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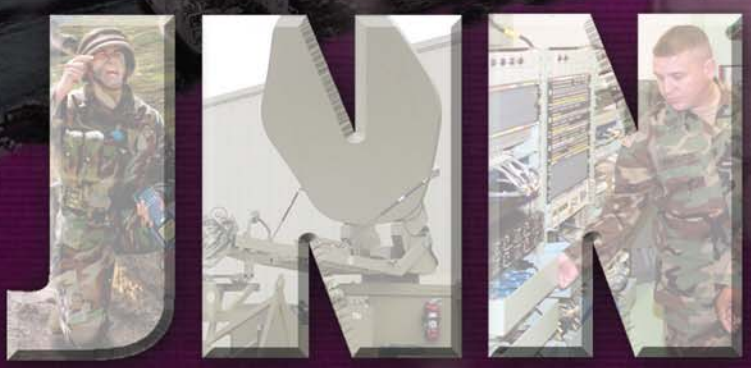

JOINT NETWORK NODE

Bringing important battlefield enablers to Soldiers and Commanders as we continue to migrate to the Warfighter Information Network - Tactical (WIN-T)

Chief of Signal's Comments

Now is exciting, critical time for Regiment

This is an exciting time to be at the Signal Center and I'm honored to have the opportunity to serve as your Chief of Signal. As I've worked to get up to speed with everything that's going on, the analogy of leaping onto a fast-moving train seems appropriate.

These are critical times for our Army and for the Signal Regiment. We have to identify requirements, procure and field new systems, write doctrine, and train Soldiers and leaders so our Army can continue to fulfill its global commitments as it transforms to better meet future challenges. And we have to orchestrate these efforts with the Army Campaign Plan, the rotation schedule, the budget cycle, and the development of major new systems. It's a very challenging course.

Our key transformation task is building the network that will enable battle command of highly deployable and mobile modular forces that increasingly rely on information.

Even as we fielded mobile subscriber equipment more than 20 years ago, we could see the growing demand for data and on-the-move command and control. To meet that demand we initiated the Warfighter Information Network-Tactical program. And WIN-T was defined as more than a simple "next generation" capability; it was to reach out beyond existing technology to address emerging warfighting requirements and overcome "immediate obsolescence."

To give WIN-T the time it needed to mature new technologies, we believed we could take risks and stretch the life of MSE and TRI-TAC systems. But Operation Enduring Freedom and Operation Iraqi Freedom showed that MSE could not meet the warfighter's immediate need for battle command of fast-moving, non-contiguous units. The intermediate solution was a smaller, lighter, and more capable system called the Joint Network Node, and increased use of space-based relays down to the lowest operational levels.

BG Randolph P. Strong
Chief of Signal

As the 3rd Infantry Division converted to a UEx-like structure and prepared to return to Iraq, we fielded an off-the-shelf version of the JNN. 3ID Signal warriors have been doing great things with the JNNs, and through their feedback we're making improvements to the next generation of JNNs. We're also using their experience to adjust UEx Signal force structure, doctrine, and training, and to help better define the WIN-T program.

That's a start. The next challenge is figuring out how to support the UEy—the merger of former corps and echelons-above-corps units. Unlike UEx units, most UEy units have no organic network support capability. Instead, they must receive network support from the UEy's Integrated Theater Signal Battalions. The merging of theater and many corps functions at the UEy level significantly increases the number of CPs the ITSBs have to support. And many of these UEy functional units will be routinely called on to operate in the UEx area of operations, adding a more mobile dimension to the ITSB's mission.

We've been working closely with Headquarters Department of the Army Chief Information Officer/G-6, Training and Doctrine Command, Network Enterprise Technology Command, and the field commands to come up with the right force structure and equipment mix to do the job. We plan to continue equipping UEx organic Signal units with JNNs and smaller Command Post Nodes as they convert to the modular structure. At the same time we'll increase the ITSB's support capability from 15 CPs to 27 CPs by adding a provisioning platoon in each company. Initially, we'll equip the provisioning platoons with MSE from deactivating corps Signal battalions. We'll displace the MSE with JNNs and CPNs as quickly as they can be procured, with the goal of completely removing MSE at the earliest possible date. Then, as WIN-T begins fielding in UEx units we'll "cascade" to the UEy the displaced JNN components.

The introduction of JNNs and CPNs will bring important battle command enablers

(Chief of Signal Comments continued on the inside back cover.)

We plan to continue equipping UEx organic Signal units with JNNs and smaller Command Post Nodes as they convert to the modular structure.

... as WIN-T begins fielding in UEx units we'll "cascade" to the UEy the displaced JNN components.

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Mary Ann Brehm

Cover: This edition of the *Army Communicator* cover reflects statements found in the Chief of Signal Comments.

UEx organic Signal units are being equipped with Joint Node Networks and smaller Command Post Nodes as they convert to modular structure. MSE will be displaced with JNNs and CPNs as quickly as they can be procured, with the goal of completely removing MSE.
Cover by Billy Cheney

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No mission *too difficult*, no sacrifice *too great*, duty first!

Aircraft over site: two Blackhawk UH-60 helicopters take off from the landing zone near B/121 command post and NC52 in forward operating base Warhorse.

By CPT Julia M. Donely

121st Signal Battalion, responsible for the communications systems of the 1st Infantry Division, lived up to the division motto while deployed to Iraq during Operation Iraqi Freedom II. Using legacy equipment, commercial off-the-shelf equipment, and sometimes rather unorthodox methods, we strove to fulfill every mission and request of the division's 15,000 subscribers.

This article outlines some of the more creative and unconventional ways in which we provided voice and data to the Big Red One in the desert.

From February 2004 to February 2005 the brigade-sized "Task Force 121st Sig." supported the 1st Infantry Division in North Central Iraq (Multi-National Division-North Central). Using 12 big switches, 48 small extension nodes, 19 remote access units, four Super RAUs, 14 secure mobile anti-jam reliable tactical terminals, and three ground mobile force terminals, run by 1,027 Soldiers, Danger's Voice provided voice and data communications support to units across an area the size of West Virginia, making this one of the largest division level mobile subscriber equipment networks in the history of the Army.

In 12 months 121st Sig. Bn. supported 1,280 division non-secure voice terminal phones processing an average of 4,775 calls per hour and 738 non-secure Internet Protocol router subscribers, 2,083 secure Internet Protocol router subscribers passing an average of 125 GB of data per day.

The eight-company, 12 switch, 1,027 Soldier battalion obviously did not deploy from Germany to Iraq with that exact task organization. While in Kuwait, we received four additional companies to complete the task force. B/125th Sig. "Hele On" came from 125th Sig. Bn. out of Hawaii in support of 2/25 Infantry Brigade. B/279, Alabama National Guard, deployed with 30th enhanced Separate Brigade, the North Carolina National Guard enhanced Separate Brigade. 711th and 115th Sig. Bns. deployed to Iraq with the rest of the 142nd Sig. Bde. units (29th Sig. and 279th) as general support. Each battalion gave up one of their companies – C/711 and A/115 - to 121st Sig. Bn. to complete the Multi-National Division-North Central network.

Company areas of responsibility

When faced with the problem of supporting three division command posts and 11 major subordinate commands with seven signal companies LTC James Garrison, 121st Sig. Bn. commander, decided to retain all companies under Signal Task Force Control. Any team within the network was considered to be a

Company A, 121st Signal Battalion Soldiers convoy from Kuwait into Iraq.

part of the battalion, and reported to System Control.

In order to integrate the attached units into network command and control, each company was tasked to provide one non-commissioned officer to SYSCON on either a permanent or rotating basis. SYSCON was therefore no longer a faceless entity, but a team of personnel from all units within the task force. For signal support requests, Garrison relied on the division S6s to report directly to G6 – thus providing one source for all signal issues.

In order to clearly define the signal battle space, Garrison designated company areas of responsibility at the beginning of the deployment. Any team that fell within their area of responsibility belonged to that company commander for all network, supply, maintenance, personnel, and Uniform Code of Military Justice issues or actions.

All Soldiers, regardless of the patch on their left shoulder, were treated as members of the team. This philosophy greatly decreased the number of convoys on the road and provided maximum support to the Soldiers.

Communications control board

In order to coordinate communications support throughout the 1ID area of operations, Garrison directed the employment of a communications control board. This group consisted of the battalion commander, S3, and personnel from SYSCON, G6, and the network operations center. In addition, S6s and company commanders were invited to attend. This board met weekly to discuss data routing issues, new equipment fielding, network statuses and generated ideas to improve signal support to the warfighter. Many of the following innovations were conceived during a communications control board.

Data packages

The battalion did not have sufficient assets to provide the number of phones and data lines required by the division's subscribers. Early on in planning stages, we identified a requirement for data packages, conceptually based on the 7th Sig. Bde. packages.

The Battalion Net Tech, CW2 Dannie Walters, placed the order for seven packages outfitted to support Prominas with Program Executive Office command, control and communications tactical two months prior to deployment. PEOC3T delivered the equipment to the battalion in February in Kuwait, and the data packages joined the long convoy north.

Due to a lack of transmission assets for the packages, only two were initially installed – one to support division main command post and another for division rear command post. The Kuwait-Iraq command, control, communications, and computers commercialization project managers promised Garrison two deployable Ku-Band Earth Terminals should the battalion provide the backside equipment. Kuwait-Iraq C4 Commercialization delivered two deployable Ku-Band Earth Terminals to area of operation Danger in May of 2004. By August of 2004 both systems were installed and operational, each providing a six MB pipe to corps, four MB internal and either a two or four MB DISN gateway.

Installation of the remaining data packages required patience and ingenuity. Two BCTs were located 10 KM from the DMAIN data package, and therefore within MSE line-of-sight range. C/121 and A/121 installed LOS V1s at each end of the link between Forward Operating Bases Danger and Dagger, creating a 2MB link between packages.

This link provided additional NIPR, SIPR and long local telephones to the Brigade Combat Team headquarters. Since three BCTs, and 30 eSB were unreachable by LOS, we waited for means to install the links via satellite. In December, the battalion received Tropospheric Scatter Assets for 2/25 BCT, freeing a 93C satellite terminal for the link between DMAIN and three BCT

data packages.

Each BCT received two long locals with world-wide DSN and commercial capabilities in addition to the extra data available.

NIPR

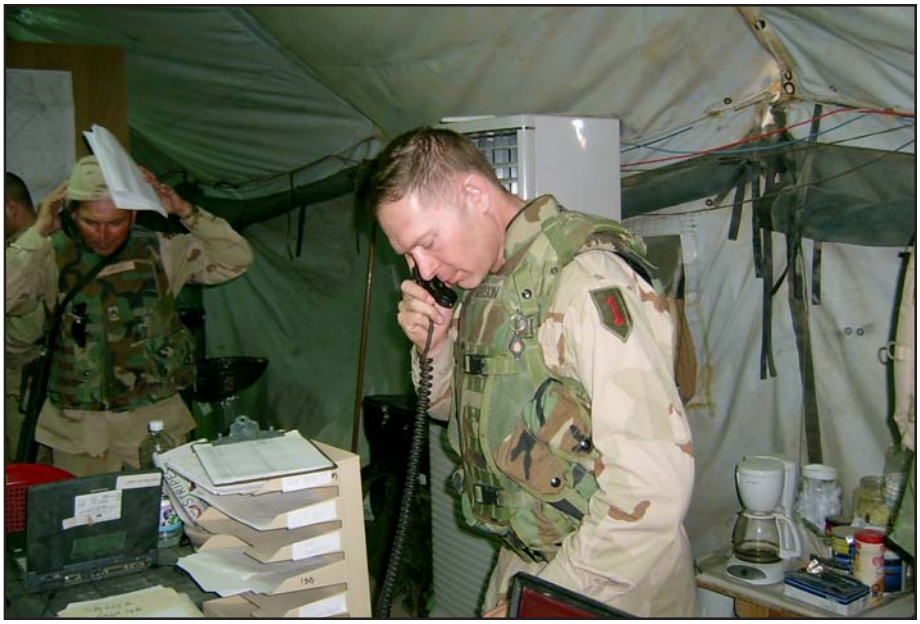
One of the worst misconceptions in the signal community is the belief that there is little to no legitimate need for NIPR in theater. NIPR is not merely an Morale, Welfare, and Recreation capability for Soldiers – it is a highly used, mission essential data requirement for many different units.

Medical units require NIPR for Medical Protection System and other NIPR based software to include long distance surgery assistance. Finance has a heavy requirement for NIPR since most of their databases are on the NIPR and not SIPR network. All maneuver units used NIPR-based Defense Transportation Reporting and Control Systems which allowed the commander to view the location of his units in real-time on the battle field.

These requirements in addition to the retention, personnel, supply purchasing, and legitimate MWR requirements caused the unit S6s to demand real NIPR from the signal battalion.

In response to the unit requests, two network engineers in SYSCON, SFC Larry Martin and SSG James Gallagher researched and installed a generic routing encapsulation tunneling network for NIPR running through the SIPR MSE path. Prior to this installation, all NIPR was single source, with one tactical fastlane gateway at SYSCON. All 1ID users were provided sub-netted IP addresses and searched through the network to FOB Danger where they competed for access to the DISN cloud.

With the installation of data packages and TACLANEs at each BCT HQs, SFC Larry Martin and Gallagher were able to link each BCT TACLANE providing the ability to use additional gateways located at DMAIN, DREAR, and 2/25 BCT HQs. This allowed them to load balance the NIPR data requirements among multiple gateways and immediately re-route data during outages. While this did not provide T1 access to every user, it did make real NIPR available for valid mission requirements.



LTC James Garrison communicates from the Company B Signal Battalion command post located in the forward operating base Warhorse.

Quality of service

1ID subscribers had an insatiable appetite not only for SIPR and NIPR data, but for secure voice as well. As the last division non-secure voice terminal was handed out, we turned toward Voice over Internet Protocol. At the time VoIP was not a new or unique means of communication. 1st Cavalry Division and III Corps were throwing their DNVT phones out of the window and putting a VoIP terminal on every desk. Third Infantry Division was packing their containers with VoIP terminals, throwing in a few DNVTs just to be safe.

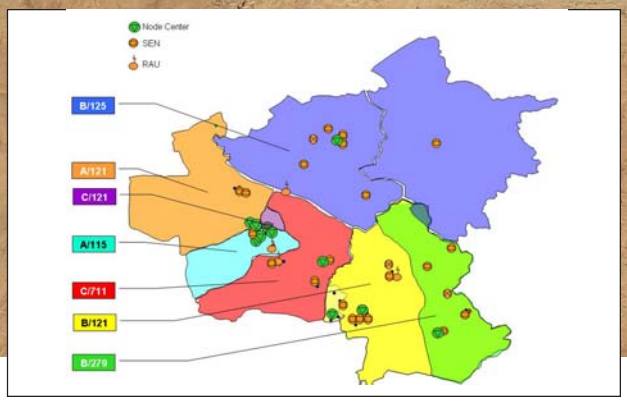
The differences between those networks and ours were bandwidth restrictions and satellite connectivity. CW3 Phillip Van Engen solved our bandwidth and latency problems through quality of service. Over a three week period, Van Engen installed additional memory and imaging operating system upgrades in all routers in the network enabling QOS services.

This provided chief and the network engineers with another method for controlling data routing. QOS allowed them to weight different data bits – giving voice and video a higher priority over other forms of data. This not only increased the quality of all VoIP calls, but our TANDBERG Internet based video teleconference calls as well.

Super RAUs

With only 48 SENs available for use in the network, 121st Sig. Bn. was not able to provide voice and data capabilities to all units with mission requirements. In order to help meet those needs, CECOM Logistics Assistance Representative Chris Cadorette and 121st Sig. Bn. Electronic Maintenance Section technicians created the Super RAU. By sacrificing four RT-1539 radios, manufacturing some cabling, and procuring a few extra routers, 121st Sig. Bn. created the SRAU that provided three local DNVT lines and SIPR access in addition to a 15KM Multi-Channel Secure Remote Terminal footprint.

These Super RAUs were dispatched to locations where only a few subscribers had a valid need for voice and data. Super RAUs were sent to downtown Samara and the



Graphic view (above) of company areas of responsibility shows 121st break up territory into designated signal AORs.

(Above) Camp Echo, established near the Iranian border, was the location of two RETRANS teams and a RAU.

Baqubah Police Station, critical locations that were also heavily targeted by insurgents. In the case of SR30, Alabama National Guard 25Q radio operators from the 115th Sig. Bn. maintained data capabilities for the infantry in Samara during Operation Baton Rouge.

Contingency packages

Despite the shortage of SENs in the network, 121st Sig. Bn. understood the need for a SEN/SMART-T team with reserved satellite assets to be on permanent stand-by for contingency purposes. A/115 again provided an incredible team for this duty – D23. These four Alabama National Guard Soldiers remained on 12-hour notice to deploy anywhere within the MNC-I AO. Their attention to detail and devotion to duty was apparent during each of their deployments. With this team, we were able to provide 1ID with a short notice reliable communications package for three BCT deployment to Najaf, three BCT deployment to Fallujah, DIVARTY deployment to Najaf, two BCT Operations in Patrol Base Tinderbox, and two BCT operations in Samara.

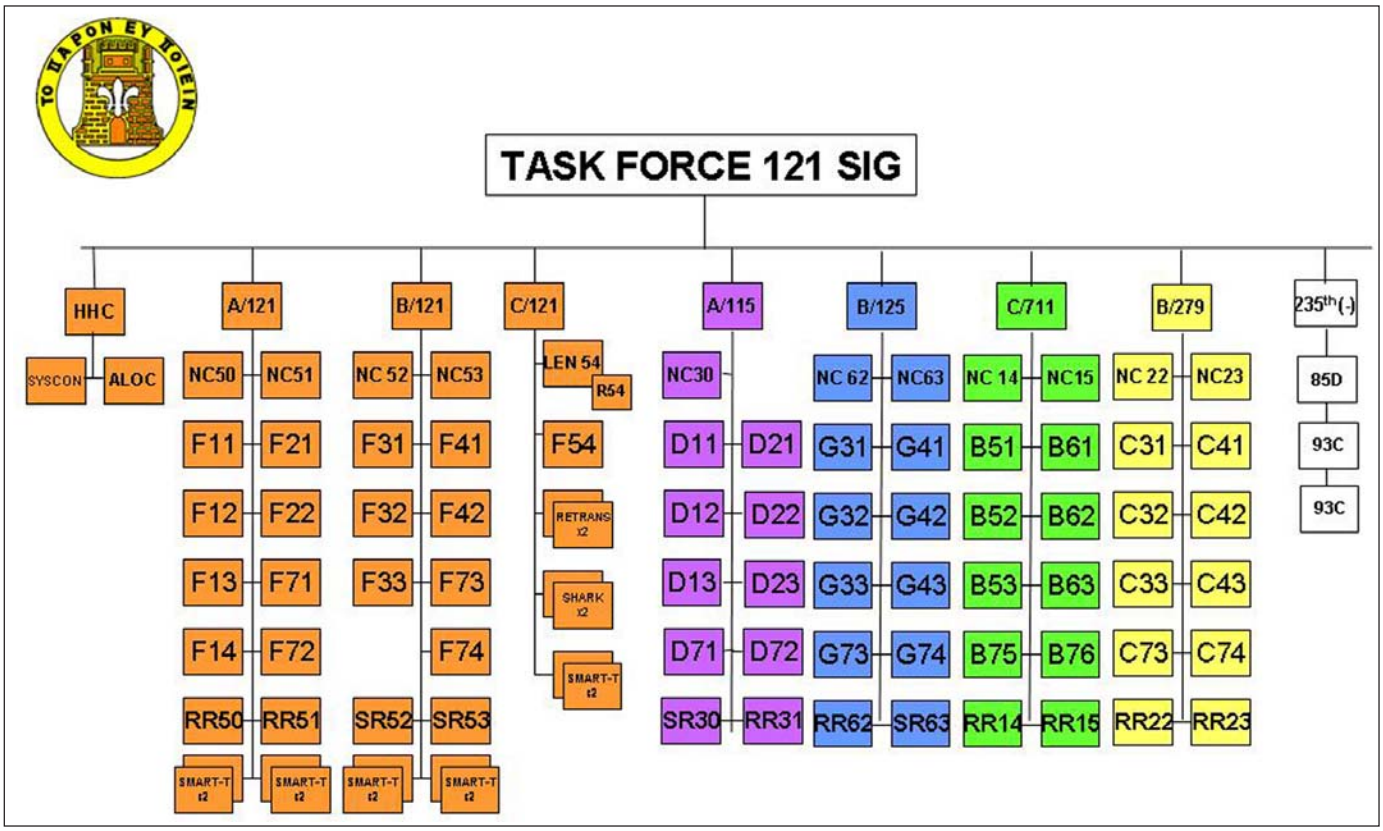
Commercial line-of-sight, "Wireless"

SEN shortages also created the need for local area data support on the large command post FOBs. G6 Information Assurance Specialist Rick Taylor investigated the use of "wireless" technology to push NIPR and SIPR beyond the limitations of CAT-V. Rick was able to identify and procure NSA approved equipment – SECNET 11 for SIPR and Air Fortress for NIPR. G6 and S3 personnel installed the equipment on FOBs Danger and Speicher for general area support. Each post had one or two omni-directional antennas, but relied mainly on point-to-point connections for critical users in remote locations on the FOB.

