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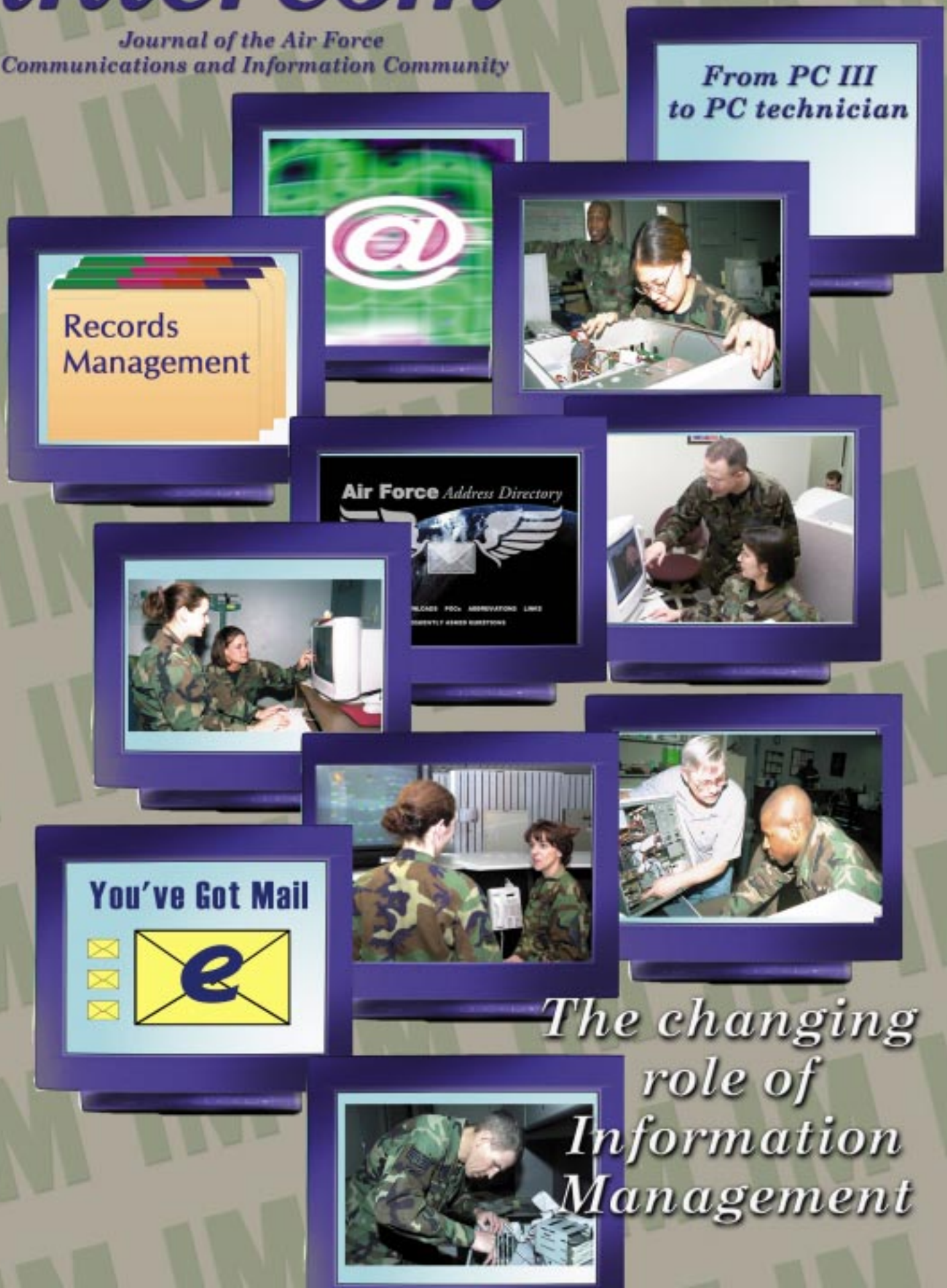

The changing role of Information Management

intercom

Volume 42, No. 5

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About the cover

This month's cover focuses on the changing role of information management.

Cover by Tech. Sgt. Mike Leonard

Technology brings new challenges to managing Air Force information

By Chief Master Sgt. Richard T. Small
Air Force Career Field Manager for Information Management and Postal

After nearly two decades of managing Air Force information, I'm convinced the challenges facing information managers are greater today than at any time in the past. I suspect this comment strikes many as strange … particularly in light of the recent explosion of information technology. With all this IT at our disposal, what could possibly make managing Air Force information more difficult? Well, it only takes one word to sum up the source of our dilemma: technology.

As Charles Percy Snow, renowned British novelist, scientist, and Baron of the City of Leicester, once pointed out, technology is an odd thing. He observed that technology "…brings you great gifts with one hand, and it stabs you in the back with the other." Baron Snow was simply restating what many of us intuitively recognize as the law of unintended consequences. A great example of this exists within administrative communications.

For years the memorandum was the mainstay of our official administrative communications. And we, as information managers, were particularly adept at managing that type of communication. More often than not we crafted those memos, ensuring compliance with the business rules established to ensure effective and efficient official communications. We staffed them through to completion (normally signature), packaged them for shipment, and dispatched them using the base information transfer system. With BITS, we managed movement of the memo through delivery from action office to activity distribution office, to pick-up by the mobile distribution van -- the famous, or depending upon your view, perhaps infamous BITS truck -- to drop-off at the base information transfer center, and, ultimately, into the waiting arms of the U.S. Postal Service. Then one day not so long ago, a young upstart called "electronic mail" (e-mail) rode into the placid and tranquil valley of administrative communications … and things haven't been the same since.

E-mail is arguably one of our primary means of communication. In a brief period … less than a decade…e-mail has, in many ways, supplanted a communication system refined and perfected over many years. Why has e-mail quickly gained such widespread acceptance in relatively short period of time? The success of e-mail is, I believe, founded on efficiency, effectiveness and expediency.

E-mail is efficient in that through the advent of technology, a single communication can be crafted and dispatched simultaneously to a theoretically unlimited number of recipients … without producing (or wasting) a single sheet of paper. I can hear the California Redwoods cheering right now. It's effective because of its ubiquity: kiosks in shopping malls, cellular telephones, wireless personal digital assistants, and any computer connected to the Internet (think "Hotmail"). The effectiveness of e-mail is due in large measure to the reliability of our networks. Last, but certainly not least, e-mail is expedient.

Expediency is perhaps the most attractive feature of e-mail. Don't think so? When was the last time you fired off successive e-mails on the same subject to the same recipient … just because they hadn't replied in short order? The real-time, near-collaborative interaction achieved through e-mail is unprecedented. No longer must one wait for the communication to be dispatched from the AO to the ADO, where it's picked up by the MDV and whisked off to the BITC and subsequently transferred to the USPS … a process which might take one to two days. Using e-mail, in the time previously taken to simply get the communication dispatched off the installation, it's normally received, reviewed and replied to by the recipient. Sounds great, right? By now you're probably asking yourself, "OK, chief, why all the fuss about Baron Snow's dire predictions of technology's 'gifts and daggers?'" Consider this: E-mail has transcended being a simple means of quickly passing routine communications.

From levying taskings, coordinating staff packages, tracking suspenses, and disseminating base bulletins, e-mail has matured into a robust information dissemination capability. If you disagree, then I suggest you reflect back on the last time your e-mail system was down … particularly those unplanned outages. When it happened in my office, I distinctly recall hearing someone say, "How am I supposed to get any work done with the e-mail down?" I should remember … I said it. Further, e-mail is a leveler of sorts.

Back "in the day," it was rare (and frowned upon) for someone assigned at base level to call, much less correspond with, someone at an echelon above their next immediate headquarters. Some months ago, I attended a conference where a three-star Army general was guest speaker. During his remarks, the general pointed out that never in his more than 35 years of military ser-

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Network certification just the beginning of journey for information managers

By Senior Master Sgt.
Kimi S. Robinson
Superintendent, USAFE Network Operations and Security Center
Ramstein AB, Germany

Senior Master Sgt. Kimi Robinson (right) speaks with Senior Airman Sherri Babylon during a training session on the floor of the USAFE NOSC.

As an administrative specialist, 702X1A, pitching mail at my first duty station, I never imagined I'd be afforded the opportunity I have today. Through a lot of learning, a bit of luck, and a few people who took a chance on me, I'm now superintendent of the USAFE Network Operations and Security Center. The NOSC manages theater network defense; generates enterprise situational awareness; provides technical support to network control centers; and delivers Information Assurance through fault, configuration, performance and security management. This assignment provides both the professional and personal challenges I enjoy. But getting to this point was not just a matter of having a functional manager assign me to the position. Personally, I needed to ensure I had the training and experience for such a position when the opportunity arose. You can do the same by seeking opportunities to enhance your professional knowledge and completing the position certification for workgroup managers, whether you're assigned as a workgroup manager or not.

If your current duties are traditional information management, it'll be easier to transition to a workgroup management position if you have taken the initiative to complete your certification as a network professional. Prepare yourself, and know that network certification is just the beginning of your journey. Once you've attained workgroup certification, look for other opportunities to further your knowledge of the Air Force enterprise network. Now I'm not referring to expensive commercial training, because there are other resources available, such as additional computer based training classes, articles in professional computer magazines, and seminars provided by professional organizations like Armed Forces Communications and Electronics Association. It's through this hard-earned knowledge that you will become technically proficient and gain the edge. As a supervisor or commander, it's your responsibility to develop your information managers and ensure they have the knowledge to succeed and be competitive for promotion. You can accomplish this by encouraging their professional development and supporting their training efforts.

Regardless of what some people think, the workgroup manager's role is not to become a quasi communications-computer systems operator. The 3C0X1 career field has its respective network certifications, as do workgroup managers, who bring to the fight the opportunity to leverage information technology using common information management business practices. Look for opportunities to integrate information technology into your daily operations.

That's what I've done – and you can too. Being an information manager in my current position, I've been able to integrate communications and information core competencies into daily NOSC operations. In addition, the information management mission, "To provide customers the expertise and guidance to organize, integrate and use information as a critical national resource to achieve the Air Force mission," is easily fulfilled at the NOSC level. My knowledge of handling information flow, coupled with a proficiency in information technology, are certainly of value to the NOSC.

Additional opportunities exist for information man-

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AFCA takes lead in operationalizing Enterprise Information Management

By Senior Master Sgt. Brian Hale
Superintendent,
Information Management Systems Integration
Air Force Communications Agency
Scott AFB, Ill.

More than ever before, we hear the terms "workflow" and "document management" tossed about as we attempt to control the masses of information rampaging across our Air Force networks. But what do these terms mean? Also, how are workflow and document management related to electronic records management, and more broadly, Enterprise Information Management?

The illustration shows the relationships between electronic workflow, and document and records management. Together these principles lay the foundation for managing mission-critical information throughout prescribed life cycles to enhance aerospace operations in support of the warfighter.

Workflow is nothing new. Every time a document moves between an originator, coordinator and approver, work is being "flowed" between participants, whether the medium is paper or electronic, to contribute to, or accomplish, an overall goal. Workflow helps us process information at the "front-end" of the information life cycle. In our technology rich environment, we seek ways to capitalize on the effectiveness and efficiencies of flowing information electronically.

Document management is concerned with maintaining and organizing information introduced from either inside or outside the electronic workflow process. This is done by storing documents in a central location, capturing metadata about the document (such as subject, author, recipients and format), controlling access to the files, keeping a history of changes to managed documents (version control), and allowing users to search for documents.

After a document is routed between participants, official records and associated metadata are stored in an Electronic Records Management System to comply with all legal and directive requirements. Similar to document management, additional metadata is collected from the system and users. The system stores this metadata along with the record in a manner to prevent either being altered. Most importantly, every record is assigned a disposition that determines how long it should be maintained and when it's ready for destruction or permanent storage.

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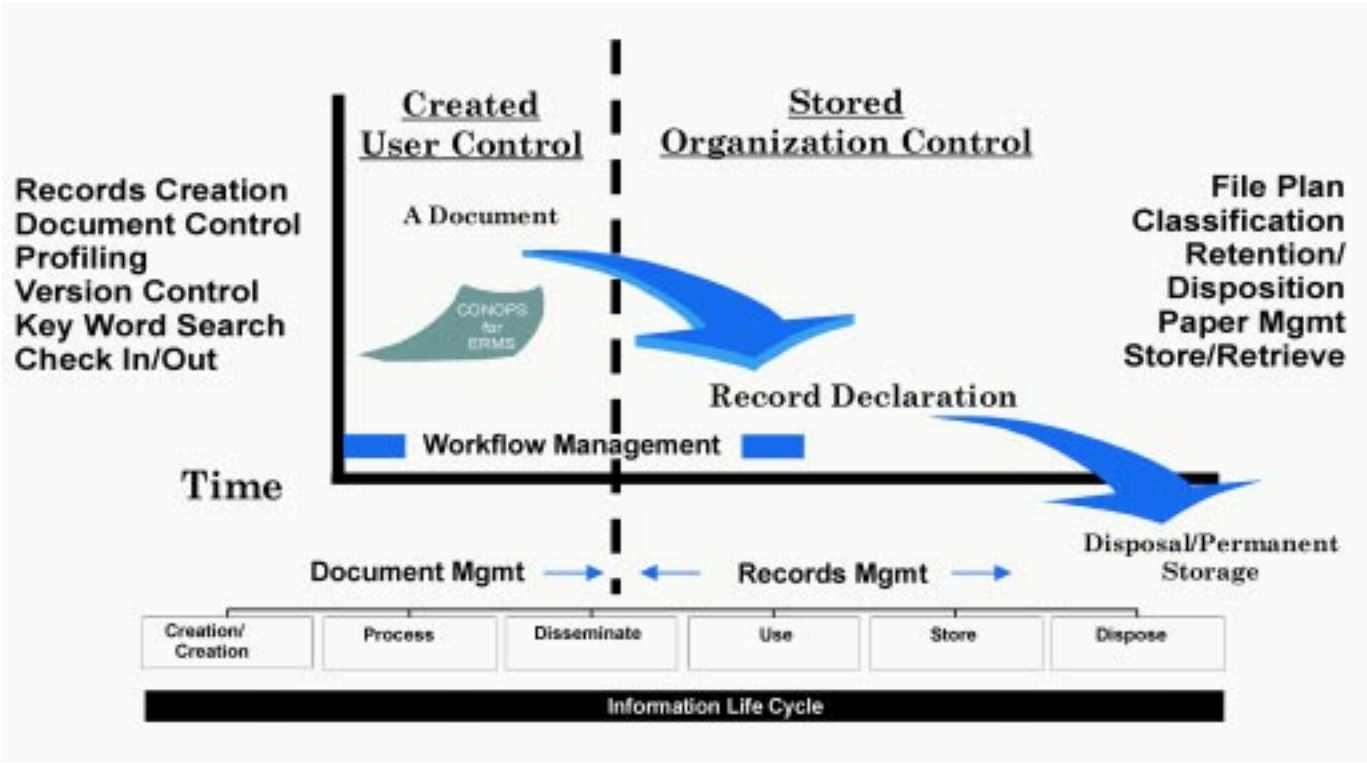

Electronic workflow, document, and records management relationship model

3rd Herd arms combat communicators to fight and win

By 2nd Lt. Brian D. Aschenbrenner
3rd Combat Communications Support Squadron
Tinker AFB, Okla.

Life as an information manager in the 3rd Combat Communications Group, better known as the 3rd Herd, is challenging and provides opportunities in nearly every aspect of the career field. You'll never hear one of them say they're bored. They're hard at work, providing communications services in the ever-changing high operations tempo world of combat communications. One thing that's remained constant over the years is that an information manager could always count on a diversified career path. That's never been truer than it is today. IMers are employed in nearly every aspect of the CCG's mission, from tracking performance reports to managing a network control center. All of them have responsibilities that support the tactical nature of combat communications. They learn quickly that a can-do attitude and diversity are key to their success.

While in garrison, 3rd Herd IMers have a very broad mission. They're assigned to the five squadrons, each with its own staff support and workgroup management functions. On the staff support side, they're primarily responsible to their squadron commander and are trusted with all the traditional duties of an information manager.

The workgroup manager is no stranger to the 3rd's IMers. They configure user profiles, manage e-mail accounts, perform computer maintenance, administer system and software upgrades, set up workstations for network use and ensure timely compliance with Air Force Computer Emergency Response Team requirements. They also develop and maintain squadron Web pages, which is Airman Carrie Corson's favorite duty because it's challenging and allows her to be creative. WMs maintain Automated Data Processing Equipment inventories and plan for annual computer replacement purchases. A select few IMers are on the cutting edge of workgroup management. They manage one of the network control centers and are responsible for maintaining network services, providing network security and conducting in-house training for personnel involved in workgroup management and computer maintenance.

