHOC can apply and refine the tenets. The benefit is that the five tenets challenge the MI doctrine to adapt to missions HHOCs will likely face in future deployments. By understanding your capabilities, strengths, and weaknesses, you can develop your training program to ensure that your Soldiers are ready for war. However, identifying the five tenets of the operations can be easier said than done. The key to successful operations is integrating the tenets in the predeployment training and continually updating them as operations continue.

Taking the tenets and adjusting your company to facilitate mission accomplishment is just part of the battle in

transforming the role of the HHOC in an MI battalion. The next step is to take the tenets and challenge current doctrine. By changing current doctrine, units will no longer have to create support units with Soldiers whose military occupational specialties (MOSs) may not be those best suited for the job. Traditionally, Soldiers trained to execute missions in accordance with their MOSs. In Iraq, Soldiers constantly conducted missions outside their MOSs, such as security and convoy missions. It is essential that we train Soldiers to be Soldiers first and their MOS second—hence, our motto *"An Army of One."* Let us modify the existing force structure to make certain that no matter where intelligence assets are on the battlefield, they provide outstanding logistical support. While the listed MTOE changes may be of limited scope, they address the fundamental hindrances facing the HHOC of today.

Establish a support squad (instead of a support platoon). The squad would consist of up to ten Soldiers with two cargo HMMWVs and a 5-ton truck. This dedicated support squad would be able to focus on training missions in the garrison such as ammunition draw and logistical resupply, and then apply these lessons to the deployments. Current TTP is to acquire any excess personnel and commit them to the support operations. This typically allows for untrained and inexperienced personnel attempting to support several companies.

Establish a medical squad (instead of a medical platoon). The squad would consist of up to ten medics that would be task-organized to the DS and GS companies. Medics would provide timely and necessary treatment for Soldiers to ensure that no Soldier was left behind. Currently, MI units rely solely on combat lifesavers who commonly do not have the training or experience that a medic has. All Soldiers deserve qualified and timely medical care while serving their country.

Increase the number of 63Bs (Light Wheeled Vehicle Mechanics) in an MI battalion. For the operating tempo that the fleet maintains in garrison, it only makes sense to dedicate the proper number of mechanics to ensure that the vehicles have proper service and maintenance. We wasted too much time and too many resources before our deployment because we did not have enough mechanics to complete the job. By ensuring the right number of mechanics for the job, the commander can establish MSTs and properly support the DS and GS companies.

Final Thoughts

In conclusion, the HHOC of an MI battalion faces many obstacles and challenges to ensure mission accomplishment. Doctrine does not focus on the role of the HHOC in the MI battalion and how that role properly supports the line companies. The five tenets discussed here are an attempt to establish TTP for successful logistics

An HHOC Soldier with Iraqi children.

in an operational environment. The tenets show how a commander can reorganize the existing force structure to become a powerful force multiplier on the battlefield. The tenets are only a short-term solution to a larger issue: how best to support the MI company. The best way to accomplish the level of support necessary is through addressing the current MTOE. By using the tenets, one can see how a simple modification to the existing MTOE can guarantee support for the MI companies in the wars to follow. By challenging conventional wisdom and not accepting restriction by doctrine, the HHOC commanders can truly become force multipliers on the battlefield. What do you plan on bringing to the fight?

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Lessons Learned in Afghanistan: Al-Qaeda's Advice for Mujahideen in Iraq

by Ben N. Venzke and Aimee Ibrahim

INTRODUCTION

The "In the Shadow of the Lances" series first appeared after 9-11. As of mid-April 2003, there have been nine installments. The majority of these were written by al-Qaeda spokesperson Sulaiman Abu Ghaith, who also authored the series' most often quoted and notorious passage. In an article that became public in June 2002, Ghaith wrote, "We have not reached parity with

o it; -

long as there is a coalition presence in Iraq, al-Qaeda and other groups will seek to conduct terrorist and guerrilla operations there against coalition forces and any new government viewed as a puppet of the West. This type of activity was demonstrated in Afghanistan through numerous assassination attempts against President Hamid Karzai and other newly appointed senior government officials.

The recommendations and guidance contained in the article provide insight into the type of fighting we can expect to see in Iraq as al-Qaeda members and other groups begin to conduct operations. The threat posed by these actions have no direct correlation with the level of remaining resistance by forces still fighting for Saddam Hussein. High-levels of guerrilla type attacks can be expected to continue well after all of Hussein's fedayeen units and senior leadership figures have been rounded up.

AL-QAEDA AND LESSONS LEARNED

Al-Qaeda understands that for its guerrilla or terrorist operations to succeed in the fluid environment in which it currently exists, the group must continually improve upon what strategies worked and change those that did not. A continuous evolutionary process is key to its survival. This process has, in part, been embodied in the writings, training manuals, and other material of the group.

As one would expect, the messages delivered in this vein frequently relate to the level of the individual authoring the communication and their role in the organization. Osama bin Laden's references have been limited and tended to focus on issues of dedication, loyalty and some broad comments on combat issues. Ayman al-Zawahiri has addressed organizational issues in greater detail in his writings, but has followed a similar path as Osama bin Laden in his public communiqués and audio tapes.

Tactics, techniques, and procedures are most heavily addressed in written articles appearing in publications that follow the model of Western professional military journals, and in fact, often quote from such US military publications. Saif al-Adel, Abu Laith al-Libi and Abu 'Ubeid al-Qurashi have all authored or released such material. Some writings have been directed at specific groups, such as Saif al-Adel's advice to the Iraqi people, while others have focused on a more general audience in order to introduce new concepts to the jihadi community as a whole.

The biweekly publication ***al-Ansar*** has been one of the most voluminous sources of these types of writings and the source of a clear example of al-Qaeda's media awareness and openness to consider different approaches. An article by Abu 'Ubeid al-Qurashi appeared in the publication in 2002 while the Washington, DC area was struggling to deal with a wave of sniper attacks. The article posed the timely question to all its readers: Have we perhaps overlooked the value of sniping operations in jihadi work?

Apart from the group's public communications, these articles and other communications are not designed for the public at large but rather the membership of al-Qaeda and its affiliate groups, as well as the greater jihadi community. While they are circulated in a semi-public manner, they are frequently overlooked or ignored by media outlets and rarely get as much press attention as a leaked FBI Intelligence Bulletin warning of the same tactics. For al-Qaeda, this suits its purposes. Those messages that the group wants to reach a larger audience, such as a new audio tape by Osama bin Laden or Ayman al-Zawahiri, will be released directly or indirectly to media organizations where it will elicit the desired attention. This is most commonly accomplished, although not exclusively, via al-Jazeera. Al-Qaeda recognizes that such a release will likely result in a simultaneous broadcast on major 24-hour news networks, such as CNN and MSNBC. Al-Jazeera is no longer just a release point for messages aimed at the Arab and Muslim world, but rather, it has gained a substantial international audience.

We can expect to see al-Qaeda continue this practice of taking the lessons it has learned through its own experience and through looking at the past successes and failures of other terrorist and rebel organizations in order to better improve its own likelihood of success. These teachings and communications will be incorporated into material taught at training camps but also in al-Qaeda's "professional" journals where it will be circulated throughout the jihadi community via the Internet and other means.

Due to the energy al-Qaeda places on the training and improvement of tactics, techniques, and procedures, it is important to regularly review the activities of various jihadi elements operating in Chechnya, Kashmir, the Philippines, Indonesia, Afghanistan, Iraq and other areas around the world. What the mujahideen fighters perceive as working in one area of the world will be taught and emulated in other areas of operation. Likewise, when new tactics are deployed against mujahideen fighters, these issues will be shared with other fighters around the world in order to develop countering tactics, techniques, and procedures.

MESSAGE TO OUR PEOPLE IN IRAQ AND THE GULF [REGION] SPECIFICALLY, AND TO OUR ISLAMIC UMMAH IN GENERAL: THE ISLAMIC RESISTANCE AGAINST THE AMERICAN INVASION OF QANDAHAR AND LESSONS LEARNED—ENGLISH TRANSLATION.

Released in jihadi circles in early March 2003. Translated by Aimee Ibrahim.

In the name of Allah, the Compassionate, the Merciful

In the Shadow of the Lances Series The Fifth Chapter Islamic Research and Studies Center

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Message to Our People in Iraq and the Gulf [region] Specifically, and to our Islamic Ummah in General: The Islamic Resistance Against the American Invasion of Qandahar and Lessons Learned.

(Written by: Saif al-Adel)

Thanks be to Allah the Lord of the Universe who said in His wisest of inspirations: *"This is a plain statement to men, a guidance and admonition to those who ward off. Faint not nor grieve, for ye are superior if you are believers. If a wound hath touched you, be sure a similar wound hath touched others. We bring these days to men by turns and that Allah may know those who believe and take witnesses from among you; and Allah does not love the unjust."* He also said: *"They will not fight you (even) together, except in fortified townships, or from behind walls. Their adversity among themselves is very great; ye think of them as a whole whereas their hearts are diverse. That is because they are a folk who have no sense. Like those shortly before them, they tasted the evil result of their affairs; theirs is painful punishment."* Blessings and peace be upon the Prophet of mercy and slaughter—the smiling, the fighter—and be upon all of his affiliates and companions.

First, we must be certain that victory is from Allah, the all-wise and omnipotent, and [we must be] faithful during battle, in repentance and depending on His might, seeking Him through prayers and supplications. [We must also be] striving in hard labor, taking into consideration the preparations and readiness for the battle as much as possible.

This message, which was prepared in a hurry, aims at providing our people in the Arab region with a clear picture, from the [battle]field, of the reality of the American enemy and its fighting tactics, and we will use layman's language and refrain from using military terminology.

The First Part: The Program of the Crusader Enemy

The American enemy prefers to work during the winter months for many reasons, first of which is the reliance on the psychological warfare that is harmonious with the coldness of the weather and the darkness of the night and what it conceals of the unknown. [Another reason is] the length of time that provides [the enemy] with the chance to strike the largest number of targets. In addition, the cold weather during the winter assists [the enemy's] individuals in case they decide to advance on the ground. To get to the core of this subject, the enemy depends on three main issues during its war.

First: Psychological Warfare

The American battle is a psychological battle that depends on the media and the magical effect of the microphone. So, the war administration as we can see nowadays begins to propagate subjects relating to war and its tactics, the weapons used, and the time it will take. Then it drops tons of leaflets—boasting, ordering, and prohibiting—as if they are in control as they threaten the commanders and demand their surrender to the enemy. [The Americans are] also careful to putrefy the surrounding medium of their rivals through offering generous rewards to whoever kills the so-and-so leader or reports him. They also stipulate the form of the succeeding regime and nominate its individuals; their stipulation represents a form of terrorizing the will of their rival where they place him under moral siege. Unfortunately, the Arab media is one of the tools of this psychological warfare.

This campaign was successful in some of respects in Afghanistan, due to the absence of the counter psychological warfare in all of its forms. The pinnacle of the success of the media campaign was represented in the role played by the BBC [radio in Pashtu] during the war, due to the absence of a wide reach of the radio of the Taliban and the scarcity of communications between the groups in the different areas. That wicked radio station was alone in the Afghan arena and propagated voluminous amounts of lies and fabrications about fictitious battles and concluded results that broke the combating will of the fighters of those areas and led to the loss of the balance of the Taliban and resulted in many unjustified biases. The Islamic media efforts were represented in what was being broadcast by al-Jazeera and the mujahideen sites on the Net, but that was an outside effort unavailable to the Afghan people.

However, this campaign has failed in all other respects, [primarily] in its dramatic failure to poison the Afghan medium, despite using the former communist members, in addition to the strayed and the anomalous from amongst people. Nevertheless, they have failed on the medium of the Afghan mujahideen. The prime evidence of this is the failure of the American enemy to destroy the leaders of the Taliban and al-Qaeda, and we are still alive amongst them despite the gigantic rewards, which reached 25 million dollars per head of some of the brothers.

The second important point, which proves the failure of the psychological campaign, is that it has failed in kill-

ing the combat spirit within the mujahideen. It affected them only during the first round of battle, as we, and the observers of the sons of the *Ummah* saw, the number of fatalities amongst the American enemy and their allies, that was not revealed by the international media, in addition to the several attempts to assassinate the symbols of the enemy, headed by the dummy of Kabul (Karzai) who replaced the Afghan guards with American guards.

It is also known to those who have experience in war, that [war] consists of a number of battles. We verify that most of the battles that took place after the regrouping and rearrangement among the mujahideen lines were all done due to the grace of Allah and for the benefit of Islam and the Muslims. We would like to say to those who are rushing to victory that the kind of war carried on by the mujahideen depends on a lengthy duration of time and depleting, exhausting and terrorizing the enemy and does not depend on adhering to the land.

Second: Aerial Warfare

The American soldier is not fit for combat. This is the truth that the leaders of the Pentagon know, as much as we and everyone who was engaged with them know. The Hollywood promotions will not succeed in the real battlefield. Therefore, the American commanders tend to use the air forces and missile bombardment to vacate the ground from any resistance, paving the way for the advance of the American phonies.

The American attack started with the heavy bombardment of sites, which had been monitored and were considered—as they thought—Taliban and al-Qaeda sites and a hiding place for some of the leaders. They used the fast fighter jets and the Cruise missiles in their bombardment. The number of missiles used during the first night exceeded 400 missiles—some of those were aimed at a housing compound that belonged to al-Qaeda that was evacuated before 11 September. The bombardment destroyed about a quarter of the complex (20 houses) damaging those houses in various ways. Bombardment continued the same way after the [evening prayer] to almost dawn. These raids continued for three weeks and the final results were almost complete destruction of the housing compound both on the interior and the exterior (it is a little more than one square kilometer). I want to confirm that during this period, none of our military sites in the region, which are located not more than three hundred meters from the housing compound, were bombed. Additionally, during this period, we did not lose a single one of our brothers, for at this time, the enemy was denied land surveillance. Our field preparation was great, thanks to Allah. The bombing on our sites stopped, but continued on our brothers, the Taliban. Because of the cooperation with the Pakistani and Russian intelligence [agencies], the Americans were given maps of some of the Taliban sites, which were originally old locations for the Afghan army and the Russian forces so they bombed the ammunition reserve, destroying those sites. Likewise, they bombed the residence of Mullah Omar, the "prince of believers", may Allah protect him.

The enemy technology could not achieve the desired effect [of finding targets]. Therefore, the enemy depended on the human factor, which involved [a person] identifying a site and then it being bombed by air units.

After that, the bombardment continued in a weak way, as there were no valuable targets in the great city (Qandahar). At this time, the mujahideen's wireless communications were jammed, and a number of hypocritical Afghans that were involved with the Pakistani intelligence [agency] were activated in order to collect current intelligence on the Arab goals in the city and identify some government facilities. By the end of the month of Sha'ban and the beginning of the month of Ramadan, the bombardment began again, using other means that took two forms:

First: The targeting of civilians (according to their description) by bombing the city and the adjacent villages.

Buildings with Islamic and military features were bombed. The Ministry for the Promotion of Virtue and Prevention of Vice was bombed, as was the Pilgrimage Affairs building. They bombed some of the food warehouses, and (Qul Urdu) which is the site for the city's defense forces. Some of the houses of the leaders of al-Qaeda and the Taliban were also bombed. Outside the city, some of the neighboring villages were bombed, and the bombardment was intensified on the roads, leading to burnt cars, especially fuel trucks. This bombardment led to many casualties of Afghan people (men, women and children), and a number of Arab mujahideen men, women and children were martyred (34, including 26 men, six women, and two children). I recounted all the details in my diary on the events of Qandahar. I gave my notebook to the administrators of the site (Islamic Research and Study Center) to be published at the right time—and the bombing continued in the same way until the start of the final week of Ramadan.

Second: The bombing of military sites to facilitate the advancement of ground troops.

The American bombardment did not succeed in causing any deterioration or effect on defensive sites, be it the weapons stored there or the soldiers therein. Of course, the American ground forces did not have any intention to enter Qandahar after painful battles, lessons in the art of land warfare (the operation on the house of the Prince of Believers [Mullah Mohammed Omar] in Qandahar, the operation on the Sahar airport south of Qandahar and the mujahideen camp in Balush

in the Jabal Malek near the southern border of Afghanistan near Pakistan). We will mention, God willing, these operations and its results in another episode of this blessed series. Based on the results of the previous operations, the American leadership has appointed the criminal, Gal Agha, for him and his follower to take over the ground job, where the American forces would offer the facilitating air raids and air support during the battles. At that stage, the US forces used whatever weapons they could get their hands on. So, B-52 planes were seen in the skies of Qandahar, and they threw seven tons of missiles and combed the battle field with all the advanced technology—the smart and stupid missiles.

Cruise missiles and the heavy bombs, helicopters, jets, C-130s and B-52s covered the Qandahar sky consecutively in a stormy campaign. We did not rest day or night. The results of this period were as follows: the martyrdom of 22 mujahideen brothers and the striking of a number of our cars and two tanks. However, our enemy could not advance one inch on the ground, as we will mention in the next paragraph.

Third: Land Advancement

The last stage of the American war is the ground advancement of the American soldier. It was replaced, after massive failure in very easy operations, by the Afghan fighters, who were the remains of the communists and those recruited with money, represented in the forces of Gal Agha who is immoral and without creed.

The enemy forces, which work under the flag of the cross, moved forward from only one axis, hoping to deploy the troops after passing the main bridge, then to move toward Qandahar airport to prepare it for receiving the American planes, then to prepare for invading the city which is about 25 km from it.

This did not happen, thanks to Allah and the intention of the brothers to accomplish martyrdom. The ground battle continued for five days and nights in waves—as soon as the air raids stopped, the land attacks would begin. When the land battle was ending, the air raids would start, and therefore and thereon, five days without stop, as the whiz of the planes did not leave the sky. The bombing sounds did not stop; the bullet sounds were many, interrupting the communicating devices. It was a wild combat. The enemy did his best, and what encouraged him was that the battlefield was flat and easy, permeated with some plants, rivers, and valleys. The field was free from the topographic obstacles that hinder the advancement of the enemy, except the hearts of the brothers which were as full of fighting will and love for martyrdom and the valiant defense of the capital of the Islamic country.

The enemy did its best in the battle but it failed to pass the main bridge. Among all its success, it failed in a trap that was set carefully and skillfully. Our enemy's losses continued to an extent that exceeded its ability to regress once more. So our enemy stayed firm it its position behind the bridge, and no longer thought about crossing it once more.

The enemy had lost its land battle in Afghanistan, as is usual during fighting with us in Afghanistan, This characteristic defeat did not change and will not change, God willing, in the war with Iraq.

In conclusion of the previous matters, we will say that the enemy did the following:

- Psychological war (deforming the facts and creating lies, threatening, buying the people's consciences, reports, BBC, showing the American scarecrow on a huge scale, magnifying the war machine and its burning capability, the rewards for information about the leaders...and so on).
- Air war (air bombing using helicopters, jets, C-130s and B-52s; cruise missiles; and the bombs that weigh tons to hit vital centers and basic utilities, using better guides, interrupting the communication devises, hitting civilians, and supporting land advancement).
- Ground advancement (it depends on some of the hypocritical forces which are supported by the air forces or enemy forces with military land equipment that is also covered by air support...these forces did not achieve any success in any battle).

The US has used all what can grant it its war goals, and the results till today, according to their perspective, are massive failures, regarding the volume of troops, capabilities, expenses—comparing what the coalition has with what mujahideen have, and the losses they got—in their point view. If we look at the current situation in the second year of war, the desired security has never been achieved. Additionally, they did not capture the leader of the Taliban or al-Qaeda. We did not see any political agenda for the groups of thieves in Kabul. The Afghan cities that were united and in which security was spread during the time of the Taliban, no longer exist today. All the efforts the American enemy exerted confirm their bad intentions to establish a double agent leadership, and divide the country and steal its wealth. Therefore, America cannot change the Afghan view about it. Currently, the imposed government in Kabul does not control anything but the palace in which it lives, and the coalition forces now are creating excuses to leave Afghanistan. However, the mujahideen are still in the battlefield, and the fight continues and will not end, God willing, until Afghanistan returns to Shari'a [Islamic law] and Islam once more.

The Second Part: The Program That We Used to Confront the Crusader Enemy

We started our program in many aspects.

First: The psychological aspect of the war

We differ completely from our enemy in the psychological fight. While our enemy depended on creating lies about itself, magnifying its power [by saying that] it will not be defeated and the war will not exceed a week as it has sweeping power which can make miracles, and its program depended on terrorizing the competitor because of the Crusaders' hopelessness in their deteriorating fighting level, we were working on bonding every one with his God and his relation with Him, and He is mighty, strong and keen. Therefore, our program depended on building the Muslim person who believes in the divine secrets, and who realizes that the Book of Allah contains acts not understood except by Allah the Almighty—His greatness brings life and ends life, and His greatness glorifies and humiliates. These acts can show the valiant souls that they will not be returned except to Allah. Thus let America and whoever is with it come and [the result] will not be but what Allah wants.