The heaviest used Secure Network 11 connection was between DMAIN and our headquarters' gateways. Until the wireless connection was installed, the Signal Task Force was unable to provide large enough data pipes to DMAIN. Since all servers were consolidated, subscribers in the network went to one location to send and receive email, download master control station-light data, submit reports, and pull intelligence data. On installation, the wireless connection passed an average of 2.5 megabytes per second, and continued to do so for the remainder of the deployment.

Line-of-sight

Line-of-sight legacy technology remained the backbone of the



division MSE network. An average of 66 LOS links provided reliable communications from Kirkuk to Baqubah. Antennas could be found on water towers, air traffic control towers, and palace roofs. 25Q radio operators pushed the LOS terminals beyond the limits found in the technical manuals. B/125 installed a relay on Jabal Hamrin ridgeline, supporting a 75 KM shot to Kirkuk on one side and 50 KM on the other to Tikrit. A RAU placed on the same location supported multi-channeled secure remote terminal subscribers up to 70 kilometers away. FM coverage of that area found units communicating through a RETRANS from Samara to Kirkuk. C/121 placed an LOS V1 at a node center to install a 2 MB link between DMAIN and the rest of the network. Until the installation of the wireless SECNET 11, this 2 MB link remained at capacity for four months.

Unfortunately, our teams were also required to react during node center crashes. In order to retain the critical links to subscribers, Node center transmission section personnel were trained to install V3 relays from an internodal to a supported SEN on short notice. This battle drill ensured that the warfighter retained critical communications, and gave the Node Center personnel time to recover the switch.

In order to fill the demand for LOS terminals serving as relays, data package extensions, and 2MB internodals, Chris Cadorette and EMS once again found the answer. With additional cabling and radios, V1s became relays and V3s were made into dual relays. This not only saved the battalion on equipment, but also personnel. A hilltop with two V3s and two teams was replaced with only one V3 holding four LOS shots.

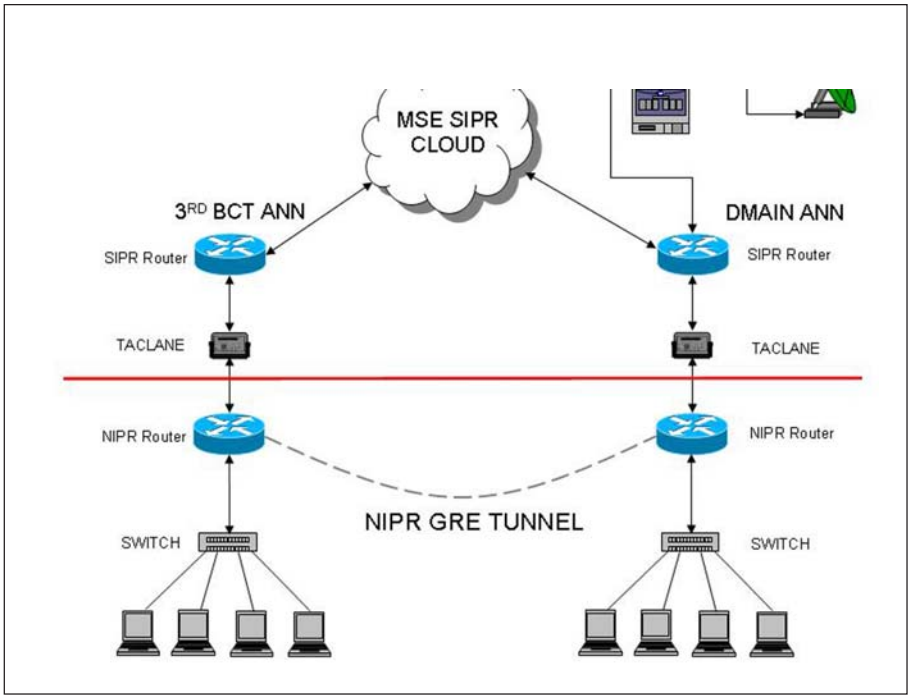
SMART-T

While LOS was the backbone of the network, SMART-Ts provided critical connectivity beyond line-of-sight capabilities. We used SMART-Ts at remote locations in the far northern region of As Sulaymanyah and also for contingency package support to locations like Samara and Fallujah. SMART-Ts provided the division tactical command post with flexible C2 during numerous jumps to Babylon, Balad Ruz, and Kirkuk. SMART-T connectivity also supplied crucial redundancy to distant ends of the network like Baqubah and Balad.

121st Sig. Bn. also pushed the limits of SMART-T connectivity. During the last few months of 1ID presence in Multi-National Division, North Central, the division required us to provide connectivity to assets in Kuwait and Germany. We filled this requirement by installing a SMART-T terminal 257 KM outside of the planning spot beam in Kuwait. We also installed a double hop from a spot beam over Iraq to a terminal off of a spot beam in Wuerzburg, Germany. These connections provided flexible and reliable communications to the division at numerous command posts from Kuwait to Tikrit to Wuerzburg.

LIP

In order to support the incoming 42nd Infantry Division, New York National Guard, Garrison proposed to leave in place as much signal equipment as possible. The leave-in-place concept would



stabilize the network for the warfighters during the division RIP and national elections. The concept, known and used by the Marines and Air Force, worked well between 121st and our replacements, the 250th and 17th Sig. Bns. Task Force 121, including all attached companies, left in place four Node Centers, eighteen SENs, eight Remote RAUs and one SMART-T. Our representative in Kuwait received, inventoried and signed for all proposed incoming LIP equipment. While in Kuwait, the equipment was returned to the port and shipped to Germany. 250th and 17th company commanders inventoried and signed for equipment remaining in Iraq during left seat/right seat rides. Therefore, during the most turbulent period of OIF II, the national elections, 50 percent of the network remained in place, providing reliable communications to the warfighters.

Feb. 14, 2005, 121st Sig. Bn. turned over the vast communications network of MND-NC to 250th and 17th Sig. Bns. During our tenure we installed 70 kilometer LOS shots, brought in virtually impossible SMART-T links, provided SIPR data through RAUs, and relayed two sets of line-of-sight links through one V3 LOS van. Within the Signal Task Force, National Guard, and active duty Soldiers from five different battalions worked as one team to provide redundant, reliable, and robust communications to the Soldiers of the 1ID. For the 121st Sig. Bn. in Iraq there was never a mission too difficult, nor sacrifice too great. Duty first!

CPT Donley is currently the assistant S3, network planner, for the 121st Signal Battalion. She has served with the 1st Infantry Division for four years as an aviation battalion signal officer and Node Center Platoon Leader as well as in the battalion systems control. She deployed to Turkey with 1ID during OIF I, and spent OIF II with 121st Signal Battalion in Tikrit, Iraq.

Acronym QuickScan

AO – Area of Operations
AOR – Area of Responsibility
BCT – Brigade Combat Team
C4 – Command, Control, Communications, and Computers
CAT-V – Category Five Network Cable
CCB – Communications Control Board
CECOM – Communications Electronics Command
DISN – Defense Information System Network
DIVARTY – Division Artillery
DKET – Deployable Ku-Band Earth Terminal
DMAIN – Division Main Command Post
DNVT – Division Non-Secure Voice Terminal
DREAR – Division Rear Command Post
DTAC – Division Tactical Command Post
DTRACS – Defense Transportation Reporting and Control System
EMS – Electronic Maintenance Section
eSB – enhanced Separate Brigade
FOB – Forward Operating Base
GRE – Generic Routing Encapsulation
GMF – Ground Mobile Forces
IOS – Imaging Operating System
KICC – Kuwait-Iraq C4 Commercialization
LAR – Logistics Assistance Representative
LIP – Leave-in-Place
LOS – Line-of-Sight
MCS-L – Master Control Station – Light
MEDPROS – Medical Protection System
MND-NC – Multi-National Division, North Central
MSE – Mobile Subscriber Equipment
MSRT – Multi-Channel Secure Remote Terminal
MWR – Morale, Welfare, Recreation
NC – Node Center
NIPR – Non-secure Internet Protocol Router
NOC – Network Operations Center
PB – Patrol Base
PEOC3T – Program Executive Office Command, Communications and Control
Tactical
QOS – Quality of Service
RAU – Remote Access Unit
RIP – Relief in Place
SECNET – Secure Network or Secure Wireless Local Area Network (SWLAN)
SEN – Small Extension Node
SIPR – Secret Internet Protocol Router
SMART-T – Secure Mobile Anti-Jam Reliable Tactical Terminal
SRAU – Super RAU
SYSCON – Systems Control
TACLANE – Tactical Fastlane
VOIP – Voice over Internet Protocol
VTC – Video Teleconferencing

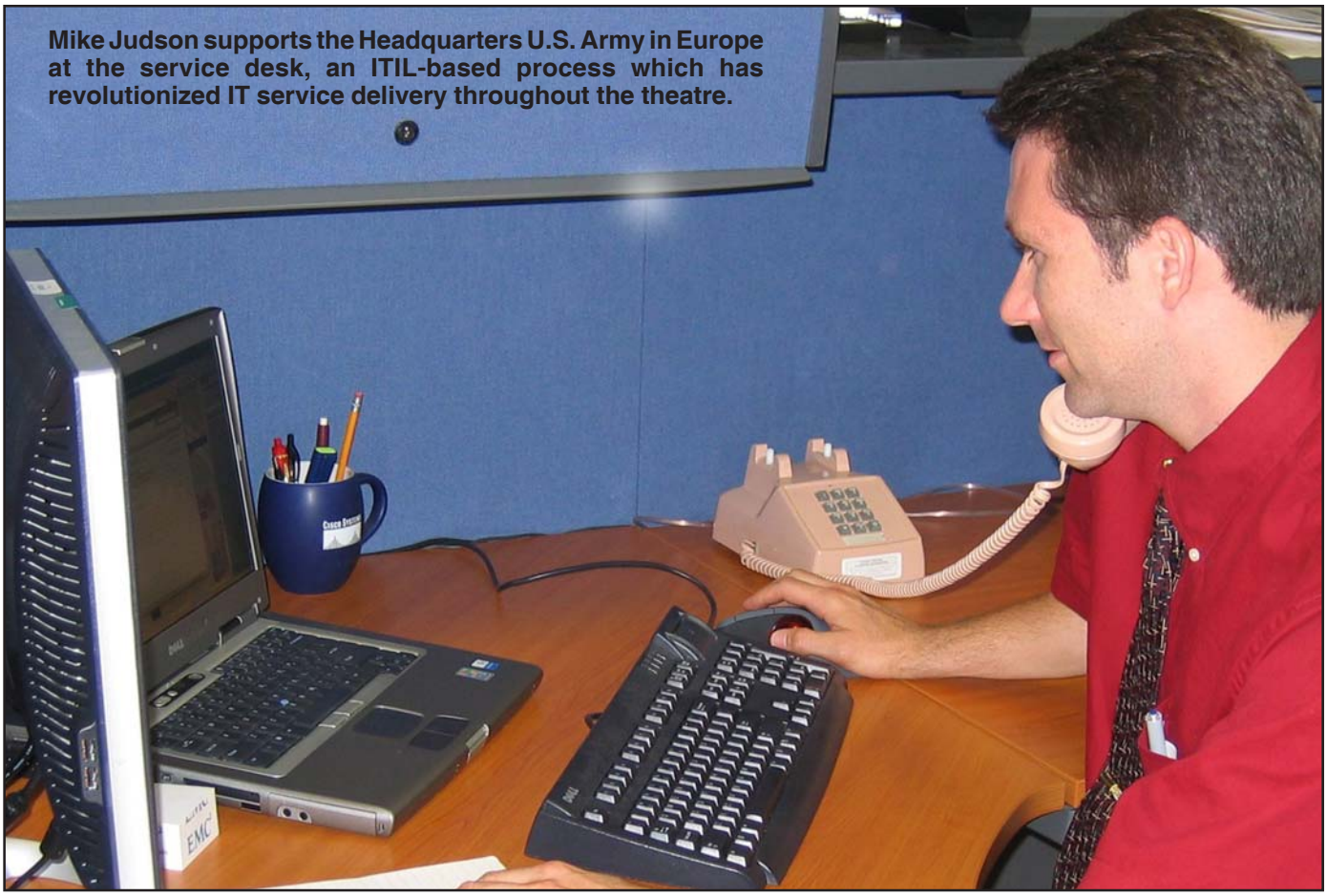
Build it they will come

By Bill Strittmatter

The U.S. Army has completely redesigned European information technology operations by transitioning to an agile, efficient service management model. Army wartime assets are transforming to combat the war on terrorism, and their success is dependent on access to critical information.

The genesis of this paradigm shift began in March 2002 when MG Anthony R. Jones, chief of staff, Headquarters U.S. Army in Europe, directed the establishment of Headquarters Information Management Office. Originally chartered to consolidate electronic messaging servers at the headquarters, Jones and James Rife, director, HQ IMO, seized an opportunity to abandon monolithic information technology management practices. Army operations had transformed to combat new wartime threats, and their IT service management lacked the flexibility of rapidly adapting to meet dynamic requirements.

Organizational structure was a critical element of success during inception. HQ IMO was strategically created outside the conventional hierarchy as a tiger team reporting directly to the Chief of Staff. Recruiting and staffing this new organization required in-depth research, detailed staffing, and thorough coordination of subject matter experts from each of the directorates. Jones noted, "In this way, the tiger team will be able to redistribute issues and actions that



Mike Judson supports the Headquarters U.S. Army in Europe at the service desk, an ITIL-based process which has revolutionized IT service delivery throughout the theatre.

The datacenter above was built with scalability to support future customers, their missions, and allow multiple services to capitalize on a shared infrastructure. Air Force and Army systems located in this facility have proven the concept of a Real-Time Infrastructure can be successful.

are more efficiently executed by the functional staff element."

On a parallel note, Gartner research has shown, "Funding and IT governance are the foundation for the management of IT throughout the entire enterprise." Leveraging existing research and applying best practices to actual operations poised Headquarters U.S. Army in Europe to achieve maximum return on their investment.

Server consolidation had sweeping impacts as a prevalent project worldwide since its momentum began in 1997, and the potential cost savings continued to be a driving force for managers with this project on their hot lists. Repeated budget cuts and manpower reductions forced organizations to "do more with less."

Fortunately, technological advances in hardware and software provided conduits to maneuver around these roadblocks. Storage area networks facilitated consolidating terabytes of data previously distributed across numerous servers down to a single hardware platform. Software also had a significant impact in the consolidation as active directory allowed the command to eliminate 447 of its 450 NT domains. Bridging the gap between hardware and software was another key technology: server virtualization. Virtualizing servers provided high returns with low risk; it also introduced additional agility and flexibility for disaster recovery, application consolidation, and on-demand servers to meet short notice requirements.

HQ USAREUR's server consolidation reduced administrative overhead, enabling Soldiers to shed additional IT duties and focus on their core mission. Soldiers have always been a precious resource, and dragging them down with expectations of unnecessary IT administration was an unfortunate byproduct of the computing evolution within organizations. Although HQ IMO had accomplished the initial goal of consolidating servers, Rife leaned forward and transformed the enterprise to be poised for future Army requirements.

Best practices and proven processes from industry and the IT Infrastructure Library were adopted and used as the fundamental building blocks of HQ IMO. A robust datacenter was constructed to host the consolidated equipment and was staffed with highly skilled IT professionals.

Along with the reduced overall footprint came increased complexity, but this was anticipated. In synch with the ITIL framework, process owners were created to manage the operations instead of the traditional staff offices. The end result was a winning combination of 23 civil service employees and 46 contractors integrated as a unified team sharing a single focus: delivering IT services to customers. HQ IMO has been renamed to Information Technology Support Activity, but the mission and focus remained unchanged. The ITSA director noted, "With the right people for the job, we were able to do more with less."

Jones insisted the tiger team members be "functional experts of their respective organizations, who have a thorough understanding of their organization's internal operational procedures and requirements." Injecting expertise of customers' business processes into the new organization was critical in defining the service level agreements. Every entity is a customer,

both internal and external, and SLAs were established with each organization to ensure ITSA had addressed their expectations.

Defining levels of service was only part of the battle. Metrics were collected continuously to ensure SLA expectations were indeed being met – SLA compliance in May 2005 was 99.80 percent. Software applications monitored the status of all requests and any non-compliant items were immediately brought to the forefront. These requests have been monitored by the service desk, a component of the support desk, which is a core process at ITSA and fundamental building block of the ITIL framework.

Four "desk chiefs" report to the director and own the primary processes at ITSA: support desk, security desk, project desk, and the resource desk. However, customers have a single interface for all IT issues: the service desk. Whether they wanted access to an application or required complex network redesign, customers only needed to remember a single phone number. Despite the simplicity, one of the challenges was training existing customers to call the central service desk number instead of contacting the individual desk chiefs directly.

The current director at ITSA, Jerry Butler, has continued the success story. A continuity of operations datacenter has become fully operational and provides support to a wide array of customers. ITSA's initial customer was the Army Headquarters staff; however, their scope has broadened to support any Department of Defense or U.S. government agency located in the European theatre. Current customers include the U.S. Air Force in Europe Network Operations and Security Center, Installation Management Agency - Europe, and logistical applications supporting operations downrange. Butler stated, "Build a foundation, and you can add anything to it."

All core IT services are protected in the same manner as a weapons system. Physical security is of paramount importance with 24-hour surveillance, logging, and access control. Critical assets are also protected within their racks by an automated authentication system. Individuals are authorized to access specific cabinets, and the system will only unlock a rack if the user has permission to that cabinet. The security manager also has access to video logs of the entire facility available for review. Unlike standard server rooms, this datacenter is designed to host multiple customers requiring access to the same secure floor while simultaneously providing more granular access controls.

Redundancy and high availability have been built into all core services. Servers are synchronized between secure datacenters to ensure no single point of failure exists. Customers' personnel may not be aware of all the detailed resilience in their IT infrastructure, but they can rest assured the applications and data they rely upon will be available when they need it. Systems are protected against a wide spectrum of potential disruptions in service to include simple mechanical failures, natural disasters, and even large scale cratering events.

Industry studies have also revealed, "non shared 'islands of computing' [require their] own labor-intensive management processes to achieve a mediocre quality of service at too high a cost." A solution to this dilemma is the Gartner Real-Time Infrastructure. By sharing an IT infrastructure across customers, all entities involved can increase agility and quality of service while reducing costs. This concept has been well received by ITSA and its customers, and RTI has proven to be a best practice by delivering its benefits, as advertised. COL John Liburdi, chief, Network Systems Division, Headquarters U.S. Air Forces in Europe commented on the joint partnership, "This is a win-win for both organizations." Joint hosting was not pursued as a result of a mandate or directive, it was done because it simply made sense.

What started as a generic Army server consolidation project has grown to a full throttle transformation involving multiple services throughout the European theatre. Leaning forward with industry and ITIL best practices proved to be exactly what existing and future customers needed. When asked to summarize the server consolidation project which has grown into the organization he is directing today, Butler said, "It took a great deal of effort from a team of top notch people, but they have set the example of how this can be achieved successfully. We managed to continue hitting the 5-meter targets while keeping the long range goal in our crosshairs."

Mr. Strittmatter is a Northrop Grumman IT engineer working at HQ ITSA. He has developed Continuity of Operations solutions for Air Force and Army organizations throughout the European theatre.

Acronym QuickScan

COOP – Continuity of Operations
HQ IMO – Headquarters Information Management Office
IMA-E – Installation Management Agency – Europe
IT – information technology
ITIL – IT Infrastructure Library
RTI – Real-Time Infrastructure
SLA – service level agreements
USAFE NOSC – U.S. Air Forces in Europe Network Operations and Security Center
HQ USAREUR – Headquarters U.S. Army in Europe

Two-level maintenance:

Task Force Modularity, transformation of Army maintenance

By 1LT Alyssa Astphan

Today's Army is transforming as a result of pressures of strategic challenges, combat experience, and technological change. The goal of Task Force Modularity is to restructure the Army so that tactical level combat units are more mobile and can self-sustain longer than ever before. For the past 17 years, the Ordnance Corps has been undergoing transformation in response to a growing need for a more versatile and efficient maintenance system.

The limitations of the old system are echelon-ment and redundancy. Maintenance activities were limited on what type of actions could be taken in one area requiring equipment to be evacuated to another echelon when repairs exceeded limits that the organization could handle.