One thing that sets a Herd IMer apart is their integral role in the mobility process. They're true combat-ready warriors that complete Combat Communications Readiness School and are ready to support the mission anytime, anywhere. They must be poised to deploy at a moment's notice to perform staff support and workgroup management duties. Each must ensure he or she is trained and equipped for sustained deployment to support the squadron's deployable mission and to provide services to the airmobile machine, which guides personnel and equipment through the deployment process to an aircraft on the flight line. IMers are involved in nearly every step of the group's mobility processing, from the personnel contingency team to cargo marshalers and ramp coordinators. According to Staff Sgt. Hugo Padilla, thanks to CCRS and mobility preparation, he's ready to meet Air Force mobile requirements and to respond to any situation in a combat environment.

Real world contingencies, and Aerospace Expeditionary Force and exercise deployments, provide other avenues for op-

Airmen Sarah Logue and Carrie Corson, 3rd Combat Communications Group, Tinker AFB, Okla., develop a squadron Web page.

A deployed network control center.

portunity and diversity. Deployed staff support IMers continue to perform most of their standard jobs while in the field. They also maintain master station logs and prepare various situation and status reports in direct support of the deployed commander's communications focal point. Deployed workgroup managers run the site's help desk, assisting in the time-critical tasks of circuit activation and sustainment. During Staff Sgt. Adam Westensee's deployment to Saudi Arabia, he provided help desk services as the first line of assistance for computer users. He set up e-mail accounts, ran LAN cables, troubleshot computer problems, and taught a basic workgroup manager's class. Staff Sgt. Donald Sauter serves as one of combat communication's most critical links in circuit activation. He deploys as NCOIC of the network control center and ensures network services are up and ready for circuits to be provided by the deployed satellite communications facility. The network control center provides e-mail, Internet connectivity, firewalls and router services to the deployed base.

The advent of the workgroup manager role, along with supporting mobility requirements, has increased demands on the 3rd Herd's IMers. Information managers are usually divided into specialized positions, with designated personnel performing staff support and others performing workgroup management functions. Some IMers are tasked to perform both workgroup management and staff support duties. According to Staff Sgt. David Aleshire, his dual-hatted role has given him an opportunity to expand his impact on the mission and gives personnel throughout the Air Force a different perspective on the information management career field.

The 3rd Herd operates a network training center to provide hands-on training in workgroup management and other areas. Workgroup managers attend a three-week course on networking essentials, infrastructure basics and core services. Miles Long runs the group's network control center and provides detailed hands-on instruction and training to information managers as needed. The 3rd Herd IMers are also encouraged to take advantage of the information technology and communications professional training video suite and computer-based training courses available at no charge from the group's combat education representative.

IMers new and old are excited about the direction the information management career field is going, and recognize the challenges and opportunities represented by addition of the workgroup manager role. The 3rd Herd understands the critical importance of arming combat communicators with training required to fight and win on the information battlefield. They're prepared to succeed and lead the way for future Air Force information managers.

From PC III to PC technician: the changing roles of information managers

A unit looks at the impact 3A0 career field changes have had on its own

By Capt. Stephanie M. Brown
367th Training Support Squadron
Hill AFB, Utah

The Air Force network is similar to a weapon system in that it should be treated as a mission critical asset. Communications and information resources have become force multipliers, and Air Force information systems and networks must evolve to effectively implement the expeditionary aerospace vision. To achieve the light, lean, and lethal forces our national military strategy depends on, the DOD and U.S. Air Force must ensure fully qualified personnel operate and maintain these systems and networks. (*AFI 33-115 Vol. 2*)

In recent years, the Information Management (3A0) career field has evolved rapidly in response to changes in technology and ongoing office automation initiatives. Gone are the "stone age" days of the typewriter, the hoards of paper files and associated paper-based, manual processes on which the career field was initially built. In today's work environment, almost everyone in an organization has access to a computer with network connectivity, and uses electronic publications and automated programs to perform day-to-day business with minimal assistance from the paper-based IMer of the past.

While IMers continue to accomplish core IM tasks (official mail, intrabase communications, suspense tracking, scheduling and information workflow management), they're now being called upon to fill the void in ever-increasing requirements for office automation support in the form of workgroup managers. These new requirements include installation of computer hardware and software, configuration management, initial systems diagnostics, and Web page development and maintenance.

"I feel the change is great," said Tech. Sgt. Latrice Williams. "We have always held a support function within the organization. Now we are supporting a different aspect of the office. The traditional IM jobs consisted mainly of proof-reading, posting changes to publications, answering phones, and typing letters. Today, there is a computer on every desk with software to make these functions easy for all users. Even posting changes has become obsolete because of the electronic era in which we live. It's just as easy to update a CD Air Force-wide and alleviate each user from posting changes. We live in paperless times."

It's difficult to predict what impact such a major change will have on manpower. In the past, IMers weren't required to have networking skills and they weren't taught in tech school. Some may have entered the career field because of its less technical aspect. For those that had no interest in networking and other technical operations, cross-training provided an option. On the other hand, there were many who never even considered that. Staff Sgt. Shelton Humphries enjoys being an information manager. "I always like a challenge and the new career field gives me an opportunity to expand my knowledge and it is a challenge." Many people stayed because they enjoyed learning about computers. For Sergeant Williams, the traditional tasks had become mundane, and she was considering a career change. Then she heard about proposed developments for the career field. She didn't even consider cross training when she realized the change was actually going to take place.

For IMers who have been in the Air Force awhile, the learning curve might be steep. For those that already have computer experience, gained either from

See **CHANGE** next page

Photo by Tech. Sgt. Kimberly Yearyean-Siers

Information manager Staff Sgt. Shelton Humphries (left) assists a user having computer problems.

Information manager Staff Sgt. Shelton Humphries configures a computer system for a new user.

CHANGE

From previous page

hobbies or secondary jobs and duties, the change is welcomed. There is nothing like being paid for what you like to do.

The changes have had a great impact on day-to-day work requirements for many. "I was moved from the orderly room to the computer operations section. I went from PC III to PC technician," said Sergeant Williams. "There were a few growing pains because I was used to the traditional side of my job. Typing on the computer was the extent of my computer knowledge. The changes to my career field will not affect my decision to stay in the Air Force. If I don't like the new direction, I can look for another career field." So far that hasn't happened. In fact, career field broadening has opened up new possibilities in life people may never have considered. With the training and experience, finding a second career as a certified systems engineer or network manager after the Air Force is something well within reach now. Of course the flip-side is the potential exodus of trained personnel. The challenge of supervisors, commanders and senior leadership has always been to highlight the tangible and intangible benefits of an Air Force career.

It's difficult to imagine living in such a technologically advanced world with one's head buried in the sand. Everyone from elementary school children to senior citizens has been surfing the information highway for years. The Air Force is making changes toward a better future, shaping the 21st century.

"I am very happy with my career field the way it is right now. I learn something new every day. I love the challenge," Sergeant Williams said.

MANAGE

From Page 3

vice, was, as he put it, "… a private first class able to more directly express his point of view to a flag officer without contacting anyone in his or her chain of command." Clearly something that rarely happened in the days of telephones and typewriters. The advent of e-mail has done more than just "flattened" the hierarchical structure of organizational communications.

The "bundling" of e-mail technology with other applications (calendar, contact, and task management functions) creates, to use the IT industry term, a "personal information manager" application. When coupled with office automation application "suites"-- containing word-processing, presentation, spreadsheet, and database functions -- RIMS give computer users powerful tools to create, control, collect and disseminate information … a substantial portion of the information life-cycle. These innovations make every computer user an information manager. That said, we still need better, more enterprise-consistent technology and business rules to control the flow, storage and disposal of information and to keep our networks from becoming "information landfills." As you may suspect, this is neither an easy nor serial process.

Lots of talented and intelligent folks are working in parallel to achieve breakthroughs across the entire information management front-line. This "r-evolution" (rapid evolution) didn't start with a "bang"… it started with a "You've got mail" audio clip. And you can rest assured it won't stop there, either. The technology genie is out of the bottle … don't hold your breath thinking he'll be put back inside any time soon.

So, say good-bye to your "buck slips" and bid farewell to your "blue darts," as you put them on the next stage coach outa' town. 'Cause … I can hear hooves a poundin' and see dust risin' on the horizon. No, it ain't the cavalry … it's a couple of straight-shootin', rough ridin', frontier trailblazers … with their sights set on turnin' Happy Valley on its head. If I squint I can just barely make 'em out … uh oh, just as I suspected … it's the Workflow Kid and his side kick, the E-Records Rider.

AF comm and info reengineering captures work done by WMs

By Master Sgt. Seth McKeel
Unit Mission Support Manager
Air Force Communications Agency
Scott AFB, Ill.

"Something's wrong with my computer -- it keeps locking up on me. I can't log onto my computer … I've typed my password correctly … what's wrong?"

These calls for help are common to most workgroup managers—the majority of whom are information managers working as the first line of support to customers for myriad computer-related issues. The work done by these IMs has evolved ever since the workgroup management concept emerged after the merger of communications and information management communities. Having the workgroup managers become an extension of the base network control center was the next logical step, since a majority of the workgroup managers work at various functional organizations and are in the best position to troubleshoot users' concerns before they're elevated to the network control center.

The duty of workgroup management has evolved from a simple task, such as unlocking a user's password, to something a little more complicated, for example, upgrading an operating system and managing digital information. Until recently, however, no one formally captured the workload associated with this responsibility in a manpower standard.

As lead for Air Force comm and info reengineering, the Air Force Communications Agency recently hosted a workshop to capture duties and responsibilities associated with workgroup management. The information captured will be used by the Air Force Manpower and Innovation Agency to quantify the workload and determine the manpower required by the Air Force to provide the mandated levels of service. A total of 26 information managers from various major commands, direct reporting units, and field operating agencies participated in the two-week event as subject matter experts.

According to the facilitators, Senior Master Sgt. Carol Sanders and Vicki Martin, things went extremely well despite the monumental challenge of starting from scratch. The successful results were not a surprise, because participating subject matter experts came well-prepared and worked hard to pinpoint the gamut of workgroup manager tasks—everything from unlocking user passwords to administering a server.

Participants identified more than 50 measurable WM tasks. Prior to measurement of the tasks, all MAJCOMs, FOAs, and DRUs will get an opportunity for review and coordination.

In addition to the more commonly known workgroup management duties, attendees identified others that many WMs perform, such as security awareness, training and education management and computer systems security.

According to Chief Master Sgt. Richard Small, the

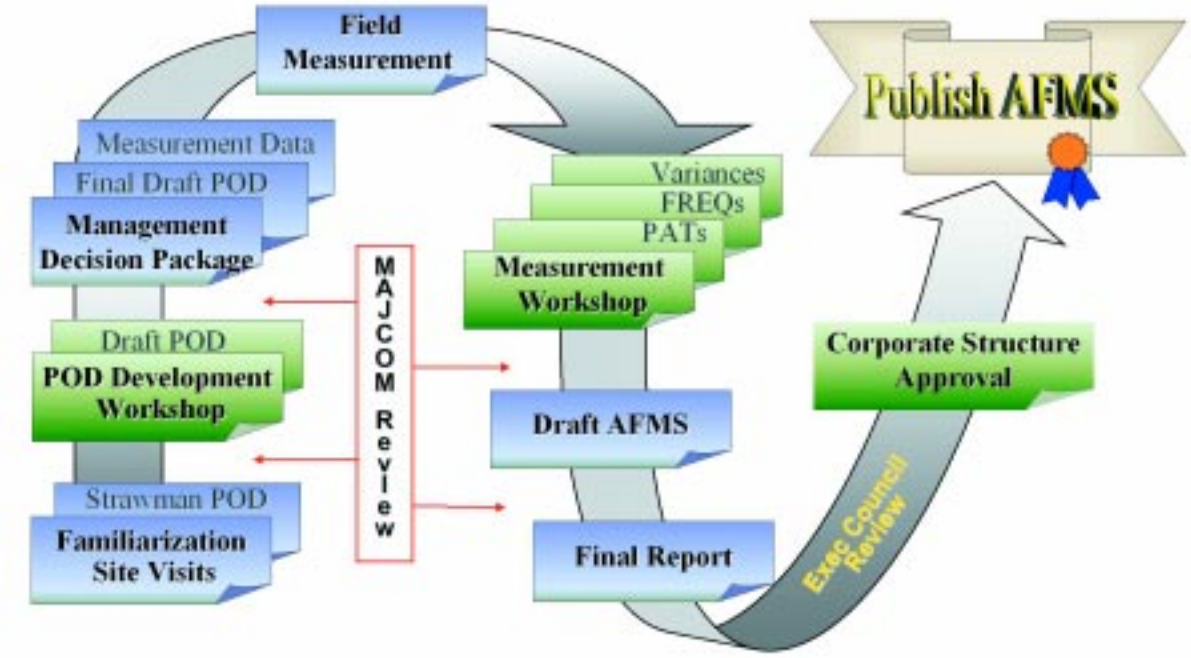

Figure 1 - Reengineering Study Approach

Photo by Tech. Sgt. Mike Leonard

Senior Master Sgt. Carol Sanders (left) and Vicki Martin, Air Force Communications Agency, Scott AFB, Ill., facilitate a seminar.

3A Air Force career field manager, terms such as SATE manager, CSSO, or organizational computer manager are simply change-resistant (but yielding) euphemisms for workgroup managers. Chief Small briefed the workshop attendees on the future of the information management career field, and guided workshop discussions to ensure the work captured reflect what the Air Force considers necessary for the mission.

"The information manager of today is better trained and better qualified than at any other time in the past, to provide our customers the expertise and guidance to organize, integrate and use information as a critical national resource to achieve the Air Force mission," said Chief Small. "They are key to professionalized management of unit level information resources (both the technology itself and the information it carries)."

As AFCA's the 3A executive agent, Chief Master Sgt. Greg Skinner explained IMs are the right people to perform workgroup management duties. He said they have the inherent skill set, and the majority are already working closely with most comm and info customers. All that is needed is a manpower standard to recognize and source the workgroup management function with the skill set. Air Force comm and info reengineering is the way to get it done.

The Air Force Chief of Staff-directed reengineering initiative is a historic, "first-ever" effort and is the most extensive process modernization to date.

"The field units need our help and we're doing everything we can to help them," said Chief Master Sgt. James Harris, chief of AFCA's Unit Support Branch. "For years, commanders asked the Air Force to give them more manpower to help perform workgroup management tasks. Capturing the workload and formally staffing the requirements up to Headquarters Air Force is the first step. The process is not quick, but we are partnering with AFMIA to present these requirements to the Air Force Corporate Board as soon as possible."

The reengineering effort involves thorough study of each base level comm and info function common across the MAJCOMs. (see Figure 1) Each study is comprised of several steps which eventually lead to publication of a new Air Force manpower standard. The steps include:

(1) Familiarization visits by Air Force Manpower and Innovation Agency personnel to selected field units.

(2) Coordination of the management decision package (contains work center processes, related process improvement initiatives, workload factors, and variances) by MAJCOMs, DRUs, FOAs and AF/SC.

(3) Measurement workshop led by AFMIA.

(4) Development of a draft Air Force Manpower Standard.

(5) Staffing of the final report for senior comm and info leadership and Air Force Corporate Board approval.

The steps help validate workload for Air Force-wide processes for eventual incorporation into Air Force manpower standards. It takes approximately one year to complete each manpower standard.

For more information on the comm and info reengineering effort, visit the Web site at: **https://www.afca.scott.af.mil/best_practices.**

IM sees paradigm shift in workgroup management training and development

By Master Sgt. Duane Buchi
IM functional manager
354th Communications Squadron
Eielson AFB, Alaska

Information technology has revolutionized every facet of the information management career field. Mastering the responsibilities and task competency of workgroup management is every IM's present challenge and future focus. Whether we acknowledge it or not, workgroup management is our future.

Of 36 enlisted specialties, 3A0X1 is the 10th largest, with some 11,000 people assigned. IMs are employed in nearly every unit and staff agency throughout the Air Force – nearly 1,100 of them performing duties outside the Air Force in other Department of Defense agencies. IMs are in the best position to enable effective interface between computer users and networks. Our biggest challenge is to develop task proficiency and step up to the challenge.

Two IMs here have taken this issue to heart in the interests of 3A0X1s across Eielson, Pacific Air Forces and the Air Force.

The Air Force's answer to IT training deficiency is computer-based training modules and standardized on-the-job training.

These CBT courses are available through the Smart Force CBT contractor. On-the-job training is becoming a reality. By 2004, a complete information technology curriculum, complete with associated equipment, software and an instructor, will train every network professional crew position, including workgroup managers.

Eielson officials expect to have the SOJT suite on line by the fourth quarter of 2002. However, there is still a startling dilemma: Technology demands today's IM to master IT now. At the rapid rate of technological advances, we realized we needed to capitalize on our local resources in the near term. The solution: a formalized workgroup management vision for training and employment of 3A0s.

Staff Sgt. Shane Flint, a full-time IM, is dedicated to teaching and training the Eielson IM workforce. He serves as a liaison between workgroup managers and network professionals. Sergeant Flint is fielding a training and certification process second to none.

Col. Ronnie Hawkins, Pacific Air Forces director of Communications and Information, visited Sergeant Flint recently. Upon seeing the NCO's progress firsthand and reviewing the results of his efforts, PACAF's senior communicator challenged Sergeant Flint to share his work with the rest of the communications and information community. The program is already placing task-qualified workgroup managers in base units.