In this regard, we organized an active program led by students from the Shari'a [Islamic law] Committee and a number of our Arab brothers who led a perpetual campaign, during which they remained steadfast in operation sites, and God chose Sheikh Abu Yousef the Mauritanian as a martyr. During the month of Ramadan, all the brothers listened to a daily program before *iftar* [breaking fast] about intelligence services. We also found out that many Afghan brothers also anxiously waited for and listened to the program in the city or from their fighting positions.

In fact, we did not suffer much psychologically for the simple reason that we did not make it mandatory for the youth to join the training camps. We opened our nation's eyes on its issues and as a result, the youth came forward to fight for the dignity of Islam and Muslims, armed with the hope of becoming martyrs. They had an instinctive desire to fight the Americans, as did their ancestors who preferred Beni al-Asfar to others. To clarify the picture, we started the Qandahar airport defense program two weeks before the events of 11 September, with only 25 brothers around the airport and about 50 more in the city. This number increased dramatically in the following two months and reached 800 fighters during the month of Ramadan, in addition to more than 2,000 mujahideen coming from all over the world. During the first week of Ramadan, one of our brothers called from an area close to the border to tell us that he had 350 brothers with him. All the mujahideen in Afghanistan and those spread around the world were anxious to fight for the Islamic state and to become a martyr for the sake of God. This is the true motivation behind the heroic stand of the mujahideen, and their ability to handle extremely difficult tasks.

All the nations of the world will not be able to squash the spark Mohammed Atta and his hero brothers ignited in the hearts of the youngsters of the *Ummah* [community] with their blessed operation. The blood of each and every martyr meeting his Creator was also the biggest motivation that led all of those who were with him. The sweet smell of martyrdom, along with their captivating smiles, lit the fire of competition to become martyrs and be in the presence of God. Many times, I had to ask the leaders of the groups to restrain the fervor of the youngsters and not let them chase the enemy outside the realm of the set plan.

Second: The Military Program

God blessed us [with the ability] to arrange a flexible program that is appropriate with the kind of incoming threat—a program that would fend off the threat and absorb the increase in numbers we are accustomed to getting in the years of jihad when the fronts were on fire. The program also gradually and naturally evolved in accordance with battlefield conditions, which imposed themselves on everyone.

Before the blessed 9/11, we formulated our defensive plan based on the assessment of the situation. We believed that the enemy would initially focus on occupying two centers and then advance to the city. At the least, they would attempt to execute two quick attacks on the same centers for pictures and a media show. Our decision was to block either possibility and not allow them to land there as long as we were in the area. The centers were Abu Obaida al-Bunshari Camp, close to the residential complex, and the Qandahar airport, which is about four kilometers away from the first center.

After 9/11, however, we completely reformulated the military operations in the sector, which evolved more than once to fit the general situation. In the end, it settled on the following:

- ❑ Airport and Camp Operations Sector.
- ❑ City Operations Sector.
- ❑ Emergency Force.

Airport and Camp Operations Sector

Our forces were deployed in front of the airport and camp areas along an area that was six kilometers wide, thus occupying the eastern and western parts of the main advance front. The fighting force was to be divided into three irregular units. One unit occupied the eastern part of the road, the other the western part, while the third occupied the second line. The units were divided into groups made of 10 individuals, dispersed in areas relatively far [from one another] during the day and closer together during the night, taking the form of traps to be combined at the time of operations and easily separated and dispersed immediately afterward.

We did not form large military sectors so that the air force did not cause massive losses. We relied instead on highly capable small groups and supported each group with a number of veteran holy warriors who fought in many battles, which formed a number of traps ready for the enemy, and which were placed on the main advance front. Secondary fronts were also formulated, thereby covering the complete area into which the enemy might advance or sneak.

These forces deployed in main and alternate trenches. The trenches were carefully camouflaged to render enemy detection difficult. Others [forces] were dispersed in a number of ruined buildings that were all over the area. The first line was equipped with a number of medium howitzers, some non-reflective guns and a network of heavy machine guns carried on vehicles, in addition to antiaircraft guns. The groups were also equipped with a number of SAM-7 [sic, SA-7 surface-to-air] missiles, and 107-mm rocket launchers carried on pickup trucks, which had a big influence on inflicting heavy losses on enemy personnel.

At the back of the airport and in the direction of the city, there was a second line similar to the first line but with dried water sewers. The brothers took advantage of them in taking refuge, making advances, and retreating. This line had two purposes. The first was to provide heavy fire support for the trap groups on the first line, and the second was to work as a first line to deflect the enemy's attack in the event the enemy overcame the traps.

Behind this line was the monitoring center over the mountain that had the repeater system. It was in the middle between the airport and the city.

City Operations Sector

After that, the city begins. To cover it, we divided the force into two formations, an internal security force, and a military protection force covering the outskirts of the city and serving as a third line of defense after the airport groups, thus surrounding Qandahar from all directions. Some of the forces were stationed on the roads.

First, the eastern and northeastern front: On the road coming from Pakistan, passing the airport and heading toward the city, we placed the heroic group of Abu Mustafa al-Iraqi, a gunner of SAM-7 [sic] missiles, who is a former officer in the Iraqi military (who fired more than 20 missiles from the beginning of Ramadan). Beside him was the group of the brother [left blank] the Syrian, and the group of brother Abu Abd al-Rahman al-Masri, who is a former armored officer in the Egyptian military. Their mission was to block the road coming from Kabul alternately or to support Abu Mustafa or Mowahid if necessary.

Second, the southern front: There are two passageways leading to the city, one comes from the back of the airport parallel to the main road, and the other comes from the outskirts of the villages of the Gal Agha group. Blocking this front has been handled by…the Najdi [from Najd in Saudi Arabia] and the Mullah Bilal al-Makki [from Makkah in Saudi Arabia].

Third, the western front coming from Herat City: Handled by three groups, the first was the group of the trainer Firas the Yemeni, which was in the al-Farouq Camp and has occupied, at the beginning of Ramadan, Wilsawy Moyond, about 30 km from Qandahar. At the entrance of the city, there were two groups, the first was Abu Masaab the Jordanian's group, which came from Hirat after its fall and has a heroic story in rescuing the assistant of the Wali when the city fell, and Sharif the Egyptian's group with the brothers who recently arrived from Bosnia to participate in defending the Islamic state.

Fourth, the Northeastern Front: Was occupied by the al-Zabeer al-Haeili who secured the side roads coming from the outskirts of Arzjan Province.

The security forces inside the city were under the command of Abu Yasser the Algerian, assisted by Abu al-Tayib....This group worked night and day and apprehended a number of spies and handed them to the Taliban Security. After the first week of Ramadan, the group was in control of the city at night along with the Taliban posts. They were dispersed throughout the city. The group was formed of 70 youngsters, while the military forces defending the city numbered around 270 youngsters.

Emergency Force

The hero Hamza al-Zubair took charge of this group, formerly called the "Martyrs Group." It was designed to be a multipurpose rapid deployment force ready to move to any area as a support force or a raid force. The group was equipped with Corolla vehicles along with all the antiarmor, antiaircraft and howitzer weapons they need, in addition to bombs and side weapons. We placed with him the most experienced, enthusiastic and courageous brothers, and the most distinguished youngsters in terms of physical fitness and strength, and eagerness to fight and skillful in using weapons and military equipments in all kinds. This was a marvelous group, always ready to be present in any place and time.

Important Battlefield Advantages

- Converting the military force to small units with good administrative capabilities will save us from heavy losses at one hand, and help in controlling all the fronts with the least possible number of personnel. In addition, converting the people to armed militias will render the mission of the enemy impossible. Large military groups are a problem administratively. They would occupy a large land area, which would make hiding from aerial detection or air bombardment difficult.

- The idea of the Corolla vehicles was one of the best and they proved efficient with a capability in maneuver and deceit. They went through unusual operations throughout the duration of the battle with the Americans. We were joking that if the Japanese had seen the vehicles in action, they would have used them for marketing advertisements. The vehicles were explorers on easy terrain and smooth to maneuver in mountainous terrain, were fast and light, and could take a crew of four with all their military hardware. The enemy did not notice that we were using them and most were not directly targeted except for the ones with the women who were killed (we will tell this story later).
- We agreed with the Taliban to stop firing all anti-aircraft guns, because on the one hand, these planes were outside the range of the guns, and on the other hand, the firing would disclose the location of the guns and expose them to attack. Our plan was to deny the airplanes this opportunity, and to use air defense weapons, SAM-7 [sic] missiles, Stinger missiles, launchers, and other guns on vehicles so that all our air defense weapons would be mobile, not stationed in any location and well camouflaged. We would wait until the helicopters came and when they landed for any recovery attempt, we would attack them with all the weapons we had in our hands. We surprised the enemy once and downed an airplane when he tried to storm the house of the Commander of the Faithful. It is noteworthy to mention that SAM-7 [sic] missiles were never useful.
- We had great flexibility in administrative affairs. We somehow worked between centralization and decentralization throughout the battle. Each small group had its own kitchen. Their larger unit fulfilled their food orders. When the fighting intensified, we established a centralized kitchen, which provided three hot meals throughout the fighting and on time.
- Horses took the place of cars in transporting administrative things. The Abu Obaida Camp had three motorcycles that the brothers used in the previous days and which had proved their usefulness. It was a very successful idea that the Americans did not notice, and they did not fire one missile against them, even though they were moving around, lifting the wounded and transporting food and water, information, and others while all kinds of airplanes were flying over their heads, to the point where some youngsters bought themselves motorcycles and began jihad on them serving the front. They named the motorcycles the “Iron Horse.”
- Our advice was to evacuate women and children from the large cities and send them to villages in order to prepare the large cities for long durations of defense and fighting. The Afghans did that and so did we. The number of families in Qandahar was 116 families, with an average number of 464 individuals. The number of holy warriors in Qandahar was 800. We can say that from the moment the bombardment began on 20 Rajab (October 7) until we reached Zirmat on Ramadan 22, the number of martyrs was 79, among them six women and two children. It was by the grace of God that the Crusader forces, and those working under their command, did not find even one Arab holy warrior to capture, and those forces did not see even one Arab family.
- We did not leave a casualty in the city’s hospital; rather, we sent them, after doing first aid, to Pakistan. We did this even in the most difficult of times. On the day of withdrawal, only 15 brothers were left in the hospital, nine who were able to move were smuggled, and the remaining six were not able to move. The Afghans armed them, and even though they were not able to move, they continued to resist the Americans until the Americans assassinated them in the hospital by throwing bombs and attacking them with RBG missiles, burning them as a result, and marking another disgraceful act to be added to the vile American record.
- Building covered trenches with more than one entrance inside the yards of homes to avoid bombardment or blockage of the entrance by falling rocks. This pertained to city inhabitants or areas expected to be bombarded. For defenders of cities, military ABC dictates digging up a trench, but the genius lies in locating the place where the trench is to be dug in order to perform its defensive purpose as well as possible. Regarding trenches, we say that fighting in open areas without aerial cover or good air defenses is a big gamble and the fighter should be under camouflage in a difficult terrain. Buildings in cities act as a hindrance to the plans of the enemy, which also applies to planted areas.

  These [trenches] help in hiding the location, and facilitate the operation of traps for any ground attack unit. Our second [piece of] advice is to train on reconnaissance, traps, and raiding operations and to work in small groups, and avoid by all means working in large groups.
- It is important to choose the appropriate field and prepare it to engage the ground enemy as soon as it advances and falls into the trap area. This will take away all the capabilities of the air forces and keep them outside the conflict until the engagement line is cut. As we said, the American soldier is qualified to perform cinematic roles only and the enemy will lose his heaviest casualties in these traps.
- It is impossible to win against the people no matter what the enemy possesses in weaponry, technical capabilities, and advanced technology. Victory over

the United States is very possible and easy beyond the imagination of many. It has several components; the most important is the elimination of the hypocritical forces fighting on behalf of the American soldier. This group is weak militarily, shaken psychologically. It is mercenary, without any cause; its representation in the war was trifle.

In addition, any country that owns good air defense missiles with long range can [cause] the United States of America a humiliating defeat, unless the latter uses weapons of mass destruction to decide the battle. The American forces do not have a single fighter who can advance and occupy the land, and air operations are useless unless there is the soldier who would advance to raise the flag on the liberated land.

Another important matter is to win the regional political battle so that no country or government is allowed to exercise the same role the malicious Pakistani Government played. This is the most dangerous role and had the biggest impact in Afghanistan. Pakistan is the one that provided the land from which American military forces advanced, provided them with intelligence, and also provided them with hypocritical people as an alternative to the Taliban State, etc.

- Good Communications, for the enemy works on cutting lines of communications and causing disruption which could be very harmful.

That is why it is very important to have alternatives to advanced technology, down to old-fashioned couriers.

A Summary of the Last Five Days of My Memories of the Events of Qandahar

On the following day, the signs of victory began when the Americans pushed Gal Agha's forces to advance on the ground, saying that they had bombarded the area in the last days and there was no detection now of forces on the ground, so they needed to advance. The enemy advanced and reached the broken bridge and began to advance toward the trap points. One of the youngsters was wondering about the hesitant vehicle on the bridge coming from the direction of the enemy. He cautiously advanced toward it, camouflaging as much as he could while sending reports about the situation to Abi al-Hassan. When he surprised them, they fled and he fired at them and they exchanged fire while fleeing. This was, then, a first test to find out if the area was empty.

Then hell broke out in the area. Airplanes came from every direction and in all kinds. C-130s attacked, jets attacked with missiles, helicopters attacked with missiles and guns. The area was transformed into a ball of fire for more than an hour. Gal Agha's forces began to advance again, assured that there were no breathing souls left in the area, other than their forces. As soon as they entered the killing field, bombs of the youngsters rained on them from every direction, and they were gunned down with machine guns. Calls of *"God is great"* and *"victory"* were screamed aloud. The brothers killed many of them and captured two. The rest fled. The air force could not interfere because the two sides were engaged. It was a success by the will of God Almighty. The trap was prepared marvelously, and the youngsters performed their role skillfully, which is not surprising since Mowhad, Abu al-Hassan, Abu Bakr the Syrian, Salah al-Din, and Abd al-Wahab, who are among the heroes of Afghanistan, Chechnya, and Bosnia, were with them.

Quickly, the situation changed again and airplanes returned; their roars were heard from afar. This time, they flattened the ground and continued bombing it for two hours or more, while Sheikh Abu...al-BM was in the monitoring center reporting to the dwellers of the city, whether Arabs or foreigners. The ardor of the city force was aroused and they wanted to go fight, but I prevented them and told them that we would have our moment. The Americans ended the bombardment close to sunset, while people were still fasting in their holes. No food was prepared. I contacted Abu al-Tayib...and asked him to buy food from the market and send it over to the brothers on the front, and told him that the following day we would turn the Religious Institute into a general kitchen for the front, serving three meals a day regularly. I contacted the youngsters on the front and told them that they had to eat their breakfast meal. Abu al-Tayib managed the kitchen very well and provided food throughout the following days, sometimes by cars, sometimes on foot, and sometimes by motorcycles. No meal was late to the holy warriors. Night descended and the bombardment was still on. The youngsters noticed the lights of an incoming car again, and here Amir al-Fateh (who named his tank the "Elephant") asked Abi al-Hassan to watch the cars, so that when they reach the agreed-upon point, Amir, who prepared his tank for that, would attack them. Communication over the system was clear, aircraft were hovering in the sky, and the cars were moving very slowly on the ground. Abu al-Hassan was slowly saying *"wait Amir... wait Amir"* then he screamed *"now hit."* Amir released the forces of his Elephant and burned by God's blessing the first car. All the cars retreated, fleeing. The airplanes returned looking all night and wondering where the Elephant was. The Apaches could not find him. The Gal Agha forces were not able to attack again that night.

On the second day of the third week, we put the rocket launcher BM-12 on a pickup truck. When Sheikh Abu…al-BM heard about it, he hurried and asked me [if he could] be in charge of it. I could not turn him down. He formed his group and requested my permission to be free to operate and move around in the area. I blessed him, and

Sheikh Abu…al-BM moved to the airport handing Saqr Mountain to his assistant brother Abu Khabbab.

Fighting stopped in most of Afghanistan and the battle began in Qandahar at the outskirts of the airport and Aurzjan. We did not yet cover that sector, so I asked Sa'douf to contact the brothers in Khost and ask them to send a group to cover this breach. I went to Mullah Brader who was in charge of the fighting in the outskirts of Aurzjan and told him that we would support him with a hundred youngsters to strengthen the northern front.

We had with us two trucks with a launcher from the Taliban. They were supporting the defense of the youngsters. On the following day, with repeated attacks from airplanes, and attempts of the Gal Agha forces to advance, and while the youngsters began to deflect the attack, the two trucks were hit and the Taliban operating them were martyred. They were the last Afghan group fighting with us. I asked them for weapons and ammunition; they gave us the airport depots. The Commander of the Faithful would encourage us from time to time to be economical in the use of Kalashnikov ammunition, due to [its] scarcity. When we lost the two trucks, we immediately pushed the car, which had the launcher, and things returned to normal. Sheikh Abu… al-BM was able through his experience to manage the portable launcher with rare military flexibility and skill. He turned points where Gal Agha groups gathered to hell.

The only goal of the air force afterward was to search and find the portable launcher. When they gave up looking for it, they decided to attack the whole village. B-52s came and bombed the mountains and the flat lands, and flew over the village where the launcher was. They did not leave a home without bombing it, until they got to the place where the experienced sheikh was. He pushed his youngsters away from the launcher and the place collapsed. The whole village came under a cloud of dust, smoke and gunpowder, and communication with the Sheikh was lost. I got worried about him, but half an hour later, heard his voice quietly over the communication system asking for some digging tools. I realized that something was going on. The launcher was hit after three days and nights of tough fighting. Among his crew, Abu Osama the Somali was martyred.

The companies stationed around the airport were starting to wear out from the continuous fighting. They had been fighting all day and watching all night. I asked Abi al-Harith the Egyptian to rotate the groups so they might rest, provided that the companies stationed around the airport would take the positions of the companies who were in towns. I assigned to him the company of Abu Abd al-Rahman the Egyptian. Then the hero Abu Mustafa contacted me and said using the Iraqi dialect: *"What, oh Abd al-Ahad?! We Iraqis and Kurds are men of war and fighting. We can only dig and fight. Why would you leave us in town? We do not have anything to do with cookies [symbol of comfort]!"* I told him to rejoice, and contacted Abi al-Harith the Egyptian and told him that *"the company of Abi Mustafa is at your command, but it is a large one."*

The Sheikh Abi al-Harith the Egyptian moved [him] with his company to replace the company of Abi al-Hassan and take their positions. The battle intensified and lasted five days without respite, in which the Army of Allah won crushing victories and very few martyrs were killed, except for the third or fourth night, I do not recall, when the enemy advanced and was met by the hero Mowhad and the men of his company, who were like lions waiting for their prey to fall in the trap. He asked *"Can you see them, oh Abd al-Wahab?"* and Abd al-Wahab said *"yes."* And then Mowhad said *"keep your position, Salah is coming from the right and I will attack from the center."* That is when Abu Hashim al-Sayyed, who came from a rear position when he heard of the advance, interfered rapidly in the transmission and said: *"Oh Mowhad, do you need me?"* Mowhad asked, *"Where are you, may Allah be pleased with you?"* and Abu Hashim replied *"I am on my way. Wait for me, may Allah reward you!"*

Then he left the car and ran on the road in company of Abu Hafs the Mauritanian, Hamza the Qatari, Abu Yussef the Mauritanian, Abu Amir..., Samir the Najdi, and several youths who, in their excitement, took to the road, running without fear of the enemy, the airplanes, or the bombs. Abu Hashim al-Sayyed was ahead of everyone else. He was yelling in the radio *"May Allah reward you, oh Mowhad. I am your brother, do not go without me!"* Mowhad was prompting him *"May Allah have mercy on your parents, where are you? You are late."* Abu Hashim al-Sayyed replied *"I am close."* Then, Abu Hashim was heard on the radio running and inciting the youths to jihad and he swore he could smell the scent of paradise. Then his voice was cut. Fervor took Mowhad and he asked for more youths from Abi al-Harith the Egyptian to attack and kill the enemies of Allah who fell in the trap and destroy them after that.

