

# NETCOM - THE ARMY'S TECHNOLOGY COMMAND

By Gordon Van Vleet

**NETCOM Soldiers, civilians and contractors are found virtually everywhere around the globe to ensure that the Army's portion of the Global Information Grid is operational and secure.**

With a mission similar to the Naval Network Warfare Command mission, the U.S. Army established the Network Enterprise Technology Command/9th Army Signal Command (NETCOM/9th ASC) in October 2002 as the sole authority to operate, manage and defend the Army's portion of the Global Information Grid (GIG).

Taking on this tremendous task, Maj. Gen. James C. Hylton assumed the position of commanding general, after serving as the commander of the Army Signal Command for 15 months. NETCOM/9th ASC is a direct reporting unit to Headquarters, Department of the Army, under the oversight of the Army's Chief Information Officer/G-6, Lt. Gen. Steven Boutelle.

Headquartered at Fort Huachuca, Ariz., NETCOM/9th ASC has a worldwide presence and mission. *"We are a global C4 (command, control, communications and computers) mission organization that supports enterprise execution of the Army's information systems mission,"* Hylton said.

With more than 14,000 Soldiers and civilians in more than 100 locations around the world, NETCOM provides direct mission support to the Army, its service component commanders and theater combatant commanders.

*"NETCOM's pacing mission priority is as the Army's single authority to operate, manage and defend the Army's infostructure and*

*network environment at the enterprise level,"* the general said. *"We do this by focusing on the network. The network is our central nervous system and protecting it is a key mission priority."*

The Army Signal Command formed the core of NETCOM. NETCOM retained its major force structure and its major subordinate commands deployed throughout the world. In addition, there was an extensive reorganization which created two new subordinate organizations: the Army Network Operations and Security Center (ANOSC) and the Enterprise Systems Technology Activity (ESTA).

NETCOM assumed command over three operational staff elements from the former Directorate of Information Systems for Command, Control, Communications and Computers (DISC4); the Spectrum Management Division, Office of the Chief Technology Officer; and the Information Assurance Division, all located in the Washington, D.C., area.

NETCOM is an outgrowth of the Army's information management transformation efforts. It is focused on goals three and four of the Army Knowledge Management five strategic goals: (1) Adopt a funding strategy, governance and cultural change to become a knowledge-based organization; (2) Integrate knowledge management concepts and best business practices into Army processes to improve performance; (3) Manage the infostructure as an enterprise to enhance capabilities and efficiencies; (4) Scale Army Knowledge Online (AKO) as the enterprise portal to provide universal, secure access for the entire Army; and (5) Harness human capital for the knowledge organization.

It was imperative for the Army to move toward an enterprise focus for NETCOM to achieve goals three and four. An integral part of protecting the Army network is done through NETOPS. Network Operations has emerged as a mission core competency of NETCOM's enterprise mandate.



*Soldiers from the 11th and 93rd Signal Brigades set up a tropospheric scatter antenna during a sandstorm during the first days of hostilities in Iraq.*



*Soldiers and equipment from the 504th Signal Battalion, 11th Signal Brigade, provide communication support for the Coalition Forces Land Component Early Entry Command Post (CFLC EEC) at a former Iraqi presidential palace during Operation Iraqi Freedom (OIF).*



*Sgt. Gary Smith (foreground) and Spc. Jermaines Thomas of the 44th Signal Battalion, 5th Signal Command, work in a satellite communications terminal van located at Kaposvar South, Hungary, during Operation Joint Endeavor.*

*"We are moving from the decentralized execution approaches of the past to enterprise efforts that are focused on network-centric, knowledge-based force objectives,"* said Hylton. *"This is executed within a joint operational context and requires close integration across the Army, joint and governmental levels,"* said Hylton.

NETOPS is an integrated approach to systems and network management, information assurance, computer network-defense and information dissemination management.

*"By enabling operational and technical capability for net-centric warfare, we get the right information to the right place at the right time, while providing the appropriate level of protection for that information. NETOPS allows us to provide information and decision superiority to the warfighter,"* said the general.