Sergeant Flint's road map to success is available to all.

While assigned to a NATO unit in Turkey, he took charge of a 500-user network. Over the next two years, he rebuilt the network from the ground up through extensive research, trial and error, and personal training. He purchased the entire set of books required to train a Microsoft Certified Systems Engineer, and on his off-duty time, studied for certification exams.

The sergeant took seven exams and was awarded an MCSE certification. He was reassigned to Eielson and fit neatly into base officials' plans to build and maintain a dedicated training lab.

Sergeant Flint's arrival, with practical experience and extensive technology training, couldn't have been timed more perfectly.

Once assigned to the task of training a fleet of IMs to become workgroup managers, he honed his instructional development and delivery skills by taking the Air Force's Principles of Instruction course taught by an Air Education and Training Command mobile training team. He studied and embraced the Air Force vision for network professionals by reading a variety of Air Force instructions, senior leader briefings and other DOD information technology publications. With a vision set before him, he assessed the needs of all the network professionals within the communications squadron and then turned his energy toward grasping the struggles of the 3A0s employed throughout the 354th Fighter Wing.

Finally, he dedicated an entire month to capturing all he learned and developing it into lesson plans to train workgroup managers. Upon completion, Eielson had a 70-hour, hands-on workgroup management curriculum, with initial and advanced courses.

As a final ribbon on the WM training and certification package, Sergeant Flint institutionalized the program by creating a local fighter wing instruction. It delineated lines of responsibility between workgroup managers and the Eielson network control center, outlined individual training responsibilities, and provided a road map to implement and maintain a viable WM program in each unit and staff agency.

To date, 37 of the authorized 71 IMs at Eielson are applying their skills daily in varying degrees.

See **IM** next page

Photo by Staff Sgt. Tim Cook

Staff Sgt. Lenn Jensen and Airman 1st Class Jarod Mundt, Spangdahlem AB Web Shop, update their public site.

IM provides key components of Spangdahlem's Web shop

By Staff Sgt. Lenn Jensen
NCO in charge, Web Shop
52nd Communications Squadron
Spangdahlem AB, Germany

The base Web shop at Spangdahlem was formed with two specific goals in mind: make it "easy" and make it "cool." By combining top talents from three disciplines, the shop couldn't miss producing cool Web pages and technologies, while keeping templates professional and easy to use.

By serving as focal point for all base-wide Web creation, the shop standardized more than 3,600 pages on the public and limited-access intranet Web sites. A weekly Web training shop provided HTML skills to anyone interested, including officer and enlisted personnel, and a host of Department of Defense dependent school teachers.

The Web shop consists of a three-person team combining the technical expertise of 3A - Information Manager (NCOIC), 3C - System Administrator, and 3V - Graphic and Photo Specialist. Each person in the shop is learning the other's trade – whether it be programming, database updates, or graphical arts and multimedia.

All of these efforts enabled an unprecedented one million page hits by the 5,000 base users. One of the most popular pages, the comptroller Web site gives real-time pay, leave and travel voucher data – cutting more than 950 calls and saving more than 80 man-hours weekly. The second favorite is the base multimedia repository, which opened video and image vaults to users across the wing.

Cutting-edge technologies abound. Recently installed streaming media allow users to see real time video and audio on their desktops. Everyone on base can now watch training videos, awards presentations, and safety notices with ease, a capability applauded by both the wing commander and USAFE's director of Communications and Information. The best part is that since the Web shop used existing hardware and software, this new capability cost the base nothing.

Next on the list for these Web pioneers is integrating their services into the new Air Force Portal.

IM

From previous page

Sergeant Flint is on track to train every assigned 3A0X1 in the initial WM course by next month. Those assigned as lead WMs in base units will be trained on advanced tasks by December.

The combined 70 hours of training, coupled with completion of CBTs and 14 months of experience in a workgroup manager position, will culminate in the complete certification of leads by year's end – some nine months before standardized on-the-job training is scheduled to begin.

The endeavor has not been without its challenges. Resistance to change still hampers progress on occasion, as expected during the implementation of any forward-thinking initiative. Sometimes it's a 3A0 that lacks the confidence to take on the challenge, or we face non-3A0s who have inherited WM duties because of personal interest and natural aptitude.

However, as more 3A0s shoulder the workgroup management responsibility, leaders are realizing the value in employing their 3A0s as workgroup managers and are enhancing their mission capability by assigning the right resources to the mission-critical task at hand.

The result is a win-win situation, moving us ever closer to *One Air Force … One Network*.

If you are interested in reviewing Sergeant Flint's course material, lesson plans or local guidance, please contact him at DSN 317-377-1460.

Squadron showcases WM training

By Senior Airman Charlene Carl
48th Fighter Wing Public Affairs
RAF Lakenheath, United Kingdom

The new hands-on workgroup manager training course taught by the 48th Communications Squadron Information Technology Training Center provides required training for computer resource managers.

All workgroup managers are directed by the Air Force Position Certification Guide to take the new hands-on training and 61 modules of computer based training. Unit information managers usually perform the duties of a workgroup manager; however, for units without an IM, the task becomes an additional duty.

Tech. Sgt. Steve Adams, 48th Equipment Maintenance Squadron, removes a circuit card from a computer.

"This course is beneficial to the base because it produces better workgroup managers who are able to do a lot more," said Staff Sgt. Keith R. Muscher, 48th Operations Group quality assurance workgroup manager.

The one-week course is a consolidation of the best elements from other workgroup manager courses around the Air Force, according to Tech. Sgt. Antonio Walton, Information Technology Training Center chief.

The first day starts with breaking a computer down to its fundamental components and putting it back together. Throughout the next four days, students learn to buy, install and troubleshoot software and hardware; scan a disc for errors; defragment and partition drives; and practice basic computer safety. They learn about everything from disk operating system commands to enhancements of Windows 2000.

"The greatest improvement for workgroup managers is to increase their knowledge of computers and easy fixes for common problems," said Sergeant Walton. "The ideal situation would be for a workgroup manager to go to a bare base situation and still be able to function."

"Breaking down the computer and learning the parts helped me to do my job better," said Senior Airman Dyniecia Cowan, 48th Communications Squadron small computers. "The machines were a little old, but all of the course is useful in my career field."

The course is designed to improve training of workgroup managers and alleviate routine calls to the help desk. After course completion, workgroup managers are able to operate as on-site help desks, making them the technological firstline of defense for the Liberty Wing.

EIM

From Page 5

ERMS helps manage information during the last stages of the information life cycle. Ideally, the workflow, document and records management solution is a product, or a suite of products, providing seamless integration as information is managed throughout its life cycle.

As the lead command for electronic workflow, document, and electronic records management, the Air Force Communications Agency is finding, evaluating and fielding products to operationalize EIM by delivering information management solutions to the warfighter. For example, AFCA is fielding *e*-Works, a modified commercial off-the-shelf suspense tasking and document routing application. AFCA is also implementing an ERMS Portal Pilot Project using the Joint Technical Architecture-Air Force recommended product for records management, OpenText Corporation's iRIMS. (See story on Page 23 for more information on iRIMS.)

Together, electronic workflow, document, and records management encapsulate the information life cycle, ensuring desktop management of information from creation to disposition. *One Air Force … One Network* is the backbone our information will traverse with unparalleled security and efficiency, and Enterprise Information Management will give us the architecture to ensure standardized, interoperable enterprise-wide management of information.

More information is available on AFCA's EIM Web site, https://wwwafca.scott.af.mil/eim.

IMers proactive in pursuing career progression

By Master Sgt. Yira Taylor
12th Communications Squadron
Randolph AFB, Texas

We've all heard comments from fellow information managers: "3As and 3Cs just can't work together," or "We're not given the opportunity to practice our skills." At the 12th Communications Squadron at Randolph AFB, Staff Sgt. Brian LaValley, an information manager, has proven the opposite. Working under the supervision of Master Sgt. Richard Patterson, a 3C, Sergeant LaValley has earned the respect of this highly experienced comm-computer technician.

Photo by 12th CS Visual Information

Staff Sgt. Brian LaValley, 12th Communications Squadron, Randolph AFB, creates a problem with a PCU for students to troubleshoot.

These two "comm warriors" have demonstrated that personnel from both career fields can team up and fulfill the Air Force vision of integrated Information Management and Communications career fields. Sergeant LaValley's proactive style has enabled him to become an integral part of the Randolph Structured On-the-Job Training Network Academy. He installed wiring for the internal classroom network, as well as workstations and servers with the associated hardware and software.

As a retrainee into the IM career field, his first assignment was working on the commander's support staff. After several months, he attended his first WM course, but found he lacked many of the essentials. Despite drastic changes to the WM course, it still fell short of giving information managers the required level of training.

Undaunted, Sergeant LaValley began the arduous task of training himself, ultimately convincing his commander to allow him to assume responsibility for all the computers in his section. It didn't take long for him to prove himself and earn the respect of his peers, 3A and 3C, as well as his commander, who appointed him organizational computer manager, responsible for more than 166 computers and associated equipment. He quickly became the squadron's "go-to" person for network issues that required up-channeling.

Arriving at Randolph in January, Sergeant LaValley was the clear choice for assignment to the newly established 12th Communications Squadron Network Training Academy, due to his enthusiasm, experience and strong desire to teach and improve training. The academy was founded on the Air Force Communications Agency's Implementation Plan for Operationalizing and Professionalizing the Network Structured OJT, providing initial and advanced skill courses at base level. Under OPTN, the IM career field is specifically linked with other network professionals, recognizing the importance and need for structured formal training for the 3A career field. OPTN further recognizes that WM training is the core training of all network professionals.

The WM curriculum will now include Cisco Semester 1, PC fundamentals, operating systems, and hands-on experience. It stresses proficiency in both written and practical application. Certification will only take place after an individual has completed WM crew position CBTs, and passed written and practical exams. Information managers who wish to further excel in their professional knowledge and advance to other positions, such as WM to FSA (functional system administrator), will have an opportunity to attend other courses.

As an IMer, Sergeant LaValley is keenly aware of the real intent of IMers and WMs. With more than 80 percent of IMers working outside the comm squadron, an effective curriculum and proactive action on the part of IMers will provide immediate front line support to local unit customers and ensure optimal use of information management resources in the future.

One final point: Although highly skilled in WM and networking, Sergeant LaValley has also attained proficiency in all other core areas of the information management career field. As information managers, we must have the proper tools and resources; however, we must also be proactive and responsible for our career progression.

Spangdahlem's information managers staff network control center help desk

By Master Sgt. Lynn Kravcheno
Chief of Help Desk, 52nd Communications Squadron Spangdahlem AB, Germany

Technicians Staff Sgt. Justin Mandeville and Airman 1st Class Shannon Shull answer technical questions sent to the Help Desk via e-mail.

The 52nd Communications Squadron Help Desk at Spangdahlem, has bragging rights as the only help desk in U.S. Air Forces in Europe that is managed and exclusively manned by information managers. Although manning consists of only six 3A personnel — the old "admin troops" — the help desk is responsible for a wide range of duties that include network and computer support, small computer maintenance, and workgroup manager training for more than 5,000 personnel assigned to Spangdahlem and its geographically separated units.

The help desk personnel's daily duties range from creating computer and e-mail accounts to providing technical support and troubleshooting advice over the phones. Help desk technicians also provide a walk-in service to WMs who cannot resolve computer problems on their own. WMs are invited to the help desk so an experienced technician can help them accurately diagnose and resolve a problem. This personalized service ensures computer problems are accurately diagnosed and fully repaired while giving WMs the hands-on training to help resolve future computer problems—did someone just say, 'teach them to fish?'

The help desk is also responsible for facilitating the wing-wide WM training program that provides WMs the tools necessary to competently perform their duties. There are two different types of programs available to trainees: a two-week program designed for personnel already familiar with the components and functions of a computer and software, and a 30-day program for those who need to start with the basics. Personnel needing training are screened to ensure they are placed in the program consistent with their abilities. During the training, trainees are not only provided with scenarios normally encountered in an office environment, but are also taken to different work centers in the wing to familiarize them on the actual types of problems they could encounter when they go back to their duty sections.

The help desk's daily interaction with squadron WMs gave way to two new competitions never before seen in our 3A community. The first is a 52nd CS sponsored wing-wide WM of the quarter recognition program and the second is a novel annual "Workgroup Manager Rodeo." The quarterly recognition program gives the more than 200 WMs at Spangdahlem AB the chance to prove they're the cream of the crop based on their day-to-day abilities in supporting the mission. The "WM Rodeo" stresses quick thinking and problem solving skills. The multi-stage event will have a station where the WMs are timed on how quickly they can solve a hardware system anomaly. The competition tests their ability, under time constraints, to diagnose intentionally "sabotaged" computers and restore them to be fully operational—not quite the same pressure as a wing commander looking over your shoulder asking when his computer will be ready—but close.

It hasn't been that long ago when the duties of information managers were confined to answering phones, typing enlisted and officer performance reports, and ordering and maintaining publications and forms. Gone are the days when information managers relied on techno geeks to get their computer problems resolved. Instead, they now have the ability to set up, configure and diagnose computer problems on their own. Thanks to the vision of Lt. Col. Frank Brooks Jr., 52nd CS commander, and the support of the 3A functional manager, the wing leadership, and all those behind the scenes who made this possible, Spangdahlem's 3As of yesterday now stand ready to tackle the challenges of the future.

Who would have guessed that in less than two years the traditional information manager role would evolve into something as technical as it is today?

IMers remain on cutting edge of training and technology

By Tech. Sgt. Bernard Taylor
55th Logistics Group
Offutt AFB, Neb.

The 55th Logistics Group's information managers received the annual base-level Gen. Edwin W. Rawlings Award for 2000. The award is given to a group of two to 25 individuals who make a significant contribution to the organizational mission.

It recognizes outstanding administrative and technical support provided to more than 1,000 military and civilian personnel assigned to the group. The IMs will compete for more awards at major command level.

As workgroup managers, we work in concert with the LG's local area network shop, which consists of three information managers and three personnel from other Air Force specialty codes. Previously, the LAN shop supported about 900 group personnel, 720 computers and 19 servers. With the help of the group information managers, the shop has greatly expanded its technical support offerings.

"The 3A0s (information managers) were thrown into a tough situation, with their duties changing from strictly administration to workgroup management with little hands-on knowledge or training," said Master Sgt. Duane Horseman, superintendent of the LAN shop. "They've responded to the challenge and helped us build up a strong network team."

One of the first tasks handled by the merged office was a three-day project to install the Joint Computer-Aided Acquisitions and Logistics Support System across Offutt. While normally this would be a job for a functional system administrator rather than a WM, in this case it allowed LAN shop personnel to start providing us valuable hands-on experience working with group computer systems.

Soon we were working side-by-side to upgrade several wiring closets with new patch panels to provide expanded network access to aircraft hangars for 55th Maintenance Squadron personnel. In a three-month period, the WMs installed Windows and Office 2000 on more than 240 computers. We also configured more than 750 e-mail accounts and handled more than 1,000 trouble calls that would otherwise have been routed to the 55th Communications Squadron Help Desk.

A crucial part of our success is intensive training. Like all WMs in Air Combat Command, we're required to complete a program of computer-based training, classroom training and a "shadowing" program provided by the 55th CS Information Systems Flight. The LG information managers were the first entire group at Offutt to complete the required training, excluding newly assigned personnel.

The chief of the Information Management Resources and Training office noticed all of our work when she handpicked two LG information managers to participate in the joint forces exercise last summer. They had a direct part in the success of the mission by managing and improving information flow. Another duty they tackled was managing the Cyber Café, an important quality-of-life project for more than 300 deployed military and civilian personnel.

"Managing the JFEX Cyber Café allowed all players in the workspace to conduct unclassified official business and keep in touch with family and friends while TDY," said Staff Sgt. Timothy Rasmussen, one of the deployed information managers. "It was also a great opportunity to put to use all of my training."

"I'm very proud of every information manager in the logistics group," said Col. Donald R. Richardson, LG commander. "We can't do our mission without the skills they bring to the fight."

IM personnel assigned to the LG are highly trained, talented and innovative. We plan to stay on the cutting edge of training and technology to meet the future mission demands.

RIMS program transfers to new management

By Senior Master Sgt. Brian Hale
Superintendent,
Information Management Systems Integration
Air Force Communications Agency
Scott AFB, Ill.

Records Information Management System program management was transferred from the Headquarters Standard Systems Group to the Air Force Communications Agency last fall. RIMS is used Air Force-wide to manage official records. The RIMS program, help manual, and additional information is hosted on AFCA's Web site at https://www.afca.scott.af.mil/eim.

The latest release of RIMS is version 2.1, with Records Disposition Schedule 4. RDS 4 is already incorporated within version 2.1. RDS Update 5 was expected to complete testing and be available to RIMS users this month.

Eventually, RIMS will be replaced by the Electronic Records Management System. ERMS software applications being evaluated by AFCA for Air Force-wide implementation include capability to manage both electronic and paper-based records within the same system, eliminating the need to sustain RIMS once an ERMS software application is deployed across the Air Force.