I contacted Abi al-Harith the Egyptian and we changed to the private frequency. I told him to *"beware for Mowhad is upset and excited. Do not let the youths move [from their positions]. The company of Abu Hashim al-Sayyed should be enough for him. Do not let them move beyond the trap."* The Sheikh Abu Harith the Egyptian said *"I understand that, but it is getting hot here. I will try to calm the youths and make them keep their positions."* I went back to the "general" frequency.

Mowhad and his brothers were harvesting "the souls of the enemy," greatening Allah and walking between corpses. Then he started running ahead in pursuit of the enemy who was retreating. He took the youths with him. They left their positions and followed him running on the road, like

the company of Abu Hashim. At this point, the airplanes intervened and started bombing the road, and as I mentioned, Abu Hashim said that he could smell the scent of paradise. Then the hero fell in martyrdom and other heroes fell around him. Thus fell the martyrs Sheikh Abu Yussef the Mauritanian, Hamza the Qatari, and I have personally felt the wonderful scent that was covering him and his face was wearing a beautiful smile—and what a smile that was—as well as Samir the Najdi who seemed very gracious and beautiful in death despite the blood covering his body. Abu Amar... lost a foot. As for Abu Hafs the Mauritanian, he was not wounded.

The bombing intensified and the two tanks commanded by Amir al-Fatah and Khalid al-Habib joined the battle, as well as the machine gun manned by Adham the Egyptian and Abu Amar the Palestinian. There were between them and the aircraft impressive duels, and some extraordinarily courageous deeds. The aircraft in the sky were firing everywhere, while they were shooting from their machine gun at the aircraft. They could not reach the aircraft, which were far [up] in the sky, and the missiles dropping from the sky did not reach them. The duel lasted for quite a while. Amir al-Fatah used his tank to fire [at the airplanes], and so did Khalid al-Habib. However, his tank was hit directly by a missile, and a second one exploded close by.

The whole crew escaped safely except for Khalid who received a fragment in his head that deprived him from the use of his left side for four months. However, he recovered after that and only his left hand bears signs of a wound. Currently he is back to training in a secret base near the Pakistani-Afghan border in one of al-Qaeda's secret bases. As for Amir al-Fatah's Elephant, it was very respected by the Americans. They kept looking for it. Then they divided the area in squares and scanned them until they found the Elephant and destroyed it. However, Amir al-Fatah and his crew escaped to safety after a fierce battle where the Elephant humiliated the Apaches. However, the Elephant earned itself a "medal of honor" in this battle.

Thus, we lost our heavy back-up in tanks, as well as the missile launcher, and this is a serious matter. However, the enemy lost a large number of its fighters and their fighting spirit was crushed, and after that, they only shot [at us] from a distance. The Americans could not entice them to advance any more. We had won the ground battle, which lasted five days, without respite. [We had won] thanks to Allah, even though, we did not have any modern antiaircraft weapons, while the enemy had everything ranging from M-16s to bombs that weigh seven and eight tons, which destroyed and [screened] the area without shaking the will of the brothers [who] did not back down, not one single step. The youths after that felt the exhilaration of victory. Abu Hafs the Mauritanian and [Abu Osama...] as well, used the radio to [remind] that victory is bestowed by Allah and by his Grace, praised be Allah. The youths prayed to Allah and praised Him for their [victory]. Four martyrs and two wounded was the result of the operation that led the brothers to defeat the enemy, and they [the enemy] took the next few days to consolidate their positions in that area; that was all they did.

In conclusion, I would like to stress a few points:

- The organization of the Jihadi base, known as al-Qaeda, is the organization of the Islamic *Ummah* and it is based on its creed and defends its interests. The members of al-Qaeda are the sons of the *Ummah* whose faith is Islam. All the [financial] and material capabilities of al-Qaeda, are the sum of the "savings" of the *Ummah* used to seek Allah's blessing, be He praised.
- Al-Qaeda and the Islamic *Ummah* did not fight enough against the hideous international triangle known as the alliance between the Jews and the Crusaders and consisting of the decadent United States, Britain, and the Jews.
- The so-called Arab intellectuals who claim wisdom and reason and use it to "talk" to the West, are only accomplices of CIA operatives and constitute the fifth column that is working for the interests of the enemy within our countries and at all levels, in order to justify the coming invasion of the region and the terror that will be practiced against its peoples.
- The rulers of the Islamic *Ummah* without exception, are useless to their faith and their *Ummah*, and they are no longer useful to the authority that appointed them.
- The armies of Islamic countries have to liberate [themselves] from their political leaderships, who rent them to fight for the enemy of the faith.
- Islamic peoples are the hope, and thanks to their jihad and their support to the Islamic changes against the alliance between the Crusaders and the Jews, they are, without any contentions, evening the balance of power. Their sons are the striking forces and they are the real strategic and funding force. They also are the final beneficiary of this war.
- We do not, by the will of Allah, doubt the final defeat of the American empire, and we bring to our *Ummah* the joy for [this defeat]. What happened in Afghanistan is only one battle. The war is still going on and the victory is leaning towards the Army of Allah. This empire of Crusaders and Jews is walking to its destruction in the blessed region of the Gulf.
- We advise our dear *Ummah* to turn back to Allah the Almighty secretly and publicly in order to [witness] the realization of Allah's promise: *"Allah has promised, to those among you who believe and work righteous deeds, that He will, of a surety, grant them in the land, inheritance (of power), as He granted it to*

those before them; that He will establish in authority their religion—the one which He has chosen for them; and that He will change (their state), after the fear in which they (lived), to one of security and peace: 'They will worship Me (alone) and not associate aught with Me. 'If any do reject Faith after this, they are rebellious and wicked." [***Qur'an***, Surat Al-Noor; 24.55]. And as He, the Almighty, said: *"the promise of Allah. Never does Allah depart from His promise: but most men understand not."* [***Qur'an***, Surat Al-Rum; 30.6].

- ❑ We also encourage all the peoples of our *Ummah* and ask them to arm and store ammunition and start the fight and the jihad against the alliance of the Crusaders and the Jews and their interests in all Muslim countries. By doing so, they will strengthen the unity of the *Ummah*, as the Messenger of Allah, peace be upon him, said: *"...the believers as regards their being merciful among themselves and showing love among themselves and being kind, resemble one body, so that, if any part of the body is not well then the whole body shares the sleeplessness (insomnia) and fever with it."*
- ❑ Once again we repeat that we seek the help of Allah, the Almighty, against His enemies, and we ask Him to "use" us and grant us and our *Ummah* success in our jihad for His [faith], under the banner of *"there is no God but Allah and Mohammed is the Messenger of Allah,"* and to spread His faith and His laws on Earth.

I bid you farewell until the next episode, by the will of Allah, and our last prayer praise be to Allah the "Cherisher" and Sustainer of the Worlds.

Endnotes

1. You can contact the author for a complete translation of the original article, which includes the Arabic version.

2. The ***Military Intelligence Professional Bulletin*** made a few modifications of this copyrighted text to enhance readability and eliminate duplication.

Ben Venzke is the founder and Chief Exexcutive Officer of IntelCenter, which provides intelligence support to the intelligence, law enforcement, military, and security communities. He has been working for the past 14 years to create professional-level intelligence products that place timely, actionable intelligence into the hands of those who need it, whether it is an operator prepping to perform an entry, an analyst sitting at Langley, or a chief of police attempting to assess the threat to his or her city. Mr. Venzke has recently co-authored "The al-Qaeda Threat: An Analytical Guide to al-Qaeda's Tactics & Targets," which has provided readers for the first time in a publicly available format the ability to see what al-Qaeda has said in its own words about targets and tactics. The counterterriorism mission has been his core focus for the past eight years. While running IntelCenter and its sister company Tempest Publishing, Mr. Venzke has managed intelligence products at Jane's Information Group, where he worked as an Editor, and iDEFENSE where he was the Director of Intelligence Special Projects. He also spent two years as Pinkerton Global Intelligence Service's senior consultant for the Middle East and Africa. He can frequently be seen appearing on CNN, MSNBC, and NBC. Readers may contact Mr. Venzke via E-mail at bvenzke @intelcenter.com and telephonically at (703) 370-2962 or fax (703) 370-1571.

Aimee Ibrahim is currently an associate at Community Research Associates where she works on projects designed to help the first responder and military communities deal with terrorist attacks. She also collaborates with IntelCenter on terrorism intelligence issues and is the co-author of "The al-Qaeda Threat: An Analytical Guide to al-Qaeda's Tactics & Targets." Readers may contact her at aibrahim@intel center.com and telephonically at (703) 370-2962 or fax (703) 370-1571.

C4 and ISR: Testing for the Future

by Major Troy K. Heineman

Testing at Fort Huachuca, Arizona

Known as the home of the U.S. Army Intelligence Center, Fort Huachuca also hosts a number of agencies that have unique missions and capabilities that play critical roles in testing command, control, communications, and computers (C4) intelligence, surveillance, and reconnaissance (ISR) products. Essential ingredients for the Future Force are situational awareness and information dominance derived from C4 and ISR. Testing Current and Future Force Army C4 and ISR systems requires innovative technical disciplines and the use of the latest technologies. Together the test activities at Fort Huachuca possess capabilities and resources that ensure reliable and repeatable test results for the decisionmakers on C4 and ISR systems' effectiveness, suitability, and survivability.

Fort Huachuca is unique within the Department of Defense (DOD) because of its naturally quiet electromagnetic (EM) environment, unique specialized facilities, and close relationship with the Army training community, as well as its ability to use the expansive real estate of southern Arizona. Test operations are routinely possible on 70,000 acres at Fort Huachuca, 23,000 acres on Wilcox Dry Lake, more than 100,000 acres at Gila Bend, and, with prior coordination, approximately 62 million additional acres of federal and state-owned land.

C4 and ISR Center of Excellence (COE)

The Fort Huachuca C4 and ISR COE is an effort to formalize the relationships between individual Fort Huachuca assets to provide enhanced customer support for concept exploration, force deployment and training, and developmental, operational, and interoperability testing. The following are C4 and ISR COE goals:

- ❑ Unify the Fort Huachuca ISR and C4 communities to aid all members in accomplishing their missions in a more efficient and effective manner.
- ❑ Eliminate the unwarranted duplication of services.
- ❑ Optimize the use of available resources such as test equipment, models and simulations, instrumentation, and common threat scenarios.
- ❑ Define consolidated ISR system requirements and provide legitimacy to those requirements.
- ❑ Improve our reputation as good stewards of taxpayer funds.
- ❑ Accelerate the development and adoption of new ISR technologies; strategies; and Doctrine, Organization, Materiel, Training, Leadership, Personnel and Facilities (DOTMLPF) to improve services to the Future Force warfighter.
- ❑ Seek innovative approaches for improving COE activities.
- ❑ Realign our view of the individual Fort Huachuca entities to a view of a single Fort Huachuca comprehensive unit.
- ❑ Members of the COE include the following organizations (see Figure 1):
  - U.S. Army Intelligence Center and Fort Huachuca and especially the USAIC&FH Directorate of Combat Developments.
  - Network Enterprise Technology Command (NETCOM).
  - Information Systems Engineering Command (ISEC).
  - Intelligence and Security Command (INSCOM) Training and Doctrine Support Detachment (ITRADS).
  - U.S. Army Electronic Proving Ground (EPG).
  - Joint Interoperability Test Command (JITC).
  - Intelligence Electronic Warfare Test Directorate (IEWTD).
  - Threat Systems Management Office (TSMO).

Figure 1. C4 and ISR Center of Excellence.

Within the COE, ISR testing is the core mission for several of its members:

- ❑ EPG under the Developmental Test Command (DTC).
- ❑ IEWTD under the Operational Test Command (OTC).
- ❑ JITC under the Defense Information Systems Agency (DISA).

Photographs courtesy of the U.S. Army.

The Fort Huachuca Arc Range is a laminated wooden Arc with a radius of 75 feet, and a 60-foot, 80-ton capacity turntable centered at its base. The turntable rotates 360 degrees in azimuth to provide a polar or rectangular antenna pattern. At the focal point of the Arc, a wooden test pedestal can hold test vehicles up to 10 tons. This facility supports antenna testing from 20 MHz up to 18 GHz.

Both DTC and OTC are under the U.S. Army Test and Evaluation Command (ATEC).

Electronic Proving Ground

DTC is the Army's materiel developmental test (DT) organization for weapons and equipment, testing military hardware of every description under precise conditions across the full spectrum of natural or controlled environments on highly instrumented ranges and test courses. Within DTC, EPG is the key Test Center for DT of C4 and ISR systems for the Army, DOD, and as a Major Range and Test Facility Base (MRTFB) for civilian industry. In 2004, EPG celebrates its 50th year on Fort Huachuca as it continues its mission to plan, conduct, and analyze the results of technical tests for C4 and intelligence (C4I) systems, signals intelligence (SIGINT), and electronic combat (EC) and electronic warfare (EW) equipment. EPG's C4I expertise allows support to customers in the joint and training communities, and it is an expert in distributed system of systems (SOS) testing. EPG will be the primary tester of network development for the Future Combat System (FCS).

EPG tests requirements for electrical, electronic, and software elements from module through system level. It accomplishes this using four broad capabilities: modeling and simulation (M&S), laboratory testing, field testing, and analysis, either individually or in combination. Its special functions and capabilities include an instrumented test range, open-air range, EM environmental test facility (including electromagnetic interference [EMI], electromagnetic compatibility [EMC], and TEMPEST [unclassified code word for compromising emanations, now called emissions security or EMSEC]), unmanned aerial vehicle test facilities, tactical radio testbed, environmental test facility, virtual battlefield environment facility, Global Positioning System instrumentation suite, and antenna test facility. Tests EPG conducts consist of bench tests, lab tests, field tests, and large-scale, geographically distributed SOS tests. These tests normally employ a mix of live and simulated instrumentation and assets.

EPG's Compact Range at Fort Huachuca is believed to be the largest facility of its kind in the world. It has a capability for handling any ground vehicles in the U.S. military inventory, can position items weighing up to 70 tons and 50 feet in length, and covers microwave frequencies from 6 to 40 GHz.

Prophet electronic warfare ground system.

Current program emphasis is on the intensive application of simulation, stimulation, and automation technology to meet the challenges of testing large complex and distributed computer-based C4 and ISR systems. EPG has at its disposal a vast inventory of testbeds, facilities, instrumentation, and M&S to support its DT efforts. While DTs evaluate performance under tightly controlled environments, operational tests (OTs) evaluate the doctrine, training, and warrior-machine interface of the system or equipment as used by Soldiers in a realistic operational environment.

Intelligence Electronic Warfare Test Directorate

The Operational Test Command's mission is to conduct a realistic OT to provide data to the decision-makers on an EW system's operational effectiveness, suitability, and survivability, focusing on the critical areas of new equipment, doctrine, force design, and training. A large responsibility for Army ISR OT belongs to the IEWTD.

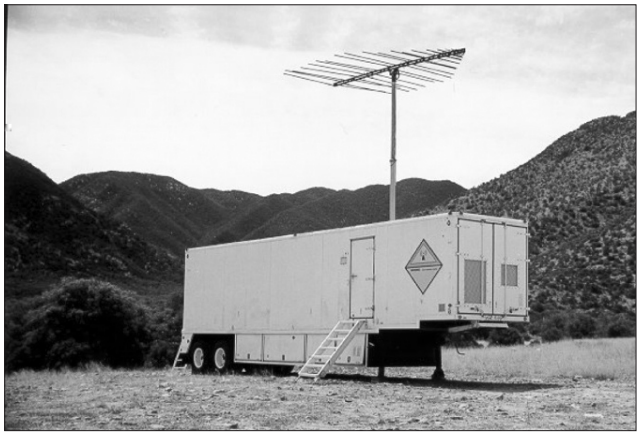
IEWTD's mission is to plan, conduct, and report on the OTs and assessments of intelligence, EW, surveillance, and reconnaissance systems to include the EM and environmental effects and information assurance (E3/IA) in support of the Army and joint service materiel-acquisition process. It is responsible for testing the Army's SIGINT and imagery intelligence (IMINT) and service ground and airborne platforms, reconnaissance (manned and unmanned) aerial vehicles, sensors, and processing systems.

To be successful, IEWTD provides robust synthetic operational environments, along with realistic battlefield environments to test ISR systems. In modern testing, IEWTD must address how well a new item of equipment works as an SOS within a C4 and ISR architecture, as well as to test its resistance to complex and evolving threat EW signals and IA environments.

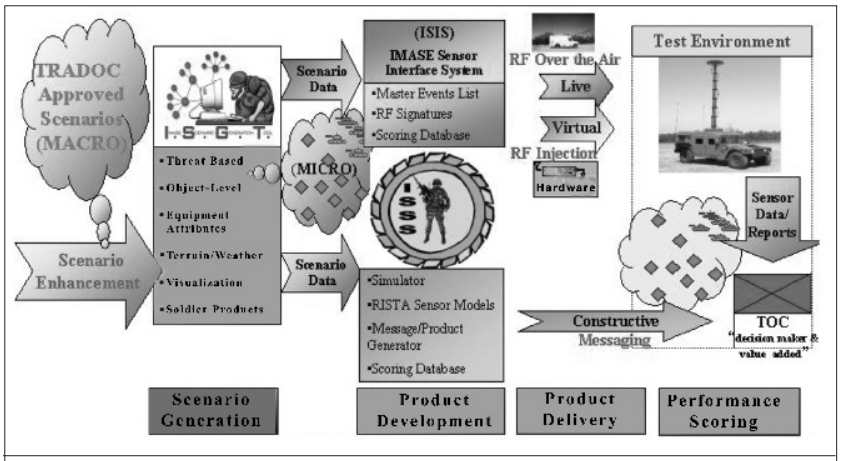
IEWTD comprises two divisions: Test Division and Technical Support Division. The IEWTD Test Division provides the test officers and noncommissioned officers (NCOs) responsible for the overall design, execution, and reporting of assigned tests. The Technical Support Division, staffed by engineers and operations research and systems analysis (ORSA) specialists, provides fully instrumented threat systems, dynamic scenarios, and automated data-extraction tools to measure the system under test (SUT). IEWTD uses a variety of instrumentation developed by the Directorate and scenarios written by subject matter experts to explore fully the mission effectiveness, performance, suitability, and survivability of a system in live, simulated, and emulated environments.

Instrumentation. IEWTD uses both hardware and software systems designed to test system requirements to determine system vulnerabilities. These systems consist of an array of open-air, radiofrequency (RF) jam-

Prophet used in dismounted fashion.



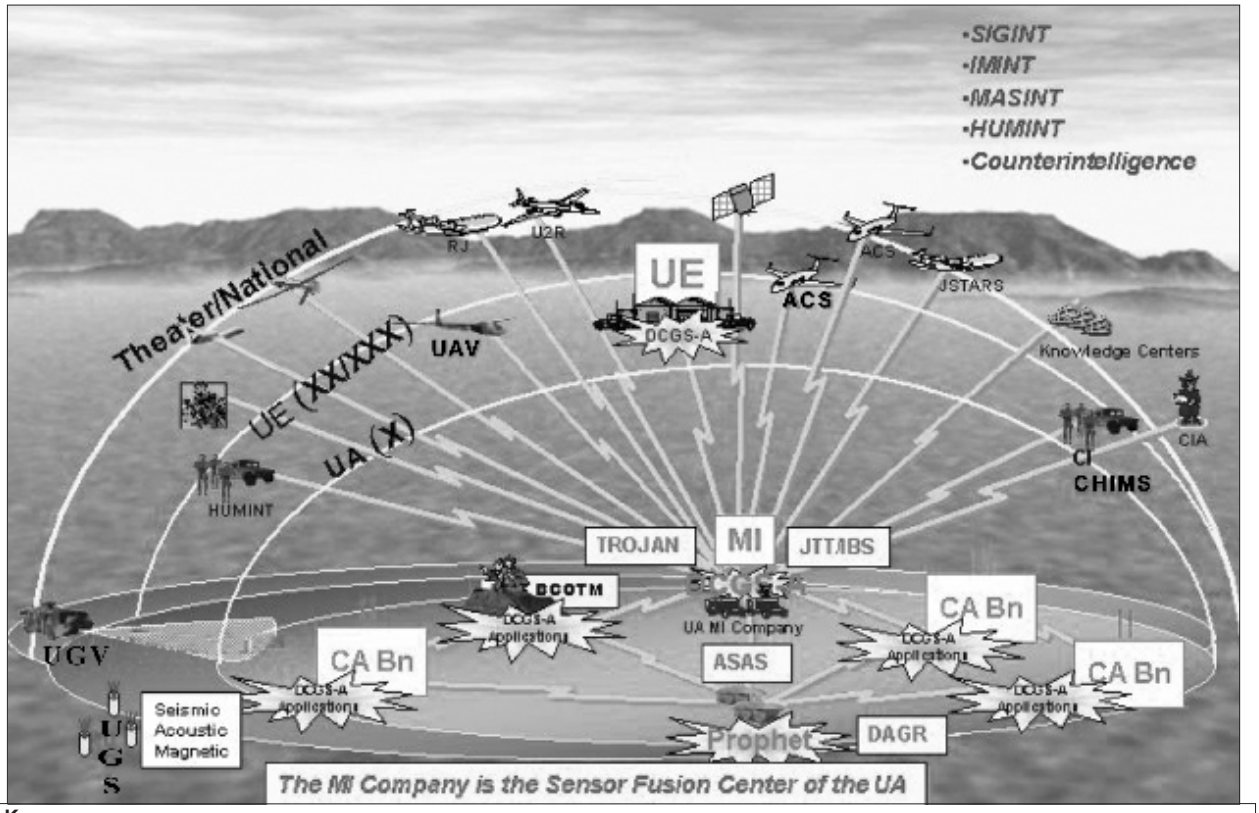
The Vulnerability Mobile Transmitter-A provides programmable signal jamming capability in the 2 MHz to 1,000 MHz range.