Time spent sending equipment from one activity to the next created a longer repair cycle time resulting in lower operational readiness rates, and consequently, a decrease in combat power. The solution, first conceived by the Chief of Ordnance in 1988, BG Leon E. Salomon, was to merge the four-level maintenance system into a streamlined two level maintenance system, with the primary focus being to reduce repair cycle time.

Again, under the four-level maintenance system each maintenance activity was responsible for repairing equipment to their capability, and when factors such as time or tools and equipment became a roadblock, the equipment was sent to the next higher activity. Individual units spent a lot of time evacuating equipment to higher levels of maintenance, waiting for that item to be repaired, and then waiting for it to be sent back through the appropriate channels. Often times this process was extenuated when dealing with large or expensive pieces of equipment.

A Tier I Integrated Concept Team comprised of personnel from Army Materiel Command, Department of the Army G-3, DA G-4, Training and Doctrine Command, National Guard Bureau, Combined Arms Support Command, Office of the Chief of the Army, Assistant Secretary of the Army, and others was chartered by TRADOC to research and develop this concept of two-level maintenance, with the objective of reducing redundancy and combating inefficiency. Based on the concept of "Fix Forward/ Repair Rear", a term coined by the Chief of Ordnance in 1998, BG Thomas R. Dickenson, (see Fig. 1) shows how the four-level system is transformed into two levels.

The old organizational motor pools and direct support activities have essentially been combined into what is now called "field maintenance". Field maintenance is characterized by a "repair and return to user system." It is "on-system" maintenance that relies on Line Replaceable Unit and component replacement, battle damage assessment and repair, recovery, and services. This field maintenance is performed at all levels of the Army.

"Sustainment maintenance" is the second level of maintenance and essentially represents a combination of the old general support and depot level activities. It is a repair and return to the Army supply system activity that can be brought as forward as required based on mission, enemy, terrain and weather, troops available and civilian but is normally above the brigade combat team level. Sustainment maintenance relies on end item and component repair with some component

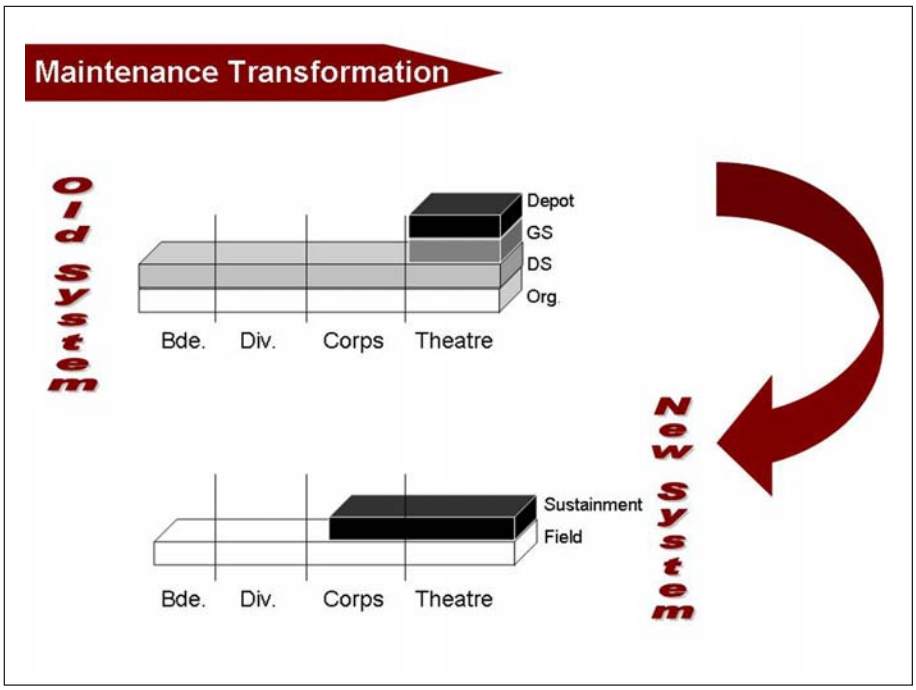


Fig. 1 Two-level maintenance transformer

replacement, whereas field maintenance relies only on component replacement.

The most important part of maintenance modularity for the tactical leader is its positive impact on operational readiness. The Army transitioned to this new system which provides more maintenance capability at the company level. Company commanders have direct access to the mechanics who perform all on-system maintenance tests and recovery equipment. A higher mechanic skill level has been placed at the lowest possible level so equipment can be returned to fully mission-capable status faster than ever.

In the brigade, each maneuver battalion will have an attached forward support company that performs field-level maintenance. Each FSC has a maintenance platoon that provides recovery support, automotive and tracked vehicle repair, and ground support equipment repair to the battalion. Field maintenance teams can and will deploy with each maneuver company and provide automotive and track vehicle repair support. Each field maintenance team will have an M-88 recovery vehicle and a Forward Repair System, Heavy or FRS. If the piece of equipment cannot be brought to FMC status on site, the field-maintenance team can recover it to the base maintenance section of the FSC. All ground-support equipment repair will be conducted at the FSC located with the maneuver battalion headquarters. The FSC base maintenance section will also perform maintenance for the battalion headquarters.

Currently, low density MOSs such as electronics, missile, and armament repair are located at the brigade support battalion within the field-maintenance company, or FMC. These assets can and will detach from the BSB and attach to the FSC or even a field maintenance team when necessary. For units at the UEx and UEy level, field maintenance will be conducted by support maintenance companies. The SMC has an automotive, ground support equipment, missile and electronics repair platoon, as well as an attached TMDE section.

When a piece of equipment cannot be fixed by on-system repair it must be taken back to the UEx or UEy level to a Component Repair Platoon or Component Repair Company. Sustainment maintenance is performed at the UEy level, however teams may detach from the component repair company and attach to the SMC operating in the UEx.

Prior to Force XXI, the Army had separate mechanics for the turret and the hull of tracked vehicles, as well as, separate mechanics at each level of maintenance. As the Ordnance Corps began to transition toward a two-level maintenance system, MOS mergers were necessary as the echelons were combined. This provided the ability to repair a system in one location, and reduced reliance on evacuation.

Under the two-level maintenance system, there is one MOS that has the ability to maintain an entire tracked vehicle system and one MOS for all wheeled vehicles as shown in Fig. 2. These merged MOSs are called multi-capable maintainers, and can perform all field level repairs for their maneuver company wherever they are on the battlefield. There have also been numerous mergers within the communications and electronics repair field providing the same increase to versatility of the individual mechanic and maintenance activity.

Leaders might think that the

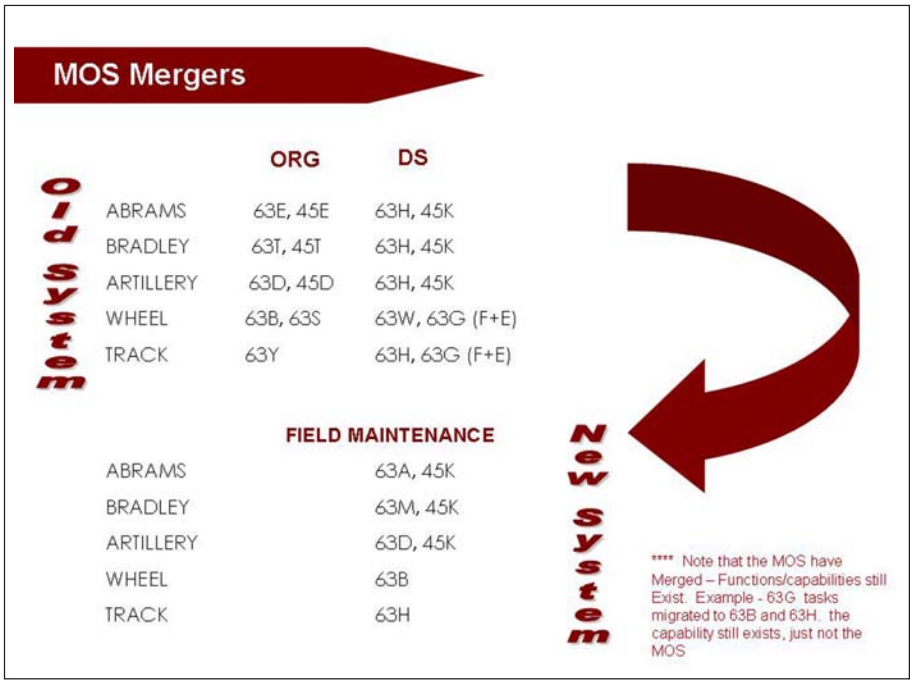


Fig. 2 MOS mergers for tank mechanics under the two-level maintenance transformer

The over-riding theme with TLM and modularity is mobility and versatility. It is easy to see the many benefits of the change to the two-level maintenance system.

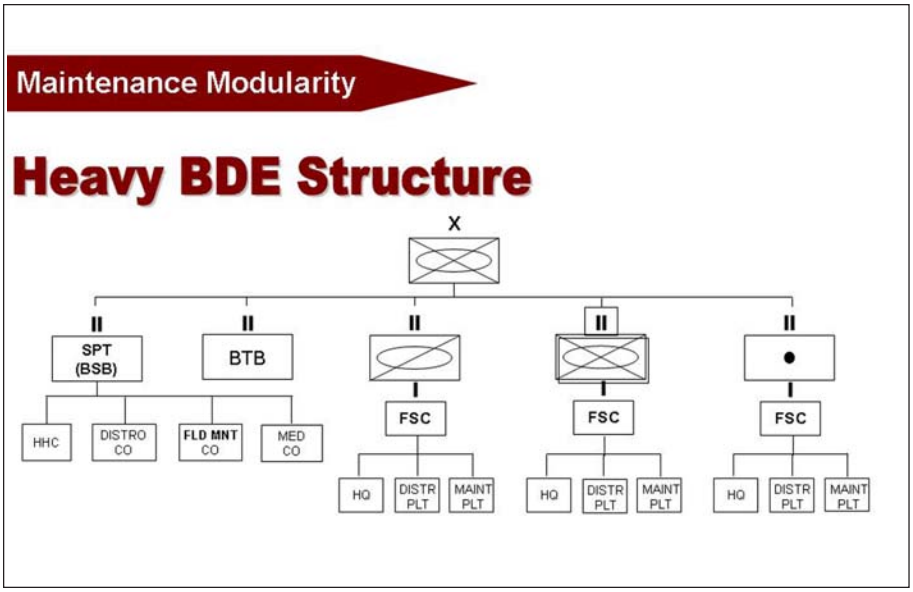


Fig. 3 Maintenance modularity heavy BDE structure under two-level maintenance

merger of MOSs and restructuring of brigades might lead to a decrease in the ratio of mechanic to equipment. Looking at critical systems across the Army, however, it is clear that there is little fluctuation; the key here is that the basic systems have not been redesigned so the number of mechanics to complete the work has remained relatively constant. The new ratio of equipment to mechanics is almost the same as it was under the old system with a slight reduction in managerial overhead since shop offices at the different levels can now be combined.

The over-riding theme with TLM and modularity is mobility and versatility. It is easy to see the many benefits of the change to the two-level maintenance system. Previously, the majority of repair to major end items was performed at the unit and direct support level. Maneuver battalions and brigades now have greater capability at the unit level to efficiently repair their equipment. The merger of these vital maintenance activities ultimately provides the best support to combat arms, combat support, and combat service support units. As improvements in the reliability, maintainability, diagnostics, and prognostics of equipment continue to increase with technological advancements the ability to maintain equipment efficiently and reduce repair cycle time will result in an increase of combat power for our Army today, and more importantly, tomorrow.

For more information on the Ordnance Corps transformation to two-level maintenance and maintenance modularity visit the files page of www.us.army.mil and follow the links to TRADOC, CASCOM, and Directorate of Combat Developments Ordnance, or more current, Force Development Directorate (Ordnance).

LT Astphan is assigned to Combined Arms Support Command Future Development Ordnance Branch. Her previous duty assignments include: assignment as a platoon leader, maintenance control officer, and company executive officer while on duty in the Republic of Korea.

Acronym QuickScan

BDAR – battle damage assessment and repair
BSB – brigade support battalion
CRC – component-repair company
CRP – component repair platoon
FMC – fully mission capable
FSC – forward support company
GS – general support
LRU – Line Replaceable Unit
MCM – multi-capable maintainers
METT-TC – mission, enemy, terrain and weather, troops available and civilian
MOS – military occupational specialties
TLM – two-level maintenance
SMC – support-maintenance companies
UEx – Unit of Employment
UEy – Unit of Employment (without network support)

TSM update

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

TSM-SATCOM
Global Broadcast Service

By Lynn Epperson

Global Broadcast Service is in the threshold of becoming a viable component of the deployed warfighters' Internet Protocol based information arsenal. The GBS architecture has been converting from an Asynchronous Transfer Mode to an IP-based network during the past two years.

All the satellite broadcast managers have converted to simulcast operations allowing them to support both ATM and IP during this transition phase. Based on major subordinate command operational need requests, HQDA G-3 requested and the Program Executive Officer Command, Control, Communications – Tactical approved an Urgent Material Release for 130 of the IP-based Transportable Ground Receive Suites. Based on this guidance, the Program Manager for Warfighter Information Network-Tactical (GBS-Army) is in the process of coordinating the hand-receipt of the TGRS equipment to units in accordance with HQDA G-3 established priorities. Issuance of the IP TGRS in accordance with the UMR includes conduct of New Equipment Training and will continue through 2nd Qtr FY06 when Full Material Release is projected.

GBS is a high-speed, one-way information flow of high volume data to units deployed, or in garrison, and is a component of the military satellite communications architecture. The GBS system is not intended to replace existing MILSATCOM systems. Instead, it supports existing requirements by providing the capability to distribute large information products to user platforms thereby relieving that burden from critical two-way SATCOM systems.

Information products are developed and distributed using a "Smart Push" and/or "User Pull" philosophy to avoid saturating deployed forces with "information overload." This capability allows existing and planned satellite communications systems to support the two-way communications needs of force elements while providing a means for GBS users to request information.

Information products such as imagery, weather, mapping, logistics, national intelligence, and theater intelligence are assembled and broadcast to the user. The information may be in the form of video (classified or unclassified) or data (classified or unclassified). The information sources are identified and contacted as part of the overall GBS responsibilities.

A baseline hardware design was selected for the Army IP Transportable Ground Receive Suites consisting of three transit cases - two for the antenna assemblage, called the Next Generation Receive Terminal, and one for the RBM components (88XR). This transition to IP will provide modularity, expandability, enhanced capability, dynamic bandwidth allocation, and the application of industry standards, all significant improvements over the current capabilities.

For more information on the GBS program call Lynn Epperson, DSN 780-2352, COMM (706) 791-2352, email: harold.lynn.epperson@us.army.mil

Mr. Epperson is a retired Army lieutenant colonel who served in various capacities both in the Army Signal Corps and Joint assignments. He is employed by Femme Comp Inc. and supports the TRADOC System Manager for Satellite Communications at Fort Gordon, Ga.

Acronym QuickScan

ATM – Asynchronous Transfer Mode
C3T – Command, Control, Communications – Tactical
GBS – Global Broadcast Service
IP – Internet Protocol
MILSATCOM – military satellite communications
NET – New Equipment Training
NGRT – Next Generation Receive Terminal
PEO – Program Executive Officer
PM – Program Manager
SBMs – Satellite Broadcast Managers
TGRS – Transportable Ground Receive Suites
UMBR – Urgent Material Release
WIN-T – Warfighter Information Network-Tactical

TSM-TR update
Assessment will provide basis for recommendations

By Douglas A. Wilson

JTRS Program:

Dennis Bauman, the Joint Program Executive Officer for the Joint Tactical Radio System, is near the completion of conducting a full assessment of the JTRS program (Clusters 1, 2, Airborne Maritime Fixed-Station, and 5) to include program dependencies and a comprehensive risk mitigation plan. The results of this assessment will provide the basis for an overall set of program recommendations to re-establish program cost, schedule, and funding health. Subject recommendations may include overall restructuring of the JTRS program and associated acquisition strategy, baselining and prioritization of program requirements, and a revised Future Years Defense Program funding profile. JPEO JTRS is in the final stages of the JTRS

Cluster assessments and re-planning efforts. These in-depth reviews are critical to the development of executable paths for these transformational clusters. The leadership of the JPEO will finalize the JTRS Way Ahead in the next few weeks. Once completed, the JTRS Way Ahead, with projected cost and schedule plans for each Cluster, will be briefed to the service leadership and Department of Defense. Following those meetings, Bauman will brief Capitol Hill.

Enhanced Position Location Reporting System

Retrofit of product improvements to existing EPLRS-fielded units such as the 4th Infantry Division, the 1st Cavalry Division, and the 2nd Stryker Brigade Combat Team will be completed by end of FY-06.

The EPLRS portion of the 4ID transformation process is ongoing at Fort Hood, Texas. The existing brigade structure will be converted into Units of Action and Units of Employment. PM TRCS will convert the centralized EPLRS Net Control Stations to EPLRS Net Managers and field an additional 400+ new EPLRS radios, bringing the total fieldings to 1,690 radio sets. Additionally, as part of the transformation process, the previously-fielded EPLRS radios will be upgraded to increase the performance capabilities of the system. Five of the Net Control Stations have been fielded to date; the remaining eight will be completed by the end of October. The final training sessions in support of the NCS operators were completed the week of July 8. All 4ID retrofit actions were completed by Sept. 30, 2005.

Planning sessions are underway to begin retrofit actions in support of 1CAV. These actions will be very similar to those completed in support of the 4ID. Training sessions for NCS and system planner in support of initial capability began in September 2005. The complete retrofit is scheduled for June 2006.

Planning for retrofit and Net Equipment Training of SBCT-2 (1/25 ID) at Fort Lewis, Wash., is underway. The resident training sessions for the SBCT-2 are scheduled for January 2006 followed by on-site NET training and retrofit.

Training and fielding to support the 3rd Brigade Combat of 4ID at Fort Carson, Colo., was completed during this reporting period.

Training sessions in support of the final fielding of SBCT-4 were completed at Fort Gordon, Ga. Initial fielding began during the 4th quarter of FY 05. Cohesion, Operational Readiness, and Training sessions in support of SBCT-5 were conducted in September 2005, followed by initial fielding during the FY-06 timeframe.

Instructor and key personnel training of Signal Center personnel is underway. Initial sustainment capabilities were operational by August 2005. Training sessions at the Signal Center were completed during June supporting SBCT-6 and the South Carolina Army National Guard. These training classes provided initial capability for the Pennsylvania Army National Guard planning process and the SCNG in support of rotations for Operation Clear Skies.

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

Acronym QuickScan

AMF – Airborne Maritime Fixed-Station
1 CAV – 1st Cavalry Division
4ID – 4th Infantry Division
CohORT – Cohesion, Operational Readiness, and Training
DoD – Department of Defense
ENM – EPLRS Net Managers
EPLRS – Enhanced Position Location Reporting System
FYDP – Future Years Defense Program
NCS-A – Net Control Stations
NET – Net Equipment Training
JPEO JTRS – Joint Program Executive Officer for the Joint Tactical Radio System
SBCT-2 – 2nd Stryker Brigade Combat Team
SCNG – South Carolina Army National Guard
UA – Units of Action
UE – Units of Employment

Doctrine update

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

Network guides for Army leaders

By Rick San Miguel and Tim Landreth

The Army's rapid shift to a fully task-organized modular force design presents new challenges for the Signal Regiment.

The Signal Regiment is tasked with ensuring that our modular forces have the command and control capability to fight upon arrival while leveraging joint and coalition resources to win conflicts. To meet these challenges, the Joint Network Node is currently being fielded to select UEx/divisions. JNN is the interim solution to the WIN-T system that replaces existing communications systems using emerging commercial and military adapted technologies to satisfy Warfighter requirements as we transition to the deployment of our objective WIN-T system.

To assist our leaders in meeting these challenges, the Signal Regiment has developed two key publications.

The first publication is a revision of FM 6-02.43, *Signal Leaders Guide,* which is now under development as a field manual interim reflecting the modular requirements and capabilities and specifically targeted for signal leaders e.g. BCT and battalion G6/S6.

The second publication is a new special text 6-02.43-1, *Leaders Guide to the Network*, which provides a broad overview of the network and the capabilities available to meet mission requirements. It is targeted to the combatant commanders and non-signal leaders.

Both publications are now available for review and comment on the Army Knowledge Online Doctrine portal.

We address major topics that have been identified from several site visits and lessons learned from the ongoing mission in Iraq. With new off-the-shelf technology being fielded our signal forces are tasked to "train-on-the-move" while preparing to rotate in support of OEF and OIF. We have downsized from the Signal battalion supporting a Division to a Network Support Company which is dedicated to supporting a UEx BCT. The Army approved modular design required a major overhaul of signal regiment assets in order to employ a network capable of supporting our maneuver forces in every mission area along the operational spectrum.