First in USAFE

Kaiserslautern military community WMs certified

By Chief Master Sgt. Candace Ackerson
Superintendent,
786th CS Support Flight
Kaiserslautern AB, Germany

Senior Airman Rochelle James, Kaiserslautern Military Community IMer certified as a workgroup manager, troubleshoots a sound card problem.

Two Kaiserslautern Military Command information managers (3A0X1) became first in U.S. Air Forces in Europe to be certified as workgroup managers at the 86th Airlift Wing's quarterly Information Management Forum in March. Tech. Sgt. Michael Robinson, 786th Communications Squadron, and Senior Airman Rochelle James, Headquarters USAFE/XP, completed a rigorous certification program consisting of three phases of training.

Phase I involved two weeks of classroom training in hardware, software and communications principles, and installing, configuring and operating client/server devices. In phase II, trainees completed four weeks of hands-on training in 786th CS workcenters to acquire certification on 40 WM-related tasks. Phase III included 205 hours of study in 60 computer based training courses. The trainees also worked in WM positions for 12 months in their units to complete certification.

Col. Michael McDonald, 86th Communications Group commander, presented Sergeant Robinson and Airman James certificates of achievement as the first 3A0X1s in KMC to become fully certified WMs. Chief Master Sgt. Deborah Kennedy, USAFE 3A Career Field functional manager, declared them first in USAFE to be certified in accordance with AFI 33-115 V1, Network Management, and the Air Force Job Qualification Standard 3A0X1, Position Certification for Workgroup Managers.

As certified network professionals, USAFE's workgroup managers are using their talents to help Operationalize and Professionalize the Network. OPTN is an initiative to standardize Air Force network operations and institutionalize networking skills. In short, OPTN helps us manage the network like the weapon system it has become. To achieve information superiority, we must train, license and certify personnel who operate, maintain, and protect the network.

The information manager's role as a network professional falls within the WM network crew position. Network users' first line of help when problems arise is WMs. They resolve day-to-day administrative and technical system problems, and troubleshoot difficulties with desktop applications, hard drives, network interface cards, or even a bad network cable. WMs create network accounts for new users, and take responsibility for Information Assurance by notifying the supervisor if a user violates Air Force policy.

Information managers are key to OPTN. Information resides on our networks, and where there is information, professional information managers must be trained and certified to manage it. More than ever, the need to manage information is critical to getting the right information, to the right decision-maker, at the right time. This concept is not new to the information manager, who has evolved from yesterday's administrative specialist – only the information media has changed.

The information life-cycle principles of creation, collection, access, retrieval, storage and disposition remain the same. We must continue to pursue integration of information systems into our network, and to professionally train and certify a network-savvy workforce to operate and maintain those systems. KMC information managers are stepping up to the challenges.

ANG information managers team with PACAF, USAFE to obtain postal training

By Maj. Lorraine Patin
PACAF and USAFE Postal Training Coordinator
National Guard Bureau, Air National Guard
Arlington, Va.

The role of the information manager has expanded to include postal support during wartime and contingency tasking.

Air National Guard information managers who fill mobility positions as part of a Unit Type Code package may be required to perform postal duties when they deploy. The ANG, however, does not operate any military post offices and has limited ability to receive training in the postal career field for the more than 4,000 ANG information managers. In 1998, the Air National Guard Communications and Information directorate teamed with the Pacific Air Forces Air Postal Squadron to provide on-the-job postal training to ANG information managers with 900 person-days. U.S. Air Forces in Europe followed in fiscal year 2000. The PACAF and USAFE Postal Training Program has grown exponentially to now approach 8,000 person-days per year. It is a win-win scenario for PACAF, USAFE, and the ANG. PACAF and USAFE gain much needed *year-round* personnel support to their post offices from the ANG trainees augmenting their existing staff; and ANG members obtain postal training, in theater, often in the actual environment they would encounter when deployed.

"Outstanding deployment! This is my third trip to Kadena. Great people, training and work environment. Also, well received and supported by our active duty friends."

Kadena APO, Okinawa – January
Tech. Sgt. Thomas Kaliher,
120th CF, Great Falls, Mont.

The PACAF and USAFE Postal Training Program allows ANG members to gain valuable experience on the job and to maintain proficiency in their postal duties. It allows the ANG IM community to prepare for wartime and contingency postal support by giving them an opportunity to train where they will deploy. The program also allows ANG members to work closely with their active duty counterparts and in doing so, to develop strong team partnerships.

"I learned a lot of new things … I think every information management member should have some kind of training in this field. Thanks for giving me the opportunity to experience what goes on inside the post office, and also the experience of a different country."

Kadena AMT, Okinawa – Oct 1999
Senior Airman Melissa Lee Chock
293rd CCS, Hickam AFB, Hawaii

ANG information managers are selected for this training through nominations submitted by their commander. When the nomination is submitted, commanders must also certify that the unit's Air Expeditionary Force requirement will not be affected by the member's participation in this program. Training is conducted for a minimum of 30 days and covers such areas as processing registered mail, stamp stock and money order replenishment, mail processing, etc. Manday Personnel Authorizations days are provided by PACAF and USAFE. Travel and per diem funding may be provided by ANG depending on the member's status.

Information managers are notified periodically of available locations via e-mail. Selections are made on a first-come, first-served basis. Training received by the information managers while participating in this program is certified by the USAFE and/or PACAF postal training supervisor and documented in the member's AF Form 623, Career Field Education and Training Plan.

"I recommend a tour at the Seoul Air Mail Terminal to anyone. My gratitude goes to Ms. Carolyn Barnes, whose hard work has provided the 3A0 community realistic training and opportunities to participate in exercises and deployments worldwide."

Seoul AB, Korea – June 2000
Tech. Sgt. William Thompson
256th CCS, Cheney, Wash.

For more information on the PACAF and USAFE Postal Training Program, please call DSN 327-5291.

Postal training opportunities exist at many locations

PACAF: Alice Springs APO, Australia; Canberra APO, Australia; Sydney AMT, Australia; Misawa APO, Japan; Yokota APO, Japan; Yokota AMT, Japan; Kunsan APO, Korea; Osan AB, Korea; Seoul AMT, Korea; Christchurch APO, New Zealand; Kadena AMT, Okinawa

USAFE: Fairford APO, England; Bitburg APO, Germany; Kapaun APO, Germany; Ramstein APO, Germany; Rhein-Main AMT, Germany; Sembach APO, Germany; Spangdahlem APO, Germany; Aviano APO, Italy; Stavanger, Norway; Incirlik APO, Turkey; Alconbury AMT, United Kingdom; London MCA, U.K.; Menwith Hill APO, U.K.; Lakenheath APO, U.K.; and Mildenhall APO, U.K.

Twelve tips for better e-mails: progressing from mediocrity to excellence

By Melissa Pullen
Information Management Specialist
Arnold Engineering Development Center
Arnold AFB, Tenn.

Playwright Oscar Wilde once said, "I like hearing myself talk. It is one of my greatest pleasures. I often have long conversations all by myself, and I am so clever that sometimes I don't understand a single word of what I am saying."

Do you sometimes get that feeling when you're reading certain electronic messages (e-mail)? You read and re-read the message and wonder, "What's the point?" With the increasing volume of e-mail being generated, it's not surprising that we're all receiving more than a few of those messages.

Since widespread departmental use of e-mail began in the early 1990s, we've watched a miraculous transformation in the way we communicate. Now e-mail is the government's way of doing business, and it's the responsibility of the information management and communications communities to assist in the transition to this paperless society.

One way we can facilitate the process is by encouraging more effective e-mail communications. With that in mind, I've compiled 12 basic (although certainly not all-inclusive) tips for better e-mails:

Tip 1: Don't Go On and On and On. Brevity is the key to this first piece of advice. Say only what needs to be said. If readers require more information, they'll ask for it.

Tip 2: Use "Reply to All" Only When Necessary. Knowing who to leave out is as important as who to include in replying to a message. If a message is originally sent using a distribution list, but only a few addressees need to see your reply, don't hit "Reply to All."

I was recently barraged with a series of e-mails that started innocently enough with a request for help on the weekend, with donuts being offered as an incentive. The message was sent to a list of addressees, but the next thing I knew, someone replied back to all. Then another replied to all, and another and another. Before long, I knew more than I had ever wanted to know about which Nashville donut shop was closest to Arnold AFB.

When this happens repeatedly, you're tempted to automatically delete messages from "known offenders" without reading them, regardless of content. So, word to the wise, use "Reply to All" sparingly.

Tip 3: Don't Use E-mail When a Telephone Call Would Be Better. When you see a string of e-mails growing between yourself and another person, particularly one who's located in your building, and there's no need for an official record of the exchange, pick up the telephone or just go see them. Direct verbal communication can often be more effective than a chain of one- and two-line e-mails.

Now, let's look at the e-mail messages themselves. The next few tips include several ideas for creating more effective messages.

Tip 4: Avoid Using ALL CAPS THROUGHOUT A MESSAGE. This deals with two of the most important parts of communication: body language and tone. Using all caps is like standing in a defensive posture, arms crossed and brows furrowed. Whether you intend it or not, it sends out a message of anger, like you're shouting.

Tip 5: Eliminate Sarcasm. This aspect is also about tone. The first rule of thumb is to be your own editor. Read aloud what you write before you send it. If a comment sounds snide, it's probably not constructive, so revise or omit it. If you're dealing with a delicate situation or personality, replying sarcastically will only make matters worse.

Tip 6: Never Reply When Angry. Often, using sarcasm in a response might have something to do with failure to heed this advice. Learning how to bypass the impulse to "let it rip" is all about being mature enough to step back and think things through before acting rashly.

Abraham Lincoln was a practitioner of this approach. During the Civil War, he had many problems and critics, from inside and outside the administration. Many times Lincoln might have been justified in responding with anger. Instead, he wrote a lengthy letter addressing the issue, then rather than rushing to post it, he sealed it and set it aside to reconsider later. He never sent a letter written hastily or in anger.

The next time you receive a message that really

makes your blood boil, try this technique. Draft a reply, but be careful not to send it. Walk away from it, and when you're calm, come back and compose a level reply.

Tip 7: Don't Overburden Your E-mails with Acronyms. This is one of my favorites. Everyone who deals with the military encounters "alphabet soup." I've developed an acronym quiz to help prove my point. Some are serious and others in a lighter vein. When I tested it on my co-workers, there were some that everyone knew but one or two that no one knew. Take the quiz yourself and see how e-mail-acronym savvy you are. (See answers at the end of the article.)

E-mail Acronym Quiz

BRB
FWIW
IMHO
IMNSHO
LOL
ROTFL
BTW
TTFN

While acronyms can relieve you from typing a word or two, they won't help matters if your reader doesn't immediately recognize them. Except for those you're sure the reader is familiar with, acronyms should be used sparingly. Do the reader a favor. Help him or her avoid wasting valuable time solving an acronym mystery.

Tip 8: Avoid Comments About Anyone That You Wouldn't Say to Their Face. The speed at which e-mails travel is no mystery. That's why following this piece of advice is important. If you would be embarrassed that someone overheard you speaking critically about him or her, why would you send such a comment to anyone in an e-mail? Not only is it likely to get back to that person, but since it's in writing and probably saved, there's no taking it back.

Ultimately, this advice is about integrity, and having enough respect for those not present to bite your tongue. Tip 8 is directly related to our next commandment.

Tip 9: E-mails Are Easily Forwarded. You can't be sure who will read what you send, or how they'll interpret it. There are certain types of information – not just of a personal nature – that should not be included in an e-mail. That's why the Air Force has created instructions to regulate e-mail. That leads us to Tip 10.

Tip 10: Preserve E-mails That Are Records. AFI 33-119, *Electronic Mail (e-Mail) Management and Use*, outlines important information about e-mail use and content, and all matters of regulatory compliance.

It reminds us that the "Federal Records Act requires the Air Force to identify and preserve records, including records created or received on e-mail systems…E-mail messages are records when they meet the following criteria:

1. They are made or received by an agency of the United States Government under federal law or in connection with the transaction of agency business.

2. They are preserved, or are appropriate for preservation, as evidence of the agency's or organization's activities, or because of the value of the information they contain."

It's imperative that electronic records be easily accessible to individuals who need them. E-mail records should be arranged according to an approved file plan, and systematically managed, stored and destroyed, the same as any other record.

Tip 11: Know and Apply the Rules of Grammar. Whether you're maintaining e-mail as records or not, good use of grammar, spelling and the other essentials of good writing, reflect the writer's professionalism and contribute to clarity of the message. Yes, e-mail is relatively quick and easy, and is rapidly replacing paper as the medium of choice, but that doesn't excuse poor writing.

My one word of advice: If you or your employees need a refresher, invest in some training, which is available at most local colleges, or can often be arranged for in-house presentation. Anything you can do to improve your skills will be worth the effort.

Tip 12: Don't Get in Such a Hurry That You Forget the First 11. Many times we receive short suspenses and scramble to meet them. Other times, we procrastinate and then have to rush to get the work done. Either way, or for whatever reason, it pays to take your time, particularly when composing, editing, responding to and managing e-mail. The old saying, "Haste makes waste," is certainly true.

While there may not be much we can do about the volume of e-mail produced, we can all do something about quality. In the end, effective e-mail has the same traits as any communication. The time and effort we put into that communication will be evident. Remembering these 12 tips and reviewing publications such as AFI 33-119, AFMAN 33-326, *Preparing Official Communications*, and AFH 33-337, *The Tongue and Quill*, can help us progress from mediocrity to excellence. Now who needs some donuts?

Answers to the Acronym Quiz:

BRB – Be right back
FWIW – For what it's worth
IMHO – In my humble opinion
IMNSHO – In my not so humble opinion
LOL – Laughing out loud
ROTFL – Rolling on the floor laughing
BTW – By the way
TTFN – Ta Ta for now!

New list server supports workgroup managers

By Jeff Noynaert
Air Education and Training Command
Randolph AFB, Texas

The WM List Server is a new tool for workgroup managers, provided by Headquarters Air Education and Training Command's directorate of Communications and Information. The server gives WMs the ability to communicate freely with each other for the first time, permitting them to ask for help, express ideas, discuss issues, announce events and share lessons learned. Our list server represents a breakthrough, since it leverages the knowledge of many individuals to benefit the group as a whole. One person may have a killer Web site, another may have a business process, and someone else may have a new use for public folders. Now every WM list server subscriber can know about it and feed back thoughts to the developer or the group.

Even though AETC initiated the list server, it's open to the entire Air Force. Other major commands may have solutions to some of our problems, or have experience with products that we have not yet discovered. If an AETC WM asks a question, the answer might come, for example, from PACAF or AMC.

Technically a list server is a computer that manages a list of e-mail addresses. Users control the server by sending e-mail messages to it. For example, if it receives the message, "Subscribe WGM TSgt. James Brown," it will add him to the e-mail list.

AETC's WM List Server is a partnership of several individuals and organizations:

* Software is LISTPROC and supported by CREN
* Hardware is at Scott AFB and supported by AFCA
* Administration is by HQ AETC/SCMC
* AETC's NOSC engineered the idea and provides support

The server's core functions are:

* Allowing people to subscribe to a list
* Allowing people to unsubscribe themselves
* Attaching the mailing list to an incoming e-mail and forwarding it to every subscriber

Users' advanced features allow them to:

* Request a digest of all e-mails rather than receiving them one at a time
* Hide their e-mail address from the other members
* Request statistics and configuration information about the list

Administrators' advanced features allow them to:

* Control who can join the list
* Control who can send e-mail to the list
* Individually add or remove subscribers
* Filter e-mails that are sent to the list
* View error messages and rejects that members experience
* Update the list's description and instructions for members
* View reports and statistics

After subscribing to the list, you'll receive an introductory message and set of instructions. Whenever a member submits an e-mail to the group, it will be delivered to your inbox. If you send an e-mail to the group, it will also show up in your inbox.

If you are ready to get started, you should send an e-mail like this (don't include the '<' or '>')

To: listproc@infosphere.scott.af.mil

Subject: <No subject is required. Put anything or nothing.>

Message Text: Subscribe WM <your name>

If you are not ready, you can visit https://www.aetc.af.mil/sc/scm/scmc/wgmlistserv/ for more information.

When the list started March 22, it had four members. How many will there be when you join?

EVOLUTION

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agers at NOSCs. But again, they require technical proficiency. One such position, the USAFE network metrics analyst, advises senior leadership on network health trends and provides detailed analysis of network performance. The software and hardware required to gather and collect this data is not addressed in the workgroup management certification track; rather it's position-specific training. Yet workgroup management certification provides a solid foundation for further knowledge. Information management is the most appropriate Air Force specialty for this position. Collecting information, providing liaison with bases, interpreting data, compiling reports for senior leadership, and maintaining historical archives are information manager competencies.

As the Air Force continues on its journey toward a NOSC-centric enterprise network, more opportunities will arise for information managers. Information flow to and from network control centers will become more critical as NOSCs become central hubs for the enterprise. Get your certification complete, continue to learn, and you'll posture yourself for the opportunities that lie ahead.

