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ARMY Communicator

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LANDWARNET

LandWarNet includes not just our information transport networks at all echelons, but also the information services and applications that manage the flow of information and make it a powerful commodity.

The LandWarNet concept grew from our initial work for GEN Schoomaker called Task Force Network.

Chief of Signal's Comments

LandWarNet: Time right to move grand concept into reality

Regiment, we held a wargame at the Signal Center in January-February that was absolutely incredible. It was LandWarNet Wargame II.

Many of you have heard the term "LandWarNet." LandWarNet is the Army's portion of the Global Information Grid. The LandWarNet concept stretches from the Home Station Operations Centers and projection platform installations all the way to the Soldier, and everything in-between, and it touches all formations, Signal, Combat Arms, Combat Service Support, Military Intelligence, all of them.

LandWarNet includes not just our information transport networks at all echelons, but also the information services and applications that manage the flow of information and make it a powerful commodity. We realize the time is right to move this grand concept beyond the good idea stage into reality.

When we say we will "fight the network" as part of LandWarNet, what exactly does that mean? To begin hammering out an operational concept for LandWarNet, we hosted a LandWarNet wargame that brought together all the functional and specified proponents in the Army.

We asked our sister school futures teams to lay out their communications requirements and show us where shortfalls exist. The field artillery experts, for example, explained how they envisioned their piece of the warfight, all the way from home station operations through combat and into Stability and Support Operations. The

MG Janet A. Hicks
Chief of Signal

Infantry, logistics community, medical and all other proponents did the same thing. This information enables the signal community to begin shaping the concept of LandWarNet ... filling out the picture. We used the Caspian Sea scenario as a backdrop to craft how best to support the Modular Army.

The Regiment's combat developers vetted their emerging ideas with the Signal Regiment's most senior leaders as well as leaders from every proponent across the Army. Our team confirmed that each proponent has designed and fielded individual systems that collectively do not resemble an enterprise network solution. The result is lack of integration among these various systems and a tangle of management, interoperability and sustainment issues. Our vision is to embrace these systems and migrate them into one manageable Army enterprise network called LandWarNet.

As each proponent laid out its plan, it became evident that much of the force required to fight a UEx battle resides in the UEy echelon. As a matter of fact, maybe as much as one third of the UEx signal support for the UEx fight necessarily came from UEy tactical signal formations. An obvious imperative emerged that the UEy signal structure must be modernized in concert with the UEx Signal structure.

The wargame did not stop with the battalion Tactical Operations Center requirements, but drilled all the way to the dismounted fight. In this area, the wargame validated that the network begins with the Soldier and pointed to the requirement for on-the-move and dismounted communications to be at the top of our priorities.

The results of the wargame were briefed to LTG William Wallace, LTG Steven Boutelle, LTG Joeseph Yakovac and almost a dozen other general officers from every Army or Joint activity that has a piece of the network action.

The feedback has been overwhelmingly positive, and, by popular demand (and necessity, in order to further LandWarNet understanding and maturity), we're already crafting LandWarNet

(Chief of Signal Comments continued on inside back cover)

To begin hammering out an operational concept for LandWarNet, we hosted a LandWarNet wargame that brought together all the functional and specified proponents in the Army.

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Cover: LandWarNet exercise held at Fort Gordon to test and develop the Army's portion of the Global Information Grid. Cover by Tammy L. Moehlman

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War games shape Signal Corps' future

The GIG provides a global strategic network to all active component forces, National Guard and Reserve troops; LandWarNet is the Army's portion of the GIG.

— COL Jeffrey Smith, U.S. Army Signal Center and Fort Gordon deputy commander

by Steve Brady

Members from all branches of the Army participated in a weeklong war game to help dictate the future of the Signal Corps.

The Signal Center and Directorate of Combat Developments held the LandWarNet war games from Jan. 31 to Feb. 4 at the Fort Gordon Reserve Center to test and develop the Army's portion of the Global Information Grid, or GIG.

Simply put, the GIG provides a global strategic network to all active component forces, National Guard and Reserve troops; LandWarNet is the Army's portion of the GIG, said COL Jeffrey Smith, U.S. Army Signal Center and Fort Gordon deputy commander.

"The war game ought to demonstrate to each of the proponents whether in fact they've got the right communications network that supports the requirement, and second of all what are the modifications we're going to need to make them more effective in the fight itself," said Smith.

The participants included engineers, infantry, armor, intelligence, aviation, air defense artillery, and combat service support branches.

The different groups presented the scenario and detailed how they would deploy their forces, and the Signal Corps would then determine how to best provide network support.

Support ranges from secure and non-secure phone and computer lines, to teleconferencing, networking and command and control interconnectivity.

The war game took place in a well-known Caspian Sea scenario and included a map exercise and workgroups discussed network requirements, network architecture and acquisition strategy, organizational designs, training and sustainment, and numerous other topics.

The war game included the various points of a large scale deployment including planning, training, deployment, stabilization, redeployment, and refitting, Smith said.

Smith said the war game will help leaders determine the doctrine, materiel, and personnel to wage that type of fight, and help better organize the Signal Corps and improve communications between Soldiers, Sailors, Airmen, and Marines.

All of this gaming will help develop the LandWarNet network. But the network is anything but simple. It will provide Soldiers communications and information access anywhere on the planet, he said.

"For instance, anyone on the battle space, in the new technology, should be able to plug into a network capability, whether you're inside a vehicle, on the front lines, (or) on patrol walking through a

Right: COL Jeffery Smith, U.S. Army Signal Center and Fort Gordon, deputy commander, briefs the participants prior to the start of the war game.

Below: MG Marilyn Quagliotti, vice director of the Defense Information Systems Agency, and LTG Steven Boutelle, CIO/G6, Office of the Secretary of the Army, study slides during a briefing.

city," Smith said. "No matter where you are on that battle space, the minute you plug in, you have access to the full suite of network services instantly available to you."

Some of those services could include managing personnel accounts, battle plans, scheduling vehicle maintenance, ordering replacement parts and more.

Although LandWarNet is still in the conceptual phase, the network is being designed to avoid a tragic byproduct of war: fratricide.

"One of the elements of the network is a Blue Force Tracking capability. That Blue Force Tracking capability is going to be widely disseminated and it will have the situational awareness, the location of every friendly Soldier on that battle space … so as you begin to do your targeting we'll be able to de-conflict very quickly friendly from enemy," Smith said.

Currently, that type of information is not readily available below the brigade level.

"Those are the kinds of information systems, which because they take up so much bandwidth, are rarely available to the battalion and below Soldier. But the network designs that we plan on fielding, starting in about a year, are going to provide that kind of ability to de-conflict targets at the lowest level," he said.

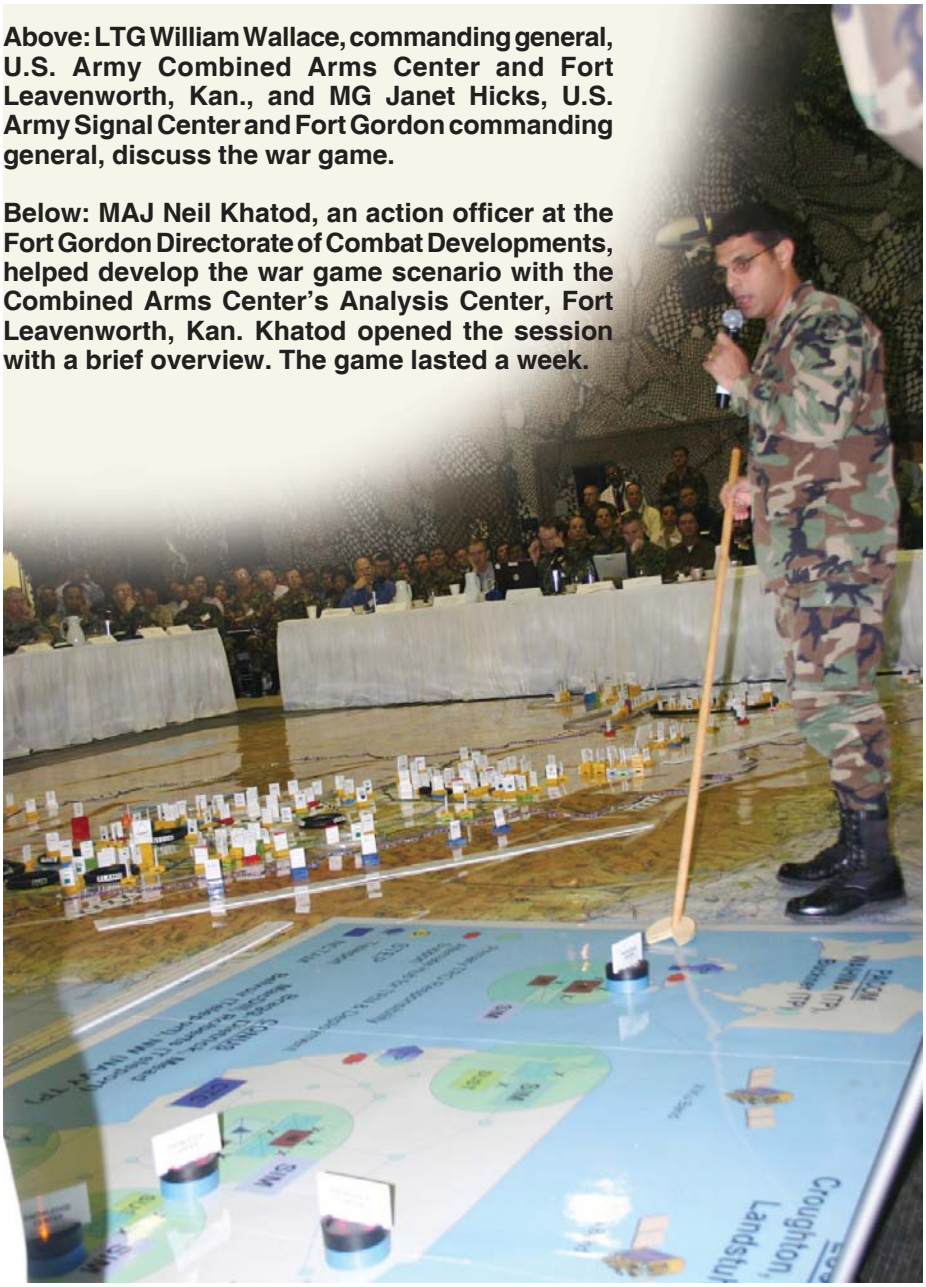
The advances are being made possible by applying new commercial technology and fielding new equipment that allows the Army to extend the network to lower echelons than previously possible.

"The great thing about this new and emerging technology is to be able to take that kind of capability and provide it to small vehicles, the Soldiers on the move," Smith said, "so that you can get a broadcast image of the enemy location, position or target, and understand what you are up against."

Mr. Brady is the editor of The Signal *with the Fort Gordon Public Affairs Office.*

Above: LTG William Wallace, commanding general, U.S. Army Combined Arms Center and Fort Leavenworth, Kan., and MG Janet Hicks, U.S. Army Signal Center and Fort Gordon commanding general, discuss the war game.

Below: MAJ Neil Khatod, an action officer at the Fort Gordon Directorate of Combat Developments, helped develop the war game scenario with the Combined Arms Center's Analysis Center, Fort Leavenworth, Kan. Khatod opened the session with a brief overview. The game lasted a week.



Above: COL James F. Costigan, (right), chief, Directorate of Combat Developments, U.S. Army Signal Center and Fort Gordon, and Steve Bullock, deputy chief, DCD, on the map board examining the positions of forces needing network support.

Right: BG Jeffery W. Foley, director of command, control, communications and computer systems (J6) for Central Command, is a witness to the importance of developing the LandWarNet network. He was invited to be a part of the war games by Chief of Signal MG Janet Hicks. He serves as a member of the combative command serving in Iraq and Afghanistan. Foley stated that there is a need to capture the lessons coming out of Iraq. He said through issues brought up by the war game participants, the target was being hit.

2005 NETCOM/9TH ASC Commanders' Conference

by Eric Hortin

FORT HUACHUCA, Ariz. – Senior military and civilian leaders from signal organizations around the globe converged March 30–April 1, to discuss pertinent issues affecting their organizations. The U.S. Army Network Enterprise Technology Command/9th Army Signal Command's 2005 Commanders' Conference gave nearly 30 participants the opportunity to interface directly with command leadership and game-plan solutions to future challenges.

The theme of this year's conference was, "Enabling the Transformational Army and Joint Fight." The focus of the conference agenda was to give everyone in attendance a birds-eye view of Army Transformation, how it affects the Joint force, Army, Signal Regiment, and ultimately their organizations.

Hosted by MG James C. Hylton, NETCOM/9th ASC commanding general, the conference afforded the opportunity for commanders from signal commands and brigades, and chief information officers from all the regions to voice their concerns and ideas. Additionally, the participants heard directly from Army and Defense Department leaders personally involved in the transformation process.

MG James C. Hylton, NETCOM/9th ASC commanding general, opens the 2005 Commanders' Conference. Participants attended the three-day conference March 30-April 1 at the headquarters in Fort Huachuca, Ariz.

MG Janet Hicks (on-screen), U.S. Army Signal Center and Fort Gordon commander, speaks via video teleconference March 30, to NETCOM/9th ASC 2005 Commanders' Conference participants.

"There's so much going on today in our Army," Hylton said. "We need to come to the same baseline of understanding with respect to the major initiatives – specifically through the lens of modularity – and what it means to NETCOM, what it means to the Army, and what it means to the collective Signal Regiment; the Active, Reserve and Guard components. We're all in this fight together."

That fight Hylton alludes to is already underway, and Army Transformation is the driving force. Many of the

BG Carroll Pollett (left), 5th Signal Command commander, and Dr. Michael Gentry, NETCOM/ 9th ASC Senior Technical Director, discuss issues March 30 just prior to the opening of the NETCOM/ 9th ASC 2005 Commanders' Conference.

commanders are aware of the fight, and are already seeing the effects Transformation is having on the way they perform their daily business; everything from unit restructuring, implementing new standards on non-standard (commercial, off-the-shelf) equipment, increasing command and control responsibilities, sustainment and resourcing were on the table.

The conference agenda focused on four major processes relating to transformation; Operationalizing Transformation, Network Operations, Enterprise C4IM (Command, Control, Communications, Computers and Information Management) Capabilities, and Posturing the Force. Key speakers and subject matter experts presented briefings on several critical issues within these four areas. These critical points were the lead-ins for the participants to raise questions, concerns, and to use each other's extensive experiences and knowledge to formulate possible solutions. With some hard work and coordination, the ideas and initiatives brought forward will enable changes not only in NETCOM/9th ASC, but affect change throughout the Army.

"We are in a state of change," said COL Donald L. Chu, 311th Theater Signal Command commander. "To meet the goals of Army Transformation, we must accelerate the change within the Signal Corps to remain relevant to the Army."

As the Chief of Signal, MG Janet Hicks, commanding general of the U.S. Army Signal Center and Fort Gordon, is on the front line of Signal Transformation. As the new Unit of Employment and Brigade Combat Team structure evolves in the Army, the signal unit structure will change. New positions and new overarching missions are planned to support that mission, and the Signal Regiment is on point.

"In the divisions – now UEx – signal companies are organic to the fighting BCTs," Hicks said via teleconference. "There's no longer a division signal battalion. Instead, there is a UEx G-6 (information officer) who is the UEx network leader, the key advisor to the CG (commanding general) on all things network, the collective training proponent, the enterprise creator. This is just one example of change."

The roles of these units, proposed structures and interoperability issues were a fraction of what the participants discussed at the conference. While the BCT's organic signal companies are not within NETCOM/9th ASC's purview, the organization still plays a part in the new Army structure. Signal support to the UEy will come from within NETCOM/9th ASC's subordinate brigades in the form of the Integrated Theater Signal Battalion. Additionally, theater signal commands will transform into theater network commands. It will be the ITSBs and TNCs that enable the BCT signal companies to connect to the Global Information Grid.

NETCOM/9th ASC's overarching mission is the operation, management, and defense of LandWarNet – the Army's portion of the GIG. It is that same network the warfighters will use to pass information at home station, abroad, and during all military operations. All the participants' organizations are on the front lines protecting the network. Information Assurance and Network Operations are the tools they use to protect LandWarNet.

As well as being a heavy topic of discussion, subject matter experts briefed the participants on the advancements in IA and NetOps.

"The Network Operations and the Information Assurance missions have become cornerstones of the signal mission, of the communication mission," said COL John Wilcox, 160th Signal Brigade commander. "If we don't get those right we really put at risk our ability to support the warfighters in the most efficient and effective way possible."

All operations and processes are dependent on the network – the Global Information Grid," said COL Jennifer Napper, 7th Signal Brigade

LTG Steven W. Boutelle, Army Chief Information Officer (CIO/G-6), speaks March 30 to NETCOM/9th ASC 2005 Commanders' Conference participants.

commander. "It is our responsibility to ensure the network is available and secure. Network Operations, including Information Assurance, is the process by which we execute that mission."

Executing the mission was by and far the most pressing issue for all conference participants. Availability of resources – manpower, equipment, and funding – consumed a large portion of time, and stimulated a lot of discussion. As is prevalent in the Army, funding is always a concern; but as Transformation moves forward, units must change to support it. New missions, new equipment and the people to make it all happen must also be considered.

"We have to be smarter, faster, and more efficient in the ways we do business," said COL LaWarren Patterson, 1st Signal Brigade commander. "What we're doing is more cost-effective and less Soldier intensive in numbers due to evolutionary changes in C4 technologies."

That "cost-effective" aspect was echoed by many of the participants, and LTG Steven W. Boutelle, the Army's Chief Information Officer /G-6, hammered it home during his briefing. He emphasized the necessity for quick, workable solutions – not necessarily complete solutions.

"I absolutely believe we have about 12 to 18 months to do what we're going to do, or the dollars will quickly disappear," Boutelle said. "If you don't get stuff out there with an 80 percent solution – and get it on the books in the next 12 months – I suggest it won't happen."

Boutelle stated that future government funding of other programs may result in a seriously reduced defense budget when they take effect. Understandably, the resulting budget will fund the warfighters first, with supporting organizations sharing the balance. Participants stated it was this kind of straightforward dialogue from the senior Signal officer in the Army they hoped for in this type of face-to-face exchange.

With all the technology out there today, many of the participants stated they enjoyed the opportunity to speak directly to the decision-makers. Teleconferencing, while practical for those whose schedules don't allow for cross-country travel, allows limited interaction and is always at the mercy of technology. Those who did attend the conference were happy to encounter the "human dimension."