These documents were developed based on scenarios and phases of operations. This includes military operations ranging from deterring aggression (homeland defense) to a force capable of launching an urban area-style assault against any standing Army.

This draft Signal doctrine addresses how to effectively integrate and balance the new technology and capabilities that are required for the application of information-enabled networks.

FMI 6-02.43 is a field reference guide intended to assist the signal leader in understanding and implementing signal support under modularity. It provides a roadmap for key signal leaders in the modular force: G6, S6s and the network support company commanders. This roadmap provides an overview of the network enterprise, Global Information Grid, and LandWarNet concepts. These overarching concepts are critical to the success of communicators at the unit of employment-x (former division), brigade combat team, and the battalion.

The Army can no longer separate the tactical networks from the strategic infrastructure as we have built independent units that employ systems relying upon the strategic network to operate effectively. This FMI relates modularity architecture to the strategic network and outlines the roles and responsibilities of the G6, S6, and NSC signal support personnel.

It references commonly needed information on signal and retransmission site reconnaissance, signal-planning process, leading convoys, profiling line-of-sight links, and troubleshooting signal equipment. It contains an overview of current signal support doctrine and fielded communications systems. It targets junior signal officers and noncommissioned officers in tactical environments. It will continue to provide information on mobile subscriber equipment communications for units not receiving the JNN suite of equipment.

ST 6-02.43-1 is a companion manual to FMI 6-02.43 and provides Army leaders a guide for understanding the networks and equipment operating at echelons UEx and below. It is designed to assist leaders with understanding the networks and the personnel tasked with planning, installing, operating,

JNN is the interim solution to the WIN-T system that replaces existing communications systems using emerging commercial and military adapted technologies to satisfy Warfighter requirements as we transition to the deployment of our objective WIN-T system.

maintaining and defending the networks at each echelon: UEx, brigade combat team and battalion.

We have also posted for review several other doctrinal products that are a priority for publication in FY05.

As we develop and refine our products, they will be posted to the Army Knowledge Online, Signal Center, DCD Portal at URL https://www.us.army.mil/suite/portal.do?$p=135039. (AKO username and password required).

We encourage you to contact us and provide feedback on the doctrine products we are developing. We must ensure that our doctrine remains relevant during the transformation process. As we have stated, this effort is too large and too important to be done in a vacuum. You can contact us via E-mail at doctrine@gordon.army.mil, or signal.doctrine@us.army.mil, or by phone. POCs for Signal Regiment Doctrine Development are:

Mr. San Miguel is a Department of the Army civilian, and presently holds the position of Signal doctrine writer, Concepts and Doctrine Division, Directorate of Combat Developments, U.S. Army Signal Center, Fort Gordon, Ga. His background spans 29 years of service to the Signal Regiment.

Mr. Landreth is a Department of the Army civilian and presently holds the position of Signal doctrine writer, Concepts and Doctrine Division, Directorate of Combat Developments, U.S. Army Signal Center, Fort Gordon, Ga. His background spans 25 years of service to the Signal Regiment.

Acronym QuickScan

AKO – Army Knowledge Online
AOR – Area of Responsibility
BCT – Brigade Combat Team
C2 – Command and Control
C4 – Command, Control, Communications, and Computers
DCD – Directorate of Combat Developments
FM – Field Manual
FMI – Field Manual Interim
JNN – Joint Network Node
JTRS – Joint Tactical Radio System
LOS – Line-of-Sight
MSE – mobile subscriber equipment
NCO – noncommissioned officer
NSC – network support company
NETOPS – Network Operations
NSC – Network Support Company
ST – special texts
UE – Unit of Employment
WIN-T – Warfighter Information Network-Tactical

Signal Regiment Doctrine Development points of contact

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◆ **Rick Meredith,**	**DSN 780-6506,**	**Commercial 706-791-6506**
◆ **Larry Hunter,**	**DSN 780-8139,**	**Commercial 706-791-8139**
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Circuit check

News and trends of interest to the Signal Regiment

GEN Kevin Byrnes, commander, Training and Doctrine Command, passes the Signal Corps colors to BG Randolph Strong (left), U.S. Army Signal Center and Fort Gordon commanding general. Strong replaces MG Janet Hicks, who retired after 30 years of service. Strong is the 31st chief of Signal.

Leader Transitions

Strong takes command of Signal Regiment

By Charmain Z. Brackett

Little did he know at the time, but BG Randolph P. Strong was glimpsing his own future as he served as Aide-de-Camp to MG Bruce Harris, Fort Gordon's commanding general, in the late 1980s.

"I began to understand the importance and significance of the position. I learned everything from training and doctrine to equipment," he said.

Those 15 months from May 1986 to August 1987 gave him a basis from which he will be able to command the post and lead the Signal Corps Regiment.

"It gave me quite a bit of foundation and base to build upon," he said.

While some things at Signal Towers, including some of the furniture, are still around from his first tour at Fort Gordon, there have been numerous changes on the installation and the surrounding community.

In the late 1980s, the landscape of the base was dotted with many World War II era buildings and barracks.

Those are all gone.

"There's a lot of new construction," he said.

Not only are the visuals different, he said, but the key systems in the Signal Corps have changed. At the time, mobile subscriber equipment was the hot topic; today, it's the Joint Network Node. A training center for JNN at Brant

Following Army tradition, (Left) BG Randolph Strong, incoming commander and 31st chief of Signal; GEN Kevin Byrnes, commander, TRADOC; and MG Janet Hicks, outgoing commander and 30th chief of Signal, mount a Humvee to inspect the troops prior to the passing of the command.

Hall was unveiled mid July.

Strong said he'd been watching the JNN develop while he was in his previous position as director of Command, Control, Communications and Computer Systems at the United States Pacific Command.

And the face of Augusta has changed, he said.

"I went to Riverwalk and Fort Discovery over the weekend. That's all new," he said.

Plus, there are many additional shopping centers and restaurants in the city.

"I'm amazed at how the community has grown," he said.

Commissioned into the Army in 1978, Strong has served in a balanced mix of command and staff positions, and he said he looks forward to having the opportunity of working with the troops again as the new Signal chief.

"This is the opportunity of a lifetime," he said. "I don't think I could have timed it better. Now is the time I want to be in the position because of all that is going on in the world."

Attaining the post is the top achievement in his career which has already had many highlights.

Two particular posts stand out to Strong.

In 1999, he was deployed to East Timor.

"It was a tremendous opportunity," he said. "It's very unusual for a Signal Corps officer to be on the ground commanding the joint force."

Also, high on his list of Army achievements, is a 1995 deployment to Bosnia.

He was part of the initial deployment into the country and helped establish U.S. base camps in the Balkans.

"Being the first in theater is always an exciting time," he said. "It was a little chaotic, but it was very much a highlight."

Strong said he is looking forward to meeting the Civilians and Soldiers who live and work at Fort Gordon.

He said he's received a tremendous welcome.

"It's been overwhelming," he said. "People have been reaching out with open arms."

This is the third post that Strong has taken over from retired MG Janet Hicks. She preceded him at his previous post in Hawaii as well.

Some of her advice that will stick with him the most is to "remember all the great people here on post every day, and remember the community," he said.

"She's easy to follow. I couldn't be following a better person," he said.

Ms. Brackett is a contributing writer for U.S. Army Signal Center and Fort Gordon's newspaper, The Signal.

Kirkman assumes command of 516th Sig Bde

FORT SHAFTER, Hawaii — COL Edric A. Kirkman assumed command of the 516th Signal Brigade and three other positions from COL Brian J. Donahue at a change of command ceremony June 28 at Fort Shafter's historic Palm Circle.

Kirkman's other new jobs include deputy chief of staff, G-6 (communications office), U.S. Army Pacific; Regional chief information officer, U.S. Army Installation Management Agency; and director, J-6 (communications office) for the U.S. Pacific Command's Joint Task Force - Homeland Defense.

COL Edric A. Kirkman assumes command of the 516th Signal Brigade and three other positions.

His mission is to provide and defend the Army Pacific's theater-wide computer network as part of the U.S. Pacific Command's Theater Information Grid and the Army Enterprise in support of joint, combined, and Army forces.

Kirkman heads a team of more than 1,300 Soldiers, Civilians and contractors, stationed in Alaska, Hawaii, mainland Japan, and Okinawa, Japan.

COL Edric Kirkman assumes command of the 516th Signal Brigade on June 28. Here, he returns the brigade colors to the custody of the 516th's CSM James W. Anderson.

A native of Tuscaloosa, Ala., Kirkman was commissioned in the Signal Corps after receiving a B.A. degree from the University of Alabama in 1982. He has graduated from the Army War College, Air Command Staff College, and Armed Forces Staff College, and also holds a M.A. degree from Webster University.

This is his fourth assignment as a commanding officer. Early in his career, Kirkman commanded the Headquarters and Headquarters Detachment, 87th Maintenance Battalion, Werthiem, Germany. Later, he commanded the Headquarters and Headquarters Company, 501st Signal Battalion, Fort Campbell, Ky. From July 2000, to July 2002, he commanded the 63rd Signal Battalion, 93rd Signal Brigade, Fort Gordon, Ga.

Following his battalion command, Kirkman remained at Fort Gordon, where he was assigned to the U.S. Army Signal Center as chief, Materiel Requirements Division, and chief, Task Force Network, both within the Directorate of Combat Developments.

This marks his second tour of duty in Hawaii. From 1998 to 2000, Kirkman was assigned to the U.S. Pacific Command, Camp H. M. Smith, where he served as director, Command Center Improvement Program and Telecommunications Support Division within the Command, Control, Communications and Computer Systems (J-6) Directorate.

Among Kirkman's awards and decorations, he has earned the Defense Meritorious Service Medal, the Meritorious Service Medal (with five oak leaf clusters), the Army Commendation Medal, the Army Achievement Medal, and Parachutist and Air Assault Badges.

Kirkman is married to the former Anita Pace of Huntsville, Ala. They have two sons.

The 516th Signal Brigade is an operations and maintenance command of the worldwide U.S. Army Network Enterprise Technology Command, which supports the U.S. Army Pacific. MG James C. Hylton, commanding general of NETCOM, officiated at Kirkman's assumption of command of the 516th.

Signal Units

Reserve Signal unit unfurls flags for future

By SFC Neal Snyder

A new kind of Army communications unit raised four new flags to highlight a transformed mission during a training weekend at Fort Indiantown Gap, Pa., Aug. 7.

The 392nd Signal Battalion, an Army Reserve unit headquartered in West Hazelton, Pa., re-flagged and renamed its four subordinate units as lettered companies to reflect its new configuration as an Integrated Theater Signal Battalion.

With the change, "we move one step closer to the transformation

LTC Ann Marie Dalkiewicz, commander of the 392nd Signal Battalion (center), removes the headquarters detachment guidon during the battalion's reflagging ceremony Aug. 7 at Fort Indiantown Gap, Pa. The battalion renamed its subordinate units Companies A, B and C, plus a Headquarters and Headquarters Company, to reflect its new mission as a modular Integrated Theater Signal Battalion.

of an entire battalion: One unit, one team, one fight," said LTC Ann Marie Dalkiewicz, commander of the 392nd.

An Integrated Theater Signal Battalion integrates traditionally separate signal disciplines into a single unit. ITSB can support cable and wire, switching and satellite communications. The pieces of an ITSB can be configured based on changing requirements, and quickly deployed to maintain network operations in a combat theater.

With the change, the 301st Signal Company, based at Fort Pickett, Va., became Company A, 392nd Signal Battalion; the 305th Signal Company, Tobyhanna Army Depot, Pa., became Company B; and the 492nd Signal Company, Baltimore, Md., became Company C. The 392nd's headquarters detachment became Headquarters and Headquarters Company.

The 392nd, activated as a headquarters detachment in 1995, brought together two companies (the 301st and the 305th) with a history of being attached to non-signal units. The 492nd was established in 2004. Having a signal unit as a higher headquarters has boosted unit morale, according to Dalkiewicz.

The change was welcomed at all levels. "This is going to bring us together as a unit," said MSG Robert Sheatler, first sergeant of Headquarters and Headquarters Company, 392nd. "We'll start working as one unit, as a battalion," he said. The transformation into an ITSB is continuing, with Soldiers learning new military jobs and units gaining and losing positions, according to Sheatler.

"Now that we're all in one unit we'll be getting everything accomplished quicker and better," said PVT 2 Keith Moore, a cook for Company C and a chef for Marriott hotels.

"There's a lot of change going on in the Army," CSM H.B. "Chris" Rhatigan, the ranking noncommissioned officer in the 311th Theater Signal Command, told Soldiers assembled for the ceremony. "One of the only things that doesn't change is change." The 311th is the 392nd's parent unit.

The 311th itself is changing, and the 392nd plays an important role, according to BG George J. Smith, deputy commander of the 311th. "The ITSBs are the critical enablers for our planned conversion to the Theater Network Command," said Smith. "The muscle to make the transformation in signal operations work resides in the ITSB."

The re-flagging ceremony capped a three-day battalion-wide training weekend at Fort Indiantown Gap. It was the first training weekend held as a complete battalion, but the 392nd plans to hold at least two every year, according to MAJ John Pfau, battalion executive officer.

The weekend also included Soldier task and weapon training. Around 70 Soldiers fired the M-16 assault rifle, 20 fired the M-249 Squad Automatic Weapon, and 30 the M-9 9mm pistol.

"I like to come to Gap," said SGT Amanda Lendyak, nuclear, biological and chemical protection sergeant for Company B and a 7th- and 8th-grade teacher from Harrisburg, Pa. "It's good to get here and fire the M16. I like the idea of doing live fire twice a year."

Even though he trained with the M-249 as an active-duty Soldier, PVT John Reals, a multichannel transmission system operator with Company C, said he enjoyed the opportunity to use the weapon again. "I haven't fired it for a little while." Reals, of Edgewood, Md., does quality control for a cellular telephone tower antenna manufacturer.

This kind of field training fires up PVT 2 William Davies, a satellite system operator with Company C and a cellular telephone salesman from Severn, Md. Davies compared the August event to an exercise in February. That month, Soldiers from the company rode Black Hawk helicopters from Aberdeen Proving Ground, Md., to Fort Indiantown Gap, worked on field skills, and trained with the SAW. He uses scenes from that experience to demonstrate the video capabilities of a telephone. "We did some 'hooah' [stuff]," he said. Customers respond well. "It's a lot better than showing them something boring."

"It's nice to see what the rest of the people in the battalion look like," said SPC Greg Lee, a radio communication repair specialist with Company B and an electronics technician from Bethlehem, Pa. The highlight of the weekend "was simply getting out and shooting," Lee said.

The battalion counted on the companies to operate the weekend training said MSG Keith Monderewicz, noncommissioned officer-in-charge of operations for the 392nd.

"This could not have been a success without the execution of every company's leadership," Monderewicz said.

The weekend's events also included a battalion barbeque and a ceremony to welcome home battalion Soldiers who had served in Iraq.

SFC Snyder is with the 311th Theater Signal Command Public Affairs Office, Fort Meade, Md.

Theater defense: New Army Command to stand up in the Pacific

As the Army celebrates its 230th year, transformation is at full throttle. The Signal Corps, known as the Army's voice of communication, has a pivotal role to play in this transformation.

During the next several years, there will be many changes in the corps and in the Army. As part of that change, some units will be realigned and re-flagged while others will be activated to meet the needs of the future.

The Army Air Missile Defense Command is a key part of that ongoing transformation process for the Department of Defense.

The 94th AAMDC will stand up at Fort Shafter, Hawaii, in October 2005. COL Jennie

Signaleer COL Jennie Williamson has been selected to be the 94th AAMDC interim commander.

Williamson has been selected by LTG John M. Brown III, U.S. Army, Pacific Commanding General, to be the 94th AAMDC interim commander. Williamson, who has been in Hawaii for two years, was assigned as the USARPAC J-3 Joint Task Force for Homeland Defense prior to being selected for this command.

The 94th AAMDC is the command and control for missile defense in the Pacific theater. The 94th AAMDC will provide the PACOM commander a more robust theater based capability. Moreover, the unit's presence in the Pacific adds depth, because its capability will be readily available to the warfighting commander.

"To command is an honor and a privilege, not a right. Many seek command, but few seldom get the opportunity to lead from the front. I consider this opportunity to command again, particularly an ADA unit a rarity and a true honor and pleasure," Williamson said. "I would like to thank LTG Brown for bestowing the honor of command and entrusting me with this great responsibility. I look forward to continue working with the great Americans of the 94th AAMDC as we transform to the next phase."

Williamson has been a Signaleer for 25 years. During this time, she has served in a variety of key and essential positions including command and the joint staff. As the 94th's interim commander, she will be responsible for planning, coordinating, and executing all the requirements for the activation, including personnel and equipment issues. She will also develop the mission and mission essential task lists; and determine the unit's capability requirements in support of U.S. Pacific Command's warfighter efforts.

The 94th AAMDC on order rapidly deploys forces in the Pacific area of responsibility to conduct joint and combined/coalition air and missile defense operations.

Although the command will have a joint mission, the 94th will be made up of all Army personnel. The unit will be commanded by an Army Air Defense Artillery brigadier general. It will be structured or similar to the 32nd AAMDC, located at Fort Bliss, Texas.

The command is scheduled to stand up officially, or activate, in October. There are many people working together to plan, coordinate, and make the necessary preparations for the unit's activation. Williamson, the interim commander, will be the command's G6, chief signal officer. She and the G6 staff will be responsible for the maintenance and sustainment of the command's communications equipment.

The information for this article is from a U.S. Army, Pacific news release. For more information, contact USARPAC Public Affairs at (808) 438-3452.

NETCOM/9TH ASC BEST OF THE BEST

By SSG Jeff Troth

The best of the best for Network Enterprise Technology Comand/9th Army Signal Command came to Fort Huachuca to compete for the title of Non-commissioned Officer and Soldier of the Year, June 20-23.

After a grueling week of tasks designed to test their Soldier skills, SGT Robert Zlotow, 86th Signal Battalion came out on top as NETCOM/9TH ASC NCO of the Year, while SPC Lawrence Haggerty, 302nd Signal Battalion, was named NETCOM/9TH ASC Soldier of the year.

The 15 competitors began this journey by winning their company's NCO or Soldier of the Month competitions, next came the company NCO/Soldier of the Quarter board. After winning their company NCO/Soldier of the Year board, they moved forward and won their battalion and brigade boards.

"All the competitors have worked very hard throughout the year," said NETCOM/9TH ASC CSM Ronald Desjardins. "All of them are already winners at their respective brigades."

For some of the Soldiers the NETCOM/9TH ASC competition was different than what they had competed in previously. Besides answering questions from senior enlisted Soldiers, the competitors' Soldier skills were also challenged.

"This type of competition makes you better as a Soldier because you have to learn everything that it takes to be a Soldier," said SPC Tanashia Hudson, 169th Signal Company. "It makes you better all around as a Soldier."

"It also builds a lot of character," said Zoltow. "This is no joke, it is an extremely difficult four-day competition. There are a lot of different events from shooting your weapon to going out and doing a foot march and then coming back and having to do all these different tasks. And you have to know them bang, bang."

The week began with the Army Physical Fitness Test. For some the change in elevation was too much, and two were dropped from the competition, one missing his two-mile run time by just six seconds. The NCOs and Soldiers also had a written exam consisting of 50 multiple choice questions and an essay the first day. That night at an ice breaker, the competitors were

able to get final words of encourageNCOs and Soldiers participating in this year's competition did just that."

At an awards banquet that night SSG David Mendosa Jr., 25th Signal Battalion, was honored as NETCOM/9TH ASC NCO of the Year runner-up, while SPC Alqua Light, Headquarters and Headquarters Company, NETCOM/9TH ASC, took home NETCOM/9TH ASC Soldier of the Year runner-up. After Zoltow and Haggerty were announced as the winners they were presented with eagle statues from the command, a certificate for a set of dress blue uniform from the Army and Air Force Exchange Services. Each also pocketed saving bonds and certificates from other Fort Huachuca and Sierra Vista organizations and businesses.

"I was extremely surprised to win," said Zoltow. "All the NCOs I was up against are outstanding in every respect and I got lucky to come out on top."

Even those that did not take top honors did not leave the competition without gaining something.

"I know that I am not going to be the same NCO that I was before the competition," said SGT Keya Brown, 114th Signal Battalion. "I learned that no matter what you think your weaknesses are, just never quit and you will be a better person, a better Soldier."

"This type of competition will help me as a Soldier because it helps to push yourself to the limits," said Light. "It helps you know what you can accomplish, both mentally and physically. Once you achieve that strength, you know you can do it and you carry it with you always."

The competitors were not the only one who saw the potential they take away from the NETCOM/9TH ASC competition.

"The NCOs and Soldiers (who) participated in this year's competition have risen to the occasion and conquered many adversities to make it this far," said Desjardins. "They will be the leaders of our future and will have an impact on the quality of their respective regiments and the Army."