Electronic records management nears Air Force reality

By Bea Lachler
Electronic Records Management Program Manager
Air Force Communications Agency
Scott AFB, Ill.

While discussions to select and implement Air Force electronic records management have been ongoing for years, reality may be just around the corner. The Enterprise Information Management team in Air Force Communications Agency's Information Management Systems Branch is working with the Air Force Chief Information Officer's Electronic Business and Electronic Commerce Office to prototype electronic records storage and information sharing from multiple locations. Initial participants in the pilot project are AFCA, Air Mobility Command, Air Force Manpower and Innovation Agency, Aeronautical Systems Center and the office of the HQ USAF deputy chief of staff for Communications and Information.

By the end of June, approximately 1,500 users will have iRIMS, the Joint Technical Architecture – Air Force recommended electronic records management software product. The software is a self-service application requiring little or no user training. Records management personnel who maintain the office file plan will require limited training. During the pilot, records management personnel will assist end users with a basic understanding of records management philosophy as they make the cultural change to filing, searching and retrieving their own records.

AFCA Electronic Info Management home page.

The Electronic Records Management System accessible through the Air Force Portal will become the cornerstone for Knowledge Management. A central support activity located at the Defense Enterprise Computing Center, Oklahoma City, Okla., will be home for the electronic records management software application, and repository of metadata information for the

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viewpoint

Knowing the AF expeditionary story is everyone's responsibility

By Lt. Col. Bryan A. Holt
U.S. Air Force Aerospace Expeditionary Force Center
Langley AFB, Va.

What's the Air Force's Expeditionary Aerospace Force concept all about? Depending on where you are located in the Air Force, this may be a very easy or a very difficult question to answer.

But, no matter where you are, knowing the EAF story is everyone's responsibility. Ask yourself a few simple questions. How is my basic AEF knowledge? Can I explain the EAF/AEF? In short, the EAF is a new way the Air Force does business. If you can't answer these questions, remember 10-3-15.

As stated in the Air Force vision, the EAF consists of 10 Aerospace Expeditionary Forces, capable of the

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Airman 1st Class Dianne Phillips zooms in on a high-altitude picture of an A-10 aircraft from Ahmed Al-Jaber AB in Southwest Asia.

IA and the Expeditionary Aerospace Force

IA is key enabler for the Global Strike Task Force

By Gen. John P. Jumper
Air Combat Command Commander
Langley AFB, Va.

General Jumper

Today we stand on the brink of technological advances that can prompt a new concept of aerospace power employment the Global Strike Task Force. GSTF enables us to overcome range and time barriers by providing the means to rapidly roll back adversary threats and deliver the traditional 24/7 battlefield persistence America has come to expect. GSTF will be a rapid-reaction force employed within the Air Expeditionary Force construct and timeline, while maintaining interoperability with joint, coalition and allied assets. It will leverage our current and near-future capabilities to overcome challenges by combining stealth and advanced weapons with a horizontally integrated command, control, intelligence, surveillance and reconnaissance constellation, to provide lethal joint battle-space capability with decision-quality data for CINCs and component commanders. Although the concept hinges on precision weapons and stealth capabilities, the air operations center weapon system provides the command and control foundation. That foundation built to provide decision-quality information directly to a joint forces commander relies on Information Assurance as a mission-critical element because the information, not the source, is the key.

Assured information systems enable ACC's mission of air power employment. These systems provide vital capability throughout every stage of the kill chain. The well-established construct of Find, Fix, Track, Target, Engage and Assess we use to put "bombs on target" relies on decision quality information in every link. GSTF looks to improve the kill chain process by closing seams through common platform mergers and leveraging Information Assurance tenets of trained people, mission-effective processes, and secure and reliable systems. To hone our Information Assurance skills, we recently opened the Combined Aerospace Operations Center - Experimental , at Langley AFB, where we will integrate and test all systems before deploying into theater.

At home base wing commanders are the senior Information Assurance officers in their wings. However, it takes the collective effort of all network users to build the Information Assurance posture needed to repel network attacks and ensure network operational availability. Recent virus attacks have shown us the importance of protecting our information networks. These attacks can deny us the use of our networks and impede successful weapon system employment. We must remember that we are only as strong as our weakest link and we must ingrain Information Assurance into our culture, just as we do with flight and ground safety.

Information Assurance requires vigilance because it is bedrock to successful air operations and a centerpiece for GSTF. It is also a force multiplier that maximizes current system technologies and leverages their potential to meet future challenges. We must ingrain the importance of Information Assurance into every Expeditionary Air Force airman. Our success in ACC depends upon it.

Information Assurance depends on you

By Senior Master Sgt. Kevin Kleinhenz
Superintendent, AEF Communications Branch
Aerospace Expeditionary Force Center
Langley AFB, Va.

The Expeditionary Aerospace Force is the Air Force vision to organize, train, equip, deploy and sustain the Air Force in the dynamic 21st century global-security environment. Under this concept, the Air Force will provide rapidly responsive, tailored-to-need aerospace force capability, prepared and ready to conduct military operations across the full spectrum of conflict. Information technology is paramount to implementing the EAF—from planning and preparing, through deploying and employing.

The EAF can't succeed without the free flow of information and the operational availability of information systems. The Information Assurance program outlines measures to protect and defend information and information systems, by ensuring their availability, integrity, authenticity, confidentiality and non-repudiation.

Aerospace Expeditionary Force planning is heavily dependent on information technology, be it e-mail, the Internet or basic office application software. Two key AEF Web-based planning tools are the EAF Portal and the AEF UTC Reporting Tool. Site availability, security, data au-

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Information Assurance: Every airman is a network defender

By Brig. Gen. Michael W. Peterson
Director, Communications and Information Systems
Headquarters Air Combat Command
Langley AFB, Va.

The Air Force communications enterprise is home to one of our most precious resources: Information. Protecting this critical national defense asset is the foundation of our Information Assurance efforts. Information protection is intrinsically important because our communications enterprise provides forward deployed units up-to-the-minute mission information and robust reachback capabilities vital to operational success. Implementing sound Information Assurance practices ensures data integrity and fast delivery of critical information to the warfighter.

Protecting the enterprise from exploitation or sabotage is the fundamental responsibility of every airman. Organizations like the Joint Task Force—Computer Network Defense, Network Operations and Security Center, Network Control Center, and many others, are tasked with protecting our network architectures. They continue to combat internal and external attacks at an alarming rate. However, each of these organizations relies on network operators/users, "our airmen", as the first line of defense. It is important to understand every airman is a sensor for network attack or sabotage and may be the first person to see evidence of an intrusion. In some cases it may appear as a "maintenance" problem or computer glitch. It is imperative to report all network anomalies to your work group manager and the Network Control Center to facilitate quick response and avert a potential problem.

Unfortunately, we are often the cause of our own demise through poor security practices. Well-intended and very smart airmen will sometimes install "backdoor" modems for convenient access. This defeats password and firewall protections and provides easy access to hackers. Other poor practices include lack of user and system administrator self-discipline, shared or "weak" passwords, performing unauthorized modifications or actions, or sending large attachments to e-mail address lists subsequently flooding storage buffers. All of these undisciplined actions can take down the network or introduce vulnerabilities. These self-imposed denial of service attacks cause us to ultimately deny service to our customers. Our report card for network protection needs improvement.

A disciplined approach to securing our classified information in an electronic environment is critical. Regrettably, the rules for securing classified information are not well understood in a modern electronic communications environment. Within ACC, and across the Air Force, the incidents of classified information introduced into the wrong mediums are on the rise. This significantly increases the opportunity for security compromise and shuts down the network to users as the classified information is removed from storage devices—denial of service. In Air Combat Command, there were 97 classified mishaps on the unclassified network over the last year.

The chart (Figure 1) reflects which bases responded to classified mishaps, but does not reflect where the mishap was generated, or by whom. The most common incidents include classified information on the

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Figure 1

Net Force:

OSI hunts hackers targeting Air Force computers

By Master Sgt. Jim Greeley
Airman Magazine
Kelly AFB, Texas

Photos by Tech. Sgt. Andy Dunaway

Special Agents Sabrina Moses and Jesse Kornblum perform media analysis -- obtaining evidence from computers or computer devices.

Ovie Carroll's brown eyes track across the computer screen. Line after line of computer code scrolls past. Somewhere among this sea of electronic gobbledygook is a clue to catching a hacker.

From his office at Andrews AFB, Md., the Air Force Office of Special Investigations agent is in chase-mode. Time is crucial. Chasing a hacker is a bit like catching a vapor trail. You've got to get it before it disappears.

"I have to get in the hacker's mind, look at what was done and figure out the why and how," said Carroll, who has been a special agent for eight years — the last two as a cyber-cop.

"When I look at the keystrokes, I'm looking at his fingerprints," Carroll explained. "I can find out what he does on his computer and why."

This 30-something cop is one of just 48 OSI computer crime investigators. This small group, working from strategic locations around the world, tracks and captures people who hack Air Force computers. They are the computer enforcers — the "Net Force."

Brisk business

Unfortunately, business is brisk for these cyber-sleuths, according to Special Agent C. Damon Hecker, chief of OSI's computer investigations and operations program. Demand has steadily increased for his agents' services in the last decade.

As the world's computer literacy increases, so do the number of computer intrusions.

When the OSI began its computer crime program in 1978, intrusions constituted about 10 percent of a computer cop's work. In 22 years, that number jumped to 85 percent. OSI conducted 26 intrusion investigations last year.

An intrusion, by OSI standards, is when a hacker gains root-level access to a computer. They don't go after cyber-kiddies that deface Web pages, or worry about probes or attempted intrusions. The agency doesn't have the resources to chase down these "nuisance" crimes. They track the hackers who pose a threat.

"Root-level access means you're king of the system," Hecker said. "That's bad."

The Pentagon alone experiences between 10 and 15 attempted intrusions a day, according to John Hamre, former deputy defense secretary.

The number of intrusions continues to climb despite enormous Department of Defense and Air Force work to stop hackers at the front door of its computer systems.

"DOD and the Air Force are juicy targets," Hecker said. "The temptation to take on the government — be it the Air Force, FBI, NASA or the White House — is too tempting to resist."

Folks who have been in the computer crime business awhile are cognizant of one fact. No one is hack-proof.

"Eventually it happens to everyone," Carroll said. "No matter how good the defenses, you will get hacked."

The October 2000 hacking of Microsoft's computer network in Redmond, Wash., drives home Carroll's point. No system is invincible. The hackers stole blueprints for software under development by the computer giant.

Ovie Carroll, one of 48 OSI cyber-cops, tracks hackers who break into Air Force computer systems.

Net reality

Another Net Force reality is not every hack gets solved.

"We catch the stupid ones," Hecker said bluntly. "The smart ones usually get away."

Often that's tough for investigators.

"Sometimes I just have to shake my head and admit 'this guy's good,' " Carroll said. "It's frustrating, but all we can do is lay in wait, set up surveillance, and hope we get him next time."

A normal hack goes like this. A hacker goes from a home computer and dials into an Internet service provider. From there the hacker goes to a place he's compromised — it could be a school, government site or even a service provider. From there, the hacker goes to another and another and another computer, so when the hacker reaches the final destination — the target site — it's hard for the computer cops to track.

An intrusion investigation can lead around the world. In the best case, the logs lead the good guys to the hacker's front door, said Hecker. Sometimes, when they knock on that door what they discover is someone who had a password stolen. Other times, the trail ends in a foreign country, one that doesn't consider hacking a crime. Sometimes what they discover is even more ominous.

"Spies today don't wear trench coats," Carroll said. "Instead, they carry laptops."

This observation brings OSI's biggest concern with computer crime in focus. Hackers aren't necessarily kids trying to prove how smart they are. They could be foreign intelligence services — even terrorists.

"People can die in this business," Carroll said. "If someone hacks a computer, it doesn't even have to have classified information on it, but information that provides a picture of our operations, that could mean the mission fails, or worse, airmen die."

The Air Force had a scare with this type of scenario in 1998, when a hacker gained access to Air Force systems that contained logistics and operations information for operations in Southwest Asia.

"This scared us because we thought it was coming from unfriendly nations," Hecker said. "It ended up being kids having fun, but the potential for catastrophe was there."

That potential fuels the computer investigators' searches. Unlike normal investigations, where police usually start with one or two suspects in mind, computer cops have no clue where the trail will lead.

Back in his Maryland office — dubbed the "bat cave" —Carroll pores over the computer logs. The equipment at his disposal would make most computer geeks do back flips. But, despite the high-tech tools, Carroll can't nail down the clue he needs to catch his current suspect.

"I equate hacker crimes to rape and murder," Carroll said. "If they get into a system and take information they're not authorized to have, it's rape. If they do something destructive to a computer, it's murder."

Turning back to his monitor, Carroll continues his search. He's got a hacker to catch, and the clock is ticking.

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NIPRNET and mislabeled AUTODIN traffic. In the e-mail case, typically a user copies information from a classified SIPRNET diskette into an e-mail, or types (from memory) information they mistakenly believe is unclassified. The compromised information is usually discovered by one of the first tier recipients, or in worst cases, much further down the line. This requires taking the network offline to clean the classified information from storage devices—a costly endeavor. Preventing this from happening in the future requires everyone's personal attention to learn and understand established security practices.

Information Assurance requires vigilance and a team approach to effectively strengthen our security posture. To do this will require well-defined and disciplined processes by those responsible for creating and delivering the information. There are many offices and experts ready to assist you with questions about proper security practices. Your base Information Assurance office or Network Control Centers are excellent starting points. I ask each of you to accept your role as an Information Assurance warrior to ensure our Information Superiority. Remember, a risk assumed by one is a risk assumed by all.

Concept of operations ties IT initiatives to combat support processes

By Maj. Sue Smith
Command and Control Systems Branch
Headquarters Air Force Deputy Chief of Staff for Communications and Information
Washington

The importance of information technology to our processes was a central theme in a Corona Top 2000 discussion. Attendees discussed how to best leverage IT to improve combat support processes, and the necessity of tying those initiatives to similar efforts in the command and control arena. The best place to start, they decided, was to develop a concept of operations.

The real mandate for the CONOPs was the lessons learned from combat operations supporting the air campaign over Kosovo. On the whole, the information flow did not meet the warfighters' needs. In some cases, there wasn't enough information to determine resource status and effectively manage key items like precision guided munitions. The staff resorted to brute force research—via phones, e-mail and fax—to get the key information they needed to make informed decisions.

In other cases, there was too much data available, which led to "cyber-rubbernecking." With too much information, the warfighter was diverted from key duties to search through a cache of data and create a fused, decision-quality "picture." In the end, decision cycle efficiency and information confidence was impacted.

The C2 Combat Support CONOPs was developed to address the lessons learned in Kosovo and the concerns expressed at Corona Top 2000. The CONOPs describes a means to provide warfighters the right amount of information, when they need it, by bridging C2 and combat support in the combined aerospace operations center. The central concept of the CONOPs is that CAOC members have direct access to combat support resource information in their work areas. Access to and use of that information is then integrated into their existing processes.

For example, during air tasking order planning the Combat Plans Cell determines that a large number of targets will require CBU-87 munitions. The Combat Plans Officer has access to near-real time in-theater munitions inventory information in his work area, which allows him to make an immediate and accurate recommendation on target coverage without data-calls and brute force research. The Combat Plans Cell also receives automatic updates on the availability of munitions loading crews, handling equipment, aircraft status, and any mission shortfalls so they can identify the best units to support a specific tasking. While the Combat Plans Cell is planning the ATO, the equipment maintenance unit is performing its primary mission—maintaining accountability, storage, maintenance, buildup and delivery of munitions. They can focus on those duties because they are not distracted by data calls from the Combat Plans Cell requesting resource status. The Combat Plans Cell and the Equipment Maintenance Unit are able to focus on the mission priorities at hand, and as a result are more efficient.

In addition to describing process changes, the C2 Combat Support CONOPs also describes the flow of combat support information required by a Joint Forces Air Component commander and his operational staff. The CONOPs will serve as a guideline to developers, operators and support personnel as we evolve globally accessible and integrated information systems to enable aerospace operations. These efforts will drive combat support information systems toward a common integration framework.

Implementation of the C2 Combat Support CONOPs will be based on processes outlined in Air Force Instruction 63-123, Spiral Development for Command and Control Systems. Once it has been finalized, the signed CONOPs will enter the spiral development integrated process team structure as a concept to be tested in the Aerospace Command and Control, Intelligence, Surveillance and Reconnaissance Center's CAOC-Experimental (or CAOC-X). After the concept has been validated by CAOC-X, it will be implemented at active duty sites. The C2 Combat Support CONOPs will also become a guideline for considering future systems and applications being considered for implementation in the CAOC.

The Joint Forces Air Component commander must have full and timely knowledge of combat support resources and capabilities to effectively command and execute aerospace forces. It is essential that the combat support information he receives is tailorable, fused, timely, and decision quality data. It must also be available to answer immediate questions such as current munitions status, forecast combat support availability, anticipating combat support future needs, and the link from critical combat support resources to chosen operational courses of action. This CONOPs is the first step to reaching that goal.