Key:
RISTA – Reconnaissance, Intelligence, Surveillance, and Target Acquistion

Figure 2. Uniquely Qualified to Provide the Threat Test

mers to test ISR system vulnerabilities. They test using the jammer to transmit RF open-air noise on a frequency easily received by the SUT. This noise keeps the system from operating as intended by overpowering its receiver. IEWTD also has an array of mobile field-communication simulators that provide an automated, repeatable, scripted test scenario tailored to emulate threat systems. With this capability, IEWTD is able to emulate other open-air systems, from single-channel tactical or commercial radios to low-probability-of-intercept (LPI) radios. IEWTD uses several vehicle systems to collect ground truth data: the electronic warfare moni-



Key:

ACS – Aerial Common Sensor
ASAS – All-Source Analysis System
BCOTM – Battle Command On-The-Move (vehicle)
Bn – Battalion
CA – Combined arms
CHIMS – Counterintelligence/HUMINT Information Management System
CIA – Central Intelligence Agency
DAGR – Defense Advanced GPS Receiver
DCGS-A – Distributed Common Ground System-Army
IMINT – Imagery intelligence
JSTARS – Joint Surveillance Target Attack Radar System (Joint STARS)
JTT/IBS – Joint Tactical Terminal/Integrated Broadcast Service
MASINT – Measurement and signatures intelligence
TROJAN SPIRIT LITE – TROJAN Special Purpose Integrated Remote Intelligence Terminal (SPIRIT) Lightweight Integrated Telecomunications Equipment (LITE)
UA – Unit of Action
UAV – Unmanned Aerial Vehicle
UE – Unit of Employment
UGS – Unattended ground sensors
UGV – Unmanned ground vehicle sensor suite

Figure 3. Integrated ISR FDT&E.

Joint Interoperability Test Command at Fort Huachuca, Arizona.

toring facility (EWMF) and signal monitoring vehicles (SMVs), as well as the High-Speed Data Recording System (HSDRS). The HSDRS is capable of recording red-green-blue (RGB) color model, National Television Standards Committee (NTSC), and audio streams while time-tagging all data for future data evaluation. IEWTD holds a key to IA testing with the IA Test Tool (IATT/Illuminate). This tool is a feature-rich information-assessment application for delivering threats for the information warfare environment. Its primary purpose is to conduct live penetration tests on Blue systems for vulnerability analysis and system evaluation.

Modeling and Simulation. The primary purpose of IEWTD's use of M&S is to create a threat-based multispectral environment to ensure operational realism. IEWTD also uses M&S to replace and/or augment actual elements when using actual elements is either unfeasible or impractical and the primary focus is on ISR and IEW. Oftentimes in OT, relying on an operational environment using only live assets is extremely difficult, if not impossible, as well as cost-prohibitive.

Intelligence modeling and simulation for evaluation (IMASE) is a partnership development effort involving ATEC, the Program Executive Officer (PEO) Simulation Training Instrumentation, and the Threat Systems Management Office. IMASE is an entity-based, stochastic (random), event-stepped computer simulation (see Figure 2) that is projected to support ISR and IEW system development, training, and testing using a threat-based, multispectral environment. IMASE generates this environment through seamless integration of M&S instrumentation hardware with appropriate live, virtual, and constructive applications. Designed as a robust, high-fidelity, object-level resolution, cradle-to-grave SOS, IMASE includes tenets of Simulation Modeling Acquisition Requirements and Training (SMART). Under the Simulation Test and Evaluation Process (STEP) tenets, IMASE can provide assistance to in-plant contractor testing, DT, and OT. IMASE developers project it to support in-unit training by providing stay-behind scenario-training packages. Although designed as the workhorse for the research, development, and acquisition (RDA) ISR domain, it also has application to the advanced concepts and requirements (ACRs) and training, exercises, and mission operations (TEMO) ISR domains.

The IMASE architecture has three major subcomponents: the IMASE Scenario Generation Tool (ISGT), the IMASE Sensor Interface System (ISIS), and the IMASE Simulation and Scoring Subsystem (ISSS). These subcomponents are foundational contributors to live, virtual, and constructive applications. ISGT provides the required detail and granularity to the approved U.S. Army Training and Doctrine Command (TRADOC) scenarios. The ISIS process uses the ISGT detail and determines live (over-the-air) and/or virtual (injection) applications for the sensor system. The ISSS process also uses the ISGT detail to provide the constructive wrap to the Soldiers within tactical operations centers (TOCs). If done correctly, neither the sensor nor the TOC will know what is live and what is simulated. IEWTD's goal is to improve the live, virtual, and constructive applications involved in portraying the threat based, multispectral environment so that the warfighter, warfighter staff, and ISR analysts will have an increasingly difficult time determining whether it is live or simulated.

The Future. To ensure provision of a common operating picture to the warfighter, IEWTD works closely with TRADOC on intelligence doctrine and the application of high-technology solutions to intelligence distribution. They have recently teamed together for two integrated ISR Force Development Test and Experimentation (FDT&E) (see Figure 3) events scheduled to take place in 2005 and 2007. The purpose of this experimental look is to gather data that the USAIC&FH Futures Development Integration Center (FDIC) will use to validate, refine, or develop the DOTMLPF to satisfy Future Force ISR requirements. These requirements include the interchange of intelligence sensor information from the tactical level (referred to as the Unit of Action in the Future Force) to the strategic, joint, and combined forces level (referred to as the Future Force Unit of Employment). To support collection of realistic data, IEWTD and the Battle Command Battle Lab-Fort Huachuca will create a robust, distributed, multispectral M&S environment to address adequately ISR transformation-force development requirements. Conducting the event will constitute a major step forward in support of the U.S. Army's Transformation process as it applies to Future Force ISR.

The scope of the integrated ISR FDT&E is a multiphase, multiyear event designed to experiment with and refine

DOTMLPF products required for Future Force ISR concepts and systems (for example, Distributed Common Ground System-Army [DCGS-A], Aerial Common Sensor [ACS], Prophet, and unmanned aerial vehicles [UAVs]). The Army will conduct this event in a series of venues that will explore intelligence operations from the lowest level of one Soldier or analyst up through echelons of traditional and nontraditional intelligence operations centers.

The FDT&E execution concept separates intelligence operations into three phases: individual operators, multi-operator operations, and integrated ISR operations. Traditionally, testers would use a horizontal investigative approach (with the aforementioned phases tested sequentially). The FDT&E will use the traditional, horizontal investigative approach as well as a vertical investigative approach (an execution concept of experimenting with parts or processes of all three phases simultaneously). This latter approach is favored due to the complexity of the Future Force ISR functionality and the projected Future Force capabilities and processes that testers must consider and investigate. This FDT&E will also focus on various operational modes (reach, split-based, forward-deployed, on-board operators, "manned-unmanned" teaming), and operational environments (indications and warning, early entry, transition, shaping, decisive operations transition leading to smaller scale conflict, major regional conflict, and major theater war).

Joint Interoperability Test Command

JITC is DISA's primary agent for testing, evaluating, and certifying information technology (IT) and national security systems (NSS) used in joint and combined operations. DISA is the DOD agency responsible for IT and major portions of the Defense Information Infrastructure (DII) as well as for planning, developing, and supporting IT and NSS that serve the President and Secretary of Defense under all conditions of peace and war. JITC's predominant mission is as **DOD's sole interoperability certification authority**.

IT and NSS not only include the traditional C4 and ISR systems but also involve equipment that is an integral part of a weapon or weapon system. Interoperability is the capability to provide and accept data, information, materiel, and services. It includes both the technical exchange of information and the end-to-end operational effectiveness of that exchange, as required for mission accomplishment.

The interoperability certification process encompasses a building block approach with each segment providing feedback to the next segment. Verification of standard performance, controlled laboratory tests, DT events, operational test and evaluation (OT&E) events, expanded field tests, and verification during exercises are events that the interoperability certification process can include. JITC's goal is to conduct interoperability certification as part of Service testing, not as a stand-alone event. To do this, however, requires early involvement with Service testers and program managers (PMs).

One of JITC's rapidly growing areas is the ISR arena. In addition to the four major Services, the JITC ISR Branch has heavy involvement with the National Security Agency (NSA), National Geospatial-Intelligence Agency (NGA) (formerly the National Imagery and Mapping Agency [NIMA]), National Reconnaissance Office (NRO), U.S. Special Operations Command (SOCOM), Defense Intelligence Agency (DIA), North Atlantic Treaty Organization (NATO), and industry. Key to its growth is aggressively approaching customers from a trusted agent perspective. Before interoperability certification, the ISR Branch can act as a trusted agent in the form of early documentation reviews and can conduct technical assessments to ensure the program remains on the right track, from an interoperability perspective. They provide the information gleaned from this early involvement strictly to the materiel and combat developers for their use. Paramount to the Branch philosophy is providing risk mitigation. Testing reduces uncertainty and risk to programs. Early testing helps eliminate errors before the increasing complexity of the program makes them difficult or costly to rectify. When critical acquisition milestones approach, the ISR Branch undertakes its role as an interoperability certifier. Given early involvement, the systems tested for official certification stand a greater chance of obtaining a JITC interoperability certification. In the end, the overall goal is to ensure the warfighters have and keep the operational capabilities they need to succeed in their missions.

Conclusion

Together EPG, IEWTD, and JITC are the pillars of ISR testing at Fort Huachuca and, along with the other C4 and ISR COE members, form a coordinated and consolidated team. Each contributes unique capabilities, while the synergy enhances any single member's capabilities. The COE members' expertise and initiatives will be instrumental in supporting the Army's transition from the Current to the Future Force. Through these efforts, well-planned and executed tests will result, and the ultimate beneficiaries will be our Soldiers.

Major Troy Heineman is a Military Test Officer assigned to the Intelligence Electronic Warfare Test Directorate at Fort Huachuca, Arizona. His MI assignments include tours of duty with Headquarters (HQ), V Corps in Heidelberg, Germany, and the 525th MI Brigade (Corps) (Airborne) at Fort Bragg, North Carolina. His deployments included Operation UPHOLD DEMOCRACY with the 519th MI Battalion (Technical Exploitation) (Airborne) in Haiti and Task Force Hawk with HQ, G2, V Corps, in Albania. Readers may contact the author via E-mail at heinemantroy@otc.army.mil.

Army MI Linguists Are Getting Better!

by Ray Lane Aldrich

I try to shy away from the traditional "good news story" but the language proficiency story is "good news" and one that we need to tell and understand. I am tired of the Army getting "beat up" over its purported lack of language proficiency. We have absolutely no reason to be ashamed! We may not be the "world's greatest" when it comes to language proficiency but we are certainly a long way from the "world's worst."

Great Statistics

Look at my "whiz-bang" graphic! I will tell you, looking you straight in the eye, that Figure 1 is valid and true. It shows the percentage of Army Active and Reserve Component MI Linguists at language proficiency 2/2 and above with current test scores. The bottom line is that the percentage of Army linguists at 2/2 has increased from 49 percent in 1988 to 87 percent in 2002.

I work for the Army Deputy Chief of Staff G2 and have since 1990. I have been a military linguist since 1961 when I first studied Russian for the Air Force; you can do the math but it looks like about 42 years to me. I still consider myself a military linguist. I picked up Intermediate Russian, a Bachelors of Arts degree in Russian Area Studies and Russian, and Basic and Intermediate German at the Defense Language Institute (DLI) Foreign Language Center (DLIFLC) along the way. I believe that if anybody can figure out a way to "cook the books," I ought to be able to do it.

I swear I did not manipulate these numbers. Let me explain how I got the numbers to support this graph and what they really mean—I want you to feel comfortable when you tell somebody about how good the Army is.

To begin, absolutely no one will agree with these exact numbers. The same data pull on different days will yield different numbers. I do not care about the number of linguists we are discussing, I do not care about the exact percentage of linguists or even the languages used by these linguists. The trend is what is important. It is this upward trend in the proficiency of Army linguists that is so important and so very interesting! It does not really matter if we look at 1988-1992 or 1998-2002. It does not make any difference if you consider that the low point is 50 percent and the high point is 88 percent. The **trend** is significant. Look at the chart—the **trend** is upward!

It is not flat nor a constant increase; it drops a little from time to time, and it looks like it may be reaching a plateau over the last few years. The all-important fact to remember from this chart is that the **trend** is upward. My conclusion is that somebody is doing something right. Army language proficiency is improving!

I will give you some background on the numbers and then I will tell you exactly why I think we are doing better. The numbers come from the Defense Manpower Data Center (DMDC). Many people do not like DMDC numbers and some even do not believe these numbers; I will admit that I do like the DMDC numbers and I believe them. The main thing is that these numbers are consistent. I can pull the same trend in the numbers from DMDC time after time. It does not make any difference what the exact numbers are. The fact that I can pull the same trend of numbers out of the DMDC database over a 15-year period gives me a great deal of confidence that I am on the track of something that is real and valid.

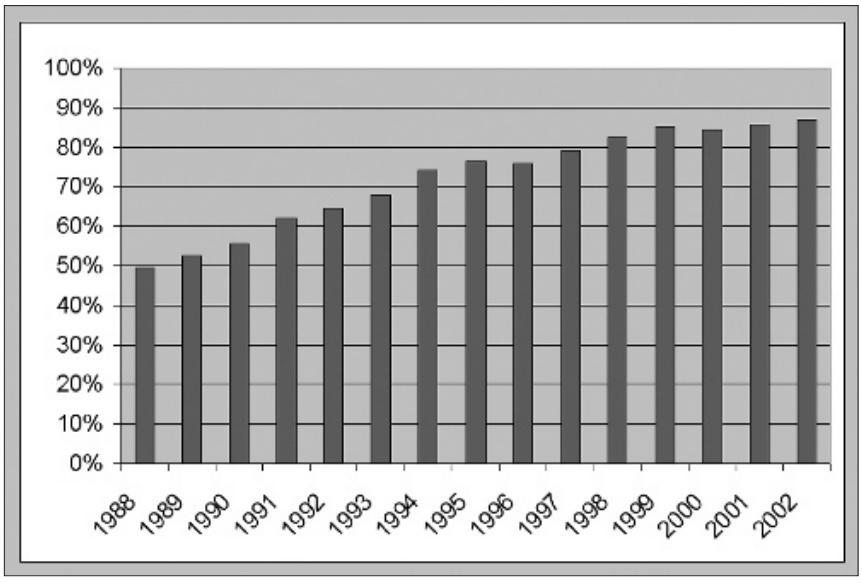


Figure 1. MI Linguists with Current Test Scores at 2/2 and Above.

Why Are Army Linguists Getting Better?

Once we have established that Army linguists are getting better, the next question has to be "Why?" Why are they getting better?

There are actually four reasons for this noteworthy improvement. One of the primary reasons is the increase in the proficiency of DLIFLC graduates from the mid-1980s to the present. Another excellent reason is the existence of Foreign Language Proficiency Pay (FLPP). A third reason, one that is Army-specific, is the funding provided by the Total Army Language Pro-

gram (TALP) for foreign language maintenance and sustainment. The fourth reason, also Army-specific, is the motivation provided by changes to the Army unit status report (USR) and **AR 220-1, Unit Status Reporting**.

DLIFLP. A major reason for any improvement in the proficiency of anybody's military linguists must rest with the work done by the Defense Language Institute Foreign Language Center. I personally credit the General Officer Steering Committee of the mid-1980s and early 1990s with supplying the motivation that drove the DLIFLC to the proficiency improvements. Regardless of motivation, I find it clear that the work done by the DLIFLC is crucial to proficiency improvements across the Services. DLIFLC is not bashful about telling us what they did, how they did it, and the cost of doing so. I honestly believe the data shown in DLIFLC's favorite slide; it too shows a continuous upward **trend** in the proficiency of DLIFLC graduates. Whatever they are doing, it is working.

Foreign Language Proficiency Pay. FLPP has been a motivator since the Army implemented it in the mid-1980s. Its value and its cost increased significantly about three years ago. It does not motivate everybody—it has proven to be about third or fourth in the list of motivators noted in several surveys.

Would proficiency have improved at the same rate without FLPP? I do not know. I think it would be **very** expensive from a number of perspectives to determine exactly how much of a motivator it is. However, I do believe FLPP is one of the main reasons for the improvement in Army linguist proficiency.

Total Army Language Program. The TALP is another of the major reasons for an improvement in the proficiency of professional Army linguists. TALP provides funds to the major Army commands (MACOMs) to spend on language maintenance and sustainment training. Within some rather liberal guidelines, the MACOMs decide how to spend the money. The Army Foreign Language Proponency Office (AFLPO) provides some general herding to this particular group of "kittens" and, by withholding funds in subsequent years, attempts to ensure that the MACOMs spend money in the best interests of the Army and the Army linguists. The most common use of TALP funds is to provide teachers and materials for use by Army linguists. The size of TALP funding has fluctuated over the years based on the amount of money available and the priorities of the comptrollers past whom it annually runs.

Unit Status Report. I heartily recommend the concept, if not the exact wording, of the Army's USR. Despite whatever the rest of the Army intends for the USR, the AFLPO and its predecessor offices recognized that, at least in the Army, one of the most potent motivators is the commander's boss and his expectations. After a large number of seasons spent in the trenches of the military language business, it became apparent to the folks involved that one of the major determinants of a successful foreign language program was the motivation and attention of the unit commander.

No matter how well trained the Army's linguists were when they graduated from DLIFLC, no matter how much money they were offered in FLPP, no matter how clever the Command Language Program manager was, if the unit commander was not interested and involved, there was no maintenance or sustainment—much less improvement—in the proficiency of the unit's linguists. If the unit commander was involved, it was magic. Everyone else became interested.

This article is only about Army units and linguists; it may not work or even be appropriate for other Services and agencies. However, getting the language proficiency of the units and Soldiers included in the unit status report attracts the unit commander's attention because his boss sees unit language proficiency on the USR. This promotes language proficiency to at least the same level of attention and importance as being able to drive the unit's vehicle of choice out of the motor pool. It becomes part of the unit commander's report card. The senior commander asks about and is interested in anything that differs from the norm.

Bottom Line?

So, what is the bottom line? The bottom line is that the proficiency of Army linguists has improved significantly over the last 15 years. Why? Because of DLIFLC, FLPP, TALP, and the USR.

Acknowledgement: My thanks to Ed Christie of DMDC who dug into his DMDC database and verified the number and methodology.

Ray Lane Aldrich has been involved with military aspects of foreign languages through U.S. Air Force enlisted service, Army Warrant Officer, and, ultimately, Army civilian staff positions. He accumulated training in Russian at Indiana and Syracuse Universities, German at the DLI, a Bachelor of Arts degree in Russian Area Studies and Russian at the University of California, and graduate focus in the Army Management Staff College. He currently represents the Army Foreign Language Proponency Office for the Deputy Chief of Staff for Intelligence, G2, in Washington, D.C., and specializes in military foreign language management. Readers may reach Mr. Aldrich at ray.aldrich.hqda@army.mil and telephonically at (703) 695-1379 or DSN 225-1379.

Attention NCOs

Send us your articles and book reviews. If you have any experience you can share on MI doctrine, professional development, or "how-to" tips, please send them to ***Military Intelligence***. Topics of interest for future issues include: ISR, SIGINT, IMINT, war on terrorism, OEF, OIF, and tactical operations. E-mail them to mipb@hua.army.mil or call (520) 538-0735/1005 or DSN 879-0735/1005, respectively.