"Attending the conference allowed us to dialog with the CG and to hear his intent and vision first-hand," said COL Robert Ferrell, 2nd Signal Brigade commander.

"It allows us to candidly share lessons learned, both good and bad, that we have experienced in our individual theaters," Wilcox said. "It allows us to talk about the best business practices so that we can avoid mistakes in both resources and time, and put into place those practices that will best support the Army and the warfighter as we do our mission."

Mr. Hortin is with the Network Command/9th ASC Public Affairs Office, Fort Huachuca, Ariz.

Note: SSG Jeff Troth, NETCOM/9th ASC Public Affairs, contributed to this article.

Editors note: NETCOM/9th ASC's overarching mission is the operation, management and defense of LandWarNet – the Army's portion of the GIG. It is that same network the warfighters will use to pass information at home station, abroad, and during all military operations. All the participants' organizations are on the front lines protecting the network.

Acronym QuickScan

ASC – Army Signal Command
BCT – Brigade Combat Team
CG – commanding general
CIO – Chief Information Officer
GIG – Global Information Grid
IA – Information Assurance
ITSB – Integrated Theater Signal Battalion
NETCOM – Network Command
NETOPS – Network Operations
TNC – theater network commands
TSC – theater signal commands
UEx/Usy – Unit of Employment

True Information Management: Far more than technical automation support

by MAJ Jan C. Norris

Introduction

Across the Army, the term Information Management connotes different meaning. In a garrison environment, a unit or section information management officer is typically that computer smart individual responsible for keeping their respective automation assets properly configured and Information Assurance Vulnerability Alert compliant in accordance with Directorate of Information Management policy. In a tactical setting, specifically at division and higher echelons where command and control and C2 information systems are the centerpiece of operations, the IM mission takes on a much more encompassing and critical role.

A role that has the IMO often focused solely on technical control and configuration of C2 systems and systems data moving across networks and throughout tactical operation centers. Effective and true IM, however, focuses more on tailoring, filtering and fusing C2 data for relevance and meaning to ultimately drive the commander's decision cycle. Breaking out of the technical automator mold to information analyst to achieve true IM is an inherent dilemma facing many IMOs today. As the Signal Corps postures itself towards the Future Force and Joint Operations, where off-the-shelf technology is increasingly user-owned and operated and providing vast amounts of information, taking ownership of, and focusing on the true IM mission will prove vital to keeping the Signal Regiment relevant.

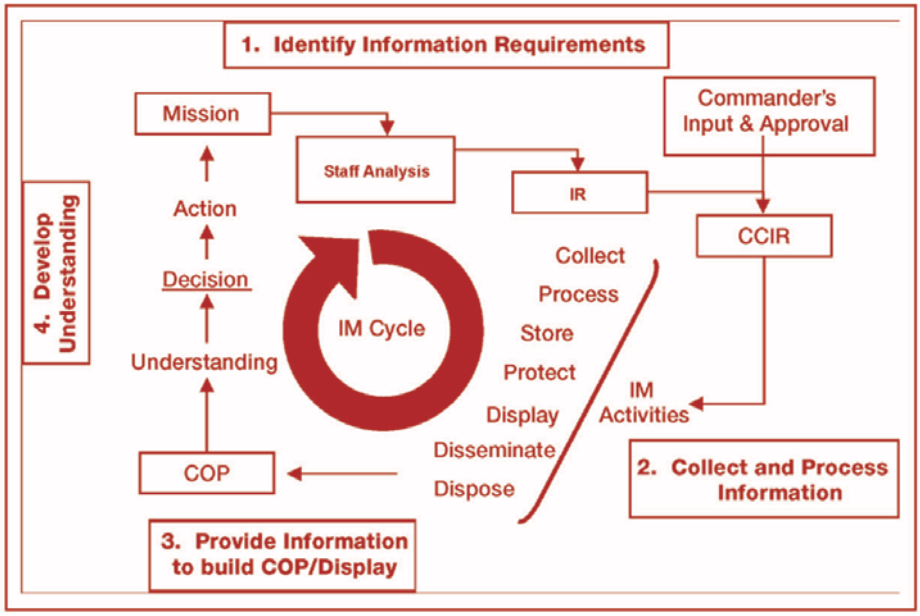


Figure 1. Information Management Cycle

IM activities, organization, and responsibility

IM is defined as the provision of quality information to the right person at the right time in a usable format to facilitate understanding and decision-making. As shown in Figure 1. above, the IM cycle includes seven basic activities: collecting, processing, storing, protecting, displaying, disseminating, and disposing of information. Processing information for meaning and displaying real-time, relevant information in the form of a common operating picture are key tasks for the IMO in a Division/Corps TOC. C2 Systems Integration is also an important concept and IMO focus area as well. Understanding Battle Command systems (such as Global Command andControl System, Manuever Control System, Automated Deep Operations Coordination Systems, Air Missile Defense Warning System, Advanced Field Artillery Tactical Data System) and the type of information these systems generate allows the IMO to better integrate, filter, populate, and display the common operation picture for maximum situational understanding.

With all the IM activities occurring concurrently and vast amounts of information circulating in a TOC during an operation, a set of procedures and instructions are needed. The Information Management Plan, together with established unit standard operating procedures, serve as the primary document for the IMO to assign IM responsibilities and provides instructions on managing information for an operation. The IMP must be tailored to manage information within the context of its specific mission and capabilities. It

serves as a tool for processing (filtering and formatting) information with appendices that include the battle rhythm, report formats and delivery methods, file naming conventions, COP track overlay naming conventions, collaborative meeting procedures, web-based tools (request-for-information manager/significant events tracker/ Fused Battle Update Brief-BUB, etc.), and web-posting instructions.

Organization

The scope of IM described above requires the typical IMO staff to include an IMO (normally a major), and a mix of noncomissioned officers, Soldiers and contractors. The contractors serve as technicians whose job is to build, configure and manage Web, Collaborative and Global Command and Control System servers, and peripheral hardware. These skill-set requirements are not consistently resident and stable over time in corps (UEx) staffs to be relied on for support. The additional NCOs and Soldiers are needed to provide computer workstation configuration support beyond the traditional network service/connectivity support provided by the G6 staff.

Current corps Table of Equipment doesn't have an information management officer, nor do they provide the additional staff required to meet IM requirements. A majority of units pull IMO staffs "out-of-hide" and/or hire contract support. The corps G6 staff does have a corps automation management officer filled by a Functional Area 53-information systems management officer (FA53). This position is focused on automation vice information management.

The future UEx G6 staff includes an O-4, FA53 in TAC1 and an O-3, FA53 in TAC2. It is not clear whether these positions are designed to focus on technical, automation as with the current CAMO or expand to cover down on true IM duties as well. It is very likely that contractor support will still be required to augment the UEx for continuity of operations and where high level technical expertise is needed.

Responsibility

FM 6.0 states 'The G6 is responsible for IM, in coordination with the battle staff. IM representatives within the TOC are positioned to best support the commander's intent, with priority normally to the G3.' On many corps staff's today, the IMO and supporting staff are resourced by and work in G3 operations for the G3 chief of operations. As G6 staffs move towards ownership and resourcing IM Army-wide, it is important to note that positioning the IMO to work in the G3 on a daily basis and during operations is essential. The IMO is best postured to support operations by working with the operators to meet their IM requirements, not nested behind a help desk.

There are competing notions about who is best qualified to perform IMO duties in a Division/ Corps (UEx). One says the position is best filled by a signal officer or FA53 trained signal officer that understands automation and networks. Another leans toward placing an operator (combat arms) who truly understands tactical operations and what drives information requirements (i.e. CCIR). Perhaps the optimum solution is targeting an FA53 trained combat arms officer as the IMO. In either case, however, the IMO with Signal experience will typically look to battle majors and senior operators to validate information relevance while the IMO with operations background will turn to the G6 for technical systems support.

In addition to FM 6.0, FM 6-02.85, Multi-Service Tactics, Techniques and Procedures for Joint Task Force Information Management, dated September 2003, provides a more encompassing and detailed look at the IM organization, responsibilities, procedures, systems, and user responsibilities. While targeted towards joint operations, FM 6-02.85 appears to be the best manual available to date and can be applied to Army operations as well.

I Corps IMO Operations

In I Corps, the IMO staff works in G3 Operations reporting to the G3 chief of operations. In the past three years, the IMO position was filled "out-of-hide" pulling either an FA53

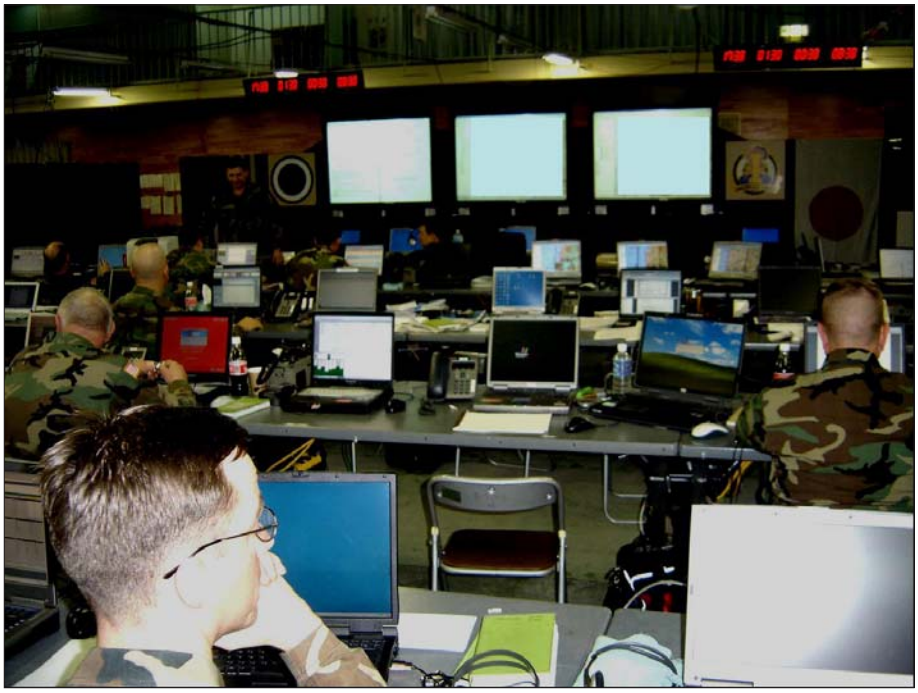


Figure 2. Management of Information flowing across C2 Systems is integral to TOC operations (Above) is the I Corps' Joint Operations Center during Exercise Yama Sakura 47, Camp Chitose, Hokkaido, Japan.

or Signal officer from staff to perform the duties. There is currently a GCCS support team of three contractors and two NCOs who build and configure GCCS-A/GCCS-J servers, Command and Control Personal Computer gateways and GCCS workstations as required for tactical operations. The corps Webmaster is a contractor who builds, configures and maintains the corps Web and collaborative servers. The G3 information assurance officer is also a contractor who keeps automated systems IAVA compliant and maintains all G3 system accreditations. All contractors are deployable to support contingency operations. The current corps Webmaster, Tony Froh, supported Task Force Olympia during Operation Iraqi Freedom 2. Computer workstation (PC) support is handled by one NCO and one Soldier. The important note here is that 20 percent of the G3 operations staff perform IM duties, and this point clearly indicates the vital role IM plays in C2 at the Corps Headquarters level. Ironically, all the positions performing these duties are non-existent on the Corps TOE.

IM support in I Corps is tailored for each unique operation as I Corps regularly assumes non-traditional corps staff roles as a JTF, Joint Force Land Component Command and/or CTF headquarters in the Pacific Command area of operations. During Cobra Gold 2004, the I Corps CTF HQs IMO staff was augmented with additional personnel to support the large, multinational CTF Headquarters Operations Cell. The Information Management Plan is also tailored to the specific operation. In addition to the standard IMP format, appendices are added to address joint and combined IM requirements and issues. For Yama Sakura 47, a C2 Systems Foreign Disclosure Guidance appendix, developed by the foreign disclosure officer, was added to explain how U.S. Battle Command Systems data and information would be disclosed and accessed by Japanese Northern Army personnel.

On larger scale operations where the I Corps staff is acting as a JFLCC or CTF, the IMO is caught up playing the conventional albeit misguided role of 'technical automator', particularly in getting operations center systems set-up and configured. This role is often extended throughout the initial phase of an operation until C2 systems and procedures are synchronized. The IM plan and established procedures dictate information flow during this early stage. Once a routine battle rhythm is in place, the IMO is usually afforded time to focus on true IM and deliberate tailoring of information for relevance and meaning. At this point, IM is done in a deliberate, proactive manner versus a reactionary mode during initial setup at the battle major or operations chief's request.

Conclusion

During his tenure as Chief of Signal, MG(R) Pat Cavanaugh accurately captured the ownership challenge still facing Information Managers and the Signal Regiment today: "The information manager will be faced with the daily challenge of determining just how his organization receives, manages, processes, protects and disseminates information … The information manager, then, will need to be well-versed in operating and employing information systems and communications networks, and equally literate in the art and science of maneuver warfare."

If you canvass possible candidates for this position, it's quite clear the Signal Regiment is best positioned to take on the information-management role. Our skills, training and experience cause us to cross all lines of information handling: from the backbone infrastructure itself, to the local area networks in TOCs, to the operations systems and databases that power our Army battle-command systems. We need to step up to the plate and take responsibility for IM.

As the Army moves from division and corps formations toward the Future Force of UEx/UEy design, technology will continually enable faster and more voluminous TOC information flow to commanders. Tailoring this information for relevance and understanding to achieve true IM is an ownership, training and staffing challenge for the Signal Corps, and a focal challenge for information managers of today and tomorrow … far more than technical automation support.

MAJ Norris is currently assigned as the I Corps G3 information management officer. His recent assignments include signal officer in the Stryker Brigade Coordination Cell at Fort Lewis, Wash. and 8th Army G6 plans officer at Yongsan, Korea. Norris is a 1990 graduate of Virginia Commonwealth University with a degree in journalism and 1997 graduate of Old Dominion University with a master's degree in applied linguistics.

Acronym QuickScan

ADOCS – Automated Deep Operations Coordination System
AFATDS – Advanced Field Artillery Tactical Data System
AMDWS – Air Missile Defense Warning System
BUB – Battle Update Brief
C2 – Command and Control
C2PC – Command and Control Personal Computer
CAMO – Corps Automation Management Officer
COP – common operating picture
CTF – Combined Task Force
FA53 – Functional Area 53
FDO – Foreign Disclosure Officer
GCCS – Global Command and Control System
HQ – headquarters
IAVA – Information Assurance Vulnerability Alert
IM – Information Management
IMO – Information Management Officer
IMP – Information Management Plan
JTF – Joint Task Force
JFLCC – Joint Force Land Component Command
OIF2 – Operation Iraqi Freedom 2
TOC – Tactical Operations Center
MCS – Maneuver Control System
RFI – Request for Information
SOP – Standard Operating Procedure
TAC – tactical
TOC – tactical operations center
TOE – Table of Organization and Equipment

Doctrine update

Updates in Signal doctrine from Directorate of Combat Developments, Army Signal Center, Fort Gordon, Ga.

Keeping Pace with Transformation

by Larry Hunter

As we stated in our last update, the Army is transforming into a rapid task-organized modular force, with the capability to fight on arrival while leveraging joint and coalition capabilities to win conflicts. This transformation effort has caused the doctrine community to refocus the doctrine development process. We must ensure our development of doctrine products are up to date, maintained and remain relevant to a force that will continue to evolve over the next decade.

The Signal Regiment must support our maneuver forces in every mission area along the operational spectrum. That includes military operations ranging from deterring aggression (homeland defense) to a force capable of launching an urban area-style assault against any standing Army. Signal doctrine must address how to effectively integrate and balance the new technology and capabilities that are required for the application of information-enabled networks.

Primarily due to Army transformation, the Signal Regiment has been operating on "draft" doctrinal products, attempting to keep up with today's changing and improving technologies. A new Training and Doctrine Command Regulation 25-36, dated Oct. 1, 2004, has introduced the means to provide required doctrine to our forces in an expedited format by developing a Field Manual Interim.

The FMI is a Department of the Army publication that provides expedited delivery of urgently needed doctrine the proponent has approved for use without placing it through the standard two-year development process. FMIs usually contain tactics, techniques and procedures, but may also contain discussions of principles. FMIs expire after two years, unless superseded or rescinded, with the pertinent information incorporated into a new or revised FM.

Our charter is to develop, write and maintain doctrinal literature for the Signal Regiment with the appropriate amount of TTPs, supporting the transformation of the Army. We will strive to reflect changes in force design and incorporate lessons learned from Operation Iraqi Freedom, and reprogramming Signal Regiment doctrine with a LandWarNet focus.

Priority publications for FY05 begin with our keystone manual **FM 6-02;** *Command, Control, Communications, and Computer Operations* (formally known as FM 24-1, *Signal Support in the Air Land Battle*). Development of FM 6-02 began in mid fiscal year 2004 with a completion time around 3rd Quarter of FY 05.

FMI 6-02.45; *Signal Support to Theater Operations,* will be reprogrammed and published as a FMI in FY05 focusing on UEy signal responsibilities and will address command, control, communications and computers support to theater operations. The FMI will subsume FM 6-02.27, *Switching Operations, FM 6-02.42, Command, Control, Communications, and Computer Operations: Echelons Corps and Below, and FM 6-02.55, Area Common User System.* This

Current Signal Doctrine

FM 6-02	C4 Operations
FM 6-02.2	C4 Operations: Stryker Brigade
FM 6-02.7	Tactical Local Area Network Management
FM 6-02.23	Tactics, Techniques, and Procedures for DMS-A
FM 6-02.27	Switching Operations
FM 6-02.30	Information Management
FM 6-02.32	Tactics, Techniques, and Procedures for the Tactical Internet
FM 6-02.40	Visual Information Operations
FM 6-02.41	Tactics, Techniques, and Procedures For EPLRS
FM 6-02.42	C4 Operations: Echelons Corps and Below
FM 6-02.43	Signal Leader's Guide
FM 6-02.44	Tactics, Techniques, and Procedures for the ENM
FM 6-02.45	Signal Support to Theater Operations
FM 6-02.50	C4 Operations: Division (Heavy and Light)
FM 6-02.53	Combat Net Radio Operations
FM 6-02.54	Satellite Operations
FM 6-02.55	Area Common User Systems Operations
FM 6-02.57	Tactical Wire and Cable Techniques
FM 6-02.69	Signal Digital Equipment Procedural Guide
FM 6-02.70	Spectrum Management
FM 6-02.71	Network Operations
ST 6-02.5	Installation Networks and Systems Security Procedures
ST 24-24	Signal Reference Data: Signal Equipment

FM was published in the 2004 after an accelerated development that supported the Integrated Tactical Signal Battalion and Tactical Installation and Network Company.