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full spectrum of aerospace operations, eligible to deploy once for three months in the 15-month AEF cycle. Included are 10 combat AEF lead wings, five lead mobility wings and two permanent on-call Aerospace Expeditionary Wings at Seymour-Johnson AFB, N.C., and Mountain Home AFB, Idaho.

As part of the EAF concept, the Air Force is capable of providing rapidly responsive, tailored-to-need aerospace force capability, prepared and ready to conduct military operations across the full spectrum of conflict.

Yet, from time to time, we hear stories of Air Force members who can't explain the EAF concept and how it relates to them. There are those who think if they can just hold out, the EAF may go the way of management by objective or quality air force. However, you can't just make EAF go away.

Since the end of the Cold War, with one-third fewer people and two-thirds less overseas basing, the Air Force has deployed four times more frequently. The increased operational tempo affected readiness, retention, recruitment and modernization efforts. To put it simply, the Air Force just couldn't continue to do business as usual; the paradigm had shifted.

So the EAF is the Air Force's solution. It's our vision for the 21st century and how we'll organize, train and equip to deploy ready forces for contingency operations. EAF also helps create a mindset and culture that embraces the unique characteristics of aerospace power: range, speed, flexibility and precision.

As a total force organization, a typical AEF consists of the full spectrum of aerospace capabilities and is balanced, flexible and sustainable. It's also tailored to meet the needs of the theater commanders-in-chief. It's responsive -- capable of deploying to conduct broad range operations with minimum warning time. A full AEF includes about 175 various aircraft, all the necessary support equipment, and about 15,000 Air Force personnel.

A good analogy for the EAF is the National Football League: The AEFs are the teams and assets that make the concept work, and our leadership is the quarterback calling the signal, 10-3-15.

The EAF is also an Air Force success story. We've transitioned from the Cold War Air Force into the new 21st century Air Force. Moreover, the Air Force has kept its promise to provide predictability and stability to our forces while enhancing our retention efforts.

We can all take pride in these accomplishments and being a member of our nation's 21st century Air Force. We have made tremendous strides in establishing the EAF and great improvements in each AEF cycle.

Test your AEF knowledge. Do you know which AEF you're in? Did you get enough notification last time you deployed? Are you familiar with the AEF Web-based tools to assist deploying personnel, such as EAF Online and the Commander's Playbook?

Aerospace power will continue to be pivotal to the success of U.S. military operations, both in peacetime and in war. The AEF provides the right force at the right place at the right time: light, lean and lethal.

As we prepare for our upcoming third 15-month AEF cycle in 2002, I challenge you to learn more about the EAF/AEF and how your new 21st century Air Force does business. Whether you're home-stationed or deployed, knowing the Air Force expeditionary story is everyone's responsibility.

IA EAF

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thenticity and confidentiality are vital for these tools to be effective in preparing our forces for the full spectrum of operations. In addition to providing the majority of planning information needed for AEF, these sites also house unit and personnel readiness data.

IA becomes even more critical after deploying to a forward operating location. All sites are extremely dependent on network availability. In addition to mission support, there's an increasingly heavier demand on network resources for morale purposes, from surfing the Internet to remaining in contact with family members. The deployed environment can pose additional challenges for the IA program. For instance, the entire base user population changes about every 90 days requiring old accounts to be deleted and new accounts to be established for the entire base population. Imagine this on a base the size of Prince Sultan AB, in Southwest Asia. Other challenges to IA may include individuals disabling antivirus software to compensate for slow network connectivity, lax security attitudes on a "secure" air base, or not protecting passwords.

IA training should be part of every member's AEF deployment preparation. Each member should:

1) Understand the inherent weaknesses in information systems and the potential harm to national security that can result from the improper use of information systems.

2) Know the threats to, and vulnerabilities of, information systems.

3) Take necessary measures to protect information generated, stored, processed, transferred or communicated by information systems.

4) Protect information systems against denial of service and unauthorized disclosure, modification or destruction of information systems and data.

Information Assurance awareness requires every individual to know and understand his or her responsibilities for network protection.

Our ability to operate in an unrestrained environment is interwoven with the need to protect our networked assets. Information Assurance depends on you!

VoIP holds promise, but implementation issues must be addressed

By Thomas Korte and
Senior Master Sgt. Richard Hyatt
Air Force Communications Agency
Scott AFB, Ill.

The use of separate voice and data communications infrastructures on base requires the use of two support systems for each related resource, including networks, support staffs, management teams, suppliers, and communications strategies, to name a few. Voice-over Internet Protocol is an emerging technology that merges voice and data services onto a single network and, at least partially, eliminates this duality. Specifically, VoIP uses the data network to transmit real-time voice conversations and fax transactions. Many vendors are promoting the capabilities and benefits of VoIP, emphasizing the cost savings compared to circuit-switched telephony, and the ease of managing a single network in the future compared to maintaining separate voice and data networks today.

VoIP uses IP-enabled telephone instruments or PC-based software phones to convert speech to IP data packets for transmission to other IP phones on the network. VoIP can also work using traditional analog telephones. The illustration on Page 31 shows a mix of analog and IP-based telephones and how they connect through the network to each other for on-base IP calls. For use on Air Force bases, today's VoIP offerings still require an IP-enabled telephone switch or a private branch exchange to complete all off-base calls.

Implementation of VoIP promises several improvements in cost and function. Some major benefits include:

* Eliminates the cost of separate infrastructures, support and other resources.

* Consumes less bandwidth – as little as 8Kb per call vs. 64Kb for dedicated uncompressed circuit-switched calls.

* Affords more flexibility. Additional capabilities, such as directory services and security services, may be more easily shared to make configuration changes, and to provide or deny access.

* Provides a variety of enhanced multimedia and multiservice applications. In addition, Internet commerce solutions can combine World Wide Web access to information with a voice call button that allows immediate access to a customer service representative from the PC.

* Makes telephone adds, moves and changes less costly and easier.

For these reasons, VoIP is beginning to take hold in the commercial world and at some Air Force installations. For instance, at RAF Mildenhall, England, the base communications squadron is implementing VoIP to save on the monthly cost of leasing copper cable, among other reasons. (See related article in the May 2000 *intercom*, at http://public.afca.scott.af.mil/public/00may/04may.html.) In Southwest Asia, project Desert Shift is also taking advantage of VoIP technology to provide a secure, IP-based hotline between the new combined air operations center and surrounding units. Several other organizations are testing VoIP technology or conducting limited operational trials.

VoIP technology satisfies the most fundamental business telephony requirements for end-to-end voice communications and common call features, such as call forwarding, hold and transfer. But there are larger issues concerning use of VoIP for the military on a wide scale that must be addressed where applicable.

* Standards. There are several competing standards for VoIP, but none is cited as a mature standard for voice traffic in the Joint Technical Architecture-Air Force. Employment of any of them now would risk implementation based on emerging standards or proprietary specifications.

* Precedence and preemption. Current VoIP products are not capable of supporting all requirements for multilevel precedence and preemption service, as required by Chairman of the Joint Chiefs of Staff Instruction 6215.01A. In general, critical elements for reliable command and control have yet to be satisfied by VoIP.

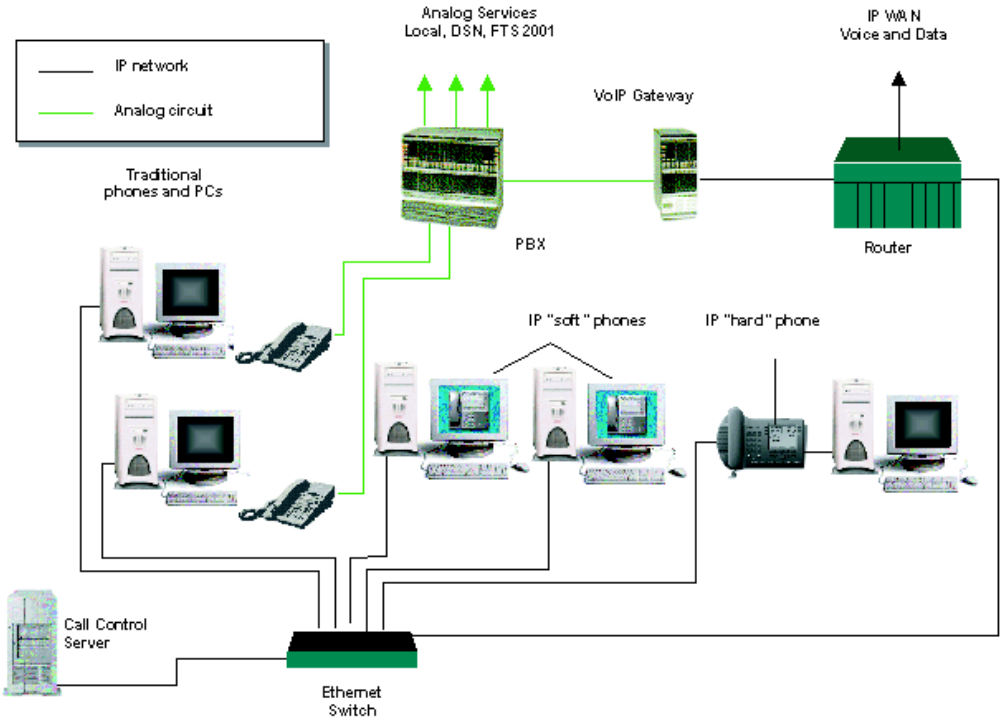
* Interoperability. The encoding algorithm used in current VoIP technology is not compatible with the Secure Telephone Unit III, and is only compatible with the Secure Terminal Equipment in Integrated Services Digital Network mode. At a higher level, products from multiple vendors are not interoperable.

* Security policy. Off-base-bound VoIP traffic is cur-

rently blocked at the base network firewall. In addition, the use of Network Address Translation complicates directory service features that require the actual IP addresses of the receiving end.

* Performance. Call quality and, more importantly, reliability of some offerings fall short of the current switched telephone network.

* Monitoring. Laws are much more restrictive on tapping into phone lines than on monitoring the data network. Rights to monitor VoIP traffic are undetermined, as are the potential impacts on system administrators and individuals such as chaplains, doctors and attorneys, who are required to protect client information.



Configuration of traditional and IP-enabled telephones in a hybrid network.

* Regulatory Concerns. Domestically, VoIP service may force regulators to tax IP-based voice to make up for lost state and federal revenues. Likewise, foreign governments could view VoIP as violation of their laws, treaties or Status of Forces Agreements with the U.S.

* Numbering plan. Changes to the base-level numbering and addressing plan may be required to provide a common numbering and addressing scheme for both VoIP terminals and existing DSN end office and PBX exchange user terminals.

* Emergency service. VoIP solutions must be compatible with the applicable 911 emergency telephone service. VoIP systems must be able to ascertain when a known VoIP instrument has been moved to a new location, and to ensure the location change is updated in the applicable 911 or records database.

* Tactical. VoIP solutions for deployed use must be able to withstand rigorous environmental conditions, such as 120-degree heat, or invasive dust or sand particles.

* Special circuits. Special communications circuits typically requiring one or two copper cable pairs from end-to-end – such as fire alarms, intrusion alarms, security lines and direct lines – must be addressed by VoIP vendors. The current data network configuration does not allow for inclusion of these circuits.

* Bandwidth and quality of service. Over the wide area, the NIPRNET management office at the Defense Information Systems Agency, as well as the Joint Staff/J6, discourage VoIP implementation across the NIPRNET due to concerns regarding bandwidth management and QoS. In the local network environment, voice quality may be an issue as VoIP traffic competes for bandwidth with e-mail and Web traffic. Each piece of the data network that handles voice packets must meet established QoS criteria.

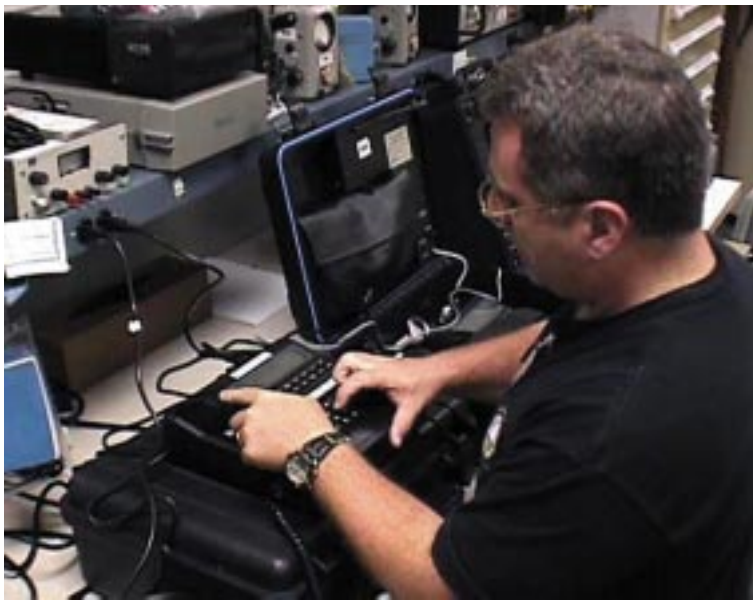
VoIP satisfies some common voice communications requirements, but until all issues are sufficiently addressed, widespread implementation of VoIP technology in the Air Force and DOD is a risk. This is especially true while the current network infrastructure continues to struggle with data traffic, and where the existing telephone system continues to perform reliably and economically. However, some organizations are making small investments in VoIP technology to explore its benefits and performance. Still others, such as RAF Mildenhall, have compelling business or operational reasons to adopt a VoIP solution. Organizations considering VoIP tests and trials are encouraged to involve both telephony and data experts to fully understand VoIP requirements and implications.

Use of VoIP technology is expected to grow, and it's certainly time to evaluate its potential, but it's still an emerging technology without any generally accepted standards.

AFCA is working to collect VoIP-related requirements and experiences, as well as to facilitate technical interchange and smart implementation of VoIP technology. As an initial step, AFCA has established a VoIP e-mail box (afca-voip@scott.af.mil) and welcomes members of the Air Force communications and information community to identify their interests. An AFCA VoIP Web page is available at http://www.afca.scott.af.mil/voip/ to share information on Air Force VoIP activities.

AFPCA executive travel section keeps top DOD officials 'connected'

Story and photo by
Tech. Sgt. Mona Ferrell
Air Force Pentagon
Communications Agency
Public Affairs
Washington, D.C.



Master Sgt. Duane Pico, AFPCA ET superintendent for OSD communications, completes maintenance on a cellular STU case.

On Monday they may be boarding a plane destined for Zagreb, Croatia; on Tuesday they could be in Riyadh, Saudi Arabia. Using laptops, satellite radios, power supplies and the latest in communications technology, these "modern-day McGyvers" can convert almost any area into a secure communications center. Members of the Air Force Pentagon Communications Agency executive travel communications directorate ensure the United States' top Department of Defense officials are 'connected' at a moment's notice – and it's a job they take seriously.

Executive travel team members provide the Office of Secretary of Defense and Office of the Chairman of the Joint Chiefs of Staff with all communications support during any travels outside of the Washington area, said Chief Master Sgt. Richard Davis, AFPCA executive travel director.

"We travel with and provide round-the-clock support for the top four senior officials in the DOD," Chief Davis said. "Our job is to ensure any type of electronic communications available to them at their desk, can also be at their fingertips while traveling."

Of course this support is more than just hooking up a printer and a laptop, he added. "If the secretary of defense is in the Middle East and needs to call back to Washington we can't just hand him an unsecure telephone line," he said. "Our support includes ensuring secure voice, voice recognition quality and high-speed data communications between principals of the National Command Authorities is available within 15 minutes of a request."

In order to provide this type of on-the-spot support, the executive travel team members must be extremely knowledgeable, not only about their job, but also those of their team members. "We currently have 24 team members, who combined, hold seven different Air Force specialty codes," Chief Davis said. "But, all of the AFSCs are intertwined. In our job, a person in a computer-related AFSC also needs to know how to hook up a secure telephone line. We're not that specialized because we can't be. Our team members not only learn their job, but also the jobs of those around them."

As would be expected, this increased knowledge base also creates an initial learning curve, said Tech. Sgt. Tom Vera, AFPCA executive travel communications team chief for the Office of Secretary of Defense. "One of the hardest things about being on the travel team is realizing there's an initial learning curve that comes with this job," said Sergeant Vera, who's been on the team for two years. "We don't have the luxury of saying that's not my AFSC, we have to be able to improvise at a moment's notice. Enhancing our knowledge while adapting to a customer's idiosyncrasies is always a challenge, but it's one that we relish.

"This isn't just a nine-to-five job," Sergeant Vera added. "But it's definitely a job that produces extreme job satisfaction at the end of the day. When the Secretary of Defense needs a secure communications line and he leaves with a smile — it's a great feeling. That feeling is only enhanced when we receive a customer survey back with a fire-wall five. That means we did our job and we did it well."

