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This Communicator’s Tough Job: Remaking the Army’s IT Networks (Hopefully Including MARS)

Commentary

By Bill Sexton, N1IN/AAM1RD/AAR1FP

When a teammate gets picked for the All-Star team, there’s only one thing to do: applaud. So here’s a cheer for Susan S. Lawrence.

That’s Lieutenant General Susan Lawrence. The big league up in the Pentagon drafted her over the winter from the Network Enterprise Command/Ninth Signal Command (Army) at Ft. Huachuca, Arizona, which is the parent command of Army MARS. Now she is Chief Information Officer / G6 of the U.S. Army, the first woman ever to hold the loftiest post a Signaler can aspire to.

Let’s hope that while tackling her new challenges, General Lawrence won’t forget the dedicated radio amateur volunteers left behind in NETCOM’s farm system. MARS, too, has challenges to overcome if we’re to measure up in a vastly-changed environment. We need help.

Our distinguished former Commanding General and teammate was fresh out of high school in Ida Grove, Iowa when she decided to enlist some 40 years ago. Her preference was the Navy, but its recruiter wasn’t interested so she signed up with the old Women’s Army Corps (WACs).

As if being rebuffed by the Navy wasn’t sufficiently frustrating, she had to make her military debut as a stenographer to a general — in Alaska! And then it took the brass half a dozen years to discover she was officer material.

To this day only four women have achieved three-star rank in the Army, and only one has gone on to win four stars (in 2008). You won’t find it in General Lawrence’s Army biography, but she was named “Defense Executive of the Year” in 2006 by GCN, the Government Computer News magazine, for tending the Army’s command and control circuits to and within Iraq.

The official bio also fails to mention that in the mid-2000s she had to undergo cancer surgery, followed by months of getting up at 4:30 a.m. for radiation and chemotherapy so she could be on time at 7:30 for a full day’s work. Retirement wasn’t even considered.

What the record does show is a steady climb through command and staff positions in Korea, Germany, the U.S. Central Command and the Joint Chiefs of Staff before her 30 months at Ft Huachuca. There she was responsible for information technology services (including communications) provided U.S. Army forces overseas.

“She’s a soldier’s general,” GCN’s “executive of the year” citation said of her repeated forays into the combat zones, “and she comes back to ensure her troops have optimal communications when and where they need it.”

The ascent through multiple glass ceilings from buck private — better make that “doe” private — to the military’s second highest rank tells you she’s smart as well as tough. She’ll need both attributes in the new assignment, which is nothing less than integrating all the Army’s fragmented and variegated information networks worldwide into a single, coherent, soldier-to-soldier system. This would be daunting enough even without simultaneously overseeing IT for two wars, or is it three?

“If you were to talk to Army leadership,” said a top technology official at the Pentagon, Lt. Gen. William N. Phillips, in a recent Web interview, “I think they’d tell you that the most important and highest-priority program that the Army has today is the ‘network’ and synchronization of all the systems…”

As Lawrence herself once put it, today’s warfighters need network connections more than their rifles. The M16 can run out of ammunition, she explained, while the network can call for supporting fire.

In the continental U.S. alone, the Army has spawned 264 separate “directorates of information management” spread over a stunning 447 different locations. Sounds more like a snarl than a web. To untangle it, she has a $10 billion budget. Her arrival
more or less coincides with the project’s crossover from the planning stage to the actual implementation.

To put a practical face on the undertaking, consider just one phase: Within the 12 months of 2011, all the several hundred email servers at military installations all over the world are to be folded into a single megasystem developed in partnership with Microsoft. Operating costs will be reduced by an estimated $100 million a year. Network security will be significantly enhanced. And yes, it’ll work on an iPad (with security apps).

The overall objective, as defined in the U.S. Army Posture Statement, 2010, is “to transform to an integrated enterprise network capable of providing reliable and predictable access anywhere at any time . . . globally accessible, relevant, and agile supporting both contingency operations and the day-to-day requirements of an expeditionary army . . . a single operating environment for Army forces.”