The INTELST Information-Sharing Forum: A 21st Century Tool of MI Professionals

by Lieutenant Colonel Rich Holden

Created in April 2000, the (Intelligence List) INTELST provides an information-sharing forum to discuss current and future intelligence doctrine and to share ideas and request information as well as tactics, techniques, and procedures (TTP) between intelligence professionals at all levels. From a humble beginning with about 30 charter members, the INTELST has grown to more than 1,200 members all over the world, at all levels of command and rank. List members come from across the spectrum of the military and civilian worlds, to include all the military Services, many civilian and non-Department of Defense governmental agencies, as well as Australia, Canada, England, Korea, Netherlands, and New Zealand.

Discussions on the INTELST have covered a wide range of topics, to include—

- ❑ Asymmetric warfare.
- ❑ Training of intelligence analysts.
- ❑ Split-based operations.
- ❑ All-Source Analysis System (ASAS).
- ❑ Unmanned aerial vehicles (UAVs).
- ❑ Professional recommended reading lists.
- ❑ Issues about new **FM 2-0** series of field manuals.
- ❑ Battlefield visualization.
- ❑ Sharing open-source intelligence (OSINT).
- ❑ Intelligence preparation of the battlefield (IPB).
- ❑ Targeting.
- ❑ Priority intelligence requirements (PIRs).
- ❑ Intelligence architectures and systems in general.
- ❑ After-action reviews and lessons learned from current operations.
- ❑ Future Force intelligence requirements and structure.
- ❑ Current and Future MI Force structures and requirements.
- ❑ Battle Command Training Program's Intelligence Perceptions.
- ❑ Discussion of intelligence and the military decision-making process (MDMP).

Additionally, the moderator established a smaller list, the ASASLST, with more than 200 members focused on ASAS and all of its associated issues and challenges.

The ASASLST and INTELST, as well as numerous other military topic-related lists, run on a list server maintained in the Pentagon by the U.S. Army Information Management Center (IMCEN). The Department of the Army does not officially endorse the forums so discussions can be—and sometimes are—controversial, yet kept within the spirit of "thinking outside the box."

If you are interested in joining the INTELST, please send an E-mail (your AKO/us.army.mil address is preferable) to "richard.holden@us.army.mil." Request that you pass this information on to other intelligence professionals who may be interested in joining.

Editor's Note: LTC Holden created INTELST and has served as its moderator in his spare time. We thank him for investing his time in INTELST and in making available so much intelligence-related material on the Army Knowledge Online (AKO) Knowledge Collaboration Center (KCC) titled the "Intel Reference Files" under in the Intelligence Community area. The Intel Reference Files KCC is the most popular site on AKO with more than 300,000 downloads.

AIMPLST

by Collin A. Agee (Lieutenant Colonel, U.S. Army, Retired)

The INTELST, established in April 2000, is one of a number of E-mail forums run from a list server maintained by the Pentagon to facilitate a professional exchange of ideas. AIMPLST is an example of a forum that essentially spun off from INTELST with a more limited focus and smaller subscription base than INTELST. Created in February 2001, the AIMPLST is administered by the Army Intelligence Master Plan (AIMP), a subordinate office of the Army G2.

In its three years of existence, it has remained focused on Army Intelligence Transformation, first as a conduit to coordinate the Army Intelligence-Transformation Campaign Plan (AI-TCP), and more recently for the Chief of Staff of the Army's Focus Area 16, Actionable Intelligence (although some aspects of FA 16 remain close hold, and thus are not suitable for an open forum). Membership has hovered around 100, including a diverse population of uniformed and civilian, active duty and reserve personnel, and academicians.

CSA's Focus Area 16: Actionable Intelligence

Introducing the Concept of "Actionable Intelligence"

by Lieutenant Colonel Stephen K. Iwicki

Over the last few months, the Senior Leadership of our Army has been conducting an assessment in concert with input from leaders and Soldiers from every part of our Army and with many others from outside our Army. This assessment outlines where we are and where we need to go. We have examined our strengths and probed the areas where we need to improve. This analysis has provided us with some areas of immediate focus that will feed into more strategic undertakings. This is not a linear process and is not an easy undertaking.

—General Peter J. Schoomaker, Chief of Staff of the Army

The Army is developing 17 immediate Focus Areas intended to steer the Army into the future. Most of the 17 interconnect with or impact Military Intelligence (MI) in some way. The Army Chief of Staff (CSA) assigned responsibility for each Focus Area to either the U.S. Army Training and Doctrine Command (TRADOC) or Department of the Army staff elements; the Army G2 has the lead for Focus Area 16 (Actionable Intelligence).

> ***Actionable Intelligence:*** **"Product developed for Commanders and Soldiers to provide shared situational understanding allowing them to operate with the speed, accuracy and timeliness necessary to conduct successful operations."**

The CSA's guidance to Task Force Actionable Intelligence (TF-AI) emphasized rapidly implementing a capability that provides shared situational understanding across the force and instilling an Army-wide culture and mind-set that every soldier is a collector, in learning, adaptive organizations that leverage inherent intelligence capabilities.

Developing the Actionable Intelligence Concept

TF-AI, consisting of experienced active and retired MI personnel from throughout the Army, is developing new concepts, initiatives, and processes that will provide (the product) Actionable Intelligence to any Soldier or commander at any echelon within the Army. TF-AI is looking across the Army doctrine, organization, training, materiel, leadership, personnel, and facilities (DOTMLPF) to determine what the current and future MI issues are and how to fix them. The Army is vetting merging recommendations through the Army and Joint Senior Intelligence Leadership, with review by a group of "out-of-the-box thinkers" (academia, scientists, writers) and a "Gray Beard" panel of senior retired Army and sister Service flag officers, representing the perspectives of both the Operations and Intelligence communities.

Those who have served more than a few years with the military understand that transformation typically equates to a lengthy and bureaucratic process that takes many years to develop, fund, and field. With our nation at war, the Army is pushing toward more rapid, immediately relevant change in the Current and Future Force.

Implementing Our Concept

In describing this construct within the overarching Army "Way Ahead," our concept reflects a **Current** Force and a **Future** Force, both of which must be viable. While that is intuitive, in the past we have typically built toward a certain system or force, rather than fixing the current problems, because we will have the solution when we field new systems in the future, often years down the road. We must lose that mindset. As an army at war, our Current Force is fighting **now**. Therefore, issues and problems with the Current Force need fixing **now**. While we will not have all the technological fixes that future technology will bring, we cannot wait. Using "Spiral Development" techniques, we must insert what we can today, and evolve to the Future Force over time.

To implement this approach, TF-AI has several subordinate working groups, including the Current Force and Future Force Working Groups.

The ***Current Force Working Group*** focused on immediately addressing and resolving issues related to the Current Force. This group interacts with deployed forces to define issues and solutions for our forces engaged in Operation ENDURING FREEDOM (OEF) and Operation IRAQI FREEDOM (OIF). In the case of OIF, the Army identified 85 Intelligence requirements four months ago; to date, we have successfully resolved 73 of them.

The ***Future Force Working Group***, working in conjunction with the entire MI Community and the other CSA Focus Areas, is developing and refining concepts, doctrine, initiatives, and systems for the Current and Future Forces. This group has the charter to conceptualize and design essential components and capabilities of MI in the Future Force.

Three essential tasks form the core of Focus Area Actionable Intelligence. Discussed below, these essential tasks are instilling a collector/consumer mindset;

"The assessment outlines where the Army is and where the Army needs to go. The analysis provided 17 immediate focus areas, which will feed into more strategic undertakings. The focus areas are highly interrelated and are not a linear process." ***—CSA***

Focus Areas

- ❑ **The Soldier**
- ❑ **The Bench**
- ❑ **Army Aviation**
- ❑ **Leader Development and Education**
- ❑ **Combat Training Centers/Battle Command Training Program**
- ❑ **Current to Future Force**
- ❑ **The Network**
- ❑ **Modularity**
- ❑ **Joint and Expeditionary Mindset**
- ❑ **AC/RC Balance**
- ❑ **Force Stabilization**
- ❑ **Installations as Flagships**
- ❑ **Resource Processes**
- ❑ **Strategic Communications**
- ❑ **Authorities, Responsibilities, and Accountability**
- ❑ **Joint Logistics**
- ❑ **Actionable Intelligence**

FAs interact as required

Definition

"Actionable Intelligence" - Product developed for commanders and Soldiers to provide shared situational understanding allowing commanders and Soldiers to operate with the speed, accuracy, and timeliness necessary to conduct successful operations.

Fix The Current - - - Design and Posture For The Future

Essential Tasks

❑ Instill the mindset that every Soldier is both a collector and a consumer of intelligence information.

❑ Provide leaders and Soldiers a framework that links analytic centers, sensors, and databases into a structure that supports operations.

❑ Design modular intelligence force packages that are easily and quickly tailored and aligned to support any battlefield mission.

Figure 1. CSA's Focus Area 16: "Actionable Intelligence."

providing a framework linking analytic centers, sensors, and databases; and designing modular packages quickly tailored and aligned for support.

Instill the mindset that every Soldier is both a collector of information and a consumer of both information and intelligence. We must imbue the mind-set that every Soldier is a Sensor within the entire Army. Our Soldiers on the battlefield, walking the ground and interacting with locals, have always been the best collectors of information; the challenge has been getting the information into the reporting system. We must ingrain within all Soldiers (drivers, Aviators, Infantry) that what they see, hear, or smell could be the critical piece of information required. With this crucial concept, we must develop a structure that eases the ability of each Soldier to receive and report information within the overall battle command framework.

Across the Army, we must change the culture and mind-set of Soldiers and leaders to understand the imperative to fight for intelligence. Units cannot passively wait for intelligence to come from internal or external sources. Soldiers and leaders must employ all assets and resources in their span of control as intelligence collection assets and recognize that friendly actions elicit responses by our adversaries.

Provide leaders and Soldiers a framework that links analytic centers, sensors, and databases into a real-time structure that supports operations. This will allow for the rapid sharing and exchange of data through intelligence down to and up from the Soldier level, enabling Actionable Intelligence. We require persistent surveillance with information and intelligence processed at the point of origin to facilitate movement of the data. We need systems that are rapidly deployable and adaptable to any given situation across the full spectrum of conflict. Within this framework, we are developing the concept of "Analytic Overwatch." This function responds directly to tactical units by providing analysis and collection overwatch of their intelligence-related requirements. The primary mission under this framework will be "pushing" focused intelligence to the tactical units and ensuring continuous situational understanding during critical phases of the operation.

Design modular intelligence packages that forces can easily and quickly tailor and align to support any battlefield mission. Based upon the varied threats and multiple types of battlefields we can expect to see in the future, we require a modular MI structure that enables us to deploy the required package (analytic, collection, human intelligence

[HUMINT], etc.) in any operation. These modules will be capable of interacting and collaborating within the joint and coalition environment.

Final Thoughts

Full realization of FA 16 must include a change in the overarching culture and mindset on Intelligence, processes, and responsibilities within the Army. We will discuss this concept more fully in the "CSA's Focus Area 16: Actionable Intelligence" section in the April-June 2004 issue of the **Military Intelligence Professional Bulletin (MIPB)**.

TF-AI is working these issues and designing possible solutions to these and other challenges. The TF-AI team will brief the CSA in late January or early February 2004. We will release some of the initial recommendations in greater detail in future issues of ***MIPB*** as we develop them and obtain approval. Please forward any comments or suggestions on these or other MI concepts to the Deputy Director of TF-AI, Lieutenant Colonel Steve Iwicki at steve.iwicki @hqda.army.mil.

Lieutenant Colonel Steve Iwicki is currently assigned to the Army G2 and serving as the Deputy Director of TF-AI. Readers may contact him via E-mail at steve.iwicki@hqda.army.mil and telephonically at (703) 693-6210.

U.S. Army Reserve Command MI Augmentation Detachment

Military Intelligence (MI) Soldiers are a critical U.S. Army asset. The nation has a real interest in preserving and employing these skills, especially as the MI Soldier gains experience in using these hard-won skills.

To retain these Soldiers and their skills for the nation, the U.S. Army Reserve Command (USARC) established the Military Intelligence Augmentation Detachment (MIAD) directly subordinate to the USARC. The MIAD's mission is to facilitate life-cycle management of MI Soldiers in the Reserve Components (RC). The Detachment accomplishes its mission by assigning U.S. Army Reserve (USAR) enlisted, warrant, and company-grade Soldiers to USARC high-priority MI units with vacancies. The MIAD enables MI-qualified Soldiers who do not reside near a USARC Tier 1 unit to be productive members of the USAR. The primary MIAD focus is the retention of Soldiers leaving active duty, Soldiers displaced by unit reorganizations or inactivation, and USAR Soldiers relocating to an area without a USAR MI unit.

After joining the MIAD, MI Soldiers have funding to attend a minimum of six 3-day trips in active duty for training (ADT) status each fiscal year. These trips normally occur during the unit's weekend training periods. During these six ADT periods, the MIAD funds the Soldier's transportation and lodging expenses. The Soldier also must perform a minimum of 24 mutual training assemblies (MUTAs) either at a unit close to his home or through other means such as performing intelligence-related work using the World Basic Information Library. The MIAD will also fund travel and base pay for the Soldier's annual training period (normally two weeks each year) if it is more than normal commuting distance of the Soldier's home. Some USAR MI personnel perform their AT as overseas deployment training (ODT).

Languages Needed

Currently the MIAD needs Soldiers with language skills in Arabic, Chinese-Mandarin, French, Korean, Persian-Iranian, Spanish, Russian, Serbo-Croatian, Thai, Turkish, Urdu, and Vietnamese. Soldiers not skilled in critical languages may be eligible for attendance at the Defense Language Institute (DLI).

Additional MIAD Opportunities

The MIAD also manages Soldiers in two other types of units. A limited number of MIAD Soldiers can serve as Technical Intelligence Analysts with 203d MI Battalion at Aberdeen Proving Ground, Maryland. The 203d is a multiple-component (MultiCompo) unit and the only technical intelligence battalion in the Army. To be eligible for this assignment, Soldiers must be qualified Technical Intelligence Analysts. Most of these positions are at the Sergeant, Staff Sergeant, and Sergeant First Class levels.

MI noncommissioned officers (NCOs) can also serve with one of the five Army Reserve Total Army School System (TASS) units as MI Instructors. These Soldiers have the important job of instructing RC Soldiers in MI subjects.

Contacting the MIAD

Active duty Soldiers leaving the Active Army who are interested in an MIAD assignment can obtain more information from their post transition counselors. Additional information on the MIAD is available from the Army Knowledge Online (AKO). Go the Army Communities/Army Reserve/Direct Reporting Units and click on the MI Augmentation Detachment. You can also contact the MIAD via E-mail at MIAD2@usarc-emh2.army.mil or by telephoning 1-800-359-8483, extensions 9546/8896.

Army Intelligence Master Plan

Distributed Common Ground System-Army: Focused on the Future

by Alfred Burkhard

With the recent approval by the Army Requirements Oversight Council (AROC), the Distributed Common Ground System-Army (DCGS-A) continues its march to the Milestone B decision in the third quarter fiscal year 2004 (FY04) and, ultimately, fielding as the Army's capstone intelligence, surveillance, and reconnaissance (ISR) processing system. Critical to the success of DCGS-A are the joint interoperability requirements mandated in the Department of Defense (DOD) Distributed Common Ground/Surface System (DCGS) Capstone Requirements Document (CRD). In order to ensure compliance with these requirements, the Army Deputy Chief of Staff (DCS) G2 participates in the ongoing Integrated Process Team (IPT) process within DOD through the Army Intelligence Master Plan (AIMP) program.

DCGS-A

As the capstone ISR processing system for use by the Future Force, DCGS-A will provide access to information and intelligence collected by national, joint, other Services, coalition, and Army intelligence as well as non-intelligence sensors and systems. It is imperative that the Army identifies joint, interagency, and multinational (JIM) interoperability issues for both current systems and those planned for the future. This interoperability is not restricted

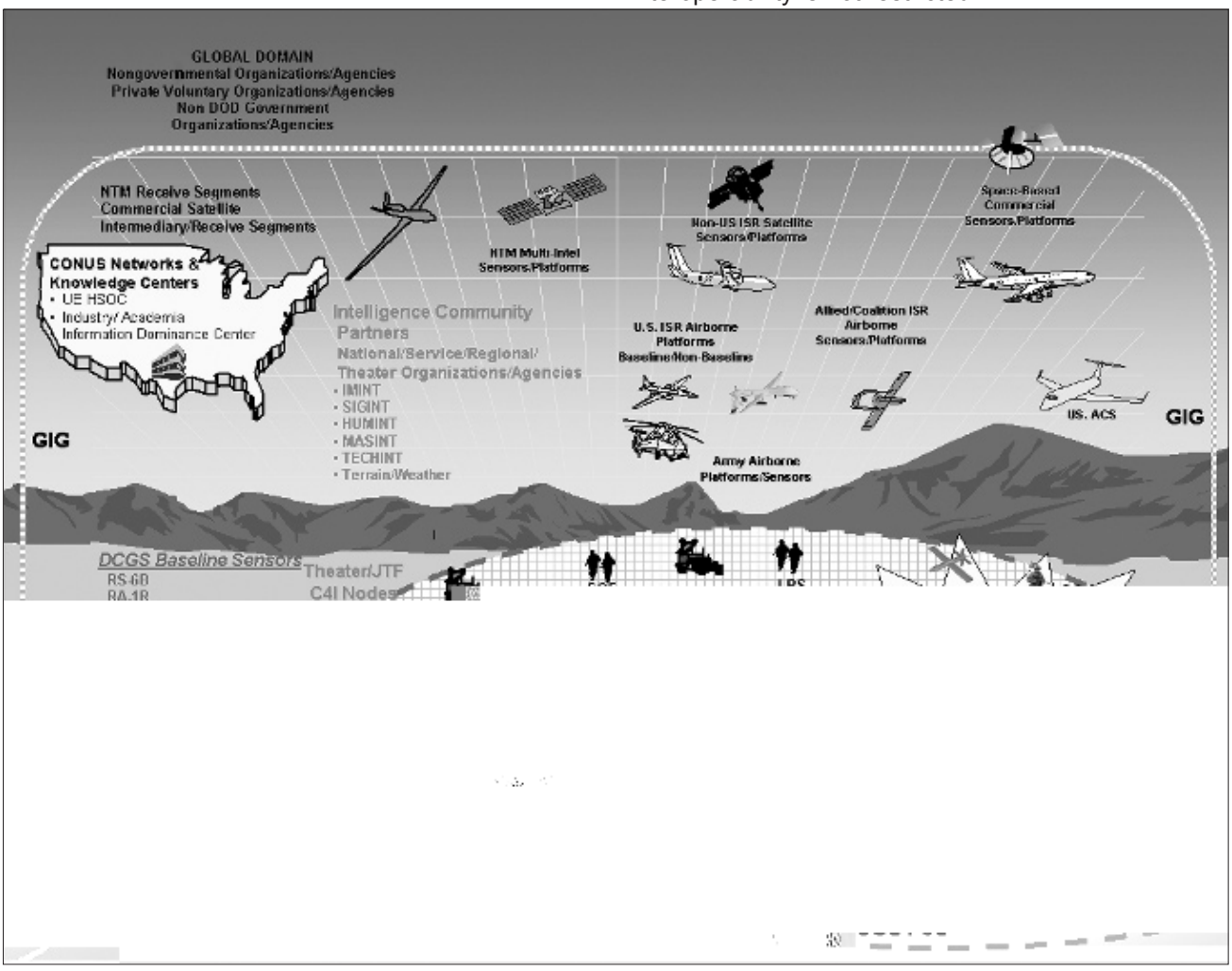


Figure 1. DCGS-A Operational View.

to just intelligence systems; battle command, signals, fires, mobility, sustainment, and medical systems are also part of the discussion and planning. To be “expeditionary” demands a lighter, more lethal, scalable, and modular force with immediate access to information and intelligence that precludes the “stovepiped” systems in existence today. The Unit of Action (UA)—the combat force that will execute decisive operations in the Future Force—must have access, without latency, to information and intelligence regardless of the source or location

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Doctrine Corner

FM 2-0, Intelligence: Changes to Expand our Capstone Doctrine

by Lee Goodman

On 27 January of this year, Lieutenant General William S. Wallace, Commander, Combined Arms Center, approved the **Revised DRAG Draft of FM 2-0**. FM 2-0 supersedes **FM 34-1, Intelligence and Electronic Warfare Operations**, 27 September 1994. The U.S. Army Intelligence Center (USAIC) is currently producing FM 2-0 as a camera-ready copy (CRC), which will be forwarded to the Army Publishing Directorate (APD) for publication. FM 2-0 should be published within the next few months. In the interim, USAIC will place the CRC as a final approved draft on our Army Knowledge Online (AKO) collaboration website for units to download and use until APD prints and distributes FM 2-0. USAIC will also disseminate FM 2-0 via CD to those units for which we have mailing addresses to facilitate their receiving our keystone manual. If you are unsure if the USAIC Doctrine Division has your current unit mailing address, please E-mail your unit's mailing address to ATZS-FDC-D @hua.army.mil.