SSG Troth is assigned to Network Enterprise Technology Command/9th Army Signal Command Public Affairs Office.

NETCOM CG decorates 302nd Signal Battalion

By MAJ Chris Lorei

FORT DETRICK, Md – MG James C. Hylton decorated the battalion colors of the 302nd Signal Battalion with the Army Superior Unit Award citation in a ceremony June 8, 2005, adding another chapter to the history of Network Enterprise Technology Command's largest signal battalion.

In his remarks, Hylton cited the battalion's rich history that includes five campaigns in Europe during World War II, service in Southeast Asia during the Vietnam War, Cold War service in Germany, and its ongoing contributions to the Global War on Terrorism. "Despite a consistently high OPTEMPO, this battalion has successfully executed more satellite communications missions this past year than any other unit in the Signal Corps. From Camp Roberts, Calif., to Fort Bragg, N.C., to the forward deployed elements of Southwest Asia, this battalion remains the warfighter's Gateway to Freedom."

NETCOM CG, MG James C. Hylton and 302nd Signal Battalion Commander, LTC Karl Ginter return salute of Battalion CSM Kenneth Stockton during a June 8, 2005, ceremony awarding the Army Superior Unit Award streamer to the battalion.

Battalion Commander, LTC Karl Ginter, credited the unit's noncommissioned officers, and Soldiers for achieving this honor. "Without a doubt, this citation is a testament to the outstanding leadership of the NCOs and the professionalism and dedication of our Soldiers. This battalion will continue to lead the vanguard of signal transformation, as we integrate SATCOM into our combat formations, and transform to a campaign quality Army with joint and expeditionary capabilities."

MAJ Lorei is the Battalion S3 for the 302nd Signal Battalion.

NEWS

JNN unveiled at Gordon

By Charmain Z. Brackett

Soldiers will train on the most up-to-date communications equipment unveiled July 14 at the General Dynamics C4 Systems Resident School at Fort Gordon.

"This is huge for the Signal Corps," said MG Janet A. Hicks, in one of her last official ceremonies as Signal Corps chief and Fort Gordon commander. "We are heralding the start of a momentous new capacity for our Soldiers."

Less than a year after the training equipment was requested, Fort Gordon and General Dynamics' officials were able to cut a ribbon on the first phase of the new training facility in Brant Hall, which includes two classrooms containing the Joint Network Node without its tactical shelter, four battalion command post nodes, and a Ku-Band tactical satellite trailer.

The JNN brings together the latest in commercial and government communication technologies in voice, data, and video, according to COL (Ret.) Peter Farrell, director of institutional training at General Dynamics C4 Systems.

"This is the next generation of computer equipment," he said. "It's commercial equipment packaged into tactical shelters. It's a leap ahead in speed and bandwidth."

The initial fielding of the equipment began at Fort Stewart in summer of 2004, and the 3rd Infantry Division JNN Network is currently in operation in Iraq.

"A year ago, we needed to get something going in training," said Farrell.

Hicks hailed the JNN Node as the biggest change in Army communications since the mobile subscriber equipment of more than 20 years ago.

"We are really changing enough that people are taking

WO Francois Pelletier, Company B, 442nd Signal Battalion, monitors the Warfighter Machine Interface of the Joint Network Node. The WMI displays all of the JNN activity and maps out the physical locations of the JNN modules. Pelletier describes the JNN as "an (Internet Technology) department on wheels."

notice," she said.

LTG Steven W. Boutelle, U.S. Army Chief Information Officer/G6, attended the ribbon cutting and said an important step now will be to ensure that those using the equipment are "fully trained, skilled, and educated."

As Soldiers use the equipment, they need to understand how the system functions and its capabilities, not just know how to flip a few switches, he said. Training will not only be for Advanced Individual Training Soldiers but will extend to warrant officers and members of Advanced and Basic Noncommissioned Officers classes.

The training for noncommissioned officers and warrant officers started before any equipment ever arrived at Fort Gordon. The first JNN Network manager course was held in January.

Additional equipment will arrive at the General Dynamics C4 Systems Resident School within the next few months. Two additional JNN and four additional battalion command post nodes are scheduled to arrive next month with a base band hub node to arrive in October.

The first training on the equipment for Advanced Individual Training students is expected to begin in October.

Mrs. Brackett is a contributing writer with The Signal *newspaper, Public Affairs Office, Fort Gordon, Ga.*

Stryker brigade's signal company trains at Gordon

By Charmain Z. Brackett

A new Stryker brigade signal company is training at Fort Gordon.

"We are just standing up," said MAJ Robert Fisher. "Sixty percent of all our personnel are just coming together."

Most of the Soldiers coming into the company are from Hawaii, with some coming from other military bases.

The company's effective date will be Oct. 15. Once together, the company will stay together for the next three years and will be attached to the 2nd Brigade of the 25th Infantry Division.

The company will provide

Styker Brigade Signal Company: SPCs Mathew Yax (left) and Richard Parks train on computer equipment attached to the SMART-T.

beyond line-of-sight communications through high-bandwidth satellite to the 25th ID.

At Fort Gordon, the command group, as well as Soldiers, are taking part in Stryker COHORT, or cohesion and operational readiness training – the initial phase of their training. The team is part of the Army's transformation into a quicker, more mobile force.

"COHORT is unique to Signal," said SFC Michael Holloway with Team Signal, part of Fort Gordon's Directorate of Training.

Through COHORT, the leadership has an opportunity to begin team-building with the Soldiers, he said.

Members of the signal company began arriving earlier in August.

During their time at Fort Gordon, members of the company will be training on the new Joint Network Node. The initial training will give leaders a baseline initial training into JNN, which provides interoperable communications with other service branches.

JNN training combines hands-on experience with computer-based training, including some three-dimensional computer simulations.

2 LT Joshua May of the Stryker brigade signal company said JNN seems "a lot more easy to use than the old. It's a lot more user-friendly."

CPT James Jackson, company commander, said he has positive feelings about JNN.

"I think it's great. It's (Internet protocol)-based. It's a new generation of data and voice communication. It increases the capability of bandwidth," he said.

He added he thinks it will be easier to maintain the new system.

In addition to learning about JNN, the leaders will learn about the battalion command-post communications package and the Ku-band satellite equipment.

Mrs. Brackett is a contributing writer for The Signal *newspaper with the Fort Gordon Public Affairs Office.*

Defending Army networks

By Gordon Van Vleet

As information technology advances, so does the need to harness, control, and protect that technology; and because today's world relies heavily on modern advancements related to information systems and communication, the use of information technology has become equivalent to a major weapon system for the military.

In an effort to maximize the use of information systems technology, and realizing the importance of worldwide command, control, communications, and computers, the United States Army created a direct reporting unit that is responsible for the enterprise execution of the Army's C4/information systems mission placed under the leadership of the Army's chief information officer/G6.

A little more than a year after the 9/11 terrorist attacks, the Army created the Network Enterprise Technology Command/9th Army Signal Command, located at Fort Huachuca, Ariz. Established in October 2002, with MG James C. Hylton as its first commanding general, NETCOM/9th ASC became the Army's single authority to operate, manage, and defend the Army's portion of the Global Information Grid.

"NETCOM's continuing mission priority focuses on being the Army's single authority to operate, manage, and defend the Army's LandWarNet at the enterprise level," said Hylton. "The network is our central nervous system and protecting it is a key mission priority."

"The overarching global concern as it pertains to networks and network defense is to ensure that the right information gets to the right place at the right time with the right level of protection," said Charles Scott, deputy director, Army Network Operations and Security Center, Fort Belvoir, Va. One of the chief means for the Army to defend its networks worldwide is by using a mix of anti-virus solutions under licenses purchased by the Department of Defense and a host of vendors, said Scott. But the Army is using more than anti-virus applications to fend off malicious code. The combined resources of the ANOSC and the Army Computer Emergency Response Team, collocated at Fort Belvoir, Va., are vital in Army computer network defense, said MAJ Genese Muse, operations chief, Continuity of Operations, ANOSC.

The ANOSC is the Army's central point of contact for Network Operations and Computer Network Defense operational matters concerning the Army's portion of the GIG Information Grid, said Muse. NetOps refers to all actions associated with operating, managing and defending a network and devices attached to it.

"Because this integrated approach to systems and network management, information assurance/computer network defense and information dissemination management is vital to the success of Army missions, NetOps has emerged as a mission core competency of NETCOM," said Hylton.

To sustain NetOps as a mission core competency, ANOSC is charged with monitoring and maintaining network vigilance and providing the Army and DoD decision makers a comprehensive, integrated, near real-time, situational awareness and operational reporting capability of the Army's networks, systems, security devices, and designated applications, Scott said. Staffed with military, government civilians, and contractors who provide full-time coverage, leveraging skills and experience of the entire workforce, ANOSC provides a breadth of expertise required to maintain a viable and secure network, he added.

Working under the direction of ANOSC, the ACERT mission is to conduct Computer Network Defense operations in support of the U.S. Army to ensure the availability, integrity, and confidentiality of the information and information sys-

tems used by commanders worldwide, said Muse. "The ACERT is structured to support the warfighter in the detection and response of computer network security events. Regional CERTs (RCERTs) are collocated with Theater Network Operations and Security Centers and have a bird's eye view of all Army networks.

"The ACERT's primary source of network security data is the Army's perimeter network intrusion detection devices, which monitor Army networks at the installation level," Muse said. The ACERT conducts analysis of this and other data as part of its mission to proactively protect, detect, and react to security events on Army networks. As part of this proactive posture, the ACERT is actively involved in analysis of computer and network traffic, incident and intrusion reports, and other relevant information sources in order to improve the Army's ability to protect its critical networked information systems, Muse said.

The ANOSC is an Army-level headquarters that oversees six Army Theater Network Operations and Security Centers located in Europe, the Pacific, Korea, Southwest Asia, Southeastern United States, and CONUS, which covers the bulk of the networks in the United States, said Scott. The six Army theaters have a Network Common Relevant Operational Picture. "This 'picture' provides the ANOSC visibility of the health and operational status of each theater's network," said Scott. In order to ensure the highest state of network readiness, the ANOSC initiates network operations and computer network defense drills Army wide. "Standardizing and honing cyber-warfare techniques, tactics and procedures into enterprise-managed information delivery systems will continue to increase the availability and robustness of our networks," Scott added.

"The powerful combination of the ANOSC/ACERT and the TNOSC/RCERT gives the Army an unparalleled capability to command and control strategic operational and tactical communications networks, Scott said. "As we draw closer to our goal of meshing the Army into a single enterprise network as required for Army transformation, we see our vision and efforts meeting the realities of today and the challenges of tomorrow in providing trusted and assured communications to the warfighter."

As with any information system, there are threats and obstacles that have to be eliminated or neutralized. "Because the growing cyber threat to the Global Information Grid has caused the military to increase its network perimeter defense like never before, our overarching goal is to keep the enemy farther from our network's core," Scott said.

"The defense of the network is a continuous fight, and it is a fight we must continue to pursue," Hylton said. Because of the fast-paced, ever-changing environment of information operations, there will always be obstacles that must be overcome. "Obstacles are only a concern when we lose sight of our objective," said Hylton. "In the case of CND, the objective of protecting the Army's networks is embedded in everything we do in support of the Army's LandWarNet."

"Establishing a complete defense of Army networks is an objective that NETCOM strives for; however, definitive timelines cannot readily be established for the complete defense of the LandWarNet, because as we discover more ways to secure our networks, the enemy finds more creative ways to breach the same," Scott said. Nevertheless, the powerful combination of the ANOSC/ACERT gives the Army an unparalleled capability to command and control strategic, operational and tactical communications networks and gives us more power to detect the enemy and protect the network.

"Protecting the networks is a continuous challenge that we must be prepared to meet," Scott said. "As long as there is need for information to get to the warfighter, we will be behind the scenes working to ensure that information reaches the warfighter quickly and securely."

Mr. Van Vleet is a public affairs officer with Network Enterprise Technology Command/9th Army Signal Command, Fort Huachuca, Ariz.

C4I UPGRADES MEAN DECISIVE SITUATIONAL AWARENESS FOR U.S. COMMANDERS IN REPUBLIC OF KOREA

By Stephen Larsen

Situational awareness – it can be the difference between victory and defeat for warfighters.

By knowing the enemy's strength, location, capabilities, and likely courses of action; conditions of the terrain and weather; the quantity, readiness, and availability of friendly forces and systems; the time available for planning, preparing, and executing the mission; and how civilian considerations can factor into the area of operations – smaller forces can exploit this information to defeat significantly larger forces.

Perhaps nowhere is situational awareness more important to U.S. forces than in the Republic of Korea, where the two-and-a-half-mile-wide strip of land known as the Demilitarized Zone is the only thing separating about one million North Korean troops from the Republic of Korea. Keep in mind that, although the last shots were fired more than 50 years ago, the Korean War has not yet officially ended – there is no formal peace treaty, merely an armistice, a temporary suspension of hostilities.

Monitoring situational awareness in the Republic of Korea today with the goal of deterring hostilities is the Combined Forces Command, a bi-national defense team made up of forces of the Republic of Korea in tandem with U.S. Forces Korea. Providing the situational awareness monitoring tools at Joint and U.S. Army command posts in the Republic of Korea is the Command Center Upgrades/Special Projects Office of the Project Manager, Defense Communications and Army Transmission Systems of Fort Monmouth,

Soldiers exit a Stryker vehicle during a simulated convoy attack during a recent reception, staging, onward movement and integration exercise in the Republic of Korea.

N.J. , part of the Army's Program Executive Office, Enterprise Information Systems.

Through their Theater Systems Integration Office-Pacific field office in Seoul, CCU/SPO recently completed a series of upgrades to command centers and command posts in the Republic of Korea, increasing the effectiveness of the command, control, communications, computers and intelligence tools available to U.S. commanders. At each location, CCU/SPO provided engineering, acquisition and implementation of strategic voice, data and video systems, including renovations to outmoded facilities, upgrades to combatant commander–unique systems such as emergency action reporting systems, crisis action systems, and battle staff displays.

Upgrades for EUSA at Command Post OSCAR

For the Eighth United States Army at Command Post OSCAR, in March 2004, CCU/SPO provided C4I tools in a "bridge area" for the EUSA Commander, separate from the main operations area, allowing the commander to conduct conferences and video teleconferences without disruption to daily operations. They completed the project in time to support RSOI (reception, staging, onward movement and integration – tasks units must complete as part of deployment).

In March 2005, CCU/SPO followed-on the Command Post OSCAR bridge upgrade project by completing an upgrade to the EUSA operations center at Command Post OSCAR. According to Kin Chan, CCU/SPO's assistant project manager, TSIO-P, the EAOC upgrade included converting all local area network architectures to a gigabit backbone with fast Ethernet to the desktop; increasing the number of communications outlets available within the compound to one for every 50 square feet; replacing outside cable plant to support the LAN infrastructure and maximize voice/data throughput; upgrading the Command Information Display System to maximize its ability to display the CFC Common Operating Picture in the EAOC and other buildings at Command Post OSCAR; modernizing the existing VTC system to voice-activated video cameras; and designing and installing a telephonic alert system throughout the compound, to allow broadcasting of pre-recorded alert messages via the telephone system upon entering a code number from the EAOC.

"We basically stripped and completely rebuilt the EAOC," said Chan. "We replaced the old floor and tier system with a dual-level raised metal floor, and changed the room orientation by 90 degrees so personnel could better view the displays, which form a knowledge wall."

The solution was modular, used commercial-off-the shelf products and open systems architecture and allows surge expansion during exercises and real-world events," said InSeon Lim of the CCU/SPO TSIO-P field office in Seoul, who serves as CCU/SPO's eyes-and-ears on the ground for projects in the Republic of Korea. "That way, it will allow for future technology insertion with relative ease."

Upgrades for 2ID at Camp Red Cloud

The 2nd Infantry Division, the major U.S. ground combat unit in the Republic of Korea, is headquartered at Camp Red Cloud, Uijongbu, and has the primary mission to deter war on the Korean peninsula by standing shoulder-to-shoulder with first-echelon Republic of Korea units immediately south of the DMZ. CCU/SPO is upgrading C4I capabilities at the 2ID Command Post at Camp Red Cloud, including upgrading the 2ID computer network, providing audio, and video capabilities in the Plans and Exercise room and command offices, and providing network extension to the Air Support Operations Center, Division Tactical Operations Center and Division Topographic Team rooms.

In the command offices, CCU/SPO is wiring for new high capacity networks, installing common situational awareness tools, and providing the commander an ability to conduct collaborative planning from his office.

In the PLEX room, CCU/SPO is improving the computer network

In March 2005, CCU/SPO followed-on the Command Post OSCAR bridge upgrade project by completing an upgrade to the Eighth United States Army Operations Center at Command Post OSCAR.

and is integrating video display systems and collaboration tools such as VTC cameras, video markers, and displays into the existing video and audio switching system.

"The video markers are the same type of capability you see on *Monday Night Football*," said Lim, "where the broadcaster can draw right on the screen to show how plays unfold. Likewise, the military commander can draw on maps or other images on the screen to direct and focus attention and emphasize key points."

CCU/SPO is also extending the network and visualization tools to selected rooms in the command center, such as the Air Support Operations Center, the Division Tactical Operations Center, the division Topographic team room and the G2 Analysis and Control Element Operations Pit, ACE Imagery Intelligence Pit, Multidiscipline Counterintelligence Room and Collection Management and Dissemination Room.

Crystal plaque and Bronze Order of Mercury

But what does it all mean for the customer, the warfighters in the Republic of Korea?

"The work by Mr. Lim, Mr. Chan and the PM DCATS team was outstanding," said COL William Ivey, EUSA Chief of Staff. "Their efforts to complete the EUSA Operations Center project on a tight timeline before RSOI allowed us to make significant strides in our ability to provide battle command to Eighth Army. The collaboration and information sharing amid the staff because of the enablers you provided – such as the knowledge wall and VoIP (Voice over Internet Protocol) phones, increased our ability to see the battlefield, understand the battlefield, and act decisively."

The U.S. Forces Korea leadership was so pleased with the success of the EUSA Operations Center project and the 2ID upgrades at Camp Red Cloud – along with Lim's work on similar upgrade projects for the 7th Air Force at Osan Air Base, for the 19th Theater Support Command at Command Post 19, Daegu and for EUSA at Yongsan Compound, Seoul – that on March 7, 2005, LTG Charles Campbell, commander of EUSA, presented Lim with a crystal plaque to recognize his efforts.

"The C4I communications technologies upgrades were instrumental in increasing the USFK and EUSA Commanding Generals' situational awareness with a Common Operational Picture of the battlefield, allowing quicker decisions and responses in fighting the Global War on Terrorism," said Campbell, in presenting the crystal plaque to Lim.

In addition, the USFK leadership nominated Lim for the U.S. Army Signal Corps Regimental Association's Bronze Order of Mercury, an award for people who have demonstrated the highest standards of integrity, moral character, professional competence and selflessness, and who have contributed significantly to the promotion of the Signal Corps. MG James Hylton, Commander of the U. S. Army Network Enterprise Technology Command/9th Army Signal Command, presented the award to Lim on May 14 at the Signal Ball in Seoul.

"All of these accomplishments," said COL Ronald Bouchard, the executive officer for the commander of CFC/USFK and former G-6, communications officer, of EUSA, "have enabled commanding generals at the USFK, the EUSA, the 2ID and the 19th TSC (19th Theater Support Command) levels to exercise maximum command and control visibility over their respective commands."

"There is no organization quite like CCU/SPO," said Chan, "no other project manager that integrates multiple C4I technical disciplines such as data, voice, audio/video distribution, briefing display systems and video teleconferencing systems. To renovate or move a command center – we'll do it and bring in whatever expertise we need to get it done."

"There are PMs involved with information transport, or even switching, to move data from Point A to Point B," added Russ Wagnon of CCU/SPO's TSIO-P. "But what do

MG James Hylton (left), commander of the U. S. Army Network Enterprise Technology Command/9th Army Signal Command, introduces InSeon Lim of CCU/SPO TSIO-P to colleagues at the Signal Ball in Seoul on May 14. Hylton presented the U.S. Army Signal Corps Regimental Association's Bronze Order of Mercury award to Lim (which Lim is wearing) at the Signal Ball.

you do with the data when you get it to Point A or Point B? Well, we handle both Point A and Point B. We help you drink from the fire hydrant once you've opened it. We're the integrating PM, the information processing guys in terms of infrastructure."

"If it exists, we'll integrate it," said Chan. "If it doesn't exist, we'll develop a solution."

A case in point? Currently, Chan said, CCU/SPO has designed and built a J2 Intelligence Community Defense Message System architecture using the Secure Interdomain Routing and Information System solution.

"This architecture enables removal of legacy Communications Support Processors, and will bring the CFC/USFK IC DMS architecture into compliance with the current Department of the Army architecture," said Chan.