FM 6-02.50, *C4 Operations: Division (UEx/UA)*, will be reprogrammed and published as a FMI in FY05 focusing and reliant upon a mature Bridge for Future Networks, Concept of Operations, and approved signal organizational designs. The FMI will subsume *FM 6-02.27, Switching Operations, FM 6-02.32, TTP for the Tactical Internet, and FM 6-02.55, ACUS.*

FM 6-02.71, *Network Operations* This FM will be reprogrammed and published in FY05 as a FMI providing LandWarNet network operations TTP that describes the network operations objectives and principles, and the roles and responsibilities of network managers and agencies throughout the Global Information Grid. It discusses network management, information assurance, and information dissemination management. It will subsume FM 6-02.7, *Tactical Local Area Network Management.*

Signal Regimental Doctrine is also supporting the development of several publications focused on critical TTPs for major systems and programs, like Joint Tactical Radio System, Warfighter Information Network-Tactical, and Joint Network Transport Capability-Spiral.

As we develop and refine our products, the products will be posted to the Army Knowledge Online Portal listed under Signal Center, DCD.

We encourage you to contact us and provide feedback on the doctrine products we are developing. We are engaged in a huge task of ensuring our doctrine remains relevant during the transformation process. As we have stated before this effort is too large and too important to be done in a vacuum.

Mr. Hunter is a Department of the Army civilian GS-12 and presently holds the position of writer, Concepts and Doctrine Division, Directorate of Combat Developments, U.S. Army Signal Center. His background spans 30 years of service to the Signal Regiment. He is a retired sergeant major with 25 years of service. He has held several positions including first sergeant, battalion operation sergeant, communication chief, and instructor at the Sergeant Major Academy. He served as military system analyst for the Modeling and Simulation Branch. Other key positions include network analyst and assistant inspector general for Information Systems Command.

Signal Regiment Doctrine Development Points of Contact

Rick Meredith	**DSN 780-6506**	**Commercial**	**706-791-6506**
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Rick San Miguel	**DSN 780-7520**	**Commercial**	**706-791-7520**

Note: You can contact us at this Internet link https://www.us.army.mil/suite/folder/508671 or by phone.

Acronym QuickScan

ACUS – Area Common User Systems
BFN – Brigade to Future Networks
C4 – command, control, communications, and computers
CONOPS – Concept of Operations
ECB – Echelons Corps and Below
FM – Field Manual
FMI – Field Manual Interim
FY – fiscal year
GIG – Global Information Grid
IA – Information Assurance
IDM –Information Dissemination Management
ITSB – Integrated Tactical Signal Battalion
JNTC-S – Joint Network Transport Capability-Spiral
JTRS – Joint Tactical Radio System
NETOPS – Network Operations
MOS – Military Occupational Specialty
NM – network management
TIN – Tactical Installation and Network
TTP – tactics, techniques and procedures
UA – Unit of Action
UE – Unit of Employment
WINT-T – Warfighter Information Network-Tactical

Officer Notes

Identifying Critical Tasks for a Modular Force and Network Centric Army

by MAJ Alprentice Smith

The School of Information Technology conducted the Functional Area 53 Critical Task Site Selection Board at Fort Gordon, Ga. from Feb. 23 to March 4. The purpose of the board was to identify tasks performed by the FA53 officers that are deemed critical to mission success. By focusing on the core areas of the Network Operations concept — network management/enterprise services management, information assurance/computer network defense, and information dissemination management/content staging, the board was better able to focus efforts on tasks critical to mission success. The process of determining critical tasks requires board members who are subject matter experts in Information Systems Management who have performed in a cross-section of the various duty positions designated for FA53 officers in both the active and Reserve components. Board members must also have a high level of dedication and commitment to participating in the CTSSB process.

Through diligence and a detailed analysis of the requirements and responsibilities required of the FA53 officer, the CTSSB identified 37 critical tasks and the recommended venue for training. Site selection for the conduct of training the identified tasks is the schoolhouse, Modified Table of Equipment unit, computer based, or as the responsibility of the individual. Although the identified tasks and training sites require further vetting by the Army Signal Center's Directorate of Training, Training and Doctrine Command, and the School of Information Technology, the board members' efforts have shaped the future training curriculum for FA53 officers and are instrumental in producing future officers who manage the

FA53 CTSS Board Members

The FA53 CTSS Board was chaired by James Mercer of the Directorate of Training. The board members were as follows:

LTC Michael Bessasparis	CGSC-DOET
LTC Robert Sheppard	CFLCC, C3 Joint Computer Network Defense
MAJ Matthew Boehnke	NTC OPSGRP, Chief Information Officer
MAJ Bobby Dodd	Chief, IMD, USAREUR, G3
MAJ John Lammé	1st Information Operations Command
CPT Daniel Keel	59th Signal Battalion, Fort Richardson
CPT Carl Young	HHC, 228th Signal Brigade, Spartanburg, S.C.
Philip Arnold	DOT, USASC&FG, Ga.

Non-voting members in attendance were:

COL Randall Mackey	Commandant, LCIT
LTC Michael Bowie	Director, SIT
MAJ Patrick Barnwell	Chief, Officer Training Division, SIT
MAJ Alprentice Smith	FA53 Proponent Manager, OCOS
Sylvia Mooney	Chief, FA53 Course, SIT
Manuel Maldonado	FA53 Task Analyst, SIT
SSG Gracie Saldana	FA53 CTSSB Recorder, SIT

Members of the FA53 CTSS Board pictured left to right:, COL Mackey, MAJ Barnwell, MAJ Boehnke, CPT Keel, LTC Sheppard, LTC Bessasparrs, MAJ Lammé; MAJ Dodd, and CPT Young.

information systems of our network centric force and modular Army.

MAJ Alprentice Smith, FA53 Proponent Manager, is with Office Chief of Signal, Fort Gordon, Ga.

Warrant-Officer Notes

Identifying Critical Tasks for a Modular Army

by Dan Tippit

The training development process begins with identifying critical tasks at various skill levels within a particular specialty. From March 7-16, 2005, the School of Information Technology conducted their third Critical Task Site Selection Board at Fort Gordon in a series designed to capture the latest information on Soldier performance requirements with emphasis on Operations Enduring Freedom and Iraqi Freedom.

Previous CTSSBs included the 250N, Network Management Technician and the Functional Area 53, Information Systems Management Officer. This time the board focused on the tasks of the 251A Warrant Officer, Information Systems Technician, that are deemed critical to mission success.

By focusing on the Network Operations concept comprised of network management/enterprise services management, information assurance/computer network defense, and information dissemination management/content staging, the board was better able to capture those tasks that are critical to mission success. Current guidance from U.S. Army Signal Center and Fort Gordon Regulation 350-7 specifies that participating subject matter experts possess the military occupational spcialty, have worked in the MOS, and be from operational units of U.S. Army Forces Command, U.S. Army Reserves, and the Army National Guard.

The 251A CTSSB identified 35 critical tasks. During the approval process, the identified tasks and training sites require vetting by the Army Signal Center's Directorate of Training, Training and Doctrine Command, and the School of Information Technology.

Training these tasks was determined to be conducted either in residence at the Signal Center, each Soldier's unit, through distributive learning, or as the responsibility of the individual. The board members' efforts have shaped the future training curriculum for 251A Warrant Officers and were instrumental in producing future technicians who manage the information systems of the modular force.

The WO 251A CTSS Board was chaired by Earl Holmes of the 15th Regimental Signal Brigade.

Mr. Tippit is the Lead Training Developer, WO Training, with the School of Information Technology at Fort Gordon, Ga.

WO 251A CTSS Board Members

The WO 251A CTSS Board was chaired by Earl Holmes of the 15th Regimental Signal Brigade. The board members were as follows:

CW3 Rick Cloutier	Chief, IMD, USAREUR, G3
CW3 Curtis McDonald	Training with Industry (previously 4th ID)
CW3 Richard Mitchell	STRATCOM/J632
CW3 Bruce Moulton	HHD, 78th Signal Battalion
CW2 Dwayne Casady	HHC, 1st Signal Brigade
CW2 Darrin Gibson	Alabama ARNG

Non-voting members in attendance were:

CW5 Wayne Jensen	WO CMF 25, Proponent Manager, OCOS, USASC&FG
CW4 Robert Holmes	Deputy Chief, Warrant Officer Training Division, SIT
CW4 Marcus Santellano	Chief, Training Development Branch, SIT
SFC Robert Dunham	RDOT, USASC&FG
Dan Tippit	Lead Training Developer, WO Training, TDB, SIT
Tim Androl	WO 251A, Training Developer /Task Analyst, TDB, SIT
David Brill	WO 254A, Training Developer /Task Analyst, TDB, SIT
SSG Gracie Saldana	WO 251A CTSSB Recorder, SIT

Acronym QuickScan

CMF – Career Management Field
CTSSB – Critical Task Site Selection Board
ISM – Information Systems Management
MOS – military occupational specialty
MTOE – Modified Table of Organization and Equipment
NETOPS – Network Operations
SIT – School of Information Technology
SME – subject matter expert
TRADOC – Training and Doctrine Command
WO – Warrant Officer

TSM update

Updates from Training and Doctrine Command systems managers for satellite communications, tactical radio and Warfighter Information Network-Tactical

TSM-SATCOM

Defense Advanced GPS Receiver Fielding

More than a year ago, the Defense Advanced Global Positioning System Receiver production contract was awarded to Rockwell-Collins Inc. and Communications-Electronics Command recently issued a materiel release for the DAGR.

With formal materiel release in hand, the Program Manager for the Global Positioning System is fielding DAGRs to Army units worldwide and is providing a thorough new equipment training course as part of the fielding process.

DAGR fielding will be a multi-year process to displace the Precision Lightweight GPS Receiver which will be recycled to backfill Army GPS requirements in lower priority units; therefore, in the near term, there will be a mixture of PLGRs and DAGRs in Army units.

The DAGR First Unit Equipped was the 2nd Brigade, 82nd Airborne Division and the first two Training and Doctrine Command schools to receive the DAGR were the Infantry and Signal school houses.

Point of contact is Russell Gambrell, DSN 780-7901, email: russell.gambrell@us.army.mil.

AN/TSC-154/SMART-T Fielding Plan

The Secure Mobile Anti-jam Reliable Tactical Terminal, AN/TSC-154 is a transportable, tactical satellite communications terminal that operates with the Milstar satellite low data rate and medium data rate communications payloads.

SMART-T provides multi-channel range extension for echelons corps and below. Current fielding of the projected 209 terminals is about half way complete. However changes to meet the modular force structure requirements are being made. Changes to the original fielding plan will include terminals being fielded to active Units of Action, and select Reserve components UAs. Exact numbers of SMART-Ts residing at the UEx and UEy [Unit of Action X (Division) and Y(Corps and above)] levels to support the new force structure are not yet finalized.

Point of contact for additional information on SMART-T fielding is Dean Hokrein, DSN 780-8156, COMM (706) 791-8156, email: dean-hokrein@us.army.mil.

SMART-T Current Fieldings	Terminals	Date Fielded
CECOM, Fort Monmouth, N.J.	2	1998
Signal Center, Fort Gordon, Ga.	6	1999
124th Signal Bn, Fort Hood, Texas	6	1999
USAREUR HQ, Mannheim, GE	1	2000
3rd Corps, Fort Hood, Texas	15	2001
SBCT-1, Fort Lewis, Wash.	3	2001
SBCT-2, Fort Lewis, Wash.	3	2002
13th Signal Bn, Fort Hood, Texas	12	2002
141st Signal Bn, 1AD, Germany	10	2003
440th Signal Bn, Germany	5	2003
121st Signal Bn, Germany	10	2003
SBCT-3, Fort Wainwright, AK	3	2004
3 Inf Division, Fort Stewart, Ga.	12	2004
101st AA Div, Fort Campbell, Ky.	10	2004
447th Signal Bn, Fort Gordon, Ga.	6	2004
10th Mountain Div, Fort Drum, N.Y.	9	2004
XVIII Corps, Fort Bragg, N.C.	5	2004
SMART-T FUTURE FIELDINGS	**Terminals**	**Due Fielding**
SBCT-4, Fort Lewis, Wash	3	2005
SBCT-6, 28th ID, Pennsylvania NG	3	2005
I Corps Fort Lewis, Wash.	3	2005
25ID, Hawaii, Alaska, Kansas, & Georgia	9	2006
SBCT-5, Fort Lewis, Wash.	3	2006
National Guard (Specific Units TBD)	4	2006
USASOC	14	2006

Ms. Linton is with TSM SATCOM at Fort Gordon, Ga.

Acronym QuickScan

DAGR – Defense Advanced GPS Receiver
FUE – First Unit Equipped
GPS – Global Positioning System
LDR – low data rate
MDR – medium data rate
NET – New Equipment Training
PLGR – Precision Lightweight GPS Receiver
SMART-T – Secure Mobile Anti-jam Reliable Tactical Terminal
UA – Units of Action

TSM-Tactical Radio

Joint Tactical Radio System

by Doug Wilson

Joint Tactical Radio System. The Joint Tactical Radio System is designed to provide a flexible new approach to meet diverse warfighter communications needs through software-programmable, radio technology. Service requirements are "clustered" so that similar requirements can be met with a single acquisition effort. The lead service for each acquisition effort serves as the cluster manager.

The JTRS program is currently undergoing reorganization. On March 8, 2005, the Defense Acquisition Executive, Michael Wynne, appointed Dennis Bauman the first Joint Program Executive Officer with full directive authority over all waveform, radio, and common ancillary equipment development in the JTRS program. The JPEO will also be responsible for performance and design specifications, standards for operation of the system, and systems engineering. The intent is to realign the current acquisition management structure for all JTRS programs under the authority of a single organization which will include the program managers from service cluster efforts as well as the JTRS Joint Program Office. Initially, the intent is for the JTRS JPEO to have no program responsibilities outside those involving the JTRS program.

Cluster 5 *(Manpack, Handheld, Small Form Fit):* The JTRS Cluster 5 acquisition strategy includes two developmental spirals. The intent of the spiral development is to provide incremental capability in the near term with full JTRS operational requirements capability in the long term. The Systems Requirements Review for Spiral 1 *(Manpack)* was completed Feb. 17, 2005, and the Spiral 2 *(Handheld, Manpack and Small Form Fit)* SRR is planned for early April 2005.

Cluster AMF: The Airborne, Maritime, and Fixed Station JTRS Cluster awarded two contracts for preliminary systems development and demonstrations. The contracts were awarded, Sept. 8, 2004, to the Boeing team and Lockheed Martin team for $54 and $51 million respectively. Though JTRS Cluster AMF is specifically tasked with producing radios for Airborne, Maritime, and fixed-ground stations platforms, it is one of five Department of Defense programs charged with producing a family of software-defined radios capable of interoperating will all U.S., Allied, and coalition forces' legacy radios as well as with all JTRS radios. Currently, Boeing and Lockheed Martin are working under the terms of a Pre-System Design and Development contract to produce a design of the AMF variant. In the 11th month of the 15th month Pre-SDD phase, the program office will issue a request for proposals for the SDD phase. This request is expected to be released in 2005. Upon release, a full and open competition will then be used to select a team for the SDD phase.

Enhanced Position Location Reporting System. Preparation for the Enhanced Position Location Reporting System's new fielding continues. Retrofit of product improvements to existing EPLRS-equipped units such as the 4th Infantry Division, 1st Cavalry, the 1st Stryker Brigade Combat Team (SBCT-1), and SBCT-2, will be completed during the next two calendar years. The retrofit of the 4th ID is complete. Net Equipment Training and retrofit of SBCT-1 (3/2 ID) at Fort Lewis, Wash., is underway. The resident training sessions for the SBCT-1 were completed in February 2005 and trained the Signal Company EPLRS operators and system planners. Training and fielding preparation is ongoing to support SBCT-3, Fort Carson, Colo. On Site NET at Fort Carson and training of the Signal Company soldiers at Fort Gordon was completed in April 2005. Initial fielding will begin during the 4th Quarter, FY-05. Elements of the 3-265 Florida Army National Guard, 1-204 Massachusetts ARNG, and 1-200 New Mexico ARNG continue to support Operation CLEAR SKIES in our nation's capitol. These task organized units have all been retrofitted with the latest EPLRS product improvements. EPLRS is one of the key data communications backbones supporting the Army's Tactical

Acronym QuickScan

AMF – Airborne, Maritime and Fixed-Station
ARNG – Army National Guard
EOA – Early Operational Assessment
EPLRS – Enhanced Position Location Reporting System
FY – fiscal year
ID – Infantry Division
JPEO – Joint Program Executive Officer
JPO – Joint Program Office
JTRS – Joint Tactical Radio System
NET – Net Equipment Training
Pre-SDD – Pre-System Design and Development
SBCT – Stryker Brigade Combat Team
SRR – Systems Requirements Review
EPLRS – Enhanced Position Location Reporting System

Internet and air defense artillery sensors, as well as weapons.

Doug Wilson is the deputy chief of TSM-TR, Fort Gordon, Ga.

TSM-WIN -T

Warfighter Information Network – Tactical

by MAJ Camilla A. Wood

"The Army, together with the joint community, must relentlessly address the architectures, protocols, and systems of a redundant, non-terrestrial network capable of providing the focused bandwidth necessary to support mobile Battle Command and joint Blue Force Tracking."

– LTG Boutelle, CIO/G6

"Our Networked Army: Next Steps"
– June 30, 2004

Warfighters depend on a much broader spectrum of information services than were considered when current capabilities were developed. LandWarNet is the Army's strategy to achieve a world-class, joint, and expeditionary force enabled by information technologies that support the goals of the Army Campaign Plan and other Army/Joint mandates. LandWarNet's goal is to integrate network applications, network services, and network transport capabilities across the warfighting, intelligence, and business domains. This strategy seeks to ensure that Future Force commanders receive the relevant information at the right time without tethering them to a traditional static tactical command post.

Commanders and leaders require access to automated, collaborative decision support tools that enable them to effectively plan, synchronize and rehearse missions virtually, irrespective of where they are in the battlespace. LandWarNet seeks to enable "one battle command system" as part of "one network" that provides the link from Soldier to sustaining base with tailored software applications. These applications are optimized for the combined arms commander and satisfy the supporting needs of the staff officer. Warfighter Information Network-Tactical is the cornerstone of that "one network".