FM 2-0 was developed to describe Intelligence operations within the context of the new Army keystone doctrine contained in **FM 3-0, Operations**. FM 2-0 also was developed based on the changes and new doctrine contained in:

- ❑ **FM 6-0, Mission Command: Command and Control of Army Forces** (staff portion of the old FM 101-5).
- ❑ **FM 7-15, Army Universal Task List (AUTL).**
- ❑ The final draft of **FM 5-0, Army Planning and Orders Production** (planning and orders portion of the old FM 101-5).
- ❑ **FM 3-90, Tactics.**
- ❑ **FM 3-07, Stability Operations and Support Operations.**

FM 2-0 describes intelligence support to the commander within the new contemporary operational environment (COE). The major doctrinal changes within the manual include the new intelligence tasks, a discussion of the COE, the new intelligence process (previously the intelligence cycle), and our updated intelligence disciplines. Figure 1 lists the eleven critical variables of the COE in context with the operational environment.

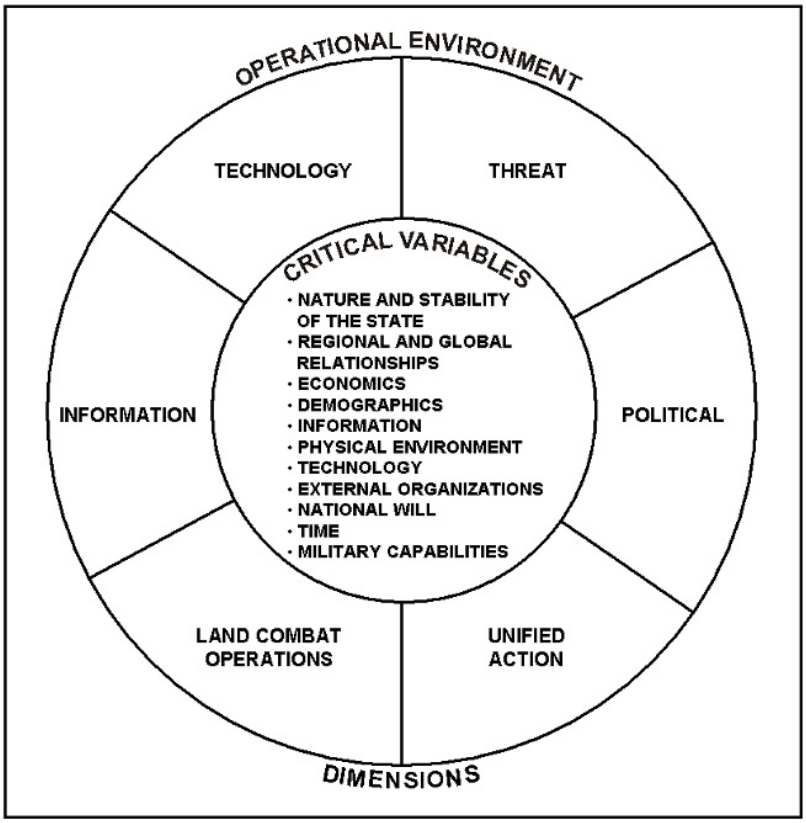

Figure 1. Critical Variables and Dimensions of the Operational Environment.

In the new FM 2-0, our intelligence tasks were written in accordance with the AUTL as follows:

- ❑ Support to situational understanding.
- ❑ Support to strategic responsiveness.
- ❑ Conduct intelligence, surveillance, and reconnaissance (ISR).
- ❑ Provide intelligence support to effects.

Intelligence personnel and organizations within the Intelligence battlefield operating system (BOS) conduct these four primary intelligence tasks to facilitate the commander's visualization and understanding of the threat and the battlespace. These tasks are interactive and often take place simultaneously. Figure 2 illustrates how these tasks support the commander's requirements.

FM 2-0 also outlines the COE. The COE is the operational environment that exists in the world today and in which our forces are currently conducting operations. The manual outlines the eleven critical variables of the COE that facilitate understanding of the threat and which define the operational environment. Only by studying and understanding these variables—and incorporat-

INTELLIGENCE TASKS	COMMANDER'S FOCUS	COMMANDER'S DECISIONS
Support to Situational Understanding - Perform IPB - Perform Situation Development - Provide Intelligence Support to Force Protection - Conduct Police Intelligence Operations	**Plan a mission.** **Execute the operation.** **Secure the force.**	**Which COA will I implement?** **Which enemy actions are expected?**
Support to Strategic Responsiveness - Perform I&W - Ensure Intelligence Readiness - Conduct Area Studies of Foreign Countries - Support Sensitive Site Exploitation	**Orient on contingencies.**	**Should I increase the unit's level of readiness?** **Should I implement the OPLAN?**
Conduct Intelligence, Surveillance, and Reconnaissance - Perform Intelligence Synchronization - Perform ISR Integration - Conduct Tactical Reconnaissance - Conduct Surveillance	**Plan the mission.** **Prepare.** **Execute.** **Assess.**	**Which DPs, HPTs, etc., are linked to the enemy actions?** **Are the assets available and in position to collect on the DPs, HPTs, etc.?** **Have the assets been repositioned for contingency mission?**
Provide Intelligence Support to Effects - Provide Intelligence Support to Targeting - Provide Intelligence Support to IO - Provide Intelligence Support to Combat Assessment	**Destroy/suppress/ neutralize targets.** **Reposition intelligence or attack assets.**	**Is my fire (lethal or non-lethal) and maneuver effective?** **Should I refire on the same targets?**

Key:
COA – Course of action
DPs – Decision points
HPTs – High-payoff targets
I&W – Indications and warnings
IPB – Intelligence preparation of the battlefield
OPLAN – Operations plan

Figure 2. Intelligence Tailored to the Commander's Needs.

ing them into training—will the Army be able to both keep adversaries from gaining an operational advantage against the United States and to find ways to use these variables to our own advantage.

The manual also includes the new Intelligence Process. FM 34-1 discussed the intelligence cycle depicting how intelligence supported operations. FM 2-0 discusses intelligence personnel and units using the intelligence process to support the operations process. Figure 3 illustrates how the intelligence process works within the operations process. Intelligence operations generally include the five functions that constitute the intelligence process: plan, prepare, collect, process, and produce. Additionally, three common tasks occur across the five functions of the intelligence process: analyze, disseminate, and assess. The intelligence process functions are not necessarily sequential, which separates it from the Joint intelligence cycle. The intelligence process provides a common model that guides one's thinking, discussing, planning, defining the area of interest (AOI), and assessing the threat.

FM 2-0 also updates our intelligence disciplines. HUMINT, IMINT, SIGINT, MASINT, and TECHINT remain as disciplines. The change is that All-Source Intelligence is now a discipline. This change is because all-source intelligence is more than simply a task used to produce intelligence from multiple disciplines or information sources. All-source intelligence involves units, organizations, and activities all focused on conducting the task of producing all-source intelligence and then disseminating the product to users at various echelons. This change now provides our 35Ds, 350Bs, and 96Bs with a discipline like the rest of their intelligence counterparts. Although joint doctrine includes open-source intelligence (OSINT) as an intelligence discipline, Army intelligence doctrine continues to view open source as a category of information used by each of the disciplines to perform their mission and conduct their analy-

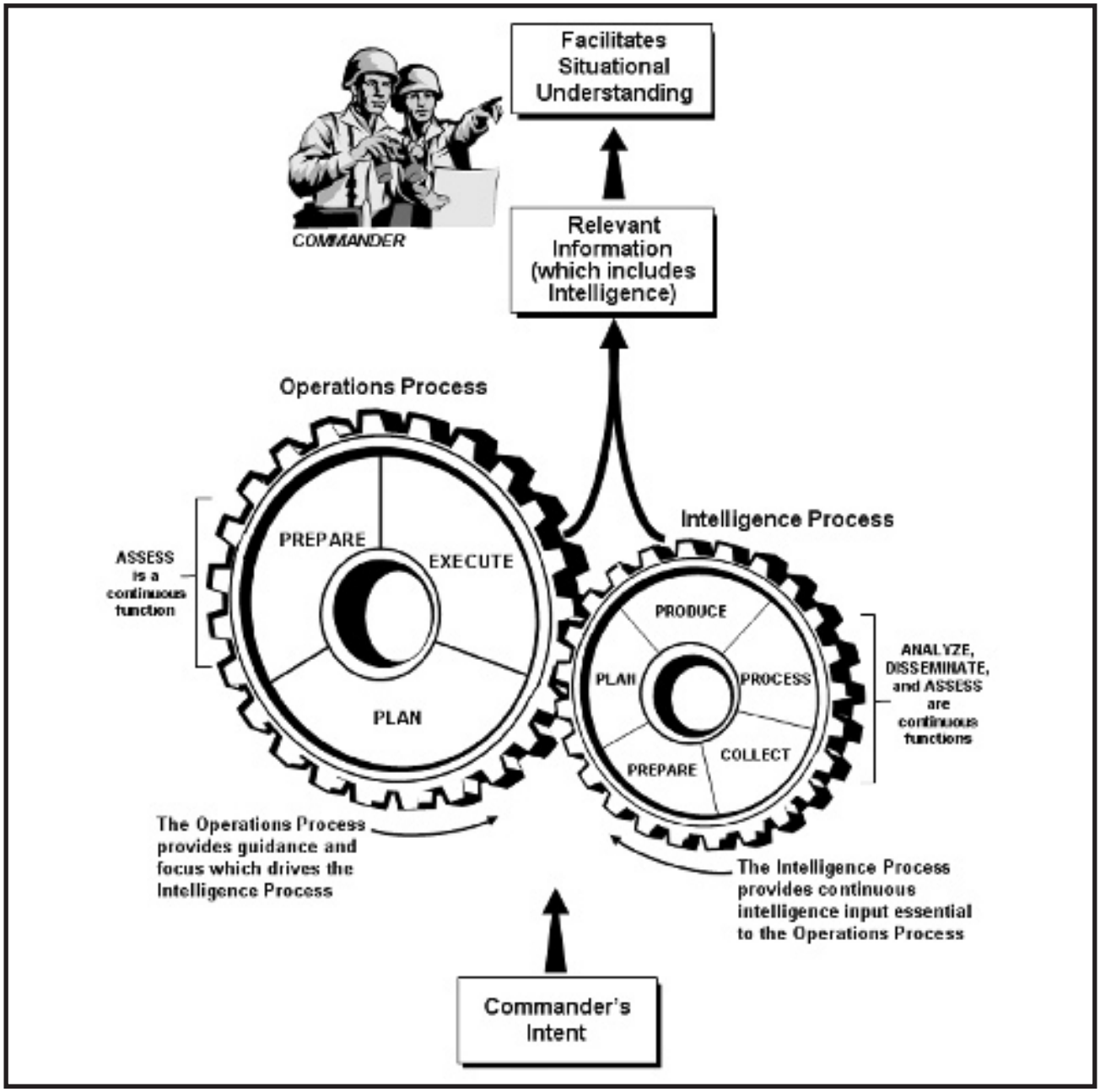

Figure 3. The Relationship Between the Operations and Intelligence Processes.

sis. This view does not diminish the importance of open-source information.

Additionally, because of all of these changes, FM 2-0 more closely ties to the Army operational doctrine and operational process. The intent of the new intelligence manual is to better "operationalize" intelligence and truly show how intelligence will support commanders in today's operational environment. FM 2-0 discusses a combined BOS and staff approach to the preparation and conduct of all operations. It discusses how ISR involves both the G3/S3 and G2/S2 to answer the commander's critical information requirements (CCIRs) and to facilitate his situational understanding and visualization of the battlespace. This joint effort between G3/S3 and G2/S2 requires extensive and close cooperation and integration; this also requires an integrated staff approach to planning, executing, and redirecting ISR. USAIC has worked hard in the production of FM 2-0 to clearly show intelligence's continued relevance and place as an element of combat power.

Lee Goodman is currently the Writing Branch Chief of the USAIC Doctrine Division. Readers may contact him via E-mail at edd.goodman@hua.army.mil and telephonically at (520) 538-0971 or DSN 879-0971.

Letter to the Editor

As I approach the final six months in command in Korea, I thought I would pass on a few observations.

You would be proud of the Soldiers serving in the Army. In my unit in Korea, the 102d Military Intelligence Battalion, we have 525 of the best and brightest, most disciplined Soldiers—sons and daughters from every state and strata of society. Of these, 61 are Korean conscripts, known as Korean Augmentees to the U.S. Army (KATUSAs). They all do amazingly complex tasks routinely, for little pay or tangible reward.

Many of our Soldiers fly unmanned aircraft, jump out of planes, and operate sensitive and complex intelligence systems. They are all physically fit, train endlessly, in all kinds of weather, and shoot every weapon system imaginable. A large percentage are combat lifesavers, having undergone extensive lifesaving training. They are technically and tactically proficient. A good number of them are language-trained in Hangul. Some are cooks, mechanics, and technicians, slaving away to serve each other and make sure we are ready as we say in the Second Infantry Division, "To Fight Tonight."

They are all volunteers. Many have college degrees, and almost all are well-educated. They are up on current events, and know a lot about geography. They are both skillful and worldly. They also know more about civics than is taught in school. They give up numerous freedoms most take for granted—like freedom of association and freedom of speech. They do vote! They abide by a strict curfew, and tolerate restrictions imposed on them for their welfare and protection. They truly look out for each other, forming an unspoken bond.

Many were high school seniors a few years ago or as recently as last year. They are reenlisting in droves, knowing there is a good likelihood they will go to Iraq—in harm's way. They are not fearful or scared. They know the importance of their mission and are proud to do it, and, as I already mentioned, they certainly do not do it for the pay. They live in the best accommodations we can provide, which usually falls well short of what they deserve. They work hard to make sure their uniforms represent the great nation they serve. They do get a little homesick from time to time. Many serve away from their families—spouses and children—sometimes by choice, often because that is what they were told to do, and they dutifully obey.

They are human pincushions—well inoculated and they give blood regularly. They truly do not care about race, ethnicity, or gender although they are sensitive about these things and generally treat each other with dignity and respect. They poke fun at each other but not maliciously. They use "I" sparingly, and "we" generously. They respect experience and authority. They are not automatons: they question the purpose and strive to achieve high standards and goals. They take immense pride in what they do, and do not suffer fools well.

They generally love team sports and are sociable. They are quick to roll off the latest scores of their favorite teams "back home." Some are accomplished athletes, others are gifted musicians, artists, writers, and even historians. They do not all like their field rations but they are creative cooks. They study the lessons of military history. Some were the class geeks at one time.

They are tireless and rarely quit. When they do, it is not long before they get motivated and try again until they succeed.

They ask little in return—but do not mess with their mail, pay, and precious free time.

I have the privilege to serve as their commander. I wake up every day inspired by their motivation, dedication, and commitment. They challenge you every day. Sometimes you fall a little short. What a great "job."

Lieutenant Colonel James L. Stockmoe
Seoul, Korea

Have You Moved Recently?

Please notify ***MIPB*** of your address change. You may send an E-mail to mipb@hua.army.mil with the subject: "Address change." You can also call (520) 538-1009 or DSN 879-1009 or write to U.S. Army Intelligence Center and Fort Huachuca, ATTN: ATZS-FDT-M, 550 Cibeque Street, Fort Huachuca, AZ 85613-7017.

Proponent Notes

Military Intelligence Corps Promotions

by Lieutenant Colonel Harvey Crockett

According to the latest data we have seen, the Military Intelligence (MI) Corps is healthy in terms of promotions, recruiting, and retention. We continue to monitor those military occupational specialties (MOSs) currently on the STAR list (shortage MOSs) closely and ask for your assistance as well. The data appears to support further reducing even this small number.

There are no prominent trends in the officer promotion arena. Lieutenant Colonels (LTCs) did better this year than last but promotion of Colonels (COLs) was about the same in comparison to the Army average. In both cases, the promotions were well above the floor requirement. Officer Personnel Management Directorate (OPMD) and Office of the Chief, Military Intelligence (OCMI) continue to monitor this closely for any trends. Majors promotions did exceptionally well this past year and we still await the Warrant Officer (WO) Board results for fiscal year 2003 (FY03).

As we have discussed in this column on earlier occasions, many of the changes planned for the MI MOSs over the next several years will significantly impact a number of our MI specialties for both officer and enlisted personnel (see the OCMI homepage at http://usaic. hua. army.mil/ocmi/enlisted. html). Nevertheless, we are not expecting to see much of an adverse effect on promotions because of these changes. Those Soldiers who would have received promotions under the old models will still have essentially the same chances of promotion under the new one. The key for us is to keep the structure, the number of positions authorized by rank, in sync with the size of the force we have at each rank. We are working this action hard.

There are several promotion boards on the horizon. I am sure you will do well. Good luck and thanks for helping to keep the MI Corps healthy and relevant.

Enlisted Actions

(Point of Contact [POC] Sergeant Major (SGM) Mitchell via E-mail at maurice.mitchell@hua.army.mil)

Promotions Pointers. Results from the last three enlisted promotion boards continue to show a positive correlation for those Soldiers doing well in the hard jobs and selection for promotion. Successful performance in jobs like drill sergeant, instructor, first sergeant, and platoon sergeant all clearly enhance a Soldier's chances of promotion. Unfortunately, especially during our nation's Global War on Terrorism, the opportunity for you to fill some positions will not be available when you would like to get them or may not become available at all due to the needs of the Army. However, if we have learned anything from recent board results, it is that quality performance is the greater key. The following are some of the indicators that you and your Soldiers should strive for and seek:

- ❑ Strong noncommisioned officer (NCO) evaluation reports reflecting outstanding duty performance.
- ❑ Strong trend towards excellence over long periods of time, regardless of position or assignment.
- ❑ Exceeds NCO education system course standards.
- ❑ Maintains high physical fitness standards and consistent compliance with height and weight standards.
- ❑ Consistently seeks continuous learning opportunities through military courses and civilian educational opportunities.
- ❑ Demonstrates high standards of conduct and adherence to Army values.

For our junior Soldiers—when it comes to promotion, ensure you are not placing additional requirements on Soldiers before sending them to their promotion boards. Everyone wants the "super-troop" but remember the Army policy is to promote a Soldier when he or she meets Army (standards) requirements, not the unit (standards) requirements.

Upcoming NCO Selection Boards. The calendar year 2003 (CY03) SGM Selection Board finished in October 2003, the Master Sergeants (MSGs) Board will convene in February 2004, and the Sergeants First Class (SFCs) Board is currently scheduled to convene in May 2004. The projected release date for the SGM promotion list is 15 January 2004. To view MI Proponent input to this board or any other recent senior enlisted boards go to http://138.27.35.32/ocmi/EN_Info_portal.htm.

The sequence of the upcoming Enlisted boards recently changed to match the policy of a "select, train, and promote" model. To learn more, take a look at the slides posted by the U.S. Army Human Resources Command (HRC) Indianapolis (formally the EREC, Enlisted Records and Evaluation Center) under *New–Senior Enlisted Board Briefing* at http://www.erec.army.mil/das/board.htm.

Warrant Officer Actions

(POC CW5 Castleton at E-mail lon.castleton@hua. army.mil)

Warrant Officer Promotion Preparation. Since we are looking at promotions in this issue, it might be a

good time, based on a historical prospective, to cover what seem to be crucial considerations for promotion selection of an MI warrant officer. Similar to both officer and enlisted criteria, sustained superior performance in challenging MOS-related positions is by far the most important factor to ensure promotion. Officer Evaluation Reports (OERs) must be clearly written and understandable both in the duty description and narrative. Please, do whatever you can to avoid acronyms! Remember only one of the board members is MI. In any OER for which you provide input, be certain to address leadership up front. Note the scope of responsibilities. Personally, I would eliminate the words "responsible for" not because they are wrong but rather because they are overused in the opinion of many. Use action verbs whenever possible and keep it simple. Rater and senior rater comments must address promotion potential and assignment potential. Senior rater comments are critical due to the limited number of above center of mass (ACOM) ratings allowed.