"We appreciate CCU/SPO's involvement in assisting us in improving our situational awareness, information sharing and collaborative analysis," said Ivey. "They are outstanding partners with Eighth Army, and I look forward to continuing to successfully meet the challenges with them as we forge ahead."

Mr. Larsen is with Program Manager, Defense Communications and Army Transmission Systems at Fort Monmouth, N.J.

Three acquisition professionals assume war zone project management positions

By Stephen Larsen

FORT MONMOUTH, N.J. – In a change of charter ceremony at Fort Monmouth on July, 7, three acquisition professionals assumed project management positions with responsibility for multiple programs in the combat zones of Iraq and Afghanistan.

COL Gale Harrington received the charter as the Project Manager, Defense Communications and Army Transmission Systems, replacing COL Lee Price, who was honored as the Army's Project Manager of the Year for 2004 and will soon be starting her new assignment as Principal Deputy to the Acquisition Executive for the U.S. Special Operations Command. Thomas Lucy received the charter as Product Manager, Defense Wide Transmission Systems, replacing LTC Earl Noble, who is departing for the Army War College. LTC Joseph Schafer received a newly-established charter as Product Manager, Kuwait Iraq C4 Commercialization.

During the ceremony, Price was awarded the Legion of Merit, Noble was awarded the Meritorious Service Medal, Lucy was awarded the Achievement Medal for Civilian Service and Schafer was awarded the Legion of Merit.

Also, Price, Noble, and Schafer were awarded Combat Action Badges for coming under direct fire while performing their duties in managing projects in Iraq.

"We have heroes in the acquisition corps," said Carroll Kevin Carroll, the U.S. Army Program Executive Officer, Enterprise Information Systems, in his remarks at the ceremony. "You don't usually think of Acquisition Corps people that way, but our acquisition Soldiers, Civilians and contractors go to the combat zone, come under fire and stay to do the job."

Noble said to Price, "You're living proof that a nice person can also be a steely-eyed warrior. I followed you into war, and I'd follow you again."

Responsible for programs valued at more than $2 billion

As PM DCATS, she is responsible for managing programs valued at more than $2 billion that support the Army, Joint Services, National Command Authority, and combatant commanders.

"I'm honored and humbled to be coming to an organization with the reputation of PM DCATS," said Harrington.

Harrington comes to PM DCATS from the Army War College, Carlisle, Pa. Prior to that, she served as Product Manager, Common

COL Gale Harrington (left), the incoming Project Manager, Defense Communications and Army Transmission Systems, holds the charter that Kevin Carroll (center), U.S. Army Program Executive Officer, Enterprise Information Systems just presented to her. Looking on is COL Lee Price, the outgoing PM DCATS.

Hardware Systems for the Program Executive Office, Command, Control, and Communications Tactical since June, 2001. During her tenure as PM CHS, Harrington deployed to Kuwait from February, 2003 to June 2003, where she served as Operations Officer for the PEO C3T forward element in support of Operation Iraqi Freedom. In February 2004, she assumed the additional duties as Chief of Staff for PEO C3T.

A West Point graduate, Harrington was commissioned in the Signal Corps in 1982 and subsequent assignments included stints in the Republic of Korea in the 122nd Signal Battalion as battalion maintenance officer, division radio officer, and battalion S-4. Harrington and at Fort Lewis, Wash., where she served in the I Corps Signal Office as the telecommunications center officer and in the 29th Signal Battalion as a company commander. Harrington's awards and decorations include the Bronze Star Medal, the Meritorious Service Medal with five oak-leaf clusters, the Army Commendation Medal with oak leaf cluster, the Army Parachutist Badge and the Canadian Parachutist Badge.

Thomas Lucy, as PM DWTS, will be responsible for managing communications infrastructure and other programs valued at more than $578 million, including the Army G-4's number one initiative to "Connect Army Logisticians" with Combat Service Support Satellite Communications systems and providing Improved Tactical Headsets that allow Soldiers to communicate in the high-noise environments of armored combat vehicles, a top priority of the Vice Chief of Staff of the Army. PM DWTS was also recently tapped by Army leadership to integrate communications infrastructure in Afghanistan.

Lucy, whose government career started in 1973, served as deputy PM DWTS from 2000 to 2005, also served in the Horizontal Technology Office of the U.S. Army Communications-Electronics Command Systems Management Center from 1997 to 2000, and as deputy PM, Army Small Computer Program from 1994 to 1997.

A native of New Jersey and graduate of Seton Hall University, South Orange, N.J., Lucy was a platoon leader in the U.S. Army in Vietnam from 1968 to1970. His military awards and decorations include the Silver Star, the Bronze Star Medal with V Device, Purple Heart with two Oak Leaf Clusters, Combat Infantryman Badge and the Senior Parachutist Badge.

"When I think of PM DWTS," said Noble, in his remarks after passing the PM DWTS charter to Lucy, "I think of Tom Lucy. He's a warrior, he proved his mettle in Vietnam, he's an acquisition professional – PM DWTS is in very good hands."

As PM KICC, Schafer is managing programs valued at over $500 million supporting enterprise battle command of U.S. and Coalition forces in the combat zone. Schafer served as the assistant PM, KICC since April 2003, starting the project from scratch in the aftermath of the ground war in Iraq. Carroll said that Schafer's charter as PM KICC was acknowledgement of what he's already accomplished in his two years on the job as APM KICC.

"It took the Army some time, but they've caught up with the importance of the KICC effort," said Carroll to Schafer.

Prior to assuming the KICC mission in April 2003, Schafer served as the Senior Engineer for the Information Assurance and Security Engineering Directorate of the Information Systems Engineering Command, Fort Huachuca, Ariz. A West Point graduate, Schafer was commissioned in the Signal Corps, and subsequently served in the 2nd Infantry Division as an Artillery Communications Platoon Leader and Communications Electronics Staff Officer at Camp Stanley, Korea, and in the 41st Signal Battalion S3 office until assuming command of the 1st Signal Brigade Headquarters Company in Korea. Schafer deployed to Saudi Arabia for Operation Desert Storm where he served as the Command Signal Officer for 3rd Army's 10th Personnel Command. Schafer's awards and decorations include Legion of Merit, Bronze Star, Meritorious Service Medal with three Oak Leaf Clusters, Army Commendation Medal with two Oak Leaf Clusters, the Ranger

Thomas Lucy, the Product Manager, Defense Wide Transmission Systems will manage infrastructure.

LTC Joseph Schafer, the Product Manager, Kuwait Iraq C4 Commercialization, manages programs supporting enterprise battle command in the combat zone.

Tab, Parachutist Badge and Air Assault Badge.

War zone casualties

Schafer said of his duties as PM KICC, "our motto is build the GIG and extend the GIG in the combat zone." He told of the challenges of starting the effort to build the infrastructure from scratch in the days following the ground war in Iraq, then paused to remember comrades who had been killed in Iraq, including SSG Miguel Ramos, 807th Signal Battalion, Puerto Rico Army National Guard, who was killed in a rocket attack on Victory Base and an Iraqi woman named Regina, who cleaned the KICC compound in Baghdad and was murdered by insurgents while on a bus, awaiting clearance to enter the U.S. compound.

Price told Harrington that one of her constant concerns as PM DCATS will be for the safety of her people in the war zone.

"As a brigade commander, you have to worry about your people for a year," said Price. "But as PM, you have to worry about your people for three years. You don't forget about them at night as you're trying to go to sleep."

Mr. Larsen is with Program Manager, Defense Communications and Army Transmission Systems at Fort Monmouth, N.J.

Suggestion increases warfighter readiness

By Anthony Ricchiazzi

Tobyhanna army depot, Pa.—An electronics mechanic leader at Tobyhanna Army Depot has developed screening and repair procedures for an electronics system that will save Soldiers in the field time and money.

Stephen Bucklaw was alerted that units had to send their KIV-19/19A Trunk Encryption Devices to the manufacturer just to check them for possible maintenance. If the warranty was expired, then the unit had to pay shipping and repair costs. The devices encrypt and decrypt communications data.

"Screening the KIV-19 and 19A here or in the field saves units shipping costs and gets the systems back into service quicker, provided major repairs aren't needed," said Bucklaw, who has worked in the depot's Communications Security and Tactical Missile Systems Directorate for about seven years. "The FRA (Forward Repair Activity) at Camp Liberty in Iraq notified us that they were being asked to perform these functions."

Stephen Bucklaw tests a KIV-19 Trunk Encryption Device at Tobyhanna Army Depot. He developed a procedure to screen and make minor repairs to KIV-19s, saving time and money. Bucklaw is an electronics mechanic leader in the depot's Communications Security and Tactical Missile Systems Directorate.

Bucklaw researched technical materials from the manufacturer and Army manuals for the KG-194 and 194A Trunk Encryption Devices because the KIV-19 is replacing them. He developed the screening and repair procedures for minor maintenance at the FRA and Tobyhanna.

"This maintenance can be simply replacing defective circuit boards or other components. We can purchase the stock from the manufacturer," he explained. "We can replace defective units with our warehouse stock, screen them, repair if possible or send them to the manufacturer if necessary."

Bucklaw earned a $1,000 award for his suggestion.

Editor's Note: This suggestion was reviewed by COMSEC, the depot's Productivity Improvement and Innovation Directorate and the Communications Security Logistics Activity, Fort Huachuca, Ariz., and approved in May 2005.

Tobyhanna Army Depot is the Defense Department's largest center for the repair, overhaul and fabrication of a wide variety of electronics systems and components, from tactical field radios to the ground terminals for the defense satellite communications network. Tobyhanna's missions support all branches of the Armed Forces.

Tobyhanna Army Depot is part of the U.S. Army Communications-Electronics Life Cycle Management Command. Headquartered at Fort Monmouth, N.J., C-E LCMC's mission is to research, develop, acquire, field and sustain communications, command, control computer, intelligence, electronic warfare and sensors capabilities for the Armed Forces.

Mr. Ricchiazzi is with Tobyhanna Army Depot's Public Affairs Office, Tobyhanna, Pa.

Radar overhaul time decreases by months

By Anthony Ricchiazzi

Tobyhanna Army Depot, Pa.—Teamwork, increased experience, and new technology have nearly halved the time to overhaul an AN/TPS-75 Radar System.

Technicians in Tobyhanna Army Depot's Surveillance Systems Directorate worked with personnel in other depot directorates to reduce a 12-month overhaul of a system to seven months.

The AN/TPS-75 Radar System is a mobile, tactical radar system capable of providing long-range radar azimuth, range and height information along with identification friend or foe capability for operations and control of tactical aircraft.

It is the backbone of the U.S. Air Force's Air Defense System, providing "real time" radar airspace picture and data in support of the battle commander and the Ground Theater Air Control System, said Danny Shea, the directorate's Surveillance Radar Systems Branch supervisor.

A TPS-75 is overhauled every five years. Tobyhanna technicians completely disassemble it, send components to support shops for repair, make any necessary modifications, test and field it.

The work began in 2001. At the time, it took Tobyhanna nearly two years for a complete overhaul, said Keith Wheeler, electronics mechanic leader.

"They are all challenging," he added. "The system is very complex and any component could need repairing, although most problems are related to circuit cards and wiring harnesses."

"Most that come in are in pretty bad shape," said David Riley, electronics mechanic leader. "After we are done overhauling and testing them, Air Force operators test the system (in real time) by identifying commercial aircraft."

As the mission progressed, technicians' increased experience started pushing back the time needed for an overhaul. They began to organize the branch to further reduce the time using Lean training provided by depot Productivity Improvement and Innovation directorate personnel.

Lean is a program used to identify and eliminate wasteful procedures and organization.

"Three other items were implemented that helped us," Riley said. "RFID (Radio Frequency Identification), a list that provides 100 percent material visibility and automating two tags."

The RFID is a wireless tracking system pilot program begun in 2004 called the Real Time Locating System. It uses radio frequency tags and a computer database to track and locate components through the overhaul process.

Riley said RFID tracking gives real time data, which enables them to establish work flow of components and address problem areas, increasing efficiency.

"Establishing a 100 percent material list enables us to order parts and components needed every time a system is inducted for overhaul," Wheeler said. "This assures that each system has a standard item per item parts list for proper assembly of each unit."

Branch employees devised storage cabinets to keep commonly used parts in bins at locations where they are used. Amount of stocked parts are only kept on hand for each particular system or job, which has saved time and money.

"The cabinets go hand-in-hand with organizing all work areas to make it easy for teams to work as quickly and accurately as possible," Wheeler added. "It was a Lean-related effort that was reviewed by the (Productivity Improvement and Innovation Directorate). They liked what they saw and approved our methods as in keeping with the Lean program."

The employees, working with depot Information Management Directorate technicians, developed an automated sticker that has standard information, which is placed on all TPS-75 process tags.

"You just type in the job number and serial number in a computer instead of handwriting

Brian Wesolowski installs a circuit card in an AN/TPS-75 Radar System shelter signal processor rack. Replacing circuit cards is part of the overhaul process for the radar system. Depot personnel have decreased the radar's overhaul time by almost 50 percent. Wesolowski is an electronics worker in Tobyhanna Army Depot's Surveillance Systems Directorate.

complete information over and over again," Riley explained. "It cuts 80 percent of the manual labor filling in the tag, and they're needed for all components and parts through each support shop, 188 circuit cards alone. DOIM came up with the stickers and programming."

An automated intershop work order routing tag is being developed now that promises the same time savings.

These improvements have not only reduced the time for a complete system overhaul, but have demonstrated how a highly organized and functional shop has reduced the time to rebuild and overhaul antennas and complete systems.

The employees have another proposal to increase the number of test sites to further reduce the time needed to complete a system.

"We're looking into installing three test areas, two outside our assembly area for preliminary start up before going to the test site at Powder Smoke Ridge and one on Powder Smoke Ridge. This will provide 70 percent testing of a shelter before it gets final testing at Powder Smoke Ridge," Wheeler said. "We also would like to install an additional test pad on Powder Smoke Ridge for 100 percent system testing."

Wheeler and Riley credited these efforts and the support from other directorates for helping them reach their goal of a six- to eight-month complete overhaul.

Tobyhanna has completed 13 TPS-75 systems, three TPS-75 antennas and 41 mobile depot maintenance antenna pedestal bearing installations throughout the United States, and in Germany and Italy, Shea said.

"This dedicated group of employees also continue to support the warfighter by volunteering to support Air Force Air Combat Command radar units in Iraq to enable continuous readiness," he added.

Tobyhanna Army Depot is the Defense Department's largest center for the repair, overhaul and fabrication of a wide variety of electronics systems and components, from tactical field radios to the ground terminals for the defense satellite communications network. Tobyhanna's missions support all branches of the Armed Forces.

About 4,400 personnel are employed at Tobyhanna, which is located in the Pocono Mountains of northeastern Pennsylvania.

Tobyhanna Army Depot is part of the U.S. Army Communications-Electronics Life Cycle Management Command. Headquartered at Fort Monmouth, N.J., C-E LCMC's mission is to research, develop, acquire, field and sustain communications, command, control computer, intelligence, electronic warfare and sensors capabilities for the Armed Forces.

Mr. Ricchiazzi is with the Tobyhanna Army Depot Public Affairs Office, Tobyhanna, Pa.

OF INTEREST

NETCOM/9TH ASC

CONTINUES TO PROVIDE SUPPORT

FORT HUACHUCA, Ariz. (NETCOM/9th ASC) – Elements of the U.S. Army Network Enterprise Technology Command/9th Army Signal Command continues to support the growing relief efforts. Currently, Soldiers and equipment are flowing into the Gulf Coast region affected by Hurricane Katrina.

Nearly 40 Soldiers from the 93rd Signal Brigade (a subordinate unit under NETCOM/9th ASC), from Fort Gordon, Ga., have joined 50 others who set up communications at Camp Shelby, Miss. Most Soldiers are from the brigade's 67th

Signal Battalion. The Soldiers are providing communications support to Federal Agencies and the Department of Defense joint task force (1st Army) there. Additionally, more tactical satellite and data switching/multiplex equipment was sent to support the expanding role of the Signal Soldiers there. Communications services provided include secure and non-secure voice and data services (telephone, e-mail, Internet and intranet) and video teleconferencing.

Almost 90 additional Soldiers, also from the 93rd Signal Brigade, deployed to Baton Rouge, La., to provide tactical satellite communications support the 5th Army headquarters there, and to organizations on the ground in New Orleans.

Volunteer Army MARS members continue to maintain emergency radio nets over two regions encompassing 13 states, several which were directly affected by the hurricane. While the exact number of volunteers on air is not yet known, several are assisting military medical units and the Red Cross with communications. The Army MARS program is part of the overarching DoD MARS program, and is primarily staffed by volunteer radio system operators. NETCOM/9th ASC has oversight of the Army MARS program.

There are also people behind the scenes here in Fort Huachuca supporting Army organizations affected by the hurricane. Employees of the CONUS Theater Network Operations and Security Center, including the Computer Emergency Response Team, have been continuously working to restore network connectivity via restoration or alternate routing of networks throughout the impacted region. They are also assisting organizations such as the Army Corps of Engineers with provisioning of additional bandwidth and relocating multiple servers away from the devastated areas. These efforts will ensure the CoE is able to maintain continued mission capabilities.

"First and foremost, our heartfelt condolences go out to all those affected by this terrible disaster," said MG James Hylton, NETCOM/9th ASC Commanding General. "The NETCOM/9th ASC team – on the ground and in the network centers – is working tirelessly to restore DoD network capabilities, and supporting the military task force and those federal agencies that are bringing help and relief throughout the region. As this relief effort continues, we are prepared to support with everything at our disposal."

Army project manager quickly deploys 'Connect Army Logisticians' comm systems to support Katrina relief

By Sandy Santiago

FORT MONMOUTH, N.J. – Within days of Hurricane Katrina, the Project Manager, Defense Communications and Army Transmission Systems' Product Manager, Defense Wide Transmission System

Efren Morales is shown here in Kuwait with Combat Service Support Very Small Aperture Terminals of the type the Product Manager, Defense Wide Transmission System provided to support Hurricane Katrina relief efforts. CSS VSATs along with Combat Service Support Automated Information Systems Interfaces together make up the CSS SATCOM system, the same seamless solution PM DWTS is providing to Soldiers in Iraq and elsewhere around the world to support the Army G-4's 'Connect Army Logisticians' initiative.

A Combat Service Support Very Small Aperture Terminal is a part of the sytem the Product Manager, Defense Wide Transmission System provided to support Hurricane Katrina relief efforts. CSS VSATs along with Combat Service Support Automated Information Systems Interfaces together make up the CSS SATCOM system, the same seamless solution PM DWTS is providing to Soldiers in Iraq and elsewhere around the world to support the Army G-4's 'Connect Army Logisticians' initiative.

quickly acted to deploy communications systems to replace devastated communications infrastructure.

On Aug. 31, PM DWTS received an Army directive to provide two satellite communications terminals and two accompanying technicians to support relief efforts at Baton Rouge, La. According to Thomas Lucy, the Product Manager, Defense Wide Transmission Systems, within two days his organization had two Combat Service Support Very Small Aperture Terminals and technicians Efrin Morales and Christopher LaSalle on the ground in Louisiana.

On Sept. 9, PM DWTS was tasked to deploy eight additional CSS SATCOM systems along with seven additional technicians to Louisiana to support the relief effort. Lucy said PM DWTS responded by sending CSS SATCOM systems – which include CSS VSATs in tandem with the CSS Automated Information Systems Interface, which wirelessly connects the system to a local or wide area network.

PM DWTS had these additional systems and technicians on the ground by Sept. 11, said Lucy, noting that these CSS SATCOM

The Product Manager, Defense Wide Transmission System provided three vehicle-mounted version of the Multi-Media Communications Systems to support Hurricane Katrina relief efforts.

systems deployed in support of Hurricane Katrina relief are "the same seamless solution PM DWTS is providing to Soldiers in Iraq and elsewhere around the world to support the Army G-4's 'Connect Army Logisticians' initiative."

Multi-media communications systems for logistics command and control

Lucy said that PM DWTS was also directed on Sept. 3 by Army Field Support Command headquarters to deploy two AFSC-owned vehicle-mounted Multi-Media Communications Systems – which provide satellite access for Non-secure Internet Protocol Router Network and Secret Internet Protocol Router Network connectivity – to support the relief effort.

Lucy said these two vehicle-mounted MMCS were to meet up with a vehicle-mounted MMCS that was already located in Fort Polk, La., and that PM DWTS had the systems on the ground in Louisiana and on-line by Sept. 5 to serve as the main command and control systems for the logistics portion of the relief effort.

"We also have a fourth vehicle-mounted MMCS here at Fort Monmouth, which we've got standing by for deployment, if needed," said Lucy.

Lucy said he was pleased, but not surprised, by how quickly his team was able to respond to the call for help.