WIN-T, the Army's network throughout theater and the joint force commander's tactical deployed communications network, is the replacement network for current tactical communications systems. WIN-T will replace network transport and network services capabilities for the transforming Army. A network that is optimized for offensive and joint operations, WIN-T provides regional combatant commanders the capability to conduct tactical operations with information provided by increased network interoperability among Department of Defense, Joint and coalition networks. WIN-T will reduce the forward deployed footprint of forces by providing the Army with C2 capabilities not available today: a high-speed and high-capacity backbone communications network focused on rapidly moving information in a manner that supports commanders, staffs, functional units, and capabilities-based formations – all mobile, agile, lethal, sustainable, and deployable.

Commanders and staff elements will be equipped with reach, reachback, and NETOPS (Network Management, Information Assurance, and Information Dissemination Management capabilities allowing them to plan, prepare, and execute multiple missions/tasks simultaneously. NETOPS functions will allow communications planners to coordinate, plan, and direct all C4 operations, support interfaces with Joint and Coalition forces, including host nation support interfaces; control information network capabilities and services from the power projection sustaining base to the most forward operational locations. WIN-T will provide command centers and staff elements with the communications capabilities to link to higher, adjacent, and subordinate commands, as well as to Joint, Interagency, and Multinational.

WIN-T will support command centers and mobile elements and leverage the Joint Network Transport Capability Spiral to provide physical connectivity with brigade units operating with the Bridge to Future Networks. WIN-T's overall design and acquisition strategy must enable the insertion of new technologies as they become available. The objective is to routinely place state-of-the-art technologies and their enabling capabilities into the hands of the warfighter, while not compromising interoperability of any unit within the force.

The WIN-T program identifies, by increments, the warfighters' urgent communications need and addresses the available technology to meet those needs. Originally, WIN-T was projected to support the Army beginning in fiscal year 2008, but based on the Army's current wartime mission a need was identified for an earlier fielding of the Joint Requirements Oversight Council approved requirements in the WIN-T Operational Requirements Document. The WIN-T Increment 1 Capabilities Production Document addresses the warfighters' needs from FY07-FY12 and represents an accelerated subset of capabilities identified in the WIN-T ORD.

Army forces must be enhanced beginning in FY07 with network technologies that ensure operational relevancy and interoperability which will allow Network Enabled operations as a portion of the Land Component's warfighting forces. These network enabled operations require a plan to conduct rapid infusion of government-off-the-shelf and commercial off-the-shelf solutions to create measurable benefits in overall warfighting. Planning these technology infusions will require synchronization with the Army Campaign Plan, program availabilities, technology advances and unit schedules. LandWarNet performs this holistic coordination in order to demonstrate improved lethality in the modular force coordination and

synchronization effort.

The WIN-T INC 1 CPD is designed to identify network communications capabilities that can begin to enable the Army to operate under the LandWarNet construct during transformation. WIN-T shall provide Army warfighters with a communications wide area network that enables the exchange of critical and timely information (voice, data, and video) while on the move using the tactical, strategic and Global Information Grid networks. WIN-T will enable deployed forces to seamlessly collaborate with capabilities in the GIG infrastructure (databases, collectors, and national agencies) to increase information enabled operations. Such collaboration to date has required various DoD and other governmental agencies to create multiple private networks or deploy agencies forward.

WIN-T looks to provide access to Warfighter validated essential wide-area services consisting of Non-Secure Internet Protocol Router Network and Secure Internet Protocol Router Network as well as the transport means for voice, data, collaboration services and Video Teleconference to all warfighters at the SECRET and SI level. WIN-T is capable of transporting Top Secret/Sensitive Compartmented Information, previously supported by the TROJAN SPIRIT network, with modernized, state-of-the-art equipment and shall be the replacement transport network for Combat Service Support–Very Small Aperture Terminal (maintenance, medical personnel and supply), Medical Net (medical and MED LOG), Air Defense Artillery Net, Battle Command on the Move, Space Missile and Defense Net and Public Affairs Net.

Army/Joint Task Force commanders and other users will be able to exchange information internally and externally throughout the theater from wired or wireless telephones, computers, personal communication devices, or video/multimedia terminals. WIN-T allows non-combatants to remain in sanctuary areas while continuing to communicate with a combination of terrestrial, airborne, and satellite-based transmission systems. This will provide a robust multi-layered network supporting operational maneuver from strategic distances while supporting the warfighters' requirements for mobile communications.

The Army must scale these technologies to work effectively within its operational formations and existing platforms. Such tailored capabilities seek to provide actionable information to the appropriate place at the right time. Staffs require different and more robust information to evaluate than a platoon leader on the move. WIN-T will look to increase capability and information in both the staff planning process and the commanders' ability to execute the close fight.

Although current mobile subscriber equipment/tri-service tactical communication structure was sufficient for its time, just as the way we fight on the battlefield evolved, so did technology and the requirements to support the force. WIN-T, a mission critical system, will be a framework that will set standards and protocols for the Future Force while interfacing with and/or replacing equipment in legacy and interim forces thus fulfilling the requirements of the warfighter.

Fact

a. Developmental testing and operational testing is scheduled in first quarter fiscal year 2006 where the WIN-T prime contractor will demonstrate and test their prototype components.

b. Milestone C is scheduled for 2nd quarter FY 06 to obtain authorization for a limited procurement.

c. The WIN-T program will deliver prototype On-the-Move components to the FCS program to support FCS's Technical Feasibility Test in 4th quarter FY 07 and Limited User Test 1 in 4th quarter FY 08.

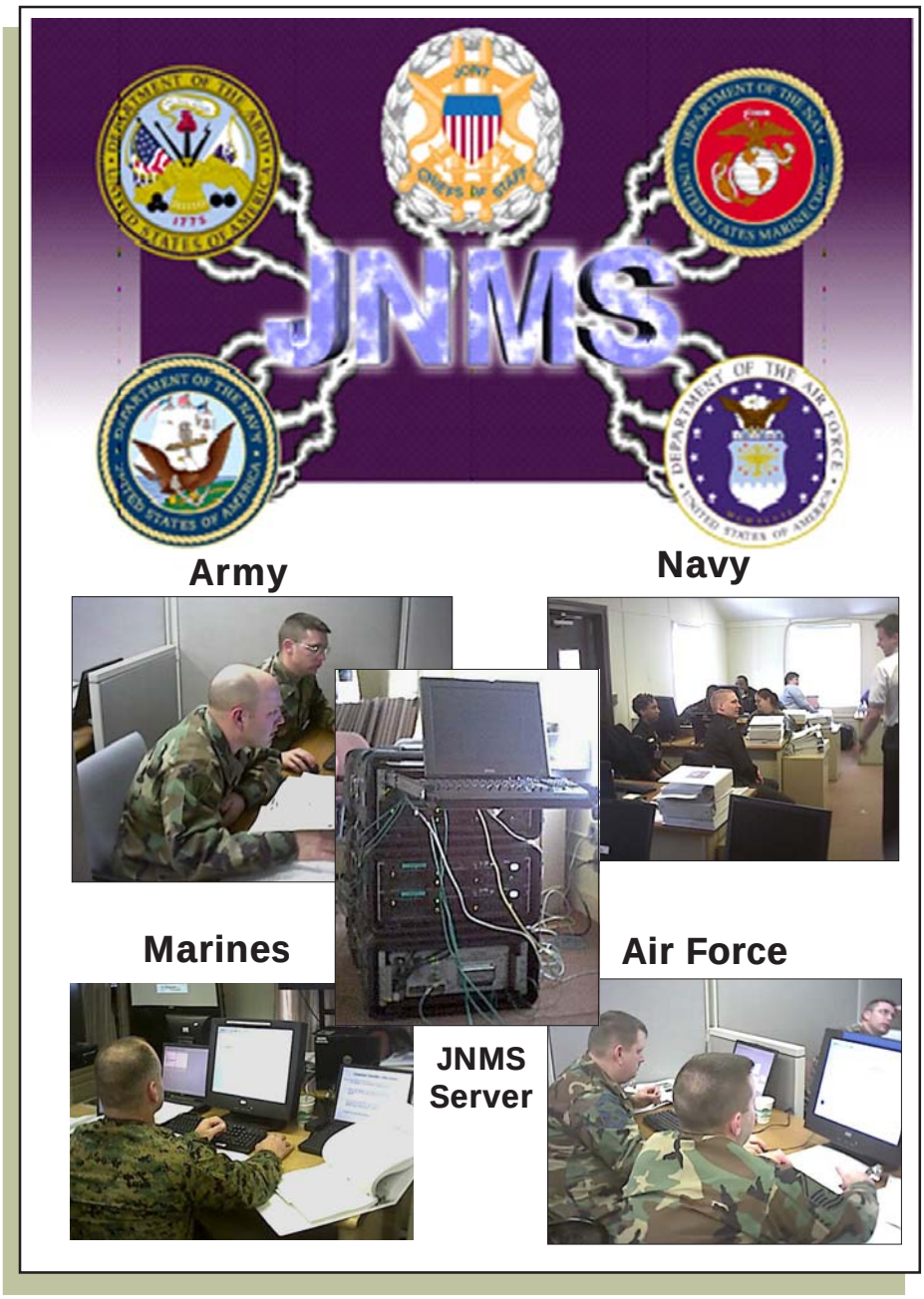
MAJ Wood currently works as Assistant TSM WIN-T, Fort Gordon, Ga. She is a former A Co, 122nd Signal Battalion, 2nd Infantry Division company commander.

Acronym QuickScan

BCOTM – Battle Command on the Move
BFN – Bridge to Future Networks
COTS – commercial-off-the-shelf
CPD – Capabilities Production Document
CSS VSAT – Combat Service Support–Very Small Aperture Terminal
DoD – Department of Defense
DT/OT – Developmental Testing and Operational Testing
FCS – future combat systems
FY – fiscal year
GIG – Global Information Grid
GOTS – government-off-the-shelf
IA – Information Assurance
IDM – Information Dissemination Management
INC – increment
JIM – Joint, Interagency, and Multinational
JNTC-S – Joint Network Transport Capability-Spiral
JROC – Joint Requirements Oversight Council
JTF – Joint Task Force
MEDNET – Medical Net
NM – Network Management
NIPERNET – Non-Secure Internet Protocol Router Network
ORD – Operational Requirements Document
SIPERNET – Secure Internet Protocol Router Network
SMDC – Space Missile and Defense
TRI-TAC - Tri-service tactical communication
TS/SCI – Top Secret/Sensitive Compartmented Information
VTC – Video Teleconference
WIN-T – Warfighter Information Network-Tactical
WIN-T (INC) – Warfighter Information Network-Tactical Increment (INC)

Joint Network Management System Update (AN/USQ-176 (V) 1 and 2)

by MAJ Quentin Smith



The Joint Network Management System is a post Milestone C, Acquisition Category level III Joint program that provides an automated network planning and management capability to joint tactical communication network planners/managers at Combatant Commands, COCOM Service components, Joint Task Force, and JTF Service components. It integrates the capabilities of commercial off-the-shelf, government off-the-shelf and some developmental software to meet network planning and management deficiencies identified by the COCOMs. It will replace the interim system, the Joint Defense Information Infrastructure Control System – Deployed, now fielded to the warfighting COCOMs. JNMS provides the means for timely decisions and synchronization of communication assets to support joint mission requirements, adds flexibility to better support the commander's intent, improves situational awareness by providing a common view of the network, and provides a capability to better use scarce resources to optimize the capacity of the network and support the fight.

There are two versions of the JNMS being developed. The versions are distinguished by their level of functionality. The JNMS (AN/USQ-176(V) 1) has only a network monitoring capability. The JNMS (AN/USQ-176(V) 2) has the full operational capability which includes planning, monitoring and reconfiguration, fault management, and security functionality. The V1 comes with a one-way fiber modem that provides a capability to display both unclassified and classified network situational awareness information on the V2's display screen. The implementation of this cross-domain solution is dependant on accreditation approval and interim authority to operate by each site's designated approving authority as well as final approval by Defense Information Systems Agency. The JNMS (V1 and V2) has been given a type accreditation and authority to operate by the program's DAA, Program Executive Office - Command, Control and Communications – Tactical.

The JNMS materiel developer, Product Manager Network Operations – Current Force, in conjunction with the Air Force Communications Agency, the Air Force's lead command for JNMS implementation, has now fielded eight systems as a Beta (pre-production). This initiative is being implemented to gain additional user feedback on training and operational effectiveness prior a Full Rate Production Decision and approval to officially field. The eight systems (comprised of 1-V1 and 1-V2) are deployed with U.S. Central Command organizations at USCENTCOM's Theater C4 Control Center, MacDill Air Force Base, Fla; USCENTCOM Air Force's (Central

Network Operations and Security Center, Shaw AFB, S.C.; USCENTCOM's Theater C4 Control Center-Forward, Bahrain; and USARCENT's NOSC, Kuwait. Training for the JNMS system administrators, planners and managers was completed in February 2005. Installation and operational check-out of the systems is to be completed in March 2005. Additionally, the Joint Staff J6 will use this Beta initiative to validate the JNMS Concept of Operations they are now revising.

Concurrently with the USCENTCOM Beta initiative, the next version of JNMS software (Release 1.3) was developed and tested by the JNMS contractor – Science Applications International Corporation. Functional Qualification Testing was completed in February 2005. Upon completion of the FQT, the government took control of the software and then conducted an independent government assessment of the software's planning and management functionality, also in February 2005, to determine if it was mature enough to continue into a Limited User Test in July 2005. The Army's Test and Evaluation Command conducted the GA and has published an official System Assessment Report. Preparations for the LUT are ongoing by ATEC's Operational Test Command, PdM NetOps-CF, the Joint Staff J6, the U.S. Army Signal Center, and U.S. Joint Forces Command. OTC will conduct a 2nd Operational Test Readiness Review in May 2005 to reassess the status of preparations for the LUT. A third and final OTRR will be conducted in July 2005 just prior to the scheduled start time of the LUT. Personnel from all the services will participate in the LUT. Training for the test participants is scheduled for June 2004. The LUT will consist of two sites, one functioning as a COCOM Global C4 Control Center and the other as a JTF Joint C4 Control Center.

Following a successful LUT, PdM NetOps-CF will request a FRPD and Materiel Release now scheduled for 1st/2nd quarter fiscal year 2006 respectively. First Unit Equipped fielding is scheduled for 2nd quarter FY06. The Joint Staff J6 has established the fielding priorities for JNMS. USCENTCOM, the Joint Communications Support Element, and the U.S. Army Signal Center are the first for fielding.

The Army, as the Executive Agent for the development of the JNMS, requested that an Inter-Service Training Review Organization study be conducted to determine the feasibility of consolidating all Service JNMS training at one location (Fort Gordon, Ga). The study was conducted in three phases during late 2004 and early 2005. All services, less the Navy, participated in the study and agreed to consolidate training at Fort Gordon. Final approval of the study's recommendation is ongoing and expected in 3rd quarter FY05. Once approved, actions necessary to establish the joint school training program by second quarter FY07 will begin. Although the Navy elected not to participate in the study, the ITRO recommendation left the option open for the Navy to send personnel to the joint courses on a space available/reimbursable basis.

For further information on JNMS, contact MAJ Quentin Smith or Billy Rogers, TSM WIN-T, (706) 791-7941/2334, respectively. DSN prefix is 780-XXXX. Email: smithql@gordon.army.mil or rogersb@gordon.army.mil.

MAJ Smith is currently assigned to the TRADOC System Manager Warfighter Information Network – Tactical, U.S. Army Signal Center, Fort Gordon, Ga. Smith works as the Signal Center lead for the Joint Network Management System program. Smith's assignments include the following: platoon leader and company executive officer for 16th Signal Battalion, Fort Hood, Texas, brigade S6 for 64th CSG, Fort Hood assistant S3 and company commander for 17th Signal IG BN, Kitzingen, Germany, and (4)Training With Industry, General Dynamics, Taunton, Mass.

Acronym QuickScan

ACAT – Acquisition Category
AFB – Air Force Base
AFCA – Air Force Communications Agency
ATEC – Army's Test and Evaluation Command
CENTAF – Central Command Air Force
COCOM – Combatant Command
CONOPS – Concept of Operations
COTS – commercial Off-the-Shelf
DAA – Designated Approving Authority
DISA – Defense Information Systems Agency
FQT – Functional Qualification Testing
FRPD – Full Rate Production Decision
FUE – First Unit Equipped
FY – fiscal year
GA – Government Assessment
GCCC – Global C4 Control Center
GOTS – Government Off-The-Shelf
ITRO – Inter-Service Training Review Organization
JCCC – Joint C4 Control Center
JCSE – Joint Communications Support Element
JDIICS-D – Joint Defense Information Infrastructure Control System – Deployed
JNMS – Joint Network Management Systems
JTF – Joint Task Force
LUT – Limited User Test
NOSC – Network Operations and Security Center
OTC – Operational Test Command
OTRR – Operational Test Readiness Review
PdM NetOps-CF – Product Manager Network Operations – Current Force
PEO-C3T – Program Executive Office - Command, Control and Communications – Tactical
SAIC – Science Applications International Corporation
TRADOC – Training and Doctrine Command
TCCC – Theater C4 Control Center
TWI – Trading With Industry
USCENTAF – U.S. Central Command Air Forces
USCENTCOM – U.S. Central Command
USJFCOM – U.S. Joint Forces Command

AKMS Update: Army Key Management System

by Al Walton

The Army Key Management System is a fielded system composed of three sub-systems, Local Communications Security Management Software, Automated Communications Engineering Software, and the Data Transfer Device with Common Tier 3 software. Fielded to the Army under the umbrella of the objective National Security Agency Electronic Key Management System, AKMS provides tactical units and sustaining bases with an organic key generation capability and an efficient secure electronic key distribution means. AKMS provides a means for distribution of Communications Security, Electronic Protection, and Signal Operating Instructions information from the planning level to the point of use in support of current and future forces.

The Updated AKMS Operational Requirements Document was JROC approved on Jan. 25, 2005. The Updated ORD documents requirements and capabilities needed to support the Army's Transformation and Modular Force Structure. One initiative to support this effort is the migration of EKMS to the Department of Defense Key Management Infrastructure. KMI will support requirements for all cryptographic material needed to achieve information superiority. KMI will provide the capability to "web enable" applications that support logistics, personnel, administrative, and other enterprise information systems.