It is not too early to start preparing for next year's promotion board. Soldiers should review their microfiche (done online now) to ensure their personnel files are complete and accurate. Ensure that photos are current. Do not wait until the last minute when the photo lab will be flooded with Soldiers trying to get their photographs updated. Remember that all Soldiers must monitor and maintain their personnel files to ensure the information is correct and current. Do not rely on HRC Alexandria or St. Louis or your local personnel and administration center (PAC) to do that for you. Be actively involved in your career management. Complete your military and civilian education. Stay technically proficient through assignments that are increasingly challenging. These assignments should develop leadership as well as technical skills.

A final piece of advice: have a senior warrant officer in your career field review your file to ensure that it is board-ready.

Warrant Officer Promotion Boards. The 2004 Chief Warrant Officer 3/4/5 Promotion Board is scheduled to meet in May 2004. MI accession boards will be in January, March, July, September, and November. (Note: not every board considers every MOS.) The opportunity to become an MI warrant officer has never been better. Check the U.S. Army Recruiting Command (USAREC) home page for a listing of all MOSs, prerequisites, and application procedures at http://www.usarec.army.mil/hq/warrant/.

Officer Actions

(POC Ms. Borghardt via E-mail at charlotte.borghardt@hua.army.mil)

Officer Development and Career Management. Accessions into the MI Branch continue to run strong. Visits to the Reserve Officer Training Corps (ROTC) advanced summer training programs were very successful in informing the cadets about how great MI is as a career field. More than 75 percent of our captains (CPTs) still come into the MI Branch through the Branch-detail program. This has kept the overall strength of CPTs strong with the senior officer ranks following suit.

The road to successful promotion starts early with lieutenants completing the MI Officer Basic Course (MIOBC). Learning how the Army works and how the company and battalion run is one of the first tasks a lieutenant should master. Lieutenants need to develop leadership skills quickly and demonstrate their leadership abilities through troop leading. They need to know MI systems and tactics, techniques, and procedures, and to have a working knowledge of the systems and their employment.

Successful completion of the MI Officer Transition Course (MIOTC) and MI Captains Career Course (MICCC) for Branch-detailed officers or the MICCC for MI-tracked officers is necessary. CPTs must then complete 24 months in an MI-coded position and a successful command of any company or detachment. The most important attribute of any officer selected for promotion is a strong, successful OER no matter what the job. In addition to a successful command, serving 12 months as a battalion S2 or assistant brigade S2 will increase promotion potential. All CPTs must have the ability to perform collection management at the battalion level and understand intelligence support to friendly operations.

Majors need to be Military Education Level 4 (MEL 4) and Joint Professional Military Education Level 1 (JPME 1) qualified for promotion consideration. They need to have successfully served as an executive officer or S3 of any MI battalion or as a division or corps analysis and control element (ACE) chief for at least 12 months. They also need to serve as a brigade S2 or intelligence officer at any echelon for at least 18 months. Jobs that fall under the title "intelligence officer" can include component command G2, analyst team chief or watch team chief, collection manager, division or corps G2 planner, deputy division G2, or corps G2 collection manager, among others.

Functional Area 34 (strategic Intelligence) officers must complete or receive constructive credit for the Strategic Intelligence Officers Course (non-MI officers) and the Postgraduate Intelligence Program (PGIP) and become MEL 4 and JPME 1 qualified. They must demonstrate the ability to perform collection management from joint task force (JTF) to national level. They need to demonstrate the knowledge and ability to provide intelligence support to friendly operations through the

national level and to manage Army and joint intelligence systems. They need to be able to build and shape intelligence networks from JTF to national level as well as to support counterterrorism and force protection operations.

There are some threads that run through all selections for promotion. Performance is always the key. Officers need some ACOM performance reports to stay competitive. Always be active in your OER process and talk with your rater and senior rater to ensure you are both clear on what the goals, expectations, and objectives are.

MIOBC Backlog. Some of you may have heard that the first two MICCCs of FY04 were canceled. That is true but should not result in any major long-term adjustments to the program. In order to eliminate the backlog of officers waiting to attend MIOBC, in a number of Branches, TRADOC directed that all schools schedule officers for OBC within 90 days of commissioning. Therefore, resources previously earmarked for training the MICCC early in the year have been redistributed to the MIOBC. This caus]M Mis B u e

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TSM Notes

Update on Joint STARS CGS and DCGS-A

by Colonel Stephen J. Bond

Reflecting back on 2003, it is still difficult to imagine all the "moving parts and pieces" that occurred with the Joint Surveillance Target Attack Radar System (Joint STARS) Common Ground Station (CGS) and the Distributed Common Ground System-Army (DCGS-A). For example, last year we saw the largest Joint STARS deployment to date: with 9 Joint STARS aircraft and 36 supporting CGS ground units during Operation IRAQI FREEDOM (OIF), the deployed CGS crews proved to be "winners" during the ground offensive. Meanwhile, we worked the concepts and requirements for the future intelligence ground processing system, DCGS-A, ultimately obtaining the Army Requirements Oversight Council approval for the Operational Requirements Document (ORD) on 2 December 2003. Both of these events will have a profound impact on the way we "fight" intelligence, surveillance, and reconnaissance (ISR) in the future.

Joint STARS and the CGS

As we continue to support units deploying for ongoing operations, the Army is upgrading the CGSs with new software, and new Joint Tactical Terminals (JTTs) are replacing the aging Commanders Tactical Terminals (CTTs). Furthermore, CGS will reach an important milestone in 2004: the last of the CGS fieldings will occur when the final three U.S. Army National Guard units—32d Infantry Brigade (Wisconsin ARNG), 147th Field Artillery Brigade (South Dakota ARNG), and 56th Infantry Brigade (Pennsylvania ARNG)—receive their systems. This will complete the fielding of all 96 CGSs to designated Active and Reserve Component Army units. As a mature system, CGS maintenance and software development has transitioned from the Program Manager to U.S. Army Communications-Electronics Command (CECOM). Tobyhanna Army Depot in Pennsylvania now has responsibility for depot-level CGS maintenance.

CGS User Conference. To capture and cross-level recent operational experiences from the operations in Afghanistan and Iraq, the U.S. Army Training and Doctrine Command (TRADOC) System Manager (TSM) will host a CGS User Conference for all CGS-equipped units and associated organizations in March 2004 at Fort Huachuca, Arizona. The conference will focus on Operation ENDURING FREEDOM and OIF lessons learned, the status of the system training, and refinement of tactics, techniques, and procedures (TTP).

Joint STARS Aircraft. The 116th Air Control Wing at Robins Air Force Base (AFB), Georgia, currently has 15 Joint STARS E-8C aircraft. They will accept delivery of the final two aircraft programmed for operational use by 2005, bringing the total number to 17.

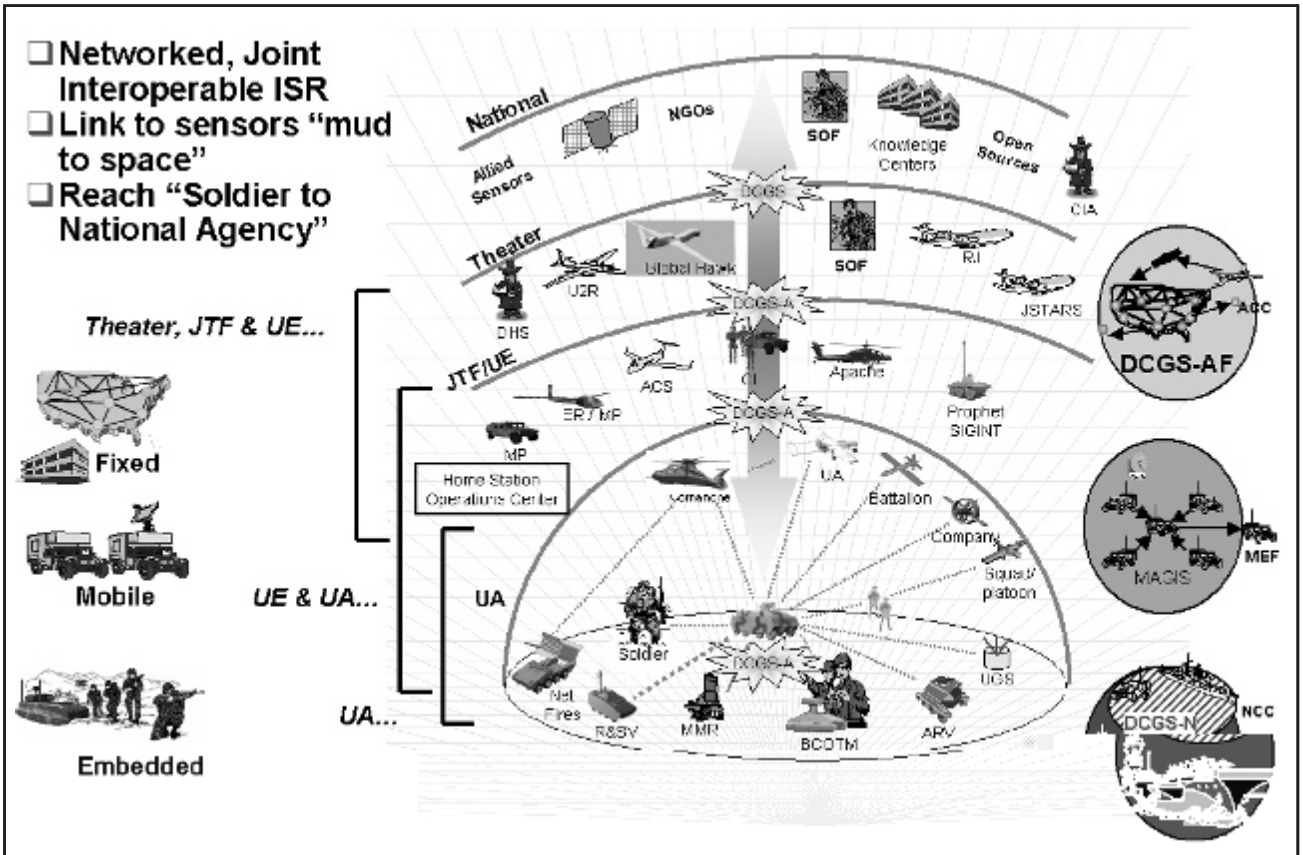
Joint Distributed Virtual Combat Range (JD VCR). The JD VCR provides a superb training opportunity for CGS crews, MI units, and battle staffs. It offers units the opportunity to refine and practice TTP for ISR operations in a realistic joint operating environment. These exercises normally occur quarterly. The JD VCR uses the synthetic battlespace built and managed by the U.S. Air Force (USAF) Distributed Missions Operation Center (DMOC) at Kirtland AFB, New Mexico. (For further information on the DMOC, see www.dmoc.kirtland.af.mil.) This state-of-the-art facility hosts the Virtual Flag Exercises (formerly Desert Pivot), a warfighter-in-the-loop simulation-based joint exercise focusing on ISR battle management and targeting.

The main users of the facility have been Air Force units but the DMOC is eagerly expanding to integrate the training needs of the other Services to create unique joint training opportunities. CGS crews from Fort Lewis (Washington), Fort Sill (Oklahoma), Fort Huachuca, and the Tennessee ARNG have participated in these exercises from their home stations. The network is currently expanding to Fort Bragg, North Carolina, during fiscal year 2004.

The battlespace provides tactically relevant training scenarios and allows CGS crews to send radar service requests to a Joint STARS E-8C simulator operated by 116th Air Control Wing Joint STARS crews. The CGS crews receive moving target indicator (MTI) and synthetic aperture radar (SAR) data and are able to receive unmanned aerial vehicle telemetry and video simultaneously from a UAV "flying" within the battlespace, further allowing cross-cueing of sensors. The crews also interface with the Advanced Field Artillery Tactical Data System (AFATDS) to support targeting and other battle management tasks. The next exercise will occur from 29 April through 6 May 2004. For more information on future training opportunities, contact Mr. Mark Kroona at TSM Joint STARS/DCGS-A via E-mail at kroonam@hua.army.mil and by telephone at (520) 533-8938 or DSN 821-8938.

CAESAR Advanced Concept Technology Demonstration (ACTD)

The TSM is the Operational Manager for the Coalition Aerial Surveillance and Reconnaissance (CAESAR)



Key:					
ACC	**– Army Component Command**	**DHS**	**– Defense HUMINT Service**	**NGOs**	**– Nongovernmental organizations**
ACS	**– Aerial Common Sensor**	**ER/MP**	**– Extended Range, Multipurpose (UAV)**	**RJ**	**– Rivet Joint**
ARV	**– Armored Recovery Vehicle**	**HUMINT**	**– Human intelligence**	**R&SV**	**– Reconnaissance and Surveillance Vehicle**
BCOTM	**– Battle Command On-The-Move (Vehicle)**	**JSTARS**	**– Joint STARS**	**SIGINT**	**– Signals intelligence**
CI	**– Counterintelligence**	**JTF**	**– Joint Task Force**	**SOF**	**– Special Operations Forces**
CIA	**– Central Intelligence Agency**	**MAGIS**	**– Marine Air-Ground Intelligence System**	**UA**	**– Unit of Action (brigade and below)**
DCGS	**– Distributed Common Ground/ Surface System**	**MEF**	**– Marine Expeditionary Force**	**UE**	**– Unit of Employment (corps and division level)**
DCGS-AF	**– DCGS-Air Force**	**MMR**	**– Multi-Mission Radar**	**U-2R**	**– Dragon Lady**
DCGS-N	**– DCGS-Navy**	**MP**	**– Military police**	**UGS**	**– Unattended ground sensors**
		NCC	**– Naval Component Command**		

Figure 1. DCGS-A Concept.

project. CAESAR is a U.S. Department of Defense (DOD)-sponsored ACTD working with seven North Atlantic Treaty Organization (NATO) nations (Canada, France, Germany, Italy, Norway, United Kingdom, and the United States) to improve ISR operational and technical interoperability for ground MTI (GMTI) and SAR systems. The systems include the CGS, Joint STARS, and related U.S. and participating member-nations' GMTI and SAR systems and workstations. The ACTD is developing joint and multinational concepts of operations, TTP, and standards and protocols for ISR interoperability. For its efforts to date, the CAESAR project received the USAF Materiel Command's International Award for Armaments Cooperation in June 2003.

Capabilities Demonstration. CAESAR demonstrated progress and capabilities in an October 2003 exercise at the NATO Consultation, Command, and Control Agency in The Hague, Kingdom of the Netherlands. More than 140 national military, NATO, and industry representatives participated in and observed the event. The U.S. military participants were from TSM Joint STARS; 116th Air Control Wing; Joint STARS Program Office; Joint STARS Test Force (Air Force and Army representatives); Air Force Operational Test and Evaluation Center, space-based radar test team; Air Land Sea Application (ALSA) Center; and the Air

Force Command and Control ISR Center. Other national participants included systems and personnel from the French HORIZON (*Helicoptere d'Observation Radar et d'Investigation sur Zone*) Squadron, United Kingdom ASTOR (Airborne StandOff Radar) program, Italian CRESO (*Complesso Radar Eliportato per la Sorveglianza*) project, Canadian RADARSAT (Radar Satellite) program, as well as Norwegian and German workstation projects. The Joint Interoperability Test Command at Fort Huachuca validated the military utility of the project during this demonstration.

Transition to the Multisensor Aerospace-Ground Joint ISR Interoperability Coalition (MAJIIC). CAESAR is currently in its ACTD transition year, and multinational ISR interoperability efforts will continue with the MAJIIC ACTD in 2005 to 2009. The TSM is the designated "Transition Manager" for this follow-on project.

Distributed Common Ground System-Army (DCGS-A)

As stated in the opening paragraph, the Army senior leadership approved the DCGS-A ORD on 2 December 2003. The projected initial operating capability for the system is 2010, with the full operating capability projected for 2012. However, one of the frequently asked questions during senior level staffing and approval of the ORD was *"How fast can this capability reach the Current Force?"* Together with Project Manager DCGS-A, we are working plans to "spiral out" capabilities, networking, reshaping, and improving the existing ground systems to meet the immediate needs for the Current Force in the next few years.

System Description. DCGS-A is the ISR fusion and processing system for the Future Force, part of the overarching DOD-directed Distributed Common Ground/Surface System (DCGS) family of systems (see Figure 1 for a depiction of DCGS Interoperability). It will bring national and joint ISR capabilities down to joint task force level, units of Employment (corps and division levels), and units of Action (brigade and below) to provide leaders with near-real-time information and visualization of threat, weather, and terrain information and intelligence. DCGS-A is also a "complementary system" of the Army's Future Combat System. DCGS-A consolidates the capabilities found in the following current-force ground processing systems:

- All-Source Analysis System (ASAS).
- Counterintelligence and Human Intelligence (CI/HUMINT) Single-Source Workstation.
- Tactical Exploitation System (TES).
- Guardrail Information Node (GRIFN).
- Guardrail Common Sensor (GRCS) Intelligence Processing Facility (IPF).
- Prophet Control.
- Joint STARS CGS.

Colonel Steve Bond is the TRADOC System Manager (TSM) for the Joint Surveillance Target Attack Radar System (Joint STARS), Common Ground Station (CGS), Joint Tactical Terminal (JTT), and the Distributed Common Ground System-Army (DCGS-A). Readers may contact him via E-mail at bonds@hua.army.mil and telephonically at (520) 533-3605/2480 or DSN 821-3605/2480. Readers may also contact Mr. Chris Friend, Deputy TRADOC System Manager, at friendc@hua.army.mil.

Professional Reader

(Continued from page 72)

which the Army War College classes predicted the scenarios that the U.S. military could face in conflicts with Japan and in Europe is a tribute to the quality of professional Soldier that the country was producing even at a time when our military was poorly funded and inadequately resourced.

Army War College alumni will certainly take pride in this book but it is also worthwhile reading for other military professionals who are less familiar with the War College. For students of military history, Mr. Gole's work almost inevitably leads the reader to ask why we were so ill-prepared for the transition to war if military planners predicted the coalitions and the conflicts? Certainly, U.S. civil and military relations at the time were a factor. Was there also a breakdown between plan and action in the War Department? Why was the United States so unresponsive to the events in the Atlantic in late 1941 and early 1942?

The Army War College of the 1930s taught a generation of leaders to "think"; the degree to which those leaders saw into the future with their color-coded plans and predicted enemy courses of actions was amazingly accurate. Those same thinkers went on to become the premier leaders and staff officers of World War II. Mr. Gole has written a compelling tribute to the impressive foresight and professional accomplishement of those leaders.

Chief Warrant Officer Two
Steven M. Bradley
Fort Lewis, Washington

MI Corps Hall of Fame

MI Corps Hall of Fame Nominations

by Lieutenant Colonel Harvey Crockett and Captain Kelly Whiddon

So you want to nominate someone for the Military Intelligence Hall of Fame? Well, you are most likely asking yourself, how do I get started? Can I get a sample nomination package? What are the criteria for submission of a nomination? How is the selection made? You may have any number of similar questions.

We will answer all of these questions and more in these two pages. First, here is a little background on the Military Intelligence Corps Hall of Fame (HOF) itself. The MI Corps activated on 1 July 1987 in accordance with the United States Army Regimental System. The following year, on 1 July 1988, the MI Corps established the HOF to honor MI Soldiers and professional civilians who have made an indelible mark on our Corps and a lasting, significant contribution to the MI Branch and the U.S. Army. As of this writing, we have inducted 188 Army intelligence professionals in the MI Corps Hall of Fame. They represent a cross section of Army intelligence from strategic to tactical, from Soldier to civilian, and from every discipline of our business.

All commissioned officers, warrant officers, enlisted Soldiers, and civilian intelligence professionals who have served in a United States Army intelligence unit or in an intelligence position elsewhere within the U.S. Army are eligible for nomination. We only accept nominations for individuals and will not consider unit or group nominations. Specifically, nominees may not be serving on active duty but they may continue employment with the U.S. Government as contractors or as government civilians. Government civilians who have not served in uniformed service but who are otherwise qualified and retirement eligible may also receive consideration. Recent changes permit nomination of recent military service retirees who return to work for the government in the intelligence field and career intelligence civil servants; in the past the criteria precluded nominees from consideration "until retirement from all forms of federal intelligence service." The purpose of the changes is to expand the pool of those eligible for nomination.

Although nominees must have served with Army intelligence at some point during their careers, the supporting justification for their nomination may and should include accomplishments from other portions of their careers, not merely their periods of service in Army intelligence. In some cases, this will help to round out the file and may provide appropriate insight into the individual accomplishments and contributions. Likewise, there may be instances where a single heroic act may be its own sufficient justification. Therefore, the bottom line is that it is best to submit a complete picture and let the Nomination Board decide.