"What you've got to under-

stand is that when our people first got to Louisiana, there was nothing – absolute devastation," said Lucy. "We now have three vehicle-mounted MMCS and 10 CSS SATCOMs on-site. In less two weeks, we've helped to get a viable logistics communications backbone up-and-running in a disaster zone."

The Project Manager, Defense Communications and Army Transmission Systems/Product Manager, Defense Wide Transmission System, located at Fort Monmouth, N.J., report to the Program Executive Office, Enterprise Information Systems, located at Fort Belvoir, Va.

Sandy Santiago is with the Project Manager Defense Communications and Army Transmission Systems at Fort Monmouth, N.J.

WARRANT-OFFICER NOTES

NCOs, WARRANT OFFICERS EARN COLLEGE CREDIT HOURS AND ASSOCIATE DEGREES

By Mary Hammond and Charles Lee

The Warrant Officer Training Division in the School of Information Technology at Fort Gordon, Ga., established a pilot program in September 2003 to allow student noncommissioned officers to obtain college credit. The program has since expanded to include warrant officers and become a permanent feature in the WOTD. By end of summer there will be two Warrant Officer Basic Course students who will each actually earn an associate degree through this program.

The program is a dual enrollment in the SIT and the Augusta Technical College. Students in the Signal Regiment's military occupation specialty of 25B, Information Operator/Analyst, must come to the WOTD/SIT to receive their career training for their Advanced Noncommissioned Officer Course. Student warrant officers in MOS 251A, Information Systems Technician, attending Warrant Officer Basic or Advanced Courses are also eligible for enrollment. The specific training is the SIT Cisco Academy Training Sessions semesters one through four which correlate with the ATC Cisco Certified Network Administrator Specialist Technical Certificate of Credit. Students earn 24 undergraduate quarter credit hours when they successfully complete their course. The total cost of the dual enrollment is $488. The tuition and fees costs are offset by use of the HOPE grant for eligible students. Georgia residents and active duty military personnel both in a permanent change of station or temporary duty status are eligible for the HOPE grant. If ineligible for any reason, tuition assistance may be obtained through the Veterans Administration. Students are provided a $100 book voucher towards the book cost of $105. In addition, ATC waives the $15 application fee as well.

The dual enrollment in the SIT and ATC is extremely popular among the students attending courses at Fort Gordon. In fact within a year and a half, 370 noncommissioned officers and 78 warrant officers have earned the 24 undergraduate credit hours.

We've recently offered warrant officers the ability to earn an associate degree through ATC. This summer, the SIT will have two Warrant Officer Basic Course students earn enough credit through dual enrollment, from credit awarded from other classes in WOBC, and the ATC General Education program to meet the requirement to earn their Computer Network Technology Associate Degree. This degree was approved by ATC in January 2005.

For more information about ATC-SIT Dual Enrollment e-mail leechar@gordon.army.mil.

COL (Ret.) Hammond is a Gilberton, Pa., native who enlisted in the United States Army in 1973 and received her commission as a second lieutenant in 1974. She retired from active duty in 2001. While on active duty, she commanded at the platoon level three times, two times as a company commander, battalion commander, and up to the brigade equivalent level as the systems manager for satellite communications for the Army. She has served as an assignments officer for Army majors, two times as an Army staff officer, brigade logistics officer, speech writer for the director of DISA, and also an ROTC instructor. Her assignments have been worldwide to include various locations in CONUS, Korea and Germany. She holds a Bachelors of Science degree, a Master of Business Administration, and a Master of Science Degree. Her awards include the Legion of Merit, Bronze and Silver Order of Mercury, multiple MSMs and ARCOMs and a Service Award from the U.S. Coast Guard for her work with them on the Alaskan oil spill. Hammond is currently the deputy director of the SIT at Fort Gordon and has made Augusta her home.

Mr. Lee is an American born in Seoul, Korea. He enlisted in the U.S. Army in 1995 and served as an infantryman in the 101st Airborne Division, the 2nd Infantry Division, and the U.S. Army Computer Science School (now the School of Information Technology or SIT) at Fort Gordon, Ga. Upon assignment to the SIT, he reclassified into the MOS 25B, Information Systems Operator/Analyst. Most notably, his extensive information technology background and experience allowed him to complete all MOS 25B Course requirements in one day. He was subsequently assigned as an instructor in the SIT and served there until the end of his enlistment. Lee then served as a networking instructor for the Augusta Technical College. He continued his affiliation with the U.S. Army in his work at ATC by always looking for ways to better serve and support the education efforts of our Soldiers. He personally spearheaded the dual enrollment program between the SIT and ATC making it a success for the U.S. Army Signal Center and School. Lee was recently hired into the U.S. Army Civilian Corps and currently serves as the course manger for Signal warrant officers in the SIT.

Acronym QuickScan

2ID – 2nd Infantry Division
ACE – Analysis and Control Element
ACERT – Army Computer Emergency Response Team
AFSC – Army Field Support Command
ANCOC – Advanced Noncommissioned Officer Course
ANOSC – Army Network Operations and Security Center
ASC – Army Signal Command
ASOC – Air Support Operations Center
ASCP – Army Small Computer Program
ATC – Augusta Technical College
C4 – command, control, communications, and computers
C4I – command, control, communications, computers, and intelligence
CAISI – Combat Service Support Automated Information Systems Interface
CCU/SPO – Command Center Upgrades/Special Projects Office
CECOM SMC – Communications-Electronics Command Systems Management Center
C-ELMC – Communications-Electronics Life Cycle Management Command
CFC – Combined Forces Command
CIDS – Command Information Display System
CCNA – Cisco Certified Network Administrator
COHORT – cohesion and operational readiness training
COMSEC – Communications Security
COP – common operational picture
COTS – commercial-off-the-shelf
CSP – Communications Support Processors
CSS VSAT – Combat Service Support Very Small Aperture Terminal
CTT – Common Task Testing
CSS SATCOM – Combat Service Support Satellite Communications
DMZ – Demilitarized Zone
DOIM – depot Information Management Directorate
DTOC – Division Tactical Operations Center
FRA – Forward Repair Activity
EAOC – EUSA Operations Center
EUSA – Eighth United States Army
GIG – Global Information Grid
HHC – Headquarters and Headquarters Command
IC DMS – Community Defense Message System
ITH – Improved Tactical Headsets
ITSB – Integrated Theater Signal Battalion
IMINT – Imagery Intelligence
JNN – Joint Node Network
LAN – local area network
KICC – Kuwait Iraq C4 Commercialization
MMCS – Multi-Media Communications Systems
MOS – Military Occupation Specialty
NCO – non-commissioned officer
NETCOM – Network Enterprise Technology Command
NIPRNET – Non-secure Internet Protocol Router Network
OPTEMPO – operations tempo
PCS – permanent change of station
PEO EIS – Program Executive Office, Enterprise Information Systems
PLEX – Plans and Exercise
PEO C3T – Program Executive Office, Command, Control, and Communications Tactical
PM DCATS – Project Manager, Defense Communications and Army Transmission Systems
PM CHS – Program Manager Common Hardware Systems
PM DWTS – Product Manager, Defense Wide Transmission Systems
PM KICC – Product Manager, Kuwait Iraq C4 Commercialization
RCERT – Regional Computer Emergency Response Team
RFID – Radio Frequency Identification
SATCOM – satellite communications
SAW – Squad Automatic Weapon
SIPRNET – Secret Internet Protocol Router Network
SIRIS – Secure Inter-domain Routing and Information System
SIT – School of Information Technology
TDY – temporary duty
TOPO – Topographic
TSC – Theater Support Command
TSIO-P – Theater Systems Integration Office-Pacific
USFK – U.S. Forces Korea
USSOCOM – U.S. Special Operations Command
VoIP – Voice over Internet Protocol
VTC – video teleconference
WMI – Warfighter Machine Interface
WOAC – Warrant Officer Advanced Course
WOBC – Warrant Officer Basic Course
WOTD – Warrant Officer Training Division

Army in Europe Publishing Program: balancing the need for electronic and printed publications

By Mary Ann Brehm

Introduction

The Army in Europe has a long tradition of excellence in publishing. Over the past 20 years, members of the Army in Europe publishing staff have won the Secretary of the Army Award for Publications Improvements and the Army Editor of the Year 11 times. This tradition is a result of command emphasis on ensuring that the right Soldiers get the right information at the right time. This has been achieved by balancing the need for electronic and printed publications.

Army policy must be relevant to the mission and published in a medium that is immediately accessible by those who need it (i.e., leaders, Soldiers, Civilian employees, and family members). This applies regardless of whether the user is in garrison or deployed. Policy must address today's technology and identify changes in responsibilities and organizational structures. This policy is used as the legal basis for all missions and functions; it is also used in the effort to prevent accidents, security violations, and actions that may be illegal, unethical, or wasteful.

In Europe, the Army in Europe Publishing System gives Soldiers online access to policy through electronic publications. It also provides instructions on how to order printed publications and blank forms.

Background

Beginning in 1986, the Office of the Deputy Chief of Staff, G6, HQ USAREUR/7A, together with 5th Signal Command programmers, developed the Publications Requirements System, which was an automated, data-based publications-ordering system. PURS was one of the first publications-ordering systems developed by a major Army command. It replaced the tedious process of manually completing DA Forms 4569 and the DA Form 12-series subscriptions.

Initially publications clerks using PURS downloaded their publications requests onto floppy disks and mailed the disks to the publications stockroom located in Rödelheim, Germany. Requirements for forms and local publications were then filled onsite and requirements for Army publications were relayed electronically to the United States Army Publications Distribution Center, Baltimore. Developed as a software system to install on unit computers, the final version of PURS required installation of an unwieldy 13 diskettes. To set up and manage the system, the publications clerk needed skills in system administration. Few clerks had these skills.

PURS was the standard system until it became obvious that the technology used to run PURS would not meet the requirements involved in preparing for the year 2000 (Y2K) and the potential consequences of Y2K. It was also clear that PURS could not support deployed Soldiers.

Desert Storm and lessons learned

Desert Storm was the first full-fledged deployment after the end of the Cold War. Lessons learned during Desert Storm showed that publications support for deployed Soldiers had to be improved. In preparation for deployment, Soldiers loaded footlockers with hard-copy publications and forms. A cartoon published at that time showed a Soldier immobilized by the number of pocket-sized booklets he was required to carry in the pockets of his uniform. The picture was too true to be funny.

Once Soldiers deployed, they realized which publications and forms were needed in addition to those they had at hand. In response to emergency requests telephoned in by deployed Soldiers, personnel at both the stateside and European publications distribution centers worked overtime to ship cartons of forms and publications to Soldiers in the Middle East. After Soldiers returned home, pallets of unopened cartons of blank forms and publications were shipped back to the publications distribution centers from the Middle East.

These lessons substantiated the need for a deployable publications system. In response, the United States Army Central Command hired a contractor to run a forms stockroom in Kuwait. At the same time, USAREUR worked with HQDA to initiate a more efficient system for establishing publications accounts for deployed units.

Electronic Library

One way to provide immediate access to publications for Soldiers in any location was to post them online. USAREUR therefore created the *Electronic Library of USAREUR Publications and AE Forms* in March 1996. The library provided USAREUR publications in hypertext markup language and portable document format.

At first, users reacted to the library with caution. Many proponents of publications were reluctant to allow their publications to be available only digitally. Proponents were reassured, however, to learn that the Office of the Deputy Chief of Staff, G6, HQ USAREUR/7A, was evaluating each publication to ensure the intended audience would receive it in the required media (i.e., electronic or printed). At the same time, proponents who insisted on having their publications printed were required to justify the need for printing, based on the intended use and the intended audience. In addition, a standard statement was added to each digital publication to discourage users from printing out individual copies.

For a time, all USAREUR publications continued to be available in hard copy at the United States Army Publications Distribution Center, Europe, after being digitized. Gradually, however, as publications were revised, most of them were no longer printed and stocked. For a while, some users complained that they could no longer order paper copies. Acceptance, however, was growing throughout the command, as substantiated by a captain who called the Army in Europe Publications control officer to complain that the publication he needed was not available electronically.

Support for the library and for implementation of electronic publishing came from an unexpected advocate in 1998—the Chief of Staff, HQ USAREUR/7A.

In the summer of 1998, the CofS tasked staff principals to update their publications and to meet with him on a recurring basis, one-on-one, to provide progress reports on their efforts to bring their publications up to date. To prevent publications from being neglected again in the future, the CofS also made it a requirement for military and civilian proponents of command publications to add an objective to their support forms requiring them to keep their publications up to date.

The CofS then directed that USAREUR regulations be issued only in electronic format. Special-construction forms (for example, tractor-feed, carbonless, and accountable forms) and pamphlets intended for use in the field were still being printed. These pamphlets and forms, along with many DA- and higher-level forms, continued to be stocked and issued by the USAPDCE.

Today the *Library of Army in Europe Publications and Forms* is restricted to military and U.S. government users. The library provides links to current unclassified Army in Europe publications and Army in Europe forms. For the few printed items, the library provides guidance on how to order printed copies.

This site is a valuable resource for action officers. Among its many features are templates for staff actions such as decision and information papers, letterhead stationery, templates for preparing digital printing jobs, a dictionary of abbreviations, a full text-search capability, and links to other publications on other Web sites.

Although the library provided online policy for personnel internal to the European theater, a deployable system for ordering publications and blank forms was still needed.

Deployment to the Balkans

The requirement to replace PURS became critical in the fall of 1998 as USAREUR prepared to deploy to the Balkans. To ensure deployed units would be able to establish publications accounts in deployed areas, the Office of the Deputy Chief of Staff, G6, HQ USAREUR/7A, negotiated with HQDA to obtain 100 so-called "V-accounts," which would be locally assigned to units deployed to the Balkans. The accounts would also be used by to support deployed Reserve and National Guard units.

Initially V-accounts were used to requisition only publications and blank forms, but as it became clear that the peacekeeping mission would last longer than six months, permission was obtained from HQDA to allow deployed units to subscribe to changes and revisions to publications as well. This was especially critical to aviation units, which required the frequently issued changes to technical manuals.

Although USAREUR units were already familiar with the PURS ordering system, units deploying from CONUS could not be expected to install the 13 PURS floppy disks and learn the many "work-arounds" to avoid hardware problems when ordering publications and forms.

USAREUR Publications System

To solve the problems inherent in PURS for deployed Soldiers, the USAREUR Publications System was developed and activated in April 1999. UPUBS was a Web-based publications and forms ordering system for all units, whether in garrison or deployed. Units deployed to the Balkans were the first to test UPUBS, and the results were a resounding success. By June of 1999, UPUBS was the mandatory system in the European theater for ordering publications and blank forms. UPUBS automated all paper processes to maximize convenience and efficiency for the Soldier. In 2000, UPUBS introduced features still in the planning stage at HQDA. Among those was a module that supported the editing and publish-

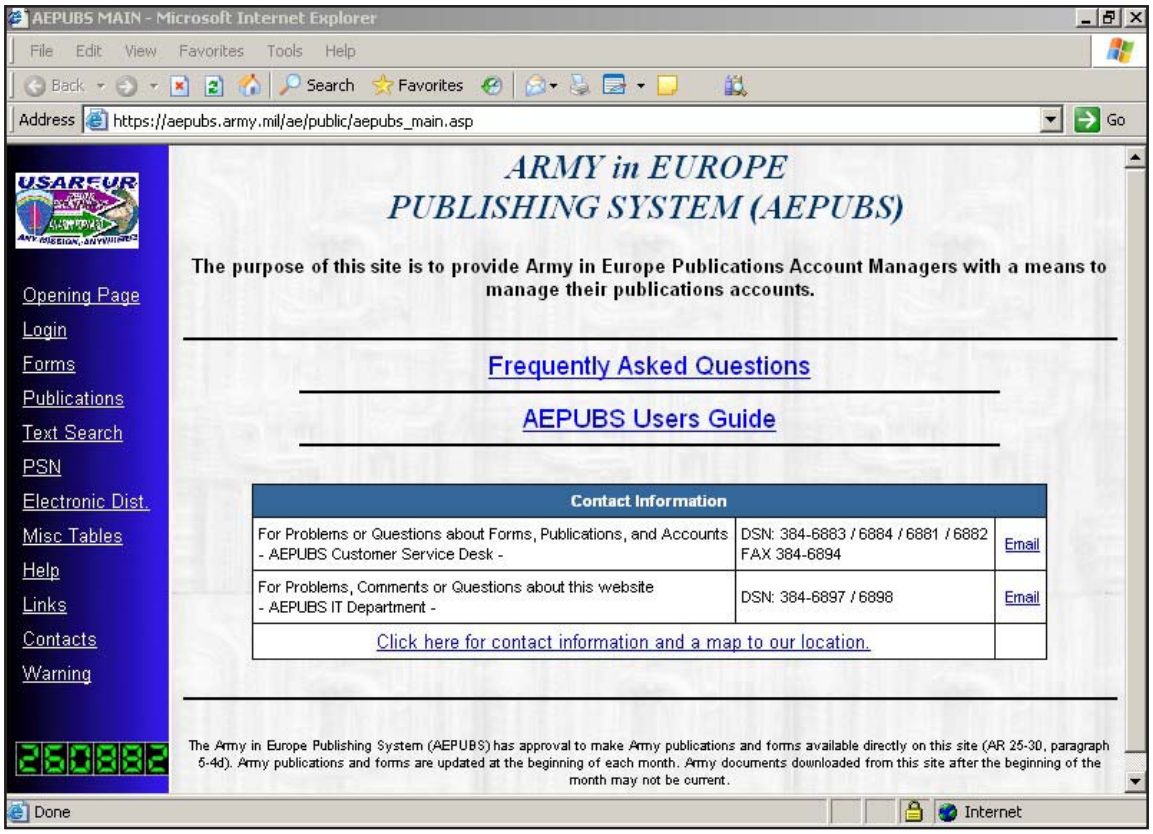

Fig. 1 Army in Europe Publishing Program Web page: Army in Europe Publishing System (Front Page of AEPUBS)

ing process as well as modules that enabled the USAPDCE and the USAREUR Publications Control Officer to track printing, requisitions, and inventory. The system soon was being used to manage more than 2,000 publications accounts both in the central European region and downrange.

As a result of its innovative and effective use of automation to publishing requirements, UPUBS won the Secretary of the Army Award for Publications Improvements in 2002 and the first-ever Army Knowledge Management Award for Best Business Initiative in 2003.

Army in Europe Publishing System

On Oct. 1, 2002 the United States Army Installation Management Agency, Europe Region Office, was established. In preparation for that, the Office of the Deputy Chief of Staff, G6, HQ USAREUR/7A, negotiated with elements of HQ USAREUR/7A and IMA-E to ensure that policy in USAREUR publications would continue to apply to IMA-E after IMA-E was activated. This would be done by publishing policy in one set of regional publications that apply to both USAREUR and IMA-E. Proponency for the policy would be identified in the authentication block. These *regional* publications were designated "Army in Europe publications." The director, IMA-E, approved this proposal on Sept. 30, 2002, and the CofS, HQ USAREUR/7A, approved it on Oct. 1, 2002. The Office of the Administrative Assistant to the Secretary of the Army liked the idea so much that proposed changes were requested to AR 25-30 and DA Pamphlet 25-40 to establish this new media for the entire Army for use in each of the Army's seven regions.

After reviewing the proposed changes, however, the OAASA determined that MACOMs and IMA regional offices in CONUS did not need regional publications. Consequently, the medium remained unique to the Army in Europe.

The switch from USAREUR to AE publications led to changing the name of the USAREUR Publications System to the Army in Europe Publishing System. The word *Publications* in the name of the system was changed to *Publishing* to show that the system did much more than simply serve as an ordering system; AEPUBS had become the backbone of publishing in Europe and the system for managing the lifecycle of publications and forms.