The Product Manager for Network Operations-Current Force revised the AKMS Acquisition Strategy June 7, 2002 to upgrade the fielded Data Transfer Device AN/CYZ-10A. The new version DTD developed by PdM NETOPS-CF is called the Simple Key Loader. The SKL has enhanced performance capabilities consistent with current technology and is compatible with CT3 software, older version DTDs, and fill devices. Secondary to augmenting the current DTD will be the ability to manage the new device to ensure it is fielded to the users that have the greatest requirements for the enhanced capabilities. SKLs will initially be fielded (fiscal year 2005) to active UExs with priority of fielding to 101st (AA), 10th Mountain, 4th Infantry Division, and SBCT4. These priorities are based on HQDA/G3 Priority Bands and are adjusted as Army needs dictate.

Total fielding to the entire Army is scheduled over a six-year period FY05-FY10.

The Signal Center began Local COMSEC Management SOHCMS Phase 4 training January 2004. Courses are two weeks in length with a total of 16 classes taught during the calendar year 2004. ACES and LCMS courses are available via the Army Training Requirements and Resources System. The ACES stand alone course is two weeks.

In November 2004 the Joint Automates Communications Software was approved as the Joint CEOI tool standard replacing Revised Battlefield Electronic CEOI System. JACS training is incorporated into the Signal Centers Battle Spectrum Managers Course. Currently ACES workstations are primarily fielded to the force with the exception of 1st Corps and U.S. Army Europe. Fielding for those units is scheduled for CY 2005. LCMS workstation warranties will expire in FY05. The new workstations are currently being tested and accredited to accommodate Phase 5 software and future key management requirements.

With the emergence of KMI and the ability to management, distribute, and account for COMSEC via a networking environment, AKMS will remain a viable key management capability supporting Current and Modular Force information systems until fully migrated to KMI. TSM WIN-T's point of contact for all AKMS questions is Al Walton. He can be reached by telephone at (706) 791-2316/DSN 780-2316 or by email at waltona@gordon.army.mil

Mr. Walton is a retired Signal Corps sergeant major who served in the U.S. Army for 30 years. He is currently employed by Engineering Solutions and Products, Inc. providing contractor support to the TRADOC System Manager for the Warfighter Information Network – Tactical. Walton is the TSM Project Leader for the Army Key Management System, a sub-element of the DoD Electronic Key Management System. He has worked extensively in developing and documenting key management requirements in support of current and future DoD Information Systems.

Acronym QuickScan

ACES – Automated Communications Engineering Software
AKMS – Army Key Management System
CEOI – Communications-Electronics Operating Instructions
COMSEC – Communications Security
CT3 – Common Tier 3
CY – calendar year
DTD – Data Transfer Device
EKMS – Electronic Key Management System
EP – Electronic Protection
FY – fiscal year
HQDA – Headquarters Department of the Army
JACS – Joint Automated Communications Software
KMI – Key Management Infrastructure
LCMS – Local COMSEC Management Software
NSA – National Security Agency
ORD – Operational Requirements Document
PdM NETOPS-CF – Product Manager for Network Operations-Current Force
SKL – Simple Key Loader
SOI – Signal Operating Instructions
TSM WIN-T – TRADOC Systems Manager Warfighter Information Network-Tactical
USAREUR – US Army European Command

551st integrates Warrior Ethos Tasks in local FTX

by CPT Tausha Smith

The firing had been intense in the first room. The smoke cleared and it was time to move on.

The Soldiers steadied themselves. They nodded to each other and then burst through the doorway of what they believed was the final room in the building.

Each Soldier had a sector of fir and checked their areas. The room was clear. Suddenly, a figure on a chair came into view. The person was gagged and bound, unable to do anything but grunt and look into the eyes of his new-found liberators.

The Soldiers got their platoon sergeant who realized this was the United Nations aide worker they'd been told was potentially being held by insurgents in the area. The aide worker had been snatched from an ambushed convoy three days ago.

This guy's ordeal was finally over. He'd be checked out by the medics and sent back to the battalion out of danger. Now that the building was secure, the Soldiers could begin what they came there to do … install the communications for the ommand. They had just over two ours to get things operational.

First, email in two hours … they'd have to push it, but they could do it. Hauling transit cases of equipment up the stairs and began breaking it out …

While that scene could be aking place anywhere in the Central ommand area of responsibility, hese days similar scenes are taking place at Fort Gordon.

Soldiers of the 551st Signal Battalion, training to become 25B automators, execute this scenario during their Warrior Ethos Lane Training as part of Training and Doctrine Command's initiative to build both combat skills and technical military occupational specialty skills into a realistic training event

during advanced individual training.

This is an exciting change for AIT students of the 551st. The battalion began integrating Warrior Ethos tasks and drills into the training schedule for AIT students in October 2004. This training now culminates in a monthly Field Training Exercise executed at battalion level. Given our Army's operations tempo, the 15th Regimental Signal Brigade has added both technical and combat-related skills, ensuring Soldiers arrive at their next assignment combat trained and ready for deployment within 30 days.

The battalion began integrating Warrior Ethos tasks and drills into the training schedule for AIT students in October 2004.

The 551st Signal Battalion always graduated young Soldiers knowledgeable in their MOS specific skills, however, the lesson's learned from veterans of both Afghanistan and Iraq are reinforcing the need to train Soldiers in basic combat skills. The training focus has shifted from primarily MOS technical training to a mix of both technical and tactical; new trainees are taught that they are warriors first and technicians second.

Young Soldiers are now training to an approved Training and Doctrine Command standard for all the warrior tasks and drills, which include: correcting malfunctions with assigned weapon, employing mines and hand grenades, performing voice communications, using visual signaling techniques, entering and clearing a building during an urban operation, land navigation/movement from one point to another dismounted, evaluating and treating a casualty, and selecting temporary fighting positions.

In February 2005, 551st began integrating 25B MOS specific skills into the field training exercises and is progressing to integrate more MOS related challenges into training over successive exercises.

During the February 2005 FTX, soldiers were given the mission to install, operate, and maintain six computers in a local area network within a simulated combat environment. The objective was to fully network the systems and be able to send emails from one computer to the next within two hours.

The Soldiers had experience

FTX role players in Afghanistan /Iraqi clothing gives touch of realism to training scenario.

doing this in a classroom environment and felt they could achieve the task in about 30 minutes. However, anyone with any field experience knows, what can go wrong usually will.

This caught our young Soldiers by surprise, once out of the sterile classroom environment. With their adrenaline still pumping after having cleared and secured a building, it was time to set up the computers. Quickly the realization that they were "no longer in Kansas" set in.

As the clock ticked, Soldiers encountered bad cables, generator problems and configuration changes they had to adapt to quickly. While all of this was going on, the most technically knowledgeable in the group were being tasked to pull guard on the perimeter, rather than working on the computers. This ensured every Soldier knowing how to perform without depending on stronger group members. Instead of the 30 minutes our Soldiers thought it would take, they completed the task in one hour and 20 minutes - still under the two-hour window. Overall, it was incredible training for them throughout their careers.

To make the FTX more realistic, the 551st is using role players in authentic Afghan/ Iraqi clothing to simulate non-English speaking civilians and potential combatants on the battlefield. This places Soldiers in situations where the first response may not always be to open fire. This touch of realism was invaluable to the overall success and feel of the FTX.

Every month, the battalion adds realism, complexity, and rigor to the Warrior Ethos FTX.

Overall, the successes the Soldiers have enjoyed as a result of these FTXs have been due to two distinct communities of excellence. The first is the combat veterans returning as both cadre and within the school as students themselves. The other community of excellence encompasses the Signal Center and garrison agencies who provided resources so the training gets increasingly realistic and relevant. Together the 551st Signal Patriots develop Soldiers who are ready to make an immediate contribution at their first unit assignment.

CPT Smith, a graduate of West Point Class of 1996, was the commander of D Co, 551st Signal Battalion from June 26, 2004, until Feb. 4, 2005. Before that she spent 13 months in Kuwait deployed with 3rd U.S. Army G4. She is currently working in the 551st Signal Battalion S3.

Acronym QuickScan

AIT – Advanced Individual Training
AOR – Area of Responsibility
CENTCOM – Central Command
FTX – Field Training Exercise
LAN – Local Area Network
MOS – military occupational specialty
OPTEMPO – operations tempo
TRADOC – Training and Doctrine Command

15th Signal Brigade undergoes quality assurances

by Patrick S. Baker

In fiscal year 2005 Signal military occupational specialties 25F: Network Switching System Operator-Maintainer and 25Q: Multichannel Transmission System Operator-Maintainer are scheduled to undergo quality assurance assessment visit. The purposes of the QA assessment visits are to appraise the quality, efficiency, and effectiveness of each individual course in training Soldiers and provide feedback to key leaders.

The visit to the 25F and 25Q present some unique challenges to both the QA division and the 15th Signal Brigade Training Development Division over and above the challenges presented by previous QA assessments of the MOS 25P: Microwave Systems Operator – Maintainer course, which took place in FY04.

For both the 25F and 25Q courses these challenges are:

Due to the Transformation of the Army, both these courses are currently in the midst of a major revision of equipment, course materials, training strategies, and training tasks. This includes the addition of a Warrior Ethos Field Training Exercise in all courses, new training in routers in the 25F course, and the addition of new simulators in both courses.

Also, the vast majority of both courses are taught by General Dynamics under contract to the Signal Center and Fort Gordon. This means that co-ordination between the Contracting Officer's Representative, General Dynamics' training development and training departments and the 15th Signal Brigade TDD had to take place to facilitate the QA division's classroom observations and other activities at the contractors.

The QA Division assesses the course in 24 Accreditation Standards, broken down into three Performance Areas. The three Performance Areas are Conduct of Training, Training Support, and Proponent Functions.

Below are the 24 Training and Doctrine Command accreditation standards in the three performance areas:

Conduct of training

1. Institution complies with established instructor-to-student and equipment ratios.
2. Instructors meet qualifications and have evidence of having met proponent technical certification requirements.
3. Institution administers the required current, approved course materials (including tests) that train AC and RC Soldiers to the same task performance standard.
4. Institution conducts training that minimizes accident risk in both training and operations.
5. Institution conducts training that protects the environment.
6. Institution implements sequential, progressive training by scheduling and conducting training in accordance with the mandatory training sequence.
7. Instructors/cadre perform their instructional duties and responsibilities in accordance with regulatory guidance and lesson objectives.
8. Students can perform to the prescribed learning objective standards.
9. Institution provides students the opportunity to develop and demonstrate their leadership skills and knowledge in a performance-based environment.
10. Institution uses required ranges and training areas as prescribed.

Training support

11. Institution has corrected shortcomings identified during previous accreditation evaluations.
12. The institution is staffed and manages manpower effectively to meet mission requirements.
13. Institution provides required equipment, TADSS, ammunition, pyrotechnics, training material, consumable supplies, and references as prescribed.
14. Institution evaluates and tracks instructor/cadre performance and takes action, as appropriate, to sustain, improve, and develop instructor/cadre performance.
15. Facilities are adequate to promote learning and meet learning objectives (includes barracks, classrooms, shop areas, ranges, training areas, and learning facilities).
16. Institution has policies, procedures, and oversight in place to ensure effective training and administrative support.

Proponent functions

17. Institution has a Quality

assessments in FY05

Assurance Program in place to conduct and ensure implementation of internal and external evaluations to improve, sustain, and develop effective education and training.

18. Institution has an effective system in place to forecast, update, and monitor its training and leader development-related resourcing requirements.

19. Proponent develops and maintains training products based on current and approved critical tasks and task analysis data.

20. Proponent designs and develops efficient, effective, and relevant active component and Reserve component training to the same task performance standard, using (as appropriate) live, constructive, and virtual training.

21. Institution develops and provides valid and reliable criterion-referenced tests.

22. Education/training reflects current joint, Army, and branch doctrine (e.g., contemporary operating environment, opposing forces) at the appropriate level and incorporates lessons learned from Combat Training Centers, unit operational deployments, and the Center for Army Lessons Learned.

23. Institution has a Staff and Faculty Development Program in place and develops its staff and faculty to meet regulatory, institutional, and career development requirements.

24. Institution and its subordinate training organizations develop, publish, and follow command training guidance in accordance with the Army's training doctrine.

The 15th Signal Brigade TDD is looking forward to the QA assessments with an eye to improving the training of Signal Soldiers, to make them tactically and technically proficient to support the Army in the Global War on Terrorism.

Mr. Baker is currently the Area Communication Training Development chief in the 15th Signal Brigade at Fort Gordon. He has worked in the Signal Regimental Officers Academy (now the 442nd Signal Battalion) and the School of Information Technology as a training developer.

Baker is a graduate of the Trainer Developer Intern Program (CP-32 series 1750) at the Signal Center and Fort Gordon. He has served as a U.S. Army Field Artillery officer and is a graduate of the University of Missouri at Columbia and Paine College in Augusta, Ga.

Acronym QuickScan

COE – Contemporary Operating Environment
MOS – Military Occupational Specialties
TADSS – Training Aids, Devices, Simulators, and Simulations
TDD – Training Development Division
OPFOR – Opposing Forces
QA – Quality Assurance

22nd Sig Bde

begins transformation in the midst of deployments

by MAJ Maureen L. O'Connor

As the Army transforms, the warfighter's requirements do not wait. The 22nd Signal Brigade, having recently returned from Operation Iraqi Freedom, is in the midst of transformation while continuing to support U.S. Army Europe's Victory Corps.

After leaving a majority of their data extending packages in system for 3rd Signal Brigade and III Corps to use for Operation Iraqi Freedom 2, the 22nd Signal Brigade units reconstituted, refurbished, and obtained additional communications assets to support the V Corps (5th Corps) in Germany.

Through steadfast hard work and mission focus, this mighty brigade hastily fielded and conducted new equipment training days before V Corps' first major simulation exercise in October 2004. Through the dedication and determination of the Soldiers and leaders, 22nd Signal Brigade successfully enabled V Corps to communicate again. As they now prepare for future operations, they also plan to upgrade what equipment they currently do have to improve the ability of the warfighting commanders in V Corps to more efficiently command and control their units.

Supporting V Corps during the ground war campaign and the subsequent transition to Combined Joint Task Force-7, 22nd Signal Brigade experienced first hand the requirement commanders on the battlefield have to extend data and video services directly from strategic entry points to their command posts. As a result, they developed and employed ad hoc data packages with commercial, satellite terminals and borrowed several more from sister brigades to establish the huge corps communications infrastructure.

Because funding and satellite resources were limited, not every command post received support via data packages. Instead, mobile subscriber equipment assets were used to extend the communications services to outlying command posts. As 22nd Signal Brigade recognizes the long wait for their transformation, MSE will continue to be a viable means to extend services until new equipment is fielded to the European Army units.

As the ground war campaign came to a halt and the CJTF-7 was established, the communications architecture was formed around command post clusters. The result was a large network anchored by key data packages reaching back to strategic Defense Information Systems Agency managed entry points. When III Corps replaced V Corps in theater, the requirement to leave these central hubs in system was readily apparent. As a result of this requirement, the Department of the Army, G-6 funded six replacement data packages for the 22nd Signal Brigade. Naval Air Command in conjunction with BAE systems was chartered to design and develop these systems.

During the reconstitution phase of their redeployment, the Soldiers of the brigade were faced with a tremendous amount of restore and repair tasks due to the harsh environmental conditions their equipment was, exposed to during the many months in system. In addition, they faced major personnel turnover and the training requirement for the newly arrived Soldiers

As 22nd Signal Brigade recognizes the long wait for their transformation, MSE will continue to be a viable means to extend services until new equipment is fielded to the European Army units.

was great. Even Soldiers returning from deployment but not leaving the unit required refresher training as it had been many months since they had actually installed their systems. Finally, the battalions each experienced key upgrades to some of their equipment that also required time and training - both of which were scarce resources as the V Corps exercises loomed on the horizon.

In recognition that MSE would remain the workhorse in the V Corps network for some time to come, the 22nd Signal Brigade worked in concert with the program manager for the Tactical High Speed Data Network upgrade and funded what they called the quad multiplex upgrade for some of their units. The QMUX upgrade included the installation of Extended range Enhanced Transmission Group Module/Order Wire and High-Speed Forward Error Correction circuit cards, fiber-optic modems with fiber cables, and most importantly the QMUX box used for the THSDN 8 Mb fielding. What the QMUX upgrade did not include was the High Speed Line-of-Site radios used in THSDN 8Mb. The capability gained with QMUX was increased bandwidth. From 1024 Kbs links, the newly upgraded systems allowed 2048 Kbs links to be installed.

The 22nd Signal Brigade was initially allocated funds for the 17th Signal Battalion and the 440th Signal Battalion but later changed the priority from the 440th to the 32nd Signal Battalion. Additionally, 440th Signal Battalion was on scheduled to upgrade their AN/TRC-193 and AN/TRC-85 tactical satellite assemblages with the Enhanced Tactical Satellite Signal Processor.

The 17th Signal Battalion was the first to redeploy from the Central Command region in the fall of 2003 and subsequently was the first to enter their reconstitution phase. By the spring, they had already upgraded all six of their node center switches, their 26 small extension nodes and their large extension node because of the new fiber-optic capability, the QMUX upgrade required training equivalent to the level a unit would receive after new equipment fielding. The 17th Signal Battalion planned and executed an aggressive training plan culminating with the two separate exercises where they provided support to the V Corps' Major Subordinate Command: 69th Air Defense Artillery Brigade and V Corps Artillery. By the fall of 2004, the battalion was preparing for another real world mission requiring deployment to CENTCOM region again.

Ensuring the right information systems are communicating with one another at the right time and assisting with information management to allow commanders access to the necessary intelligence when making decisions is the imperative.

The 32nd Signal Battalion, after redeploying to Germany in February of 2004, was the second to go through a QMUX upgrade. Funding was only available for them to upgrade four of their six NCS, their LEN and all 76 of their SENs. In the middle of their reconstitution phase, they also had the difficult challenge of training Soldiers and leaders to use both the current THSDN capability and the newly enhanced QMUX capability.

Because of the significant changes made to the AN/TRC-190 (V) 3 line-of-site assemblages, the engineering element in their S-3 shop has to be keenly aware of which systems were upgraded and which were not when designing their networks. The battalion conducted several switch exercises and small unit level training events to prepare themselves for their role in supporting the V Corps units.

The 440th Signal Battalion also redeployed on a similar timeline with the 32nd and the remaining 22nd Signal Brigade Headquarters elements in the winter of 2004. Though they did not receive any of the QMUX upgrade their tactical satellite assets in the 578th Signal Company that operate with the Defense Satellite Communications System satellite constellations received significant upgrades. They Were retrofitted with the L3 modems in concert with their ETSSP upgrade which allow for an aggregate data rate of 8.216 Mbs where each group port was upgraded to support up to 2,048 Kbs.