It's this type of dedication that's not only valuable, but also required in ET members, said Maj. Joe Wassel, military assistant to Secretary of Defense for Communications. "Equipment will just sit there and get old – it takes people to be innovative and figure out a way to use it and improvise when needed. That's what the members of executive travel do every time they go out.

See **TRAVEL** next page

TRAVEL

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There isn't a computer store on every street corner in Istanbul, and if we're in Tokyo and we're having a communications problem at 3 a.m., we can't just run out and get whatever's needed to fix it. The members of ET are required to think outside of the box and think ahead, packing things that just might be needed. They're magicians sometimes.

"Every overseas trip is an event in itself," Major Wassel added. "From the moment the secretary takes off, until his trip is complete and he's landed back at Andrews (AFB, Md.), we may move 2,000 pages worth of classified documents, at least 100 phone patches, support 35 cell phones and 84 movements in seven different hotels – it's a superbowl level challenge. Every time ET goes on the road, they do something extraordinary. That's what's so amazing, to be able to sustain that kind of capability and that kind of record."

While numbers may mean a lot, these records cannot be sustained unless ET's customers are confident that these traveling communicators are doing their job correctly and efficiently, said Tech. Sgt. William Hawkins, deputy communications advisor for the Chairman of the Joint Chiefs of Staff. "Confidence and trust are paramount," said Sergeant Hawkins, whose job is to help executive travel provide the best communications support available to the principals while on the road, and also provide secure communications support in the headquarters and their residences. "The need to have real-time communications for the senior military office of the United States is critical. Therefore, there must be absolute confidence and trust in the individuals who travel and carry out these communications functions. The support is not only valuable, but it must be provided in the most reliable and professional manner."

The insurance of reliability and professionalism is exactly what allows members of ET to stand out above the rest, Major Wassel said.

"There's an obvious tendency to always want to see the same faces, but ET is made of teams – tight teams," he said. "Over time, the secretary (of defense) knows all of the communicators' faces. By seeing their professionalism and job knowledge, the secretary comes to have confidence that when he needs a communicator they're going to be there. That's a nice thing the secretaries, both past and present, all understand; ET is basically made up of enlisted folks on their way to making things happen. If they're part of the team, they've earned their way there. The secretary gets familiar with their faces and they're all authorized to be in the inner circle to make communications happen. That speaks very highly of ET and the people they have on board."

Of course, because of the high visibility and increased knowledge base required for a job in executive travel, these multi-skilled communicators can't just walk in "off of the street." First, the four-year controlled tours are advertised on EQUAL Plus. Then, in order to ensure the most qualified personnel are chosen, candidates are hand-picked based on several criteria including professionalism, military bearing, experience and technical skills. In addition, applicants submit packages that contain performance reports and resumes. A face-to-face interview is also conducted to determine an applicant's ability to articulate.

There are also benefits to being part of the ET team, Chief Davis said. "In addition to our members receiving traditional pay and entitlements to meet mission requirements, they also get the exposure of working with state-of-the-art equipment," he said. "Combine this with the increased job satisfaction that's gained by knowing we help ensure worldwide decision-making, and it happens when it needs to happen – there's no other job like it."

The following communications Air Force Specialty Codes are assigned to executive travel and current openings are advertised on EQUAL Plus: 2E1X1, 2E1X3, 2E2X1, 3C0X1, and 3C1X1.

For more information on joining this elite team of communications professionals, call Chief Master Sgt. Richard Davis at DSN 225-1290.

MANAGE

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records. Actual records will be housed on local data storage servers at Air Force bases participating in the pilot. Users will access iRIMS through an interface with the Air Force Portal, and will file, search and retrieve official records through the Web. When records are filed, pointers are established to identify the data storage server. During record searches, the software will present a list of records matching the user's criteria. When the user selects a record for retrieval, the software will check to see if the user has been granted access rights. If the user has access, the system will return a copy of the record for reading, printing or copying, but no changes will be permitted.

The pilot will provide an initial test of the infrastructure, which has been scaled to grow to accommodate Air Force-wide implementation. In order to implement the electronic records management system, participating organizations must have a designated server for storing local records, and obtain iRIMS client licenses.

For updates on progress of the pilot project, and Air Force-wide expansion of the electronic records management system, see the AFCA Electronic Information Management home page at http://www.afca.scott.af.mil/eim/ and click on the quick link for iRIMS. More information is available from Bea Lachler at DSN 576-5699.

Counsel's Corner

Why can't I accept that free trip to Hawaii?

By Joe Hinds
Air Force Communications Agency Legal Office
Scott AFB, Ill.

You're sitting at home sipping your hot coffee on a Saturday afternoon, enjoying the snow from your screened-in back porch, thinking about Monday when you'll have to plow through the icy slush to get to your comm squadron cubby hole. Just then your wife brings you a letter from Acme Corporation, a DOD contractor. As you open the letter, you notice the gold engraved invitation card inside. Classy! What have you done to deserve this attention?

The invitation says Acme is forming an exclusive advisory board to determine future needs of the Air Force, and it wants you to sit on this board for two years. The company will pay all your transportation and lodging expenses for four meetings each year at resort locations in Hawaii, Florida, Bermuda and the Bahamas. You'll only have to spend several hours talking to the Acme board members, then you may go deep-sea fishing, scuba diving and golfing. All this is very warming on a cold wintry day.

But, you need to ask yourself these basic questions:

* Is this too good to be true?
* Is this a gift?
* Is there a potential conflict of interest?

Is this too good to be true?

Many times if it sounds too good to be something you can accept, you should expect that it is. At a minimum, when it sounds too good, you should visit your legal office. The word "free" usually means that you will pay them back… perhaps later, but you or the government will pay them back. Corporations are not in the business of giving things out for free without a hook attached. Their bottom line is profit, so if they're offering something free, you should think about what they're really trying to achieve.

In this case, Acme may be giving you $20,000 each year in vacation benefits, but you can expect they will be grilling you for information on the Air Force's future plans and how their products might meet these needs.

Is this a gift?

It certainly has the trappings of a gift. The meetings are located at resorts and it appears that most of the day will be spent out on the links or doing the things that vacationers do. This should raise some alarm flags. It's not the same as a business trip, with business meetings planned all day.

Acme labeled its board as "exclusive" and the event is being held in a resort setting with optional activities (fishing, scuba, golf) scheduled during the day, different than all-day business meetings at a regular hotel. These activities could make the entire offer appear to be a gift.

If it is a gift, the commander must determine if the "widely-attended gathering" rule applies. Federal employees may accept, under certain circumstances, gifts such as this at a widely-attended event.

The circumstances permitting this gift would be:

* The agency designee makes a determination that attendance is in the interests of the agency, and will further agency programs and operations.
* More than 100 persons are expected to attend the event.
* The gift has a market value of $250 or less.

First, these board meetings do not seem to further federal programs and operations, since they are designed to help Acme. Second, the "exclusive" label on the group seems to indicate that there will be fewer than 100 in attendance. Third, the value of the stay at the resorts with the planned activities probably would exceed $250. Acme's offer may not meet any of these three tests, and a failure to meet any of these tests will negate your ability to accept.

As a general rule, DOD employees who attend business meetings may accept travel benefits from a non-federal source as long as it's approved in advance in writing. However, the definition of a "business meeting" excludes those held primarily for the benefit of the non-federal company. In this case, the focus of the meeting will be to assist Acme in planning for the future, feeding Acme ideas about how it could develop future products and services to satisfy the Air Force's needs. Thus the reimbursement should be refused.

Is there a potential conflict of interest?

See **LEGAL** next page

Legally speaking

Accessing chat rooms, as a rule, is not appropriate use of government computers or resources, and can create serious security issues. Stay away from chat rooms unless participation promotes an officially approved purpose, such as serving as a collection point for messages. For more information, see AFI 33-129, para 6.1.6. Questions may be referred to your base legal office or the Air Force Communications Agency Legal Office, at DSN 779-6060. *(Prepared by Joe Hinds, AFCA/JA)*

E-mail tail can tell a tale

By Joe Hinds
Air Force Communications Agency
Legal Office
Scott AFB, Ill.

E-mail has become widely accepted as the "chosen" way to communicate. It's a quick and easy way to get your business done. The telephone used to be the preferred medium, but it has lost out to "the big E."

However, the telephone is still on your desk … you should take it for a spin once in awhile just to keep it operational. It may sound like a retreat to the days of low technology … to Andy in Mayberry on black 'n' white TV … but some aspects of e-mail suggest there are occasions when using the telephone would be better.

One of the advantages of the

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The answer depends on the contractor's relationship with the government employee. Can the comm squadron employee have some impact on the finances of Acme Corporation? How would the situation appear to an informed public?

If Acme works directly with this comm squadron employee who makes decisions that impact Acme's pocketbook, there is a conflict of interest. The conflict is between the employee's duty to act in the Air Force's best interests and the corresponding fiduciary duty owed to Acme as a board member. Typically a company will not be offering invitations like this to federal employees who, in their official capacity, have no ability to assist the company with its financial interests.

Although there may be exceptions, generally DOD employees should not serve as advisors to defense contractors. In some cases, they may serve as liaisons to private organizations, but generally this is not appropriate with DOD contractors.

The supervisor should ask the employee three questions to determine whether the advisory position is appropriate.

1. Was the position offered solely because of the employee's Air Force position?

If Acme offered this position only because of the employee's position, the employee could not serve as a board member.

2. Will the employee's personal involvement impact the employee's Air Force duties?

Even if the employee takes leave to attend these meetings, the involvement may still impact the employee's duties, since there may be the appearance of a conflict.

3. Will the employee give advice on any issue involving a DOD contract?

If it sounds like this could happen, or would be putting the employee in a position for this to happen, contact the legal office for advice.

The better approach is to refuse offers to serve on advisory boards when there is any possibility of a conflict, or the appearance of a conflict. Assuming the federal employee chose to ignore this advice and pursued this position anyway, he or she would have to seek approval from Department of Defense/GC. A DOD liaison is the preferred means of conducting official business with non-federal entities, since a DOD liaison would represent only the DOD's interests and would not owe a fiduciary duty to the non-federal organization. Thus there should be no conflict of interest issue.

The employee would have to go to the commander to make this request, since the commander has the power to appoint such a liaison if there is a significant and continuing DOD interest to be served by such representation.

The federal employee may also serve on the company's advisory board in a personal capacity without having to obtain approval, but this could place the employee in jeopardy if there is a conflict of interest problem.

Furthermore, Acme may be creating several other problems for itself and the Air Force when it places Air Force personnel on its advisory board. First, this may disqualify the company from future contracts with the Air Force. And second, it may place the Air Force in the position of having to defend itself from protests made by competitors allowing violations of the Competition in Contracting Act.

What if Acme simply invited you to attend a free training session on the use of its software? Would this change anything? Not really; the same rules apply. You can imagine any number of scenarios with Acme offering to pay all or part of your expenses to attend an event, and you must evaluate each offer using these rules.

Don't end up like Wile E. Coyote when dealing with Acme Corporation, looking up to see the shadow of a rocket coming down on your head. When in doubt, call your attorney out.

Communicators support 7th AF warfighters

By Capt. Sean Keene
51st Communications Squadron
Osan AB, Korea

Senior Airman William Scott (right) trains Senior Airman Joshua Dotson on the proper alignment of the Sunair radio transmitter.

At Osan, the 51st Communications Group supports base communications for the 51st Fighter Wing, and command and control communications for 7th Air Force and the Air Component Command. Group personnel gain valuable experience supporting critical warfighting systems for the air operations center under the 7th AF commander in his roles as the Combined Air Component commander and Area Air Defense commander. The 7th AF AOC is an in-place command and control center for all aerospace operations within the Korean theater. Communications support includes providing infrastructure and data systems for disseminating the daily integrated tasking order; radio and data circuits for managing the Common Tactical Picture; Global Command and Control System administration for managing the Common Operational Picture; Defense Red Switch Network maintenance for secure voice capabilities; tactical switch maintenance for secure data and voice connectivity; and secure video teleconferencing systems strategic warplanning for U.S. and Korean leaders.

One of the most important capabilities delivered by the 51st is the sensor-to-shooter information link for command and control of warfighting assets, which results in the Common Tactical Picture. Systems that support the sensor-to-shooter information link include tactical satellite, ultra-high frequency and high frequency radios, and point-to-point tactical data circuits that connect multi-service platforms operating throughout the theater.

The 621st Air Control Squadron manages the Common Tactical Picture and forwards this information to the Common Operational Picture, which is viewed through the Global Command and Control System-Korea. Comm group personnel maintain the voice and data systems by which 621st ACS manages tactical digital information links to create the Common Tactical Picture. TADILs use inputs from radars aboard multiple joint warfighting platforms to provide near real-time information to conduct tactical operations, ensuring the Air Force's ability to fly, fight and win.

A recent accomplishment of the 51st in support of the sensor-to-shooter information link was a high frequency TADIL A link. Due to the increased range provided by HF radio systems, this TADIL A link allows the 7th AF AOC to bring U.S. Navy assets in the waters around the Korean peninsula into the air and ground tactical picture. In addition, this new capability allows AWACS aircraft launching from Kadena AB, Okinawa, to receive the tactical picture long before reaching the theater, preparing them to control air operations and deliver air power more effectively and expeditiously. This accomplishment is a noteworthy success story because an HF TADIL A capability had eluded radio technicians for some time due to the difficulty in using the AN/URC-119(V) HF radio system for data communications. Even after installing the TADIL A modification to the URC-119, radio technicians could not achieve the required signal quality to pass TADIL A data through the URC-119 successfully. Therefore, 621st ACS and 51st CG coordinated to obtain a technical solution for an alternate radio system that would pass data traffic more effectively. In the end, 621st ACS acquired a Sunair 9000-series radio system that 51st CG personnel installed and configured to use an omni-directional antenna. The key advantage of the Sunair 9000-series radio system is the independent side band capability, which is not available with the URC-119.

This new radio system has proven very successful after extensive testing with several joint players and has delivered a robust extended-range TADIL A link capability for tip-of-the-spear operations in defense of freedom for the Republic of Korea. The 51st Communications Group's personnel continue striving to improve communications systems that support the sensor-to-shooter information link to ensure that the 7th AF AOC can synergize and exploit all aerospace weapon systems and deliver timely, accurate and devastating effects.

For more information, contact Capt. Sean Keene at DSN 315-784-2508.

Team Dragon: ready to fight tonight

By Capt. W. Tom Coryell
607th Combat Communications Squadron
Camp Humphreys, Korea

Nestled among the rice paddies and cabbage fields of the hamlet of Anjung-Ri, is Camp Humphreys, a U.S. Army airfield like several others in Korea. But tucked away on the back 40 of this base is something one-of-a-kind: the Korean Theater Air Component Command's only immediate response force for tactical command, control and communications. Here on this 18-acre compound are the deployable secure, robust wartime command-and-control communications links between the commander, Air Component Command, and his fighter wings. Here too, surrounded by chain link fence and concertina wire, are the Air Force's only permanent party expert missile tracker surveillance radars in the world.

Here also are more than 300 tactical vehicles – PACAF's largest single tactical fleet – as well as the generators; the heating, ventilation, and air conditioning equipment; the tents and shelters; the camouflage netting; the facilities and supplies that are needed to support getting the deployable comm equipment to warfighters at air bases across the Korean peninsula. Visible throughout the squadron's compound are stark reminders of 50-plus years of constant preparation for war at any moment: sandbagged bunkers and razor-wire coils, a hardened concrete bunker with an acre of floor space and an airlock to keep out nerve gas, and an armory stacked with rifles, pistols, grenade launchers and M-60 machine guns.

And, last but not least, here are more than 250 superb men and women who endure family separations, monthly exercises, bone-chilling cold in winter, sweltering heat in summer, and Army-standard dormitories and dining halls – and stay ready to fight, and to win. This is the 607th Combat Communications Squadron – Team Dragon.

"Truly we have a unique mission," said Lt. Col. Kenneth K. Young, the squadron commander. "Ours is the only active duty Air Force combat communications squadron in the Pacific. We aren't part of Air Expeditionary Force rotations because we're forward-deployed every day, to where we will fight within range of Communist missiles. We're a hybrid between a combat communications unit and an air control squadron."

This is perhaps the most surprising thing about this unit. After all, other Air Force units maintain readiness for quick deployment to a war zone – although the 607th, already being in Korea, practices exclusively for road mobility rather than airlift. But only the 607th blends air battle management and combat communications functions in exactly the way they do.

Team Dragon members support daily flying operations in the Air Operations Center at Osan AB with data link missions, backing up fixed systems. They exercise activating base-to-base and Korea-to-CONUS communications links that in war will carry air picture information, the daily air tasking order, telephone and data lines, and more. They're prepared to track missiles with the prototype expert missile tracker system, and pass information to the AOC and its shooters in the air as a priority target. They keep the theater's only pre-positioned control and reporting element equipment ready for immediate deployment. They connect the theater's only air support operations center with the AOC while it runs close air support missions for the Army's 2nd Infantry Division. They assist other units when they train, providing troops to stand in for the reinforcements those bases are tasked to integrate into their operations, and aggressors to test their defenses. They take over defense of their sector of the Camp Humphreys perimeter, commanding Army military police fire teams against expected special forces attack.