Deployment to Afghanistan

AEPUBS was key to supporting the deployment to Afghanistan. Many of the units deploying were already familiar with AEPUBS, either because they were stationed in the European central region or had previously been deployed to the Balkans where they first used AEPUBS. Recognizing the benefits AEPUBS was having for deployed Soldiers, the United States Army Publishing Directorate established a permanent requirement for units

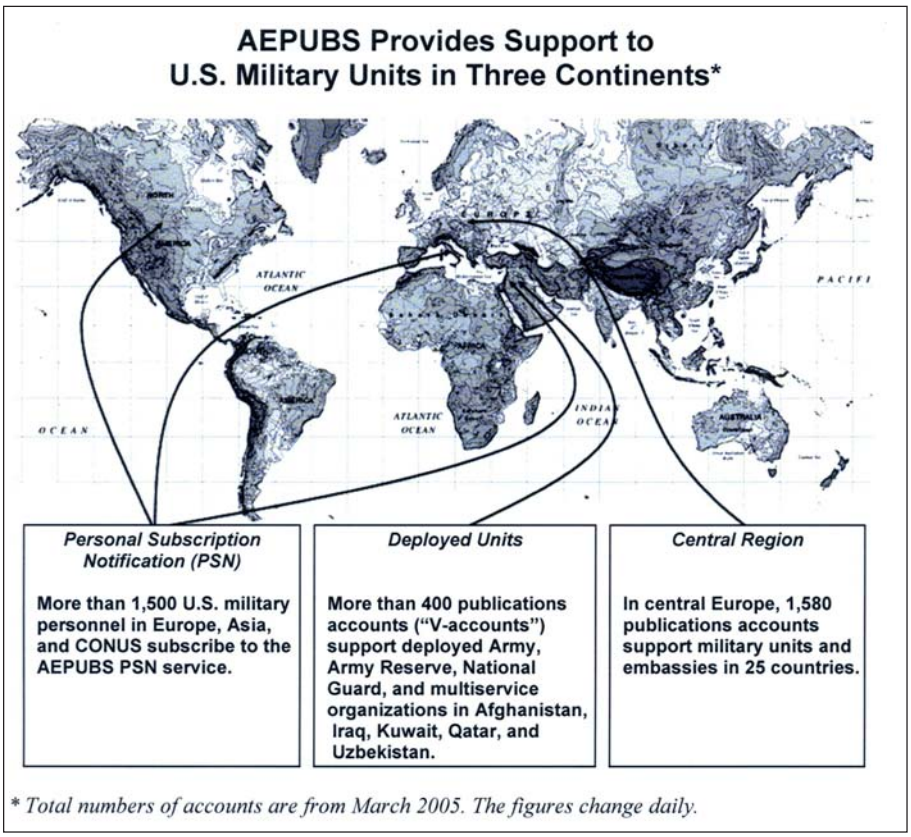

Fig. 2 Army in Europe Publishing Program provides support to U.S. military units in three continents

deploying from CONUS to use AEPUBS to establish publications accounts while deployed.

During the deployment it became apparent that the Army's Less Paper Policy had gone too far. Deployed units needed aviation forms on cardstock, but the forms were available only electronically. Troops in deployed areas had no printing capability. Consequently, the European publications stockroom began printing and stocking aviation forms for deployed units. As time went on, the European stockroom printed medical and other forms that were unavailable in hard copy. Another problem faced by the European stockroom was the fact that the quantities of hard-copy forms available from the St. Louis publications distribution center were severely limited. Proponents had seemingly forgotten that a good portion of the Army was deployed in a war and assumed that everyone could just print off what was needed. As these problems arose, the Office of the Deputy Chief of Staff, G6, HQ USAREUR/7A, turned to the APD for assistance. The APD responded by increasing quantities of printed items, such as wartime certificates.

Printing control and Operation Iraqi Freedom

Starting Oct. 1, 2003, funding for printing was transferred from USAREUR major subordinate commands to IMA-E and placed under the Regional Chief Information Officer - Europe (RCIO-Europe). This change took place while the 1st Infantry Division was preparing to deploy to Iraq. The RCIO-Europe (who is "dual-hatted" as the assistant deputy G6, USAREUR, now reviews all printing requirements for USAREUR and IMA-E, including the garrisons. This centralized control ensures that the legal and regulatory requirements mandated by the Joint Committee on Printing and by APD are enforced. It also ensures cost-effectiveness and standardization of printed products.

As an example of how to use this new arrangement to ensure efficient and effective printing, the RCIO-Europe and the Office of the Deputy Chief of Staff, G1, HQ USAREUR/7A, worked together on a project to edit, publish, and print a series of deployment and reintegration guides. This enabled units scheduled to deploy or redploy to order copies of the guides before deploying or redeploying.

In addition to avoiding unnecessary printing costs, this centralization of printing approval relieved Soldiers of the burden of researching and writing various unit guides, provided standardized information to all Soldiers, reduced redundancy of information throughout the command, and provided top-quality products at the lowest possible prices.

Electronic publishing and deployment considerations

Electronic publishing enables users to find what they need online. For proponents of publications, electronic publishing provides an easy and quick way to keep publications up to date. In addition, electronic publishing prevents spending money on printing and stocking publications that need not be printed.

Some Soldiers in some circumstances, however, lack the capability of downloading publications and forms, particularly while deployed. Personnel working for the Army who are proponents of publications and blank forms should keep this in mind when determining the appropriate media for their products (i.e., electronic, electronic and printed, or just printed). If a publication will be needed in a deployed area, for example, or required by users who do not have ready access to online services, proponents should make allowances in their budgets to print specific quantities of the document to ensure that Soldiers, civilians, and families who need copies will in fact be able to get them.

An example of why some publications need to be available in

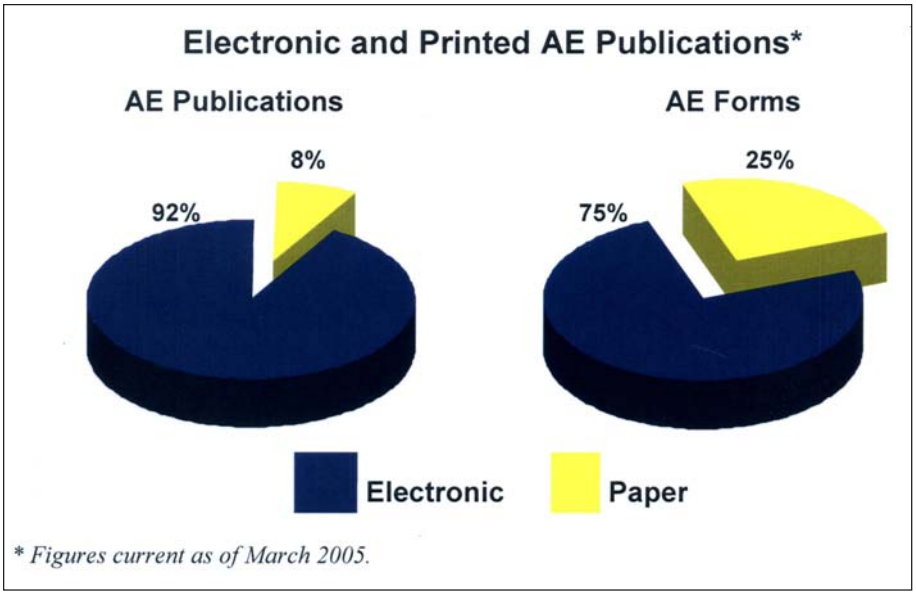

Fig. 3 Army in Europe Publishing Program electronic and printed AE publications

printed media arose in 2004. While providing publications assistance to units deployed to Afghanistan and Iraq and in reviewing printing requests, it became clear that TMs were no longer available from the distribution center at St. Louis. TMs are critical for the maintenance of aircraft, wheeled and tracked vehicles, and other equipment. The lack of hard-copy TMs degraded the safety of deployed Soldiers.

When the Office of the Deputy Chief of Staff, G6, HQ USAREUR/7A, raised this concern to HQDA, the director, APD, substantiated that neither the United States Army Training and Doctrine Command nor the United States Army Logistics Supply Activity had budgeted for printing field manuals or TMs, or for producing these publications on CD-ROMs. If Soldiers did not have online capability to download and print publications and changes, they simply would have to do without the manuals they needed.

To raise this problem to the highest level, the deputy commanding general/chief of staff, USAREUR/7A, signed a letter addressed to the Vice Chief of Staff of the Army to voice his concern and to request that TMs needed in Afghanistan and Iraq be printed as soon as possible. The DCG/CofS then visited the administrative assistant to the Secretary of the Army to reiterate his concern for the welfare of Soldiers who lacked the manuals they needed. As a result, printing funds were allocated to print the most critical TMs.

Hard-copy shipments to the Desert

In 2004, the USAPDCE shipped hundreds of thousands of blank forms to the Middle East. In addition to filling routine requests for stocked forms, the USAPDCE responded to a number of deployment-related requirements for printed material. For example, the USAPDCE shipped more than 232,000 federal postcards for voter registration and absentee ballots, and 122,000 federal write-in absentee ballots for general elections were shipped to the United States Central Command, ARCENT, and USAREUR units deployed to the Middle East to ensure that every deployed Soldier had the opportunity to vote in the U.S. election. In addition, the USAPDCE printed and shipped nearly 65,000 U.S. government transportation requests to Kuwait to support the Rest and Recreation Program for deployed Soldiers. In the Continental U.S., the R&R form was out of print and HQDA had to procure it through other government offices. Without this form, the Kuwaiti government would not allow U.S. Soldiers to leave and return through its airports. The USAPDCE also printed and distributed more than 240,000 aviation forms for deployed aviation units in 2004.

Conclusion

Electronic publishing is the most effective and efficient method of getting the right information to the right people at the right time, but we should not lose sight of the mission. The publishing mission is to ensure that Soldiers have the publications and forms they need to accomplish any mission, anywhere. If that means providing printed publications in some situations, so be it. By considering the needs of the Soldiers who depend on publications and forms, the Army in Europe is balancing new technology with a requirement as old as the Army itself—the requirement for clear and immediate directives with which to accomplish the mission.

Ms. Brehm is with the Office of the Deputy Chief of Staff, G6, HQ USAREUR/7A.

Acronym QuickScan

AE – Army in Europe
AEPUBS – Army in Europe Publishing System
APD – Army Publishing Directorate
ARCENT – Army Central Command
Cof S – Chief of Staff
DCG – Deputy Commanding General
IMA-E – Installation Management Agency, Europe
MACOM – major Army command
OAASA – Office of the Administrative Assistant to the Secretary of the Army
PDF – portable document format
PURS – Publications Requirements System
R&R – Rest and Recreation
TM – technical manual
UPUBS – USAREUR Publications System
USAPDCE – United States Army Publications Distribution Center, Europe

Signals

Enlisted news ... officer news ... warrant-officer news — from the enlisted and officer divisions at Office Chief of Signal, Fort Gordon, Ga.

Signal Systems Support Technicians Key to Success in a Modularized Force

By CW5 Wayne H. Jensen

The Signal Systems Support technician (254A) was originally designed in 1998/1999 to be the Tactical Operations Center warrant in non-Signal Brigades. Emphasis at the time was on providing a radio communications expert with enough of an Information Technology background and/or training to support non-Signal brigades. This was verified by the first Critical Task/Site Selection board held in 2001. In 2002 we began recruiting our first 254A warrant officers, at the time designated 251AT, assigning them mostly to positions designated to be converted to 254A on Oct. 1, 2003.

In 2000 the Army established a strategy to transform the Army over the next two to three decades into a force that will remain dominant across the full spectrum of operations while becoming strategically more responsive. This strategy encompassed a Legacy Force, an Interim Force, and an Objective Force. On Sept. 11, 2001 terrorists attacked the Twin Towers in New York and the Pentagon putting the Nation at war. Plans to modularize the force were compressed and the Interim Force became the Objective Force. In 2003, the Army changed the terms used to describe the components of the Army. The term "Current Force" is now used to refer to what used to be the Legacy and Interim Forces, while "Objective Force" was replaced by "Future Force." At the same time the Chief of Staff of the Army put the entire Army on notice that the Network is the "greatest among equals" of all of the future fighting systems and Training and Doctrine Command was given the responsibility to focus on modularity. Modularity was centered on Units of Action supported by Unit of Execution x (Division/Corps) and Unit of Execution y (Theatre).

As the Unit of Action evolved into the Brigade Combat Team the 254A evolved to support the increased IT requirements needed to support the increasingly digitalized TOCs. This was aided by a forward looking Warrant Officer Training Division that recognized early on the need for increase IT requirements in the BCT S6 and UEx G6. The main feeder military occupational specialty at the time was 31U. Their in-depth background in radio communications allowed the WOTD to emphasize Local Area Network and IT in both the Basic and Advanced courses ensuring 254As had the IT training required to meet the challenges of providing an unprecedented number of services (Help Desk, ABCS support, TOC Collaborative, TOC CNR, Video Teleconference, Messaging Services, Server Operations, Storage/Discovery Services, etc.) required at all levels. The critical role of the 254A in the

(Back row, left to right) CW3 Dan Nelson, USSOCOM, McDill AFB; CW2 Andy Taleisnik, JFH MSARN; CW3 Eugene C. Gardner, HHC, 1st CAV Division; CW4 Wayne Koski, 88th RRC G2, Fort Snelling, MD; CW2 Derrick McGill, HHC, 82nd Signal BN; CW3 Lorenzo Johnson, 19th TSC; CW2 Wesley Postol, HHC Bde, 4th ID; Elkay A. Payne, SIT, Fort Gordon; (Front row, left to right) CW4 Robert A. Holmes, WOTD, Fort Gordon; David M. Brill, SIT, Fort Gordon; Earl L. Holmes, 15th Signal Brigade, Fort Gordon; CW5 Wayne H. Jensen, OCOS, Fort Gordon; Phillip G. Arnold, DOT, Fort Gordon

*(**Chief of Signal's Comments** continued from the inside front cover)*

to Soldiers and commanders sooner than originally planned. It will also prepare us to migrate to WIN-T. Rather than building and fielding a totally new system all at once, as we did with MSE, we will integrate advanced WIN-T capabilities, such as SATCOM-on-the-move and integrated NETOPS tools, as they become available. Over time, in an evolutionary manner, the network will become fully supported by WIN-T capabilities. As we proceed, we will synchronize WIN-T development with Army programs that depend on WIN-T capabilities, such as the Future Combat Systems program.

We're getting great support from senior Army leaders who clearly understand the value of what JNN and WIN-T will bring to the force. COL Jeff Smith, our recently appointed TRADOC Program Integration Officer for Networks, is leading a strong team effort. We're moving ahead quickly because key budget decisions are being made that will affect our ability to support warfighting units as they transform.

It is indeed an exciting time to be part of the Signal Regiment. I'll keep you informed as we progress. Please let me know what you think.

BG Randolph P. Strong
Chief of Signal

Acronym QuickScan

CPN – Command Post Node
CP – command post
EAC – echelons-above-corps
FCS – Future Combat Systems
HQDA – Headquarters Department of the Army
ITSB – Integrated Theater Signal Battalion
JNN – Joint Network Node
MSE – mobile subscriber equipment
NETCOM – Network Command
NETOPS – Network Operations
OEF – Operation Enduring Freedom
OIF – Operation Iraqi Freedom
SOTM – SATCOM-on-the-Move
TRADOC – Training and Doctrine Command
TRI-TAC – Tri-Service Tactical Communications
UEx – Unit of Employment
UEy – Unit of Employment (without network support)
WIN-T – Warfighter Information Network-Tactical

Signals

continued from page 44

S6/G6 was verified by the CT/SSB held in August.

The goal of the CT/SSB was two fold; first is to determine the critical tasks required for success and second to determine the best method of delivering the training (institutional, distance learning or unit). Voting board members represented a cross section of subject matter experts from Forces Command, the U.S. Army Reserve and the Army National Guard. Non-voting members include the Chairman, Department of Training Program Manager and the Office Chief of Signal Warrant Officer Proponent. The tasks reviewed were a culmination of job-analysis data collected from surveys, interviews and site visits, recommended tasks from OCOS, and tasks recommended by board members. I think the process was best summed up by CW3 Eugene Gardner who stated; "This process brought together various SMEs from different occupational backgrounds in MOS 254A. This greatly complemented the brainstorming method used to identify, define, and refine the skills knowledge's and abilities required in the 254A's toolbox at all levels." And, CW3 Dan Nelson who stated; "The most significant thing I see was the forward thinking of the school house in including the Warfighter in the process of developing the training for the field. The 13 tasks we started with were not inclusive of what we are really doing in the field. What we came up with are 46 tasks that definitely encompass what the field is really doing and is expected to do."

Signal Systems Support technicians are proving invaluable to both the brigade S6 and UEx G6. The results of the CT/SSB will be used to further refine their training to ensure they continue to meet the expectations of commanders in the field.

CW5 Jensen entered the Warrant Officer Candidate Development course in 1984, Fort Rucker, Ala. Upon completion of WOCD, he received a direct appointment to chief warrant officer two with an assignment to the Warrant Officer Division, PERSCOM, as an action officer. In 1985 he was assigned to the Defense Communications Engineering Center, Reston, Va., as the Automation Division chief. In 1988 he was reassigned to the Warrant Officer Division, PERSCOM, as an action officer. In 1989 he was assigned as the chief of automation, Officer Personnel Directorate. In 1992 he was assigned as the Commander, 584th Transportation Detachment,1320th Medium Port Command, Felixstowe, UK. In 1994 he was reassigned to the Officer Personnel Management Directorate, PERSCOM, as the chief of automation. In 1999 he was assigned to the Warrant Officer Division, School of Information Technology, Fort Gordon, Ga., as course manager. Finally, in 2000 Jensen was assigned to his current position as Signal Warrant Officer Proponent Manager, Office Chief of Signal, Fort Gordon, Ga.

Acronym QuickScan

CT/SSB – Critical Task/Site Selection board
DOT – Department of Training
FORSCOM – Forces Command
IT – Information Technology
LAN – Local Area Network
MOS – military occupational specialty
OCOS – Office Chief of Signal
SME – subject matter expert
TOC – Tactical Operations Center
TRADOC – Training and Doctrine Command
WOTD – Warrant Officer Training Division

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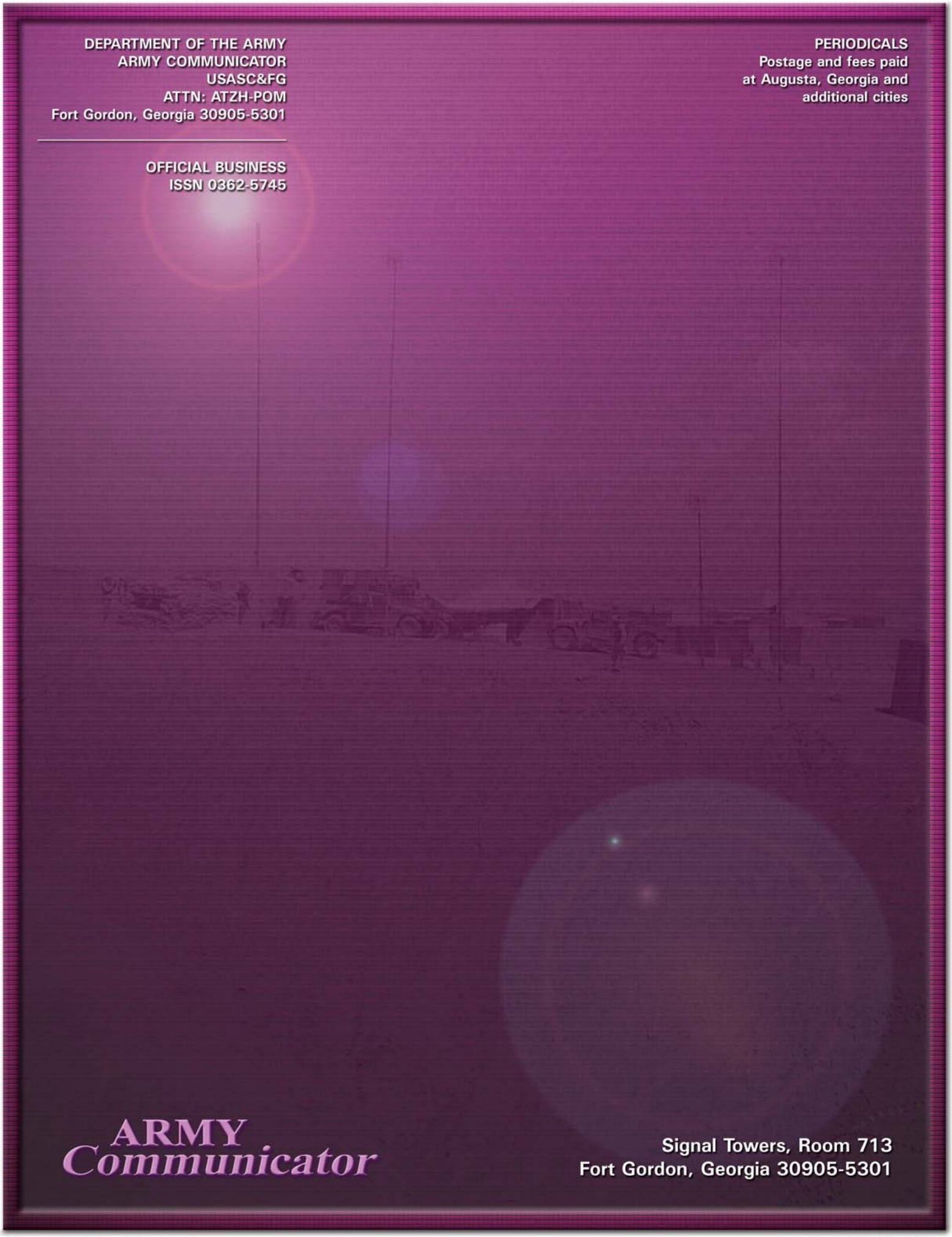

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