In addition to an enhanced capability, the unit incurred a substantial training requirement for their Soldiers. With Communications Command teams from Germany and the United States, the unit received tremendous support to assist them. In addition to the upgrades to their on hand equipment, the 22nd Signal Brigade also received their first three of six data packages from the Department of the Army via NAV AIR in September 2004.

Because of lessons learned from their OIF deployment and recent operational requirements specifically in the information assurance arena, the packages were actually reconfigured as they were delivered.

The end result was a Promina 400 multiplexer based package with a hub capability for LandWarNet (U) and LandWarNet (C) connectivity. Though not delivered with the first three systems, a private branch exchange, video teleconferencing and Defense Red Switch Network suite were capabilities these packages were able to provide to V Corps command posts.

On the local area network side of the CPs, the Corps Automation Office also received new servers for their initial Active Directory migration late in the summer. The automation section built the tactical servers under this new architecture. In addition, they built new servers for

collaboration tools such as Sharepoint and other services in September to be used in both garrison and tactical environments on the LandWarNet (C) networks.

By late September, the 22nd Signal Brigade deployed to Grafenwoehr training area and Wiesbaden Army Airfield to support the V Corps' first major simulation exercise since their return from Iraq.

Just weeks before the exercise, not only were major hardware and software configurations being made but an intensive training program was instituted at all levels. The most significant of these was the training program for the three newly identified data package teams.

From cable making and basic routing instruction to advanced firewall implementation and accessing Defense Information Systems Network networks through Defense Satellite Communications System Standardized Tactical Entry Point facilities as well as local 5th Signal Command units, these Soldiers attended an intense five-week data package "boot camp" under the experienced tutelage of CW3 Freeman Myers, the senior network technician for 22nd Signal Brigade. With incredible hard work and focused leadership, the Soldiers of the brigade provided exceptional support for the exercise and were commended for their accomplishments.

As this first of many corps level exercises demonstrated, the focus from the communications unit for the warfighter must be end-to-end connectivity. Providing adequate pipes for the information is essential but it is just the beginning. Ensuring the right information systems are communicating with one another at the right time and assisting with information management to allow commanders access to the necessary intelligence when making decisions is the imperative.

With the success of this first exercise behind them, they continue to look for ways to improve capabilities. As the Army transforms, the main effort for resources being appropriately focused toward the division units changing to Units of Action.

As a result, no new equipment fielding from the Army is expected in the next two fiscal years. The 22nd Signal Brigade will improve upon existing capabilities by incorporating the three additional data packages that have arrived in November and leveraging available resources provided from V Corps to fund additional upgrades. In the plans are continuing with the QMUX upgrades to the remaining battalions including the two Division Signal Battalions to enhance the corps' infrastructure.

Two additional areas of concentration for improving capabilities include providing better troubleshooting tools for all levels and providing replacements for on-the-move assets left in Iraq.

Two additional areas of concentration for improving capabilities include providing better troubleshooting tools for all levels and providing replacements for on-the-move assets left in Iraq. Included in the improvements planned for troubleshooting tools are enhanced capabilities for network operations elements from SEN team to brigade level.

A tremendous effort was demonstrated by the warriors in the 22nd Signal Brigade over the past year. From redeployment and reconstitution challenges encountered, the Soldiers transitioned immediately to new equipment upgrades and the follow on training accompanying the upgrades.

Expertly, they negotiated these challenges to culminate in a superb performance on the first of many warfighter exercises. As the 22nd Signal Brigade forges ahead, they will continuously improve upon their capabilities to provide the best communications support available for the warfighting commanders of V Corps.

MAJ O'Connor is the brigade network engineer and chief of the Systems Integration Branch of the 22nd Signal Brigade in Darmstadt, Germany. She is a FA24, information systems engineer. She received her masters degree in information technology management from the Naval Postgraduate School in 2003. As the chief integrator, MAJ O'Connor has been responsible for the fielding, training, maintenance, and employment of the brigade's data packages, as well as, the architect for the deployed MSE and data package network.

Acronym QuickScan

CECOM - Communications-Electronics Command
CJTF-7 - Combined Joint Task Force-7
CP - command posts
DISA - Defense Information Systems Agency
DISN - Defense Information Systems Network
DRSN - Defense Red Switch Network
DSCS - Defense Satellite Communications System
EETGMOW - Extended range Enhanced Transmission Group Module/Order Wire
ETSSP - Enhanced Tactical Satellite Signal Processor
FOM - fiber optic modems.
HCLOS – High Capacity Line-of-Site
HSFEC-4 - High-Speed Forward Error Correction
LAN - local area network
LEN - Large Extension Node
MSE - Mobile Subscriber Equipment
NA V AIR - Naval Air Command
NCS - Node Center Switches
OIF-I - Operation Iraqi Freedom
OTM - On- The-Move
PBX - private branch exchange
QMUX - Quad Multiplex
SEN - Small Extension Node
STEP - Standardized Tactical Entry Point
THSDN - Tactical High Speed Data Network
V Corps – 5th Corps
VTC - video teleconferencing

Training ensures V Corps Signal teams 'walk the walk' to let units talk

by SPC Michael Howard

DARMSTADT, Germany — Maybe they're not rappelling down 500-foot cliffs or jumping out of C-130s with 80 pound rucksacks, but the Soldiers of V Corps 578th Signal Company, 22nd Signal Brigade, recently spent six days in the rain and cold proving their ability to provide communication to the corps is just as vital to the Army's warfighting mission.

Signal Soldiers seldom rappel off cliffs to provide phone and Internet service, but to ensure the uninterrupted flow of crucial messages that drive every unit's missions, each signal team must maintain certifications in its distinct skills. If signal is the backbone of the Army's missions, signal team certifications are the "dead lifts."

Team certifications are a series of training events that ensure a signal unit is ready to deploy. They help to train individual Soldiers in their jobs and solidify the bonds between teams, said SSG John J. Wilhelm, a tropospheric scatter radio team chief for the 578th.

On Oct. 15 the 578th's "tropo platoon" completed the final portion of that training at the 6910 training area near Kelley Barracks.

To certify, teams had one hour and 45 minutes to erect a tropo shelter, troubleshoot the system, and make a successful signal "shot" – with no safety violations along the way.

"It's pretty simple. You shoot, you hit the troposphere, which is part of the atmosphere, it bounces down to a different station, and they catch it using the dishes on their shelters," said SPC Joseph Jackson, a tropospheric scatter radio operator.

"[The certification] went pretty well," said Wilhelm, "We had some equipment issues, but we worked through them. We have some pretty good equipment here. I think we're well on our way to deployment-ready status."

The official reason for the team certifications was to ensure that the signal teams are proficient on their equipment. But across the board, leaders agreed that the teamwork forged out of the exercises was by far the greatest benefit.

"This operation will bring your team closer together than they have ever been. It makes you work as a team. You can't do this alone. This is a four-man job with a three-man team, so we have to bond close enough where we're thinking as one. It's the biggest thing you can do with a new Soldier — making him part of the team," said Wilheim. Certifying all tropo teams will make a huge difference in the unit's upcoming deployment, explained the platoon's operation control evaluator, SFC Rodrick Randall.

"When you go 'downrange,' and you know that the team is certified — (that) they work well together and all the team members are proficient in their tasks — performance is increased threefold," said Randall.

Wilhelm claimed that with the vital skills that they reinforce and the teamwork that they foster, the certifications are critical to the unit's success.

"It's not an option to fail this," he said. Everyone is going to get it, and they're going to get it quick. Everyone's motivated and we're driving on. Everybody's picking up what they need to do," he said.

SPC Howard is assigned to Headquarters Company, 22nd Signal Brigade, Darmstadt, Germany and has been with the unit for more than a year. He has deployed to Iraq in support of Operation: Iraqi Freedom.

V Corps Signal Soldiers train to 'own the night'

by SPC Michael Howard

GRAFENWOEHR TRAINING AREA, Germany – One hour past midnight and going to bed was nowhere in sight. But the Soldiers of V Corps' 578th Signal Company remained alert as their safety coach explained how to drive without headlights in the middle of the night. In less than five hours those Soldiers had to be ready to conduct their morning exercise drills. SSG Anthony Vasquez, non-commissioned officer-in-charge of training, explained safety procedures as troops readied for their first night vision goggle driving course.

"The main intent behind this training is to make sure these guys are confident [driving with night vision goggles]," said Vasquez. "Reading about it isn't enough. They have to see it. If they can trust themselves and the Soldier in front of them, then they'll be prepared to get the real thing done down the road."

This NVG training is part of a two-week team certification program, made up of both Soldier and signal tasks, that ensures that 578th Signal Company Soldiers are qualified to do their jobs "downrange" when they deploy. "Once we complete the training, we will be officially Army qualified to run tropo [tropospheric scatter signal tasks] down in Iraq. We're training now, so that we'll be efficient on the job once we're downrange," said PFC Eric Perkins of the 578th.

SPC Joseph Jackson assists PFC Benjamin Bergfelt in attaching his night vision goggles to their holder.

In addition to being one of the most popular exercises of the program, the Soldiers apparently think that it is one of the most useful. "If they can't see us, they can't shoot us," said Perkins. "We could have our lives on the line soon, and it's good to know that we've been given the best training possible."

"Once we're downrange, let's say that we're in the middle of something and we have to go to blackout. These guys will be on point. They've had the classes; they know what to look for. Also, if they're ever in NTC [National Training Center], they can pass the training to their Soldiers down the road. It's just passing down the knowledge. That's what it's all about," added Vasquez.

SPC Howard is assigned to Headquarters Company, 22nd Signal Brigade, Darmstadt, Germany and has been with the unit for more than a year. He has deployed to Iraq in support of Operation Iraqi Freedom.

Data package training speeds signal transformation

by SPC Michael Howard

The next time you deploy to Iraq or Afghanistan, the tools of today's general could be in the hands of your company commander. As the Signal Corps transforms, today's Soldier reaps the rewards, thanks in part to the 22nd Signal Brigade's data package training, according to MAJ Maureen J. O'Connor, the 22nd Signal Brigade engineer.

The Signal Corps is changing more than ever before, according to O'Connor. "The difference between [the current communications network] and the transformed Signal Corps are dramatic. I don't know if the Signal Corps has ever changed this drastically in its history."

The 22nd Signal Brigade launched into the transformation headfirst. With O'Connor at its head, the brigade S-3 and engineering used existing equipment and space to create a training center of vital importance, almost cost-free.

"The Army is transforming and we're taking the initiative to transform with it. But the Army can't provide the material to every unit. So the 22nd Signal Brigade is picking up the slack," said O'Connor.

Next time you go to the field, your internet connection speed could go from "dial-up" to "cable." The data packages 22nd Soldiers are training on create a reliable, stable network many times faster than the current system, according to CW3 Freeman Myers, a V Corps network manager and data package class instructor.

The class provides training on these packages, but not without some challenges, according to the class instructor. "The bottom line is, we have to train these guys on a whole lot of things in a very short time," said Myers. "To that effect, we set up the testing and training facility to provide these Soldiers with an environment in which they can learn this equipment."

Lisa Collins, a senior field specialist trainer and class instructor, assists students in subnetting an IP address.

Without 22nd taking the initiative to train Soldiers on data packages, a future deployment could be hampered by a general of lack knowledge of the network in future theaters of operation. "When we redeploy, we will be able to integrate smoothly with the equipment already there, and our Soldiers will have the knowledge to operate it."

As well as being in line with the needs of the Army, the training is quite popular with and beneficial to the Soldiers. "This is a great class. There's no other class where you learn so much so fast. It expands my career potential because it sets me up for CCNA, and you get to work on some of the Army's most sophisticated equipment," said SPC Claudius Atkinson, of B Co 440th, a former network operator and soon to be data package operator.

"The Soldiers are champing at the bit to get into this class. They want the training, and they see that not only the Army, but the rest of the world is going in this direction, and they're dying to join in," said O'Connor.

SPC Howard is assigned to Headquarters Company, 22nd Signal Brigade, Darmstadt, Germany and has been with the unit for more than a year. He has deployed to Iraq in support of Operation: Iraqi Freedom.

ACRONYM QUICKSCAN

CCNA – CISCO Certified Network Associate

Iraqi Security Force communications in AO danger

by CPT Paul LaRoque

One of the most daunting tasks faced by 1st Infantry Division during Operation Iraqi Freedom II was the formation and organization of Iraqi Security Forces.

Due to the political situation of mistrust among the Iraqi populace regarding coalition forces, it was essential that the coalition stand up security forces consisting of Iraqis. Along with uniforms, weaponry, ammunition, and transportation, communication equipment was a major priority in order to allow effective command and control among ISF leadership and their subordinate units.

The key concept behind enabling an effective ISF was the creation of the Joint Coordination Center, one of which was formed in each major city in Area of Operations Danger, the 1ID AO. Additionally, 1ID stood up a Provincial JCC in each Province in the 1ID AO in order to direct emergency services at a provincial level. Each PJCC reported to the National Joint Operations Center in Baghdad, the central command authority for emergency actions. All total, there were four PJCCs and 21 JCCs in the 1ID AO (see Figure 1).

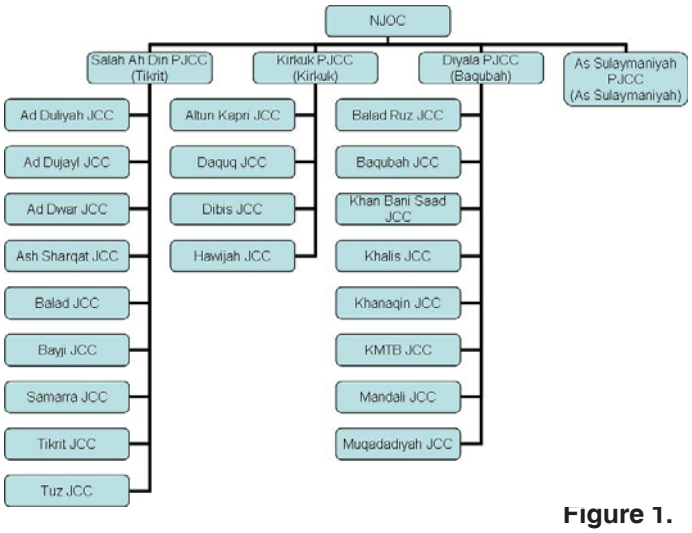


Figure 1.

Essentially the JCC performed as an Emergency Operations Center with representatives from the police, Army, medical community, and fire department working in coordination under a JCC director. The job of the JCC was to collate information and direct a response according to the needs of the situation. Whether the reported event was a crime, medical emergency, fire, or terrorist act, the JCC possessed the resources to direct the required personnel to the event location.

In order to affect a proper response, each JCC required a robust and reliable communications system. 1ID implemented several methods of communication for use by the JCCs. While not entirely reliable between all echelons of command and control, Iraqi commercial telephones and AsiaCell phones were the

US Forces Motorola XTS-5000

Zone A					
Chn #	Channel Alias	Rx Freq	Tx Freq	PL CODE	Freq Hz
6	ING	413.4250	413.4250	4B	146.2
7	IPS	413.4250	413.4250	5Z	151.4

Iraqi Army Motorola GP660/680

Chn #	Rx Freq	Tx Freq	PL CODE	Freq Hz
1	413.4250	413.4250	YZ	82.5
2	413.4250	413.4250	YA	85.4
3	413.4250	413.4250	3B	131.8
4	413.4250	413.4250	4Z	136.5
5	413.4250	413.4250	4A	141.3
6	413.4250	413.4250	4B	146.2
7	413.4250	413.4250	5Z	151.4
8	408.6750	408.2500	WZ	69.3
9	413.4250	413.4250	XA	71.9
10	413.4250	413.4250	CSQ	CSQ
11	413.4250	413.4250	WB	79.7
12	413.4250	413.4250	ZZ	91.5
13	413.4250	413.4250	ZB	97.4
14	413.4250	413.4250	1A	103.5
15	413.5000	413.5000	CSQ	CSQ
16	414.5625	418.9625	WZ	69.3

Iraqi Police GP340

Chn #	Rx Freq	Tx Freq	PL CODE	Freq Hz
1	457.5875	457.5875		
2	457.7875	457.7875		
3	457.9875	457.9875		
4	458.2750	458.2750		
5	458.5625	458.5625		
6	458.6250	458.6250		
7	413.4250	413.4250	5Z	151.4
8	464.2875	459.2875		
9	413.4250	413.4250	XA	71.9
10	461.0125	461.0125		
11	435.9500	435.9500		
12	467.7625	462.7625		
13	463.4000	458.4000		
14	462.9000	457.9000		
15	458.2500	458.2500		
16	460.6625	460.6625		

Figure 2.

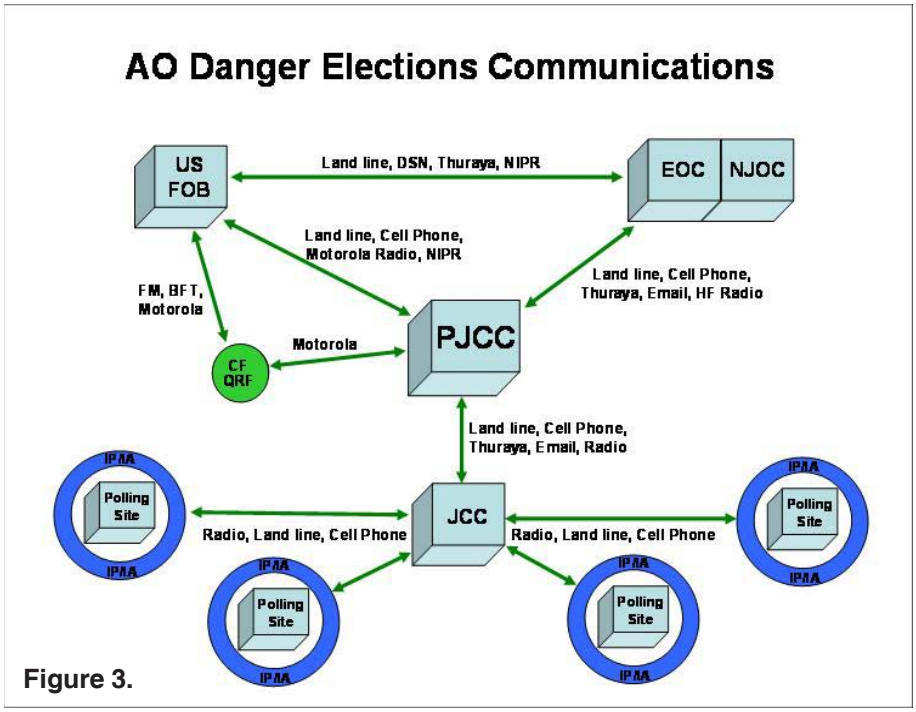


Figure 3.

primary means of communication between the JCCs.