The nerve center for NETCOM is the Enterprise Systems Technology Activity. ESTA leads the integration of the Army's information systems environment. In doing so, ESTA creates the framework for how we execute enterprise systems management throughout the Army. ESTA's primary mission is to ensure delivery of enterprise-level information technology standards, practices and capabilities in support of the Army's information management environment.

In a move to better serve IT users, NETCOM collocated its regional offices with the regionally based Installation Management Agency regions. Under ESTA's technical oversight, the regional offices execute and enforce command, control, communications and computers for information management (C4IM) policies, standards, architectures, programs and plans for information technology issues within their assigned region.

ESTA has moved from the past systems-focused approach to a service-focused approach.

*"The goal is for NETCOM, through the efforts of ESTA, to change the way the Army approaches C4 capabilities. It allows us to measure performance and determine costs. For the warfighter, we will provide a common language for IT service provisioning."*

*"In short, our Army customer will not have to worry about how a capability is provided. All the customer will do is request the type of service needed and NETCOM will figure out the best way to provide the needed service. We will negotiate service-level agreements that will ultimately lead to monetary savings and significant improvements in the way the Army's network users communicate,"* said Hylton.

ESTA's move toward a complete service-focused approach has resulted in enterprise level agreements on certain Microsoft software products. These agreements provide the Army with access to required state-of-the-art Microsoft desktop, application and server software and six years of software upgrades.

*"We are buying in bulk and standardizing the software at the same time,"* said Hylton.

In the wireless environment, ESTA is working closely with the Information Technology E-Commerce and Commercial Contracting Center (ITEC4), to develop blanket purchase agreements, which will provide an enterprise solution to wireless technology.

In its focus on the Army Knowledge Management mission strategic goals, NETCOM works to scale AKO as the enterprise portal to provide universal, secure access for the entire Army. In conjunction, ESTA is working to link with the Army Transformation Campaign Plan to incorporate technology and leverage streamlined knowledge processes into the Army at a cultural level.

*"NETCOM is taking the lead as the global information provider. We are consolidating servers, strengthening and centralizing Army entry points into the Global Information Grid, and establishing centralized processing centers,"* said Hylton. *"We ensure reliable, sustainable and survivable capabilities in support of Army and joint information technology requirements."*

The goal is to transform the Army's information systems infrastructure through enterprise management.

*"One Army portal, one Army-wide security policy and posture, and one comprehensive and universal Army communications directory is what we envision,"* said Hylton.



*Soldiers from the 5th Signal Command hook up cables to the communications shelter from a tropospheric scatter radio antenna.*

All qualified users would have single sign-on capability and have the capability to log on to the portal from any computer, anywhere, anytime, using their names and passwords. Once in the Army Knowledge Online system, users can push or pull all the information they need.

Explaining that the Army portal could be compared to Internet services like AOL, Goggle and Yahoo, the general said it was much more useful than those services.

*"It is a controlled environment that is password protected for authorized users. Our young Soldiers pick up on its uses rather quickly because most of them were raised with the Internet in their homes."*

*"The uses for AKO are endless,"* said Hylton. *"AKO is constantly evolving. It provides authentication for more than 100 applications, and through the use of a common user ID and password, it is faster and easier for users to traverse the portal from application to application."*

Under the supervision of the chief technology officer, AKO provides services for all users, such as immunization status, TDY information, pay and promotion information, HIV/DNA status, and alerts to Soldiers who have a college loan repayment deadline looming.

Since August 2001, AKO use has increased from 160,000 accounts to more than 2.5 million. AKO isn't only for the Soldier and Department of the Army civilian employee. AKO gives family members a way to stay in touch with their own family member account, through account sponsorship capabilities.

*"For its part in the war on terrorism, NETCOM/9th ASC, using the collective capabilities of all its major subordinate commands, provides the services associated with use of the GIG,"* said Christopher Gandy, deputy chief of current operations G-3, NETCOM/9th ASC.