Change a word or two, and you get a pretty good insight into some of the issues faced by the Military Auxiliary Radio System.

Our three branches (Army, Air Force and Navy-Marine Corps) lack “a single operating environment” (to borrow one phrase from the Posture Statement). Moreover, “reliable and predictable access” is problematic at both FEMA and, in the case of Army MARS, with the active-duty forces involved in the Defense Support to Civil Authorities mission (DSCA).

At least MARS can boast of achieving “relevant and agile” readiness to support military and civil customers if ever invited. It’s the rusty connections to those customers that need top-down fixing.

Email in the Cloud

You might be getting a message one of these days with a puzzling @mail.mil return address. Give it a little respect because @mail.mil could become the stuff of digital history.

It is the callsign (so to speak) of the U.S. Army’s new Enterprise Email service provider-in-the-sky. Starting in February, the Army began migrating all the million-plus email accounts from several hundred local servers spread around the globe to a single Microsoft Express 2010 megasystem operated in what it and Microsoft call a “private cloud.”

For those just catching up on the jargon, “cloud” refers to an invisible somewhere in which are located the software, files, utilities and memory that formerly resided on each individual client’s computer. In this case, the digital somewhere is an array of five Network Service Centers operated globally by the Defense Information Systems Agency.

There’s been a lot of talk that cloud computing will become the wave of the future for all of us. If so, the Army’s effort to increase security while cutting its data-handling costs bears watching.

It’s a huge undertaking, relocating 200,000 secret and 1.4 million unclassified accounts by the end of 2011 without interrupting service — keeping in mind email is absolutely vital to the 24/7 conduct of two wars, not to mention homeland security.

With its central users’ list, the sysops at NETCOM / 9th Signal Command (Army) can instantly update or cancel access privileges and security clearance for every person in the system if circumstances require.

The CIO/G6 office predicts that by eliminating all the duplication, the annual cost of a single email “seat” will drop from more than $100 to less than $39 and the overall bill of $400 million will drop by about $100 million. That’s while increasing each individual mailbox’s capacity from the current 100M to 4G.

– N1IN/AAM1RDAAR1FP

Soldiers at the Fort Stewart, Georgia Signal Center work on class material and catch up on email. (Courtesy of Siobhan Carlile, 7th Signal Command Theater).
This new chart shows the complexity of General Lawrence’s responsibilities. Had Army MARS been included, its position would be in the left-hand column under NETCOM, which no longer reports to the Chief Information Officer. The dotted line means that NETCOM and CIO/G6 “coordinate.” (From the CIO/G6 website)
The organizational “top” is particularly murky these days. The Army MARS chief, for instance, has a full time job elsewhere and is seldom heard from. The disconnect becomes even more obtuse farther up the line.

Until a year ago, the three MARS chains of command intersected at the Defense Department’s Assistant Secretary for Networks and Information Integration. As an economy measure, Secretary of Defense Robert Gates abolished that office. *(See the December 2010 WRO MARS column. – Ed.)* That pretty much stymied hopes of bringing unity of command to the three branches.

And now, NETCOM has just been unplugged from the Chief Information Officer. NETCOM, the operator of communications systems, is being transplanted onto the Army Cyber Command, the guardian of secrets. What does Cyber Command know, or care, about responding to domestic disasters (unless the capital is involved, obviously)?

For those of us in Army MARS, the net effect (no pun intended) is twofold: Not only is the organization left unsure of its organizational moorings, but we also seem fated to dangle even farther down a long chain of command much more involved in overseas warfighting than homeland security. *(The easy solution, of course, would be hitching MARS directly onto ARNORTH, which is primarily concerned with the homeland.)*

As a quasi-member of the old team at NETCOM — at the batboy level, or thereabouts — I could offer a couple of thoughts for General Lawrence, whose new post provides for coordination with Cyber Command (see accompanying chart).