In order to augment the spotty Iraqi telephones, 1ID equipped each JCC with Thuraya satellite telephones, satellite internet packages, and a high frequency radio system supplied and installed by Multi National Forces-Iraq. These additional systems allowed reliable and redundant communications between the cities, provinces, and national headquarters in Baghdad.

The JCC also served as a central collection point for actionable intelligence by ISF and coalition forces. Each JCC established a three digit "tip line" similar to the U.S. "911" and publicized it through Psyops and flyers handed out while on patrol. The tip lines resulted in multiple reports by Iraqis of suspicious terrorist activity, as well as, serving as an emergency number to call in case of a crime, fire, or medical emergency.

Not only did 1ID need to ensure positive communications between the JCCs, we also needed to ensure C2 among Iraqi police stations and Iraqi Army headquarters. Additionally, it was also necessary to ensure the mobile ISF elements had adequate communications with each other and their higher headquarters while out on patrol.

Close coordination with coalition agencies as well as commercial service providers enabled 1ID to equip ISF with a robust communications network. For the ISF, with the assistance of MNSTC-I, we concentrated on mobile radio systems in the form of Motorola hand held and vehicle mounted radios. Additionally, Motorola base stations were purchased for installation in the ISF Headqurters and JCCs which allowed for communications between the controlling authority and ISF providing mobile security.

Although the IPS and IA had different radio models and different frequency plans for their respective radio systems, 1ID G6 designed a frequency plan that allowed the two types of radio systems to communicate with each other, enabling critical coordination between the police and military. Additionally, this frequency plan also had channels that matched frequencies US forces used in their Motorola XTS-5000s, allowing communications between all three agencies (see Figure 2).

A month before the elections, the 1ID cavalry squadron and maneuver brigades provided a Soldier each to G6 and over the course of a week programmed 3,250 Motorola radios with the newly designed frequency plan. In turn, the Soldiers received hardware and training on how to program radios and were able to go back to their units and reprogram previously issued ISF radios.

The communication systems provided to the ISF proved essential in maintaining a secure environment for Iraqi voters during elections. With the Iraqi army, police and Coalition forces able to cross talk and communicate, suspicious personnel and the inevitable attacks were rapidly contained and dealt with (see Figure 3).

The strenuous effort by the Big Red One G6 and unit S6s ensured positive command and control between Iraqi and coalition security forces during the elections. On Jan. 30, 2005, not a single unit reported being unable to achieve positive communications with Iraqi police and Army personnel. Communications were truly a force multiplier on election day.

CPT LaRoque is currently serving as a G6 Operations Officer in First Infantry Division. Commissioned from the U.S. Military Academy in 1995, LaRoque's previous assignments include Platoon Leader in A/307th Signal Battalion, 1st Signal Brigade; Assistant S-3 (Operations) in 16th Signal Battalion, 3rd Signal Brigade; and Commander of 11th Signal Detachment, 5th Signal Command. He most recently served as the commander, Headquarters and Headquarters Company, 5th Signal Command.

Acronym QuickScan

1ID – 1st Infantry Division
AO – Area of Operations
ISF – Iraqi Security Forces
MNF-1 – Multi National Forces-Iraq
NJOC – National Joint Operations Center
PJCC – Provincial JCC
JCC – Joint Coordination Center

U.S. Army Signal Center command historian continues collection effort for information on Signal units and individual participation in the Global War on Terrorism!

LTC Joe Brendler, former commander of the 123rd Signal Battalion delivers historical information CD to Jim Timmerman of Janus Research Group, at the 32nd Signal Regimental Symposium in December 2004. JANUS Research Group continues to contact Signal soldiers and commanders to support the Signal Center Command Historians Office with the GWOT collection effort.

The Global War on Terrorism historical collection effort got off to a great start during the 32nd Annual Signal Symposium. There were many visitors who stopped by to chat and share information with the team members of Janus Research Group, Inc., who are supporting the Signal Center Command Historian in the effort to document the experiences of Signal soldiers and units during the GWOT. The collection team is comprised of Gary Ostby, Darryl McRae and Jim Timmerman of Janus Research Group, Inc.

The effort was announced to the Signal community at the symposium and through a message sent to the leaders of the Signal Regiment by MG Janet A. Hicks, chief of Signal, in November 2004.

The GWOT is defined as any military operation performed by the United States Army since Sept. 11, 2001, to include but not limited to: Operation Noble Eagle, Operation Enduring Freedom, and Operation Iraqi Freedom. The type of information sought includes any unclassified documents, hard copy or digital, pertaining to the participation or involvement of any Signal unit or Signal personnel in the fight against terrorism. All information collected will be deposited into the Signal Corps archives at Fort Gordon, which holds documents and materials related to almost 150 years of Signal Corps history. All members of the Signal Regiment are encouraged to contribute to the history and heritage of their branch so that future generations may know of their accomplishments during the GWOT.

We all remember the experiences of the veterans we have known in our lives. Now is the time for all members of the Signal Regiment to think about how they will be remembered by future generations of Signal Soldiers.

You may contact the collection team at GWOTcollection@gordon.army.mil or at (706) 364-9100, ext 187 or 190. Download all necessary guidance and information from the Signal home page on the Army Knowledge Online web site.

We look forward to hearing from each of you. Remind all Signal Soldiers that history is the soul of the U.S. Army.

– Steven J. Rauch
Signal Center Command Historian

Acronym QuickScan

AKO – Army Knowledge Online
GWOT – Global War on Terrorism
OEF – Operation Enduring Freedom
OIF – Operation Iraqi Freedom
ONE – Operation Noble Eagle
U.S. – United States

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Circuit check

News and trends of interest to the Signal Regiment

NEWS

Coalition Multinational Network ready in time to support operations vs. insurgents

by Stephen Larsen

BAGHDAD - Just in time to support coalition operations to clear insurgents out of Fallujah and other hotbeds, the U.S. Army completed and fielded the Coalition Military Network, a new Internet Protocol-based, network-centric satellite communications system.

The CMN provides bandwidth on-demand services, with high-quality voice capabilities and secure broadband data communications for the Coalition's Multi-National Division, which includes U.S., British, Polish, Ukrainian, Korean and Filipino forces.

Implementation of the CMN is part of the Kuwait Iraq C4 Commercialization program, through which the Army is providing enduring communications infrastructure for U.S. and Coalition forces.

According to LTC Joseph Schafer, the Army's project manager for the KICC program, the CMN provides remote coalition bases in Iraq services including secure and non-secure voice, Nonsecure Internet Protocol Router Network and the Combined Enterprise Regional Information Exchange System, a coalition secret data network.

"The CMN extends the Global Information Grid to the coalition's remote sites in Iraq," said Schafer. "Our vision is to strike a balance between the need to deliberately build out the GIG at the major base camps and to quickly extend the GIG to more temporary locations."

John Hildreth, KICC's project leader for the CMN project, said the network gives coalition users at remote sites access to the same quality of communications as at larger, more established locations.

Contractors who installed the Coalition Military Network, a new Internet Protocol-based, network-centric satellite communications system for the Coalition's Multi-National Division in Iraq, stand by the system's hub in Baghdad (left to right): Jason Blanke of DataPath; James Fischer of Lockheed-Martin; James Schuman of DataPath; Raymund Manaois of Lockheed-Martin; and Stephen Arthur of DataPath.

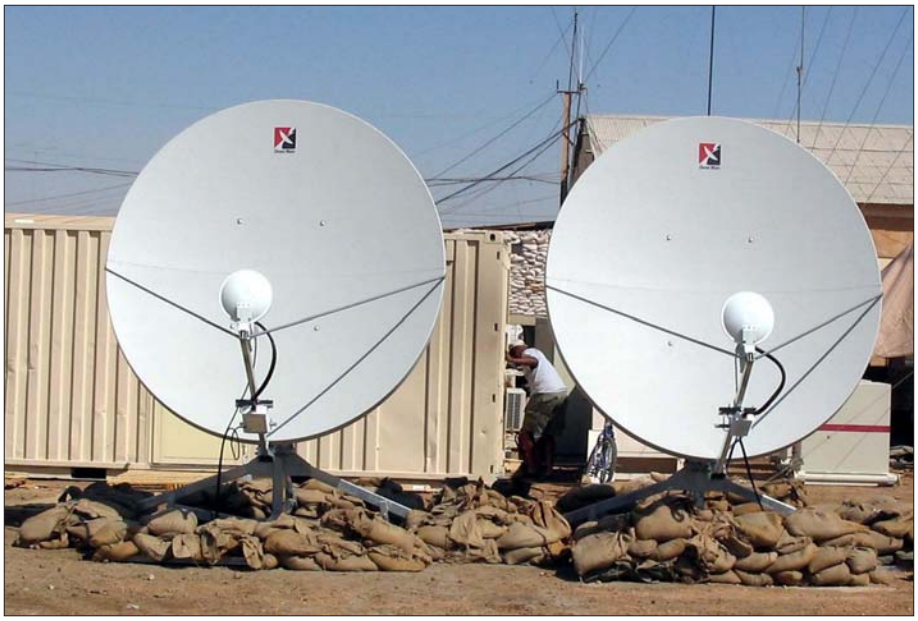
"The CMN allows for command and control communications between on the ground forces and the headquarters," said Hildreth, "and gives the sites a data and FAX capability where they didn't exist before."

TDMA/DAMA provide bandwidth on demand for warfighters

Ron Mikeworth, a project coordinator for the CMN effort, said the CMN reduces satellite usage by dynamically expanding and contracting bandwidth, based on the user's instantaneous needs, using bandwidth-on-demand technologies such as multi-frequency Time Division Multiple Access/Demand Assigned Multiple Access.

"This allows the system to expand and reduce the bandwidth used, base on actual, instantaneous, requirements, rather than paying for the wider bandwidth all the time when users only need it part of the time," said Mikeworth - which could reduce satellite leasing requirements by up to 60 percent. "The only way to determine exact savings would be to do extensive traffic studies," said Mikeworth.

At the hub for the CMN in Baghdad, the Army can keep its fingers on the pulse of the entire CMN, said Jason Blanke, a contractor for DataPath, who helps to keep the hub up-and-running. "We can monitor, maintain, troubleshoot and turn off-and-on the 20 remote terminals in the network," said



Shown are two satellite terminals that make up one of the 20 remote nodes of the Coalition Military Network in Iraq. Between the two terminals, a contractor technician enters a container that served as a combination shipping trailer, communications and operational trailer and temporary sleeping quarters for the contractors until housing became available.

Blanke.

For voice communications, Mikeworth said the CMN employs a full-mesh topology. "Think of the network as a wheel," he said, "with chords across the wheel connected to every other node. Each node in the CMN network can talk directly with every other node going through the satellite, but without having to go through the hub."

Blanke pointed out that the CMN's voice network uses only a single satellite hop, reducing satellite delay by 50 percent. "This means significant improvements in voice quality and secure call reliability for Coalition users," said Blanke.

Mikeworth said the CMN provides hub-spoke Local Area Network to Wide Area Network access. "For data, all the nodes in the CMN are connected to the hub, like spokes in a wheel, through the satellite," said Mikeworth. "This allows every node in the CMN that may be associated with a LAN to connect to another LAN outside the network through the hub and its connections in the WAN."

Because they used Very Small Aperture Terminals for the 20 remote nodes, said Hildreth, they were able to achieve economies.

"This means the user doesn't physically need as large a system for the same capabilities as would be required for a dedicated amount of bandwidth," said Hildreth. "This allows the system to be moved in a much quicker and less costly manner than larger, dedicated bandwidth systems with the same capability. CMN systems, as configured, are not mobile; however, they can be de-installed and moved to a new location and re-installed relatively easily."

But when you're in Iraq, the words "relatively easily" are… well, relative. Ralph Meacham, the KICC program's Deputy for Advanced Planning, pointed out that the installation team often slept in the same containers in which equipment was shipped.

"The containers served as a combination shipping trailer, communications and operational trailer and interim crew quarters facility," said Meacham. "We found that at about half our sites the containers ended up being the temporary sleeping quarters for the contract operators until their housing became available."

Building the GIG in a war zone

Mikeworth told how the installation team members – including technician from the prime CMN contractor, Lockheed-Martin, and sub contractors DataPath and ViaSat - faced dangers as they traveled by truck in convoys through hostile territory to complete installations at remote sites.

"One time, we were delayed because a bridge we were going to cross had been blown up," said Mikeworth. "The team ended up being delayed for two more days until it was 'safe' to convoy."

To get the equipment to another site, Mikeworth said a 10-ton bucket truck was required to lift the antenna onto a roof top, so the large bucket truck became a part of the convoy, along with up-armored Humvee gunships.

"Without the assistance of the Soldiers who helped us transport the equipment to sites, our work in Iraq would have been extremely more difficult," said Mikeworth. He thanked the 711th Signal Battalion, Alabama National Guard, specifically LT Matt Kelly; the 111th Signal Battalion, South Carolina National Guard, specifically LT Monica McGrath and SGT Robin Goode; and the 3rd Signal Brigade, specifically CPT Clair Crowe-Chaze.

"It was really amazing watching a large bucket truck traveling at convoy speed (about 70-to-80 kilometers per hour) and pulling the required maneuvers as it went under the overpasses in the Red Zone of Baghdad," said Mikeworth.

It is these dangers and challenges, said Schafer, that set the work of the KICC program apart from other project management efforts.

"Combat operations continue, insurgency has driven up costs and troop strength has increased rather than decreased," noted Schafer. "But despite it all, we're leveraging IP-based technology - we're fielding comms that meets the requirements of the Transformational Communi-

cations Architecture - and we're doing it in a war zone. The CMN represents a tremendous capability for GIG extension in the AOR (Area of Responsibility)."

Mr. Larsen is a public affairs officer with Program Executive Office, Enterprise Information Systems at Fort Monmouth, N.J.

A CALL for Information

by CPT Nate Bollinger

Preparing to deploy to Iraq or Afghanistan? Are you looking for the training material specified in the pre-deployment training requirements outlined in Forces Command message "071608Z JUN 04"? Do you need the latest techniques and tactics for IED avoidance? If so, let the Center for Army Lessons Learned help you prepare.

The Center for Army Lessons Learned consists of a staff of multi-disciplinary, multi-skilled professionals who focus on meeting the needs of the Joint, Interagency, and Multinational force. Since 1985, CALL has served as the Army's executive agent for collecting, analyzing, and distributing lessons learned, tactics, techniques and procedures and solutions. Traditionally, CALL focused on brigade and below tactical lessons learned but most recently CALL has evolved to include the division and above operational level in addition to the Joint, Interagency, and Multinational levels.

CALL has been forward deployed in all major operations beginning with Operation Just Cause in Panama (1989) to Operations Desert Shield/Storm (1990-1991) through Operation Restore Hope in Somalia (1993). During operations in the Balkans from 1995 through present, CALL collected lessons learned from Operations Joint Endeavor, Guard, Forge and Guardian in both Bosnia and Kosovo. Most recently, CALL has 'embedded' subject matter experts with units serving in Operations Enduring Freedom and Iraqi Freedom as well as deploying small (7-10 person) collection and analysis teams to better serve forces in theater and forces preparing for deployment by collecting and rapidly disseminating emerging insights and observations. Not only does CALL collect information on current operations, but also on rotations at the Combat Training Centers. Lessons passed to the CTCs from combat operations serve to improve the quality of training focused on the contemporary operating environment while lessons learned from unit rotations at the CTCs serve to better prepare the total Army for deployments and operations.

The CALL secure and non-secure websites serve as the central repository for insights, observations, lessons learned and TTPs that can be used to improve the total force. The Center for Army Lessons Learned also has an automated Request for Information system that allows DoD personnel to contact CALL in order to gain more information or to narrow a search. In addition to all this, the Center for Army Lessons Learned also has the ability to send printed hard copies of our products to the users in the field. The Signal Corps, as with most other branches, have representation at CALL. MAJ Rick Fox represents the regiment and provides recommendations to the Signal center on changes to our doctrine, organization, training, material, leadership, personnel and facilities as part of the DOTMLPF division (Doctrine, Organization, Training, Material, Leadership, Personnel and Facilities).

When the time comes to prepare for deployment or to share your own lessons, turn to the Center for Army Lessons Learned for valuable observations, insights and lessons. NIPR: http://call.army.mil or SIPR: https://call.army.smil.mil. DSN: 552-3035/2255.

CPT Bollinger is assigned to the Center for Army Lessons Learned, at the Combined Arms Center-Training, Fort Leavenworth, Kan. He has experience serving as both a platoon leader and company executive officer in the 286th separate signal company, Fort Bliss, Texas and commanded in the 141st Signal Battalion, 1st Armored Division during Operation Iraqi Freedom.

Call's public page (http://call.army.mil) is the gateway for DOD personnel.

Click on the **DoD Personnel Area:** This will take you to the DEERS login page.

The Signal Corps, as with most other branches, has representation at CALL. MAJ Rick Fox represents the regiment and provides recommendations to the Signal center on changes to doctrine, organization, training, material, leadership, personnel, and facilities.

Bollinger is a 1994 graduate of Indiana University of Pennsylvania.

BOLC GETS GREEN LIGHT FOR OFFICER EDUCATION

by Lisa Alley

FORT MONROE, Va. – The Army is preparing to move from pilot programs for the Basic Officer Leadership Course into implementing BOLC in July 2006, senior officials announced February 2005.

The four installations named to conduct the second phase of BOLC are: Fort Benning, Ga.; Fort Bliss, Texas; Fort Knox, Ky.; and Fort Sill, Okla. BOLC – part of a comprehensive initiative to transform the Officer Education System – will be for officers both in the active and reserve components, along with selected special branch officers, officials said.

They said officers will attend BOLC as their initial-entry training. BOLC's goal is to "develop competent and confident leaders imbued with a Warrior Ethos who, regardless of branch, are grounded in fieldcraft and are skilled in leading Soldiers, training subordinates and employing and maintaining equipment," according to the BOLC Charter Task Force.

OES is being transformed so that it better supports the goals of increased readiness, greater relevance of the force and a more joint and expeditionary Army, officials said."Leader development – while educating them to think broadly – must prepare them for the complexities on the battlefields they'll see when they join their first units," said GEN Kevin P. Byrnes, U.S. Army Training and Doctrine Command's commanding general. "We're fighting a small-unit war. It's being fought by staff sergeants, sergeants first class, lieutenants and captains every day," Byrnes said.