Speaking of the Nomination Board, it convenes annually at the direction of the Chief of the Military Intelligence Corps (the Commanding General, U.S. Army Intelligence Center and Fort Huachuca)—usually in the September-October timeframe. Its purpose is to provide a prioritized list of nominees for the Chief of the Corps to select the new inductees. The Adjutant of the MI Corps presides as President. The remainder of the Board comprises at least one HOF member; the Honorary Colonel, Warrant Officer, and Sergeant Major of the Corps; a senior intelligence civilian; and representatives (either Command Sergeant Major or Colonel) from two MI Brigades. The participants, except for the Adjutant and the Honoraries, normally change with each Board. The Board results are normally made public officially in January once approved by the Chief of the Military Intelligence Corps and the Corps has completed notification of the selectees.

Nomination packets of those not selected for the Hall of Fame will be kept on file indefinitely and automatically sent before the Board three successive times for consideration. If after three separate Board reviews they did not select the nominee, his or her packet will then go in an inactive file. At any time, the package may be reactivated with submission of additional supporting information.

Each Hall of Fame nomination packet must include the following:

- ❑ A nomination letter signed by the nominator to include his or her current address and telephone number, and E-mail address.
- ❑ The full name and official rank or grade held by the nominee at time of retirement, leaving active or Reserve service, civil servant nomination, or death.
- ❑ A career summary that includes critical assignments (dates/units/jobs) and any specific accomplishments that would further support the nominee's case for induction into the Hall of Fame. A copy of the nominee's officer record brief (ORB), Enlisted DA Form 2-1 (in the future the enlisted record brief [ERB]), or other official supporting documentation, to confirm dates and accomplishments is very useful. Without official documentation, letters of support from various firsthand witnesses to the accomplishments would be necessary.

- A narrative justification or biography specifically stating the major accomplishments and achievements of the nominee and his or her impact on the Army, Military Intelligence, and the MI Corps.
- The current address and telephone number of the nominee or the address and telephone number of a surviving family member.
- The nominee's social security number or service number (if available).
- An 8" x 10" photograph of the nominee (if possible). If an 8" x 10" is not available, any clear and visible photo is acceptable.

Nomination packets must be complete before submission to the Board for consideration. Any nomination packet received without the items above will not be reviewed until receipt of the missing or incomplete item(s). The Hall of Fame Action Officer will help you by reviewing all packets and contacting the nominator for additional information if needed. Nominators must base the information provided on firsthand knowledge or thorough documented research.

You may request nomination guidance by either writing to the U.S. Army Intelligence Center and Fort Huachuca, ATTN: ATZS-MI (HOF), 110 Rhea Avenue, Fort Huachuca, Arizona 85613-7080, or by sending an E-mail message to OCMI@hua.army.mil. We will notify nominators of a packet's receipt and the date of the next Selection Board.

Lieutenant Colonel Harvey Crockett is currently Director, Office of the Chief of MI. He holds a Bachelor of Science degree in Animal Science from Mississippi State University. His past assignments include company command, Battalion and Brigade S2, Division Analysis and Control Element Chief, Corps G2 Planner, Battalion Executive Officer, and most recently Commander, 303d MI Battalion, at Fort Hood, Texas. He is a Command and General Staff College graduate and Senior Service College selectee. Readers may contact LTC Crockett via E-mail at harvey.crockett@ hua.army.mil.

Captain Kelly Whiddon is currently assigned to the Office of the Chief of MI as an Officer Life-Cycle Manager. She holds a Bachelor of Education degree from the University of Southern Mississippi. She served as Platoon Leader and Operations Officer of a Chemical Company (Reconnaissance), at Fort Hood, Texas, before reintegrating into MI. She completed the MI Captains Career Course and the Signals Intelligence Tactical Operations Course (35G) in 2003. Readers can reach CPT Whiddon via E-mail at kelly.whiddon @hua.army.mil.

(AIMP continued from page 65)

ARL – Airborne Reconnaissance Low
ASARS-2A – Advanced Synthetic Aperture Radar-2A
C4I – Command, control, communications, computers, and intelligence
CI – Counterintelligence
CONUS – Continental United States
DCGS – Distributed Common Ground/Surface System
DCGS-A – Distributed Common Ground System-Army
DCGS-AF – Distributed Common Ground System-Air Force
DCGS-N – Distributed Common Ground System-Navy
DOD – Department of Defense
DGS – Distributed Ground System
DTSP – Defense Tactical Unmanned Aerial Vehicle (TUAV) Signals Intelligence (SIGINT) Program
ELINT – Electronic intelligence
EO – Electro-optical
EP-3 – Orion airframe, Navy land-based SIGINT collection aircraft
FCS – Future Combat System
FOS – Family of systems
FTTS – Future Tactical Truck System
GIG – Global Information Grid
GMTI – Ground moving target indicator
HSOC – Home Station Operations Center
HUMINT – Human intelligence
IMINT – Imagery intelligence
IR – Infrared
JMOD – Joint SIGINT avionics modifications
JSTARS – Joint Surveillance Target Attack Radar System (Joint STARS)
JTF – Joint task force
JTRS – Joint Tactical Radio System
LAEO – Low-altitude earth orbit
LRS – Long-range surveillance
LW – Land warrior
MAEO – Medium-altitude earth orbit
MAGIS – Marine Air Ground Intelligence System
MASINT – Measurement and signatures intelligence
MTI – Moving target indicator
MULTI-INT – Multidiscipline intelligence
NTM – National technical means (formerly national assets)
RA-1R – Airborne system
RAS-1R – Airborne sensor system (U-2)
RS-6B – Senior Span/Senior Spear, U-2 communications system
SAR – Synthetic aperture radar
SHARP – Shared Reconnaissance Pod, used on Navy F-18s
SIGINT – Signals intelligence
SOF – Special Operations Forces
SYERS-2 – Senior Year Electro-Optical Reconnaissance System 2
TF – Task force
TPED – Tasking, Processing, Exploitation, and Dissemination
TSAR – Theater Simulation of Airbase Resources (Model)
TUAV – Tactical Unmanned Aerial Vehicle
UA – Unit of Action
UE – Unit of Employment
UGS – Unattended ground sensors
USAF – U.S. Air Force
USMC – U.S. Marine Corps
VT-UAV – Vertical Takeoff Unmanned Aerial Vehicle
WIN-T – Warfighter Information Network-Tactical

Alfred "Ace" Burkhard (Colonel, U.S. Army, Retired) is currently the contract Senior Combat Arms Analyst in the Army Intelligence Master Plan (AIMP) office working in support of the DCS, G2. A Retired Colonel (Infantry), he served 27 years assigned throughout the continental United States, Europe, and Korea. His final active duty assignment was as Director, Executive Communications and Control, in the Office of the Secretary of the Army. Readers may contact the author via E-mail at alfred.burkhard @us.army.mil and telephoically at (703) 681-9553/9345 or DSN 761-9553/9345.

Sly Fox Den

ASAS Master Analysts' Support to Information Operations—Analysis

by Matthew J. Nunn

This is the final of three articles addressing what the All-Source Analysis System (ASAS) Master Analyst (ASI 1F) brings to the information operations fight. The first two articles addressed Information Engineering and Communications, respectively. They appeared in the July-September 2003 and October-December 2003 issues of the ***Military Intelligence Professional Bulletin*** (***MIPB***).

Analysis—"Determination of the significance of information relative to information and intelligence already known, and drawing deductions about the probable meaning of the evaluated information."

—FM 34-3, Intelligence Operations

The ASAS Master Analyst Course (AMAC) has embedded analytical training throughout the course of instruction. The workstation blocks of training reinforce the formal classroom work and culminate with the Sly Fox (Capstone) Exercise (seven days of grueling analysis requiring analysis and control element [ACE] environment simulation). The overall analytical training includes the types of analysis, methodologies, and analytical tools; the practical application opportunities include both manual and automated analytical exercises. The process of learning analysis begins with an introduction to three basic types of analysis:

- **Comparative analysis** uses doctrinal characteristics to identify structural inconsistency (order of battle and capabilities).
- **Trend analysis** is based on an observed numeric increment at a specific location over time (e.g., predict enemy courses of action [COAs]).
- **Pattern analysis** links isolated activities, observations, or events based on the tactics employed and the cyclic occurrence (e.g., composition, disposition, and unit signatures).

During their analytical training, the Master Analysts will gain exposure in varying amounts to several different analytical methodologies. These methodologies enable them to organize and focus their energies during analysis.

- **Delphi technique** finds consensus from a group of subject matter experts.
- **Formulaic mode** is a statistical approach that assigns each COA a numeric percentage-based probability of adoption.
- **Probability diagrams** are graphic depictions of relationships and activities.
- **Inductive reasoning** makes broad assumptions based on known facts (e.g., indicators that an enemy will attack).
- **Deductive reasoning** takes a known event and breaks it down to determine the exact events.

The ASAS Master Analyst will apply the various analytical tools to accomplish analytical exercises while attending AMAC. We stress throughout the course the fact that analytical tools are the means to an end, not the end themselves. The analytical tools taught include traditional tool sets such as doctrinal templates, situational templates and graphics, nodal analysis, etc. Students also learn and apply some not-so-traditional tools for the Intelligence Analyst (96B) and Signals Intelligence Analyst (98C) specialties such as analysis of competing COAs (ACC, also known as analysis of competing hypotheses) and manipulation of the human intelligence (HUMINT)-based time event charts, association and activities matrices, and the link diagram (in both manual and automated formats). While applying these tools to analysis, the ASAS Master Analyst keeps in mind the goals of analysis: to identify and define existing conditions, rapidly identify changes, and accurately predict trends and variations.

Matt Nunn is the Course Manager and an Instructor for the ASAS Master Analyst Branch. His career has included 13 years as a Signals Intelligence Analyst at multiple echelons and 5 years instructing the ASAS Master Analyst Course, and ASAS Instructor Certification Course. He also has 10 years' experience using and teaching various ASAS systems. Readers may contact Mr. Nunn via E-mail at matthew.nunn@us.army.mil and telephonically at (520) 538-1184 or DSN 879-1184.

Reminder:
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Due to a recent reorganization and in accordance with the Official Mail Address Standards, the ***Military Intelligence Professional Bulletin***'s new address is:

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U.S. Army Intelligence Center and Fort Huachuca
550 Cibeque Street
Fort Huachuca AZ 85613-7017

111th MI Brigade Training Notes

by The Office of The Dean of Training, 111th MI Brigade

The 111th Military Intelligence (MI) Brigade has actively engaged in the following training and developmental endeavors:

- Tactical human intelligence (HUMINT) Training Teams from the 306th MI Battalion (augmented by instructors from other units within the 111th MI Brigade) are providing special training in G2X operations and Tactical Questioning. These Training Teams will complete this important mission in February 2004.
- The 306th MI Battalion will implement new training for the All-Source Analysis System (ASAS) Light, scheduled to replace Remote Workstation (RWS) training, in January 2004.
- A new HUMINT training facility has been constructed at Fort Huachuca, Arizona, as a result from a cooperative arrangement between the U.S. Army Intelligence Center and Fort Huachuca (USAIC&FH) and the Defense Intelligence Agency.
- The Office of the Dean of Training implemented an 8-hour block of Contemporary Operating Environment (COE) training as a part of the basic instructor certification process. Units may also request a 4-hour COE overview course or an intensive 40-hour COE course depending on their needs.
- The Office of the Dean of Training, in coordination with the USAIC&FH Training Development and Support Directorate, developed a 40-hour block of instruction on the cultural, geopolitical, and strategic nature of the Middle East.
- The 304th MI Battalion, in cooperation with the Digital Training Office and other units, is developing a new scenario that fully embraces the COE and reflects the realities of the Army's current wartime mission.
- The 304th has also led the way in the creation of a new Joint Intelligence Combat Training Center (JICTC) at Fort Huachuca that will soon provide realistic training for intelligence professionals from all branches of the military and the greater intelligence community. The JICTC will make it possible for people in all specialties, and at all levels, to take part simultaneously in realistic exercises designed to test their skills, enhance their abilities to work in a joint environment, and improve their abilities to deal with the realities of asymmetric warfare.
- The 305th MI Battalion is currently working to meet requests to train increasing numbers of soldiers to fly and maintain unmanned aerial vehicles (UAVs).
- The 305th also broke ground on 11 December 2003 for the construction of the 25,000-square foot U.S. Army UAV Systems Training Center (UAVSTC) Annex at Fort Huachuca. The UAVSTC will be the largest UAV training facility in the world at nearly 100,000 square feet of instructional area for UAV operators and maintainers.

Photograph courtesy of Kathleen E. Marvel.

Mr. Jim Chambers looks on as Mr. Mark A. Farrar addresses the crowd at the UAVSTC Annex ground-breaking ceremony.

Readers may contact the 111th MI Brigade Dean, George A. VanOtten, Ph.D., via E-mail at george.vanotten@us.army.mil. The Associate Deans are Richard B. Loomis (richard.b.loomis@us.army.mil), Francis W. Smith (francis.smith@us.army.mil), and Ken L. Welsh (ken.welsh@us.army.mil).

Suggestions or Comments for *MIPB*

MIPB disseminates material designed to enhance individuals' knowledge of past, current, and emerging concepts, doctrine, material, training, and professional developments in the MI Corps. If you have comments, critiques, questions, or suggestions on how we might improve any aspect of this publication, please let us hear from you. You can write to us directly at ATTN ATZS-FDT-M, U.S. Army Intelligence Center and Fort Huachuca, 550 Cibeque Street, Fort Huachuca AZ 85613-7017, or E-mail us at mipb@hua.army.mil.

Contact Information and Submissions

This is your magazine and we need your support in writing articles for publication. When writing an article, select a topic relevant to the Military Intelligence community; it could be historical or about current operations and exercises, equipment, TTP, or training. Explain lessons learned or write an thought-provoking essay-type article. Short quick tips on better use of equipment, personnel, or methods of problem-solving and articles from current opperations are always welcome. Seek to add to the professional knowledge of the MI Corps. Propose changes, describe a new theory or dispute an existing one, explain how your unit has broken new ground, give helpful advice on a specific topic, or explain how a new piece of technology will change the way we operate.

Maintain the active voice as much as possible. Make your point. Avoid writing about internal organizational administration. If your topic is a new piece of technology, tell the readers why it is important, how it works better, and how it will affect them. Avoid lengthy descriptions of who approved it, quotations from senior leaders describing how good it is, or reports your organization filed regarding the system, etc. Note: Mailings become the property of ***MIPB*** and may be released to other government agencies or non-profit organizations for re-publication upon request.

The ***MIPB*** staff will edit the articles and put them in a style and format appropriate for the magazine. You can send articles, graphics, and photographs via E-mail to **mipb@hua.army.mil** or mail (with a soft copy on disk) to:

ATTN ATZS-FDT-M
Bldg 61730, Room 105
U.S. Army Intelligence Center and Fort Huachuca
550 Cibeque Street
Fort Huachuca, AZ 85613-7017

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- ❑ The full name of each author in the byline and a short biography for each. The biography should include the author's current duty position, related assignments, relevant civilian degrees (degree, school, major), and any special qualifications. (Please indicate whether we can print your telephone number and your E-mail address with the biography.)

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If you have any questions, please call (520) 538-0735 or (520) 538-1005 (DSN 879). The fax for the security release is (520) 538-1007.

313th Military Intelligence Battalion

Description: A silver color metal and enamel device 1-1/8 inches (2.86 cm) in height overall consisting of a shield blazoned: Azure (Teal Blue), a fess checky Argent And Tenné, overall a mullet of six points of the second. Attached below around the sides and bottom of the shield a Silver scroll inscribed "SAVIOR C'EST POUVOIR" in Black.

Symbolism: Teal blue and white are the colors used for units not assigned to a branch and refer to the original unit designation, the 313th Army Security Agency (ASA) Battalion. The colors orange and white refer to the organization's former affiliation with the Signal Corps and the six points of the mullet allude to the battalion's decorations for World War II and Vietnam service.

Background: Originally approved for the 313th ASA Battalion 11 April 1957 and redesignated for the 313th MI Battalion (CEWI), the distinctive unit insignia amended to change the color of the shield and revise symbolism on 30 May 1980. On 21 December 2000, the insignia was further amended to change the color of the shield, revise the symbolism, and update the description.

The 313th Military Intelligence (MI) Battalion traces its lineage back to 25 September 1942 with the activation of the 215th Signal Depot Company; the battalion officially activated assigned to the 82d Airborne Division on 16 October 1979. The companies derived from many different units, including the 313th Army Security Agency (ASA) Battalion, today known as the Headquarters and Service Company; the 3191st Signal Service Company (World War II) and 358th ASA Company, today known as A Company; the 82d MI Company and 337th Communications Reconnaissance Company, today known as B Company; and 371st Radio Research Company, today known as C Company. On 1 November 1988, A, B, and C companies were designated direct support (DS) companies for each of the three infantry brigades and D Company reactivated assigned to the 313th MI Battalion as the general support (GS) intelligence company. The Battalion continued to evolve in the 1990s with the activation of Delta Company as the GS company and redesignation of the Long-Range Surveillance Detachment (LRSD) from the Division's Cavalry Squadron to the 313th Military Intelligence Battalion.

The Battalion's lineage includes 23 campaign and battle streamers from World War II, the Dominican Republic, Vietnam, Grenada, Panama, and the Persian Gulf. Our exemplary service and support to warfighters have earned the unit seven Meritorious Unit Commendations, one Army Superior Unit Award, and five foreign unit awards, making us "The Army's most decorated MI Battalion."

Today's organization provides DS and GS to the 82d Airborne Division in the form of intelligence collection, analysis, and dissemination; counterintelligence (CI) and interrogation; signals intelligence, including ground- and air-based intercept, jamming, and directionfinding; remote battlefield sensors and ground surveillance radars; moving target indicators; and long-range surveillance.

Blazon:
Shield: Azure (Teal Blue), a fess checky Argent And Tenné, overall a mullet of six points of the second.
Crest: From a wreath Argent And Azure (Teal Blue), a dragon passant Gules garnished or in front of a mount Vert impaled with twelve bamboo spikes Proper, the dragon's tail interlaced with the spikes.
Motto: SAVOIR C'EST POUVOIR (Knowledge Is Power).
Symbolism:
Shield: Teal blue and white are the colors used for units not assigned to a branch and refer to the original unit designation, the 313th Army Security Agency Battalion. The colors orange and white refer to the organization's former affiliation with the Signal Corps and the six points of the mullet allude to the battalion's decorations for World War II and Vietnam service.
Crest: The dragon, symbolic of alertness and readiness, denotes the unit's service as an Army Security Agency Battalion in Vietnam. The mount refers to the lush terrain of that country and the twelve spikes to the number of campaigns in which the unit participated.
Background: Originally approved for the 313th ASA Battalion 11 April 1957, cancelled 7 February 1973, reinstated and designated for the 313th MI Battalion (CEWI) and amended to add crest, change color of shield and revise blazon and symbolism on 30 May 1980, the coat of arms amended to change the color shield and revise the symbolism on 21

The 313th MI Battalion is one of the most diverse units in the U.S. Army, with paratroopers holding 47 different military occupational specialties and speaking eight different languages. Currently, more than 300 soldiers of the Battalion are providing DS and GS Intelligence to the 82d Airborne Division in the Iraqi area of operations. We continue to *"lead the way"* in tactical intelligence support to combat commanders and stand ready to deploy and provide intelligence, electronic warfare, and long-range surveillance support to the 82d Airborne Division.

From July 2002 to May 2003, Alpha, Charlie, Delta, and Echo Companies deployed to Kandahar, Afghanistan, with Task Force Panther (505th Parachute Infantry Regiment) and Task Force Devil (504th Parachute Infantry Regiment) in support of Operation ENDURING FREEDOM (OEF). In September 2003, the 313th MI Battalion deployed in DS to the 82d Airborne Division for Operation IRAQI FREEDOM (OIF).

As of September 2003, Bravo, Charlie, Delta, Echo (LRSD), and Headquarters Companies have been serving in OIF providing DS and GS to the 82d Airborne Division. Numerous Reserve and Active duty human intelligence (HUMINT) elements have augmented the 313th. In addition, 1st Platoon (TUAV), Alpha Company, 312th MI Battalion, 1st Calvary Division (attached to the 313th MI Battalion) is conducting general support Tactical Unmanned Aerial Vehicle (TUAV) operations in support of the 82d Airborne Division. This summer, the 313th MI Battalion will field two of the projected three Shadow TUAV Platoons. During the summer of 2003, the 313th completed CI/HUMINT Information Management System (CHIMS) and CI/HUMINT Automated Tool Set (CHATS) fielding and continues to field and enhance the Prophet and Prophet Hammer systems while deployed.

Moving into 2004, the 313th Military Intelligence Battalion continues to be the most advanced and most responsive Intelligence Battalion.

KNOWLEDGE IS POWER!