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Ponder for a moment the homeland being struck by a truly catastrophic event on the scale of Fukushima’s. In the crucial first hours of confusion and likely panic, how will response planners at the

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The Army’s recently-retired Chief Information Officer/G6 Lieutenant General Jeffrey Sorenson championed innovation, including a lively official military presence on Twitter and Facebook. “Those of us who have been in the Army a long time typically think that everything is driven from the top,” he once explained. “But in today’s culture, both inside and outside the Army, there is the Web 2.0 environment that’s creating opportunities to empower people and communities. It is not top-driven; instead it starts from the bottom.” His successor continues utilizing both social networks as easily-accessible expressways to his and from the boss’s office. *(Courtesy of twitter.com.)*
Pentagon acquire any sense of the situation on the ground?  
Answer: MARS members — those who survive — are sited, equipped and trained to acquire and communicate ground truth. ARNORTH can’t be everywhere on Day One. MARS members already are.

And once the National Guard and FEMA get a handle on communications, there are lots of ways we can help if the DSCA folks will just include us. Hams are great improvisers and do-it-yourselfers. The heroic story comes to mind of two South Florida hams in the old Army-Amateur Radio Systems who requisitioned dozens of auto batteries over four days to keep the Army and Red Cross abreast of the deadly Caribbean hurricane of 1928 until power could be restored.

There’s also the pair of MARS members, one Army and one Air Force, who after the Haiti earthquake last year flew on their own initiative to Port-au-Prince and established essential medical communications (including a link to the Navy’s hospital ship offshore). One of them, the Army branch’s Ron Tomo, KE2UK, with his long record of public service, was awarded the American Radio Relay League’s 2010 International Humanitarian Award.

But we’re useful in normal times, too. For hundreds of communities across the 50 states, MARS operators are the one and only permanent, seven-days-a-week personification of the military’s commitment to civil support — and they cost the Pentagon nothing. Good people to have on the DoD team, but they need support.

Another CIO, and Wikileaks

Teresa Takai, a civilian, is new Chief Information Officer for the Defense Department, but MARS doesn’t come under her jurisdiction. (Courtesy of DoD)

The Defense Department has a Chief Information Officer, too. Congress in 1996 imposed the requirement on all federal departments in an effort to attain efficiency and economy as spending on information technology exploded.

Then in 2002, the legislative branch demanded that federal IT operations emulate private business enterprises. That explains where the “enterprise” in the Network Technology Enterprise Commands name comes from.

Business enterprise is also where the new DoD CIO came from. For 30 years, Teresa M. Takai worked at Ford Motor Co., developing its multinational strategic IT operations. Subsequently she had been CIO successively of the states of Michigan (2003-2007) and California (2007-2010).

Like Army’s CIO Susan Lawrence, Takai wears two hats — CIO and Acting Assistant Secretary of Defense for Network and Information Integration, also known as ASD(NII).

Takai landed at the Pentagon at an interesting time. President Obama announced her ASD nomination in March 2010. In July the Wikileaks release of classified “Afghan Diary” documents erupted — an informational embarrassment of historic proportions. Then, in August, in a totally unconnected economy measure, Defense Secretary Robert Gates announced that her ASD billet was going to be abolished even before she could be confirmed by the Senate. (She continues in an acting capacity while responsibilities are redistributed.)

This spring, Takai got the assignment of explaining DoD’s Wikileaks response to the Senate Homeland Security and Government Affairs Committee. She told Congress that to get control of the vulnerabilities that led to the Wikileaks incident, the Defense Department has disabled the ability to copy data from roughly 90 per cent of its classified computers. The rest were left intact to write removable media for operational reasons but only under strict new controls, she explained.

As California’s CIO, responsible for 130 major systems and 10,000 employees, she once said: “We often learn more from our mistakes than from the things we’ve done right.”

— NiIN/AAMIRD/AARI FP

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