"They're the ones out on patrol; they're the ones who are in this extremely complex environment where things change from the minute they leave their compound until they return that evening. They may never get to accomplish the objective they had set for the day because things happen en route. We've got to make sure our leaders are prepared for those complexities and changes and have a framework to refer to, a handrail to grab on to, and an understanding of foundational concepts."BOLC has three phases and is designed to ensure a tough, standardized, small-unit leadership experience that flows progressively from each phase. BOLC's Phase I is the precommissioning phase, according to Byrnes, and includes training conducted at the U.S. Military Academy, Reserve Officer Training Corps and officer candidate schools.

2LT Veltum, a Transportation Officer Basic Course student, leads fellow students through tactical maneuvers during Manassas Run, a week-long training exercise that ended Oct. 17, 2004, at Fort A.P. Hill, Va. Officer basic courses for all branches becomes the Basic Officer Leadership Course, which emphasizes Warrior Ethos and fieldcraft during BOLC's Phase 2.

In BOLC I, each officer candidate and cadet will be steeped in the Army's values and traditions and will possess clear knowledge of what it means to be an officer."We've established the standards in all three commissioning sources – the standards for instruction [officers] receive before commissioning," Byrnes said.

To that end, USMA, ROTC and the OCSs are revising their curricula to train future officers in basic Soldier and leader tasks performed by all lieutenants, using the same standards and programs of instruction regardless of the commissioning source. After lieutenants are commissioned, they go to BOLC's Phase II, the initial-entry field-leadership phase.

BOLC II is a rigorous six-week, branch-immaterial course in small-unit leadership and tactics designed to challenge officers physically and mentally, officials said. Forts Benning, Bliss, Knox and Sill will host officers training in this phase.

"Eighty percent of BOLC II will be conducted in a field environment," Byrnes said. "All officers will receive common instruction before going off to their branch technical courses. This is a major shift."

BOLC II classes will be organized into companies with five 40-student platoons and will have a mix of officers from the different components, branches, commissioning sources and genders. The platoon is the focal point during the course as each student is challenged in a series of situational leadership exercises based on contemporary operating environment scenarios, officials said. During this "hands-on" phase,

BOLC II's curriculum will include physical-fitness training, foot marches, combatives training, advanced land-navigation training, rifle marksmanship, weapons training, practical exercises in leadership, nuclear, biological and chemical operations, use of night-vision equipment and several confidence courses featuring difficult obstacles that challenge students to overcome personal fears.

"Officers will graduate from BOLC II with greater confidence, a greater appreciation for the branches of the combined arms, and a clearer picture of their own personal strengths and weaknesses, officials said.

"Immediately following BOLC II, officers will go to BOLC III, the branch technical phase, to learn the specialized skills, doctrine, tactics and techniques of their assigned branch. Since BOLC III is branch-specific, these courses will be taught at the appropriate TRADOC school-house or training center and range from six to 14 weeks. The training is being revamped to make greater use of experiential training to enhance the quality and effectiveness of the branch-specific course, officials said.

"Upon graduation from BOLC III, officers will proceed to their first unit or attend more assignment-oriented training."All this will be introduced to the Army in fourth quarter '06," Byrnes said. "The pilots [for BOLC II] begin fourth quarter '05 at Fort Benning. They'll continue to expand pilots again in second quarter '06, with the formal program for lieutenants going in place in fourth quarter 2006."

Byrnes is the Army leader responsible for BOLC, as TRADOC is the Army's executive agent for BOLC's implementation. TRADOC developed BOLC to replace the branches' officer basic courses based on Army Training and Leader Development Panel findings released in May 2001.

Pilot courses have been going on since Fiscal Year 2001-02, and TRADOC moved the transition from OBC to BOLC closer in FY04 by revising programs of instruction from those initial pilot courses. TRADOC will conduct the final single-site BOLC II pilot with 200 officers at Fort Benning in the fourth quarter of FY05 and update POIs again, if needed, officials said.

Multi-site BOLC II pilots will follow with 200 officers at each BOLC II site (Forts Benning, Bliss, Knox and Sill) in the second quarter of FY06, officials said. They said multi-site BOLC III pilots will be conducted in the second and third quarters of FY06. As Byrnes said, full implementation of BOLC will begin in the fourth quarter of FY06.

U.S. Army Cadet Command is the proponent for BOLC I and II. Cadet Command is part of U.S. Army Accessions Command, which is TRADOC's major subordinate command serving as the functional proponent for initial military training.Branch commandants are the proponents for the branch-specific BOLC III.

BOLC training is designed to be sequential and progressive, and most officers will attend the three phases in logical sequence, officials said. But they added that in some cases, particularly with special branch officers, it may be necessary to attend BOLC II after BOLC III.

Ms. Alley edits the TRADOC News Service where this article first appeared. She is the former editor of the Army Communicator *magazine.*

AWARDS

Awards given to three 516th personnel

by Bill McPherson

FORT SHAFTER, Hawaii — Three 516th Signal Brigade personnel were honored by LTG John M. Brown, III, commanding general, U.S. Army Pacific, at an award ceremony March 17.

MSG Eduardo A. Zayas, brigade Equal Employment advisor, and David A. Millard, chief of the brigade's Task Force-Active Directory, received the 2004 USARPAC Outstanding Staff Noncommissioned Officer and Civilian of the Year awards.

CPT Kimberly Hamilton, the 516th's plans and exercise officer, was also honored as the runner-up USARPAC Outstanding Staff Officer of 2004.

Zayas was cited for "proactively spearheading and leading programs on behalf of equal opportunity, human rights, race relations, and affirmative action."

In the nomination package, his brigade commander, COL Brian J. Donahue, wrote, "MSG Zayas goes the extra mile in ensuring that our ethnic heritage and affirmative action luncheons are creative, interesting and educational – from dressing women Soldiers in uniforms from various eras of the U.S. Army for Women's History Month, to having volunteers in costumes providing vignettes for the audience to guess their names (e.g., Louis Armstrong, Rosa Parks, George Washington Carver for Black History Month).

"He brings the events to 'life," gets the audience's attention, and in the process he teaches them about the rich heritage of our diverse Army workforce," Donahue said.

MSG Eduardo A. Zayas, brigade Equal Employment advisor, received the 2004 USARPAC Outstanding Staff Noncommissioned Officer award.

Millard was recognized for directing the transformation of the Pacific LandWarNet, USARPAC's computer network. As chief of Task Force-Active Directory, Millard oversaw the migration of the theater's network to the Army's new enterprise Active Directory and Exchange 2003 architecture during 2004.

"This project favorably impacted all 21,000 users of USARPAC computers," Donahue explained. "Theater-wide, we went from 110 admin domains to only one forest and admin domain, and we went from 100 mail servers with decentralized administartion to six fault-tolerant, hardened servers with a new centralized admin management system."

By the Army's Dec. 31, 2004, deadline, the USARPAC migration was 99 percent complete – more than any other theater in the Army, Donahue added.

"This transformation of the Pacific LandWarNet resulted in significant improvements for USARPAC's computer network defense posture and faster, more reliable email service for all 21,000 users within the theater," Donahue said. "Dave and his team accomplished in months what many believed would take years – and their work was recently proclaimed by the Army's Chief Information Officer as a model for the rest of the Army."

Hamilton was cited for her contributions as the lead Signal Corps officer for the planning and execution of 25th Infantry Division (Light)'s Warfighter Exercise, Talisman Saber 05, Terminal Fury 04, and for Joint Task Force WARNET (Wide Area Relay Network).

"As our lead for USARPAC's new JTF-Homeland Defense, Kim extensively planned and executed the JTF's overall command, control, communications, computers and intelligence requirements from the ground up," Donahue said.

"This involved identifying the challenging communications requirements with a wide range of support scenarios across an environment composed of multiple DoD, state and federal agencies with different C4 (command, control, communications and computers) baseline requirements," Donahue added.

"Kim is proactively planning ahead to give JTF-Homeland Defense the very latest and proven interoperable C4 capabilities available in today's market," Donahue said.

Mr. McPherson is with the 516th Signal Brigade.

ISEC engineer Meacham of KICC program is honored as one of top C4ISR personnel of 2004

by Stephen Larsen

Ralph Meacham, an employee of the U.S. Army Information Systems Engineering Command at Fort Huachuca, Ariz., has been selected as one of the 12 Outstanding C4ISR (Command, Control, Communications, Computers, Intelligence, Sensors and Reconnaissance) Personnel of the Year for 2004 by the Communications-Electronics Life Cycle Management Command.

Meacham, who provides matrix support to the Kuwait Iraq C4 Commercialization program – the multi-billion dollar program through which the Army is providing enduring communications infrastructure for U.S. and Coalition forces in Southwest Asia - will be recognized at an awards ceremony on March 24, at Fort Monmouth, N.J.

As the KICC program's Deputy Assistant Project Manager for Advanced Planning, Meacham was one of the four original personnel who, in June 2003, created a functioning, entirely-new project management organization in a war zone. He is being cited for his work in 2004 in successfully integrating resources – including people, processes and industry and government capabilities - to provide C4ISR systems to support Operation Iraqi Freedom.

"I am an engineer by training and experience," said Meacham. "I was blessed with some early experiences that educated me to fact the 'systems' are more than electronic boxes – this is even truer of the KICC mission. My goal has been to put together the web of experience so we could pull together elements to field complex systems which deliver essential battle command to the force through battlefield acquisitions processes."

"Ralph has a unique talent for successfully leveraging the skills of the entire team – including partners – to develop solutions you may not have originally considered," said LTC Joseph Schafer, the project manager for the KICC program.

A case in point: Because of the threat of car bombs, vehicles and drivers must undergo thorough security checks before being admitted through gates at bases in Iraq - a painstaking and time-consuming process, during which concrete can cure before getting to where it's needed.

"We found that many loads of concrete – which we needed for pads to support satellite terminals and microwave towers – cured during the wait and had to be dumped," said Schafer.

Meacham, with the input of industry partners, came up with an out-of-the-box solution – the KICC team built concrete plants and housed local workers right on Camp Victory in Baghdad and Camp Anaconda in Bilad.

"You don't usually think of concrete as an IT product," noted Schafer. "This decision has saved time and money by avoiding the need for loads of concrete to be dumped because it has cured while waiting to get through a gate. Plus, it has avoided having concrete trucks destroyed and local workers killed or wounded in transit by insurgents."

Positive motivator and mentor

Meacham was also cited for being a positive motivator, empowering members of the KICC team to successfully perform more complex assignments than they ever had before.

"Mr. Meacham knows what needs to take place to field systems,

but he passes this on and doesn't micromanage," said John Hildreth, a communications specialist who, under Meacham's mentorship, successfully served as project leader in implementing the Coalition Military Network. "He lets me run, allowing me to learn by mistakes, but at the same time, he's always there should I need him to give me advice and help me keep things on track. He has slowly increased the difficulty of the tasks he's given me, to the point where I can manage my time better and find out what I need to do by a particular time to meet project goals."

Joseph Abel, KICC's Deputy Assistant Project Manager for Operations, cited a series of reasons why Mr. Meacham is held in high esteem.

"Start with his knowledge," said Abel. "He seems to know everything about government agencies work, the processes required to get things done, the rules of what you can do and what you can't do. He is untiring and unwavering in his dedication – he works on vacation days and is there for everybody, all the time. Plus, he's friendly - everybody likes him, and his sense of humor keeps people on even keel. He's not a bad systems engineer, either."

"The KICC program would be dead without Ralph Meacham," said Schafer. "He is a C4ISR 'force multiplier' for us, from contracting through engineering. Ralph has a knack for recognizing the implied tasks necessary to execute the missions and getting them executed, for seeing unintended consequences and then pointing the right person in the right direction. He is the model of what C4ISR personnel should be."

"It is the KICC team of great people that makes all this possible," said Meacham. "Every face or name one sees on the KICC team is backed by dedicated folks in industry, in other government organizations and on the home front."

Meacham holds a bachelor of science degree in electronic engineering from Cal Poly State University, San Luis Obispo, Calif., and has

Ralph Meacham (left), an engineer with the U.S. Army Information Systems Engineering Command at Fort Huachuca, Ariz., has been selected as one of the 12 Outstanding C4ISR (Command, Control, Communications, Computers, Intelligence, Sensors and Reconnaissance) Personnel of the Year for 2004 by the Communications-Electronics Life Cycle Management Command. With him is John Hildreth (right), a communications specialist who, under Meacham's mentorship, successfully served as project leader in implementing the Coalition Military Network in Iraq.

more than 28 years of service performing Echelon-Above-Corps and sustaining base communications engineering and operations and maintenance functions in the Active Army, civil service, U.S. Army Reserve and Delaware National Guard.

Also cited as Outstanding C4ISR Personnel of the Year for 2004 are COL James Meredith of the U.S. Army Communications-Electronic Command Logistics and Readiness Center; Michelle Goode of the CECOM Acquisition Center; Medhat Abuhantash of the CECOM Software Engineering Center; George Brady of Tobyhanna Army Depot; Charles Carter of the CECOM LRC; Lynne Fleury of the CECOM Deputy Chief of Staff for Personnel; Walter Harbort of the CECOM Legal Office; Larry Lashine of the Communications-Electronics Research, Development, and Engineering Command; Paula Nilsson of the CECOM Logistics Modernization Program Office; Mark O'Neill of the Program Executive Office, Intelligence, Electronic Warfare and Sensors; and Lawrence Smith of the CECOM Deputy Chief of Staff for Operations and Plans.

Mr. Larsen is a public affairs officer with Program Executive Office, Enterprise Information Systems at Fort Monmouth, N.J.

Maintenance, supply awards presented

FORT HUACHUCA, Ariz. (NETCOM/9th ASC) – Signal brigades in Germany and Korea won 10 of 13 awards in this year's maintenance and supply award programs. The senior leadership in U.S. Army Network Enterprise Technology Command/9th Army Signal Command took time during the annual Commanders' Conference to recognize all the units who exceeded the standards. MG James C. Hylton and CSM Ronald Desjardins, NETCOM/9th ASC commanding general and command sergeant major, presented the awards to the brigade commanders during the ceremony.

The winners and runners-up of the NETCOM/9th ASC level of the Army Award for Maintenance Excellence are:

Small MTOE Category
Winner – 11th Signal Detachment, 43rd Signal Battalion, 2nd Signal Brigade
Runner-up – Headquarters Company, 307th Signal Battalion, 1st Signal Brigade

Medium MTOE Category
Winner – 181st Signal Company, 43rd Signal Battalion, 2nd Signal Brigade
Runner-up – 501st Signal Company, 36th Signal Battalion, 1st Signal Brigade

Large MTOE Category
Winner – 72nd Signal Battalion, 7th Signal Brigade
Runner-up – 41st Signal Battalion, 1st Signal Brigade

Small TDA Category
Winner – 6981st Civilian Support Group, 2nd Signal Brigade

Medium TDA Category
Winner – 39th Signal Battalion, 2nd Signal Brigade
Runner-up – 52nd Signal Battalion, 2nd Signal Brigade

The winners and runners-up of the NETCOM/9th ASC level of the Supply Excellence Award Program are:

Level I (A) – MTOE Company/ Detachment
Winner – 11th Signal Detachment, 43rd Signal Battalion, 2nd Signal Brigade
Runner-up – B Company, 302nd Signal Battalion, 21st Signal Brigade

Level I (B) – MTOE Battalion
Winner – 58th Signal Battalion, 516th Signal Brigade

Level III – Property Book Operations
Winner – 58th Signal Battalion, 516th Signal Brigade

"These units can take pride in their accomplishments," said CWO Amy Cox, support maintenance officer, NETCOM/9th ASC Supply and Logistics Directorate (G-4). "The leadership of these units is commended for instilling the creativity, the personal involvement, and above all, the pride in service necessary to achieve the demonstrated high level of performance."

Category winners compete at Army-level maintenance and supply competition, with results released in April.

Acronym QuickScan

AOR – Area of Responsibility
ASC – Army Signal Command
C4ISR – Command, Control, Communications, Computers, Intelligence, Sensors and Reconnaissance
CAATS – Collection and Analysis Teams
CALL – Center for Army Lessons Learned
CECOM – Communications Electronics Command
C-E LCMC – Communications-Electronics Life Cycle Management Command
CMN – Coalition Military Network
CENTRIXS – Combined Enterprise Regional Information Exchange System
CTCs – Combat Training Centers
DAMA – Demand Assigned Multiple Access
FI – Request for Information
GIG – Global Information Grid
ISCE – Information Systems Engineering Command
KICC – Kuwait Iraq C4 Commercialization
LAN – Local Area Network
LRC – Logistics and Readiness Center
MND – Multi-National Division
NETCOM – Network Command
NIPERNET – Nonsecure Internet Protocol Router Network
TCA – Transformational Communications Architecture
TDMA – Time Division Multiple Access
TTPs – tactics, techniques and procedures
VSATs – Very Small Aperture Terminals
WAN – Wide Aarea Network

(Chief of Signal Comments continued from inside front cover)

Wargame III. You'll know when this happens because we need to have your experience and expertise to get this right.

LandWarNet Wargame II was a labor of love, headed up by the futures team at the Signal Center. That futures team is the Directorate of Combat Development, the Training and Doctrine Command Systems Managers for Warfighter Information Network-Tactical, Satellite Command, and Tactical Radio, and the Signal Center Battle Command Battle Lab.

At the helm of the team was COL Jeff Smith, the deputy commander. He brilliantly translated the findings of the wargame participants into compelling operational revelations that resonated with fellow commandants and leaders across the Army. It was a thing of beauty.

We received full endorsement of the way ahead and validation of the thoroughness of the effort. Be on the lookout for announcement of Wargame III ... we want to know what you think! The LandWarNet concept grew from our initial work for GEN Peter Schoomaker called Task Force Network. TF Network and LandWarNet have consumed unbelievable amounts of energy and effort in the last 18 months, but it's been work with unprecedented results in the speed at which the Army has made investments and decisions to better "network enable" the force.

None of it could have been achieved without the team effort of Chief Information Officer/G6, Network Command, Communications-Electronics Lifecycle Management Command, Defense Information Systems Agency, our sister Army branches, the joint community and operational units across the force.

My congratulations to you for the success of LandWarNet and my thanks to you for making a difference in the future of our Army.

Well done, Signal Regiment!!

Thank you for what you do every day to enable the force.

ARMY Communicator

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