Support includes SIPRNET, NIPRNET, video teleconferencing capabilities, voice telephone, and the Defense Red Switch Network connectivity. *"This, in turn, through the seamless nature of the GIG, provides our sister Services joint connectivity through those same services,"* said Gandy.

*"Support for the war is provided primarily through our tactical brigades, but supported by our strategic brigades, through deployment of tactical satellite, (both multi- and single channel), tropospheric scatter radio, microwave radio and line-of-sight radio capabilities,"* Gandy said.

NETCOM units maintain network connectivity at echelons above corps headquarters deployed worldwide. Since the war on terrorism NETCOM had deployed almost 10,000 personnel for signal support worldwide, an increase of almost 100 percent from pre-war figures.

*"NETCOM also provides network visibility worldwide through the Army Network Operations Security Center (ANOSC) and a number of Theater Network Operations Security Centers (TNOSCs) that monitor and track communications status of communications links throughout the Army's portion of the GIG,"* said Gandy.

Additionally, the ANOSC is NETCOM's front line force in the realm of computer network defense, working hand-in-hand with the Army Computer Emergency Response Team (ACERT) to protect the Army's portion of the GIG from electronic threats such as worms, viruses and denial of service attacks.

*"We've provided commands and organizations throughout the theater the same kind of informational capabilities they have available to them at their home stations,"* said Hylton.

*"In fact, to support the growing need for communications support in Southwest Asia, NETCOM activated a permanent strategic signal brigade, the 160th Signal Brigade in Kuwait.*

*The success in the campaigns in Afghanistan and Iraq can be partially attributed to network-centric operations,"* said the general.

**"We know we must have a signal force that is modular, joint and capabilities based. We must shape our signal units so they can provide effective C4 capabilities for joint contingency operations, and in order to do that, our structure and capabilities must reach across our entire signal team — active, Reserve and National Guard."**

**Maj. Gen. James C. Hylton  
Commanding General  
NETCOM/9th ASC**

*"Our operations in Afghanistan and Iraq prove the information-enabled Army is at the foundation of the future force. Our rapid and seamless flow and exchange of information and situational awareness during these operations proves that our ability to rapidly and securely deliver the message is a significant combat multiplier."*

*"The fact is that today our operating environment is one of sustained engagement and our signal units must be structured and capable of supporting our warfighting commanders, often with little or no notice,"* said Hylton.

*"Given the reality of sustained engagement, we are applying the important lessons learned from the experiences we've gained from supporting operations in Bosnia, Kosovo, East Timor, Afghanistan and Iraq. We know we must have a signal force that is modular, joint and capabilities based."*

*"We must shape our signal units so they can provide effective C4 capabilities for joint contingency operations, and in order to do*

*that, our structure and capabilities must reach across our entire signal team — active, Reserve and National Guard."*

NETCOM is currently engaged in the effort of providing a commercial communication network in Iraq that will provide robust communications to the multiple Joint Task Forces supporting the Joint Forces Land Combat Commander (JFLCC), Joint Forces Commander, U.S. State Department, our allies and other civilian authorities.

The future of signal is here, the general said.

*"We have already begun the process of restructuring our units so that we can very quickly deploy integrated theater signal battalions capable of providing a full range of transmission, data and networking capabilities."*

The modular design allows us to tailor specific communications packages to support specific mission requirements — a critical capability necessary in providing the complex command and control tools that our warfighters have come to expect in the wide range of joint environments we find ourselves operating in today.

*"By modifying our signal unit organizational structure, we increase our ability to provide warfighting commanders with rapidly deployable, flexible and highly capable modular communications packages that are easily tailored to meet specific mission requirements while providing them with critical C4 capabilities needed to successfully meet their objectives in our sustained engagement joint operating environment,"* said Hylton.

*"Our Army's battlefield success is contingent on the right information reaching the right Soldier at the right time, and to do this we must consolidate our networks into a single enterprise. That is what NETCOM is all about."*



*Editor's Note: Thanks to Gordon Van Vleet, NETCOM/9th ASC, Public Affairs Officer, for interviewing Maj. Gen. James Hylton and Christopher Gandy for this article.* **CHIPS**