An exercise at the Dragon Jump Start Mobility School at Osan AB, Korea.

They work really, really hard.

"One year here is like a four-year tour back in the States," mused Chief Master Sgt. Kenneth Stanfield, squadron superintendent and senior enlisted member. "It's hard, but it's rewarding too. People leave here with a strong sense of mission and team, and they know their jobs inside and out."

The intense ops tempo and vitally important mission of the 607th demand a special breed of airman. "We ask a lot of our young troops. We send out convoys of airmen, pulling maybe a million dollars' worth of equipment in five-ton and deuce-and-a-half trucks, to go set up a work center in some rice paddy or on top of

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Misawa immunizes its network

By Staff Sgt. James Knox
35th Communications Squadron
Misawa AB, Japan

In today's Air Force, few things get a wing commander's attention faster than the words "computer virus." There are several standard techniques or procedures we corporately employ when dealing with the virus scenario, but none really answer the mail—until now. In fact, most techniques amount to nothing more than fratricide—dropping the bridgehead servers or disconnecting completely from the outside world—a self-induced denial of service. When we employ this tactic, we've in essence helped the adversary attain their ultimate goal of taking our network down or at least disrupting service. The challenge we face is how to effectively deal with the attack while continuing to provide uninterrupted e-mail and other core network services.

There's no disputing the Internet makes us more efficient, promoting communication and knowledge sharing across the Department of Defense. However, the Internet also provides unauthorized users access to some DOD systems, making us more vulnerable to network attacks. This increases the risks of unauthorized access to information, and disruption of network services by outsiders. While most DOD information available on the Internet is unclassified, it is often sensitive and access must be controlled. The recent onslaught of computer viruses, designed with the sole purpose of disrupting services or damaging e-mail systems, presents new challenges for system administrators, making it increasingly difficult to provide a reliable, sustainable and secure e-mail service. Ultimately, we must have the ability to employ a coordinated, well-defined course of action that not only eliminates the threat, but also maintains the operational availability of the network and core services—regardless of the event.

Let's explore this scenario in more detail. The most common way e-mail is exchanged over the Internet is via the Simple Mail Transfer Protocol. Contrary to its name, SMTP is quite complex and plays an important role in ensuring e-mail messages are delivered from source to destination in a timely, secure manner. "Sendmail" uses SMTP and is one of the most popular programs on the Internet for this purpose.

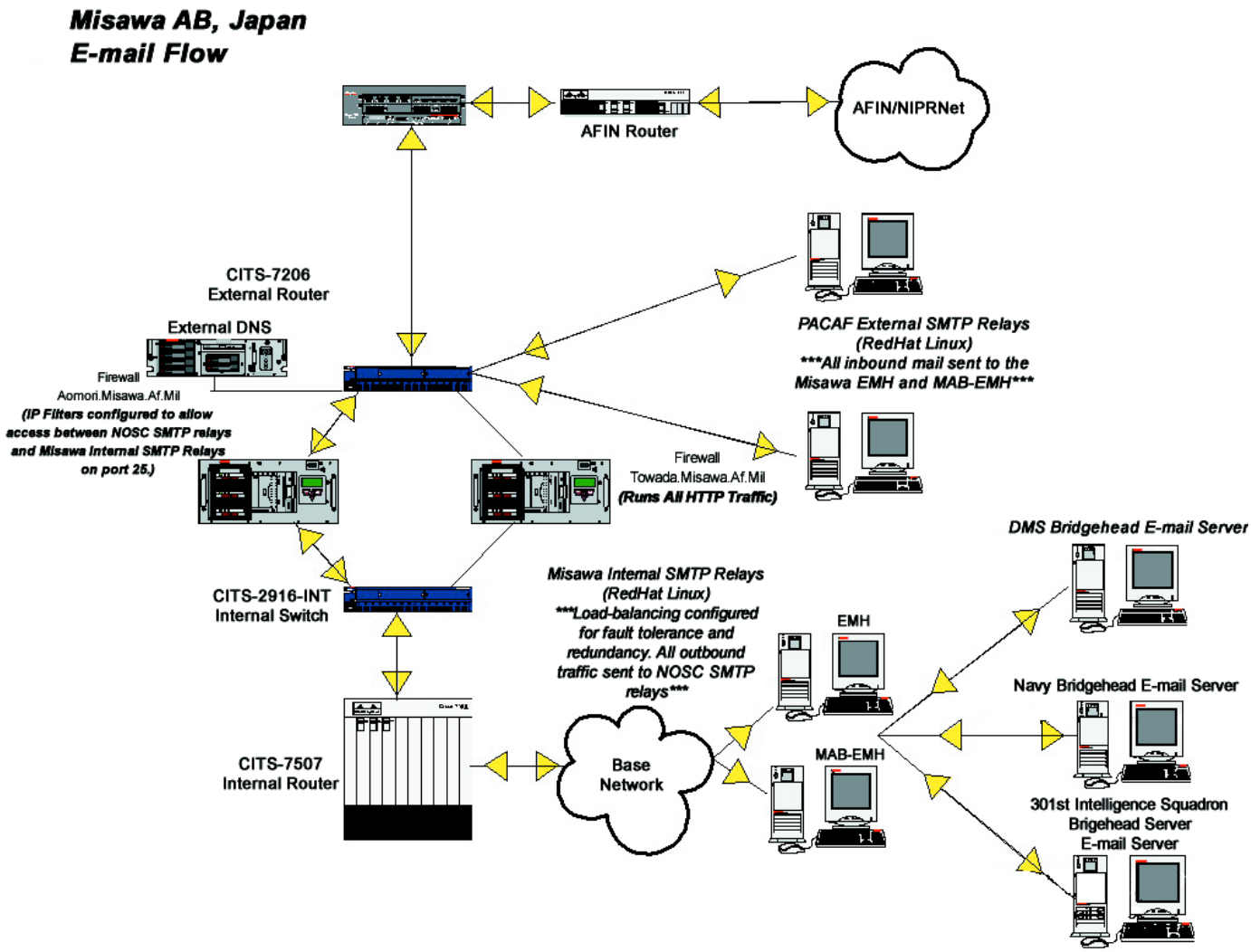
Misawa AB's network architecture and services mirror many commercial and other government agencies—with two exceptions, our SMTP relay servers. It is a simple design that takes advantage of a defense in depth approach, integrating fault, configuration, accounting, performance, and security management functionality at every layer of the network architecture. With the strategic placement of the SMTP relays, we're able to deliver reliable, secure e-mail services without adversely affecting other base services.

The first stop for all inbound e-mail sent to Misawa AB is the PACAF-designed external SMTP relay, which in turn passes the traffic to the base firewall. Firewalls are hardware and software components that protect one set of system resources from attack by outside network users—blocking and checking all incoming network traffic. The firewall logically separates the Misawa network into an external and internal network. Internet protocol filters for mail are configured on the firewall to only allow the external SMTP relay to connect to the two internal Misawa e-mail hosts: EMH and MAB-EMH. Load-balancing, for fault-tolerance, between the two SMTP relays is performed by configuring equal cost Domain Name Service entries on the external DNS server. From the EMH and MAB-EMH, mail is delivered to a number of bridgehead mail servers located on the internal local area network. Load-balancing between the EMH and MAB-EMH is also performed on the internal LAN.

There are many advantages to implementing this architecture. First, by restricting the delivery of mail from the PACAF SMTP relay to these two internal hosts, central processing unit use and load on the firewall is minimized, freeing up critical resources needed by other processes. Second, in case of problems with mail delivery to the internal bridgeheads, all mail enters a queue on the internal e-mail hosts rather than the external SMTP relay. Additionally, with the IP filters in place, no mail will queue on the firewall. This is extremely important as queuing mail on the firewall can quickly consume much needed disk space. Third, in case of mail delivery problems caused by outside agencies, system administrators are able to effectively troubleshoot the process by examining the sendmail processes on the external SMTP relay. Lastly, the chief advantage of this design is security. The CPU-intensive mail filtering needed to combat recent e-mail virus attacks, such as "Melissa" and "I Love You," is now performed at the EMH—providing another layer of protection for the internal bridgehead servers as well as preventing the propagation of virus-infected e-mail to other agencies. Mail filtering is also being performed on the PACAF SMTP relay, providing yet another layer of virus protection for e-mail services.

When it comes down to the brutal truth, we all know that every network has inherent vulnerabilities. Our ability to deliver reliable network services is a direct result of effectively minimizing these vulnerabilities and proactively managing the associated risk. We take great

See **IMMUNIZE** next page



IMMUNIZE

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pride in our architecture, and although it isn't perfect, our confidence is high that we can weather the malicious logic onslaught. So, the next time you hear "there's a new virus on the street," don't bury your head in the sand and commit fratricide. Instead, take a proactive approach and design your network architecture to meet viruses head on and absorb the storm with confidence.

TEAM DRAGON

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a mountain somewhere, all under the command of a senior airman or a staff sergeant," Chief Stanfield explained. "You don't get that kind of responsibility that soon in the United States. We grow leaders here."

Those airmen deliver the goods. Individually, they have earned Air Force, Army and Navy achievement medals and commendation medals for their tireless work supporting joint customers across the peninsula. The 607th won Pacific Air Forces' Large Unit Maintenance Effectiveness Award last year for, among other things, maintaining a 97.2 percent in-commission rate for all equipment, with zero mission failures. They deployed on 18 major exercises last year, while maintaining PACAF's largest tactical vehicle fleet at a superior 92 percent average vehicle in-commission rate. Their creativity and expertise were revealed in their performance on real world missions, including recovery after a typhoon where they adapted tactical communications equipment to restore the Armed Forces Korea television and radio network relay to Kunsan AB.

In spite of ongoing press reports about North and South Korea, life at "the Hump" hasn't changed much since the Cold War.

"We know the best way to protect peace is to prepare for war," reflected Master Sgt. Siobhan Wallmow. "We like to think that it's the combat power of the U.S. Forces, Korea, that has deterred North Korean aggression and created a stable climate for peace negotiations. The communications and theater missile defense capabilities of this squadron are critical to harnessing and directing that power."

Maj. R.D. "Jed" Clampitt, squadron director of operations, put it more succinctly.

"This unit is the best!"

Yokota's C4 Operations Center makes the most of IT resources

By 1st Lt. Rodney Daniels
374th Communications Squadron
Yokota AB, Japan

Racks of equipment show the result of the 374th CS merging four workcenters and their systems into one.

The communications-computer career fields (3CXXX/33S) have historically experienced a shortage in manning to support the Air Force mission. Even with huge re-enlistment bonuses, the exodus continues and our ability to keep trained comm-computer specialists remains our number one challenge. Yokota is no different where 3C0XX and 3C2XX manning shortages are concerned. To counteract at least some of the effects of this exit of computer talent, the 374th Communications Squadron leadership decided to consolidate its core network services into one synergistic location.

The Yokota C4 Ops Center was born with the move and consolidation of Web (Internet/Intranet servers), firewall (Information Protection section), multiple system servers from various buildings, SIPRNET, Global Command and Control System, Communications Support Processor, Theater Battle Management Core Systems, and the Message Distribution Terminal from other buildings on base to a single protected base facility.

The Communications Computer Systems Command and Control Operations Center is structured under the Information Systems Flight of the 374th CS at Yokota. It is composed of the Non-Secure Internet Protocol Network (NIPRNET unclassified network; Defense Message System, servers and Web administration) and the Secret Internet Protocol Network (SIPRNET classified network; Secret DMS, Message Distribution Terminal, GCCS, Top Secret DMS, TBMCS, and the Communications Secure Processor). Each of these systems has a unique mission and function that helps to meet the overall objective of providing world-class communications support to the Pacific warfighter.

The cohabitation of personnel and cross-utilization of computer systems operator expertise into one location has increased the effectiveness and proficiency of technical skill sets of all the C4 Ops Center personnel. Squadron leadership created this synergistic effect after examining the previous situation and deciding to control the things that they could under present conditions. There wasn't much that squadron leadership could do about the Air Force-wide problem of 3C0s having one of the lowest retention rates; however, they could combine their existing personnel into one area and capitalize on helping and learning from each other.

Distinguished visitors from around the globe make it a point to tour the newly-formed C4 Operations Center. This world class "show place" has all the computer equipment makings of a nerve center that directly supports the warfighters of the 374th Airlift Wing, 5th Air Force, and HQ U.S. Forces Japan with superior data communications.

There's always room for improvement and it must come in the form of more advanced training for 3C0 personnel and new equipment. The Air Force Communications Agency is sponsoring a new Network Training Center that will supply an onsite permanent civilian network-certified instructor to train C4 Operations Center personnel in the latest network-related technologies. All training actions will be done on a separate training network from the Yokota Base Area Network to minimize effects on the quality of service to customers.

An old saying is "Give me the courage to change the things that I can, the patience to accept the things that I cannot, and the wisdom to know the difference." Yokota's communications quadron has wholeheartedly embraced this wisdom and increased its mission effectiveness and morale.

Beddown of special forces transforms Taegu

By 1st Lt. Treavor Johnson
51st Communications Squadron
Osan AB, Korea

In 1991, a decision was made to reduce the number of overseas military personnel, and to change Taegu AB's K-2 structure from a full-time active duty base to a co-located operating base. This action resulted in much of the base communications infrastructure technology – with the exception of base cable – remaining in the 1980s era. For instance, base personnel were limited to using a remote access service, much like computer users at home, in order to access Osan AB's network, along with the Internet and e-mail.

This method led to connection inconsistencies and slow data rates, at best 33.6 kbps. Moreover, the base still had an air core cable, which relied on a cable air dryer to prevent moisture disrupting service, which occurred whenever the ground received heavy moisture. Furthermore, base personnel accessed their e-mail accounts through a file server rather than the standard Microsoft exchange server.

In November 1999, the Office of the Secretary of Defense delineated respective service funding responsibilities to support stationing U.S Army "E" Company, 160th Special Operations Aviation Regiment at Taegu. The E-160th SOAR's mission was to fill the insertion and extraction role when the 31st SOS departed Osan AB. Currently, Taegu has 34 blue-suit personnel with a primary wartime readiness materials mission. However, with the E-160th SOAR beddown, there will be an influx of nearly 300 personnel, which includes E-160th members and U.S Air Force support members – security forces, IDMT, POL, and fire and rescue. Consequently, the Air Force was tasked to renovate and upgrade Taegu in order to house special operations forces combat helicopters.

During the planning phase of the project, nu-merous C4I systems were recognized as being needed to satisfy the user's functional requirements for a successful beddown:

* Secret Internet Protocol Routed Network and Nonsecure Internet Protocol Routed Network service to the delivery point (wall outlets and jacks) is required to support unique SOF requirements. The service will come from circuits extending from Osan AB across two T-1 lines and terminating at the on-site U.S. Army operated technical control facility. From this point, dissemination of network services to base operating support personnel will be by copper cable, while E-160th SOAR operations buildings will have newly installed fiber. In the long term, most of the gel-filled cable will replace air core cable that serves the BOS. The primary purpose of extending the network services from Osan is to ensure that K-2's network will remain behind the Osan firewall.

Senior Airman Chad Whitney, 51st Communications Squadron, Osan AB, Korea, tests new telephone lines and numbers.

* Category V wiring will replace current copper wiring in 90 percent of BOS personnel buildings to provide LAN connections, enabling users to access the network and e-mail at a greater capacity.

* Communications security accounts will be based on documented needs of units being serviced.

* Classified and unclassified Defense Message System will originate in an on-site Microsoft Exchange server.

* Standard Defense Switched Network telephone service will include standard telephone instruments.

* Technical solutions for land mobile radios and installation of base stations will be used by BOS.

* Command and control circuits will include, for example, Global Command and Control System-Korea, PACOM Site Server-Korea, and Contingency Theater Automated Planning System.

In conjunction with necessary technological improvements, it will also be critical to have full-time workers to provide LAN administration in support of SIPRNET and NIPRNET, exchange servers, routers, cryptographic communications equipment, and telephone switch maintenance. Since Taegu will not be an operating location, the 51st CG will provide guidance to develop a statement of work to outlining responsibilities for communications contractors.

When the E-160th SOAR beddown is complete, Taegu's communications infrastructure will have been transformed. The importance of the SOAR is that it clearly demonstrates the difficulty of coordinating and gathering customer requirements across organizations. Everyone involved has quickly gained a new respect for the effort required to assure the success of a project of this magnitude.

Promotions

Master Sgt.
Jerry Stevens
Scott Gibson
82nd CS, Sheppard AFB
Jeffrey H. Dale
Joint Combat Camera Center, Pentagon

Tech. Sgt.
Brian Williams
82nd CS, Sheppard AFB, Texas

Awards

ANNUAL

Company Grade Officer
2nd Lt. Jack M. Schroeder
375th CSS, Scott AFB

Senior NCO
Master Sgt. William M. Jones III
375th CSS, Scott AFB

*Senior Master Sgt. Valerie D. Jackson
(497th IOG, Bolling AFB, D.C., deactivated Feb. 2; succeeded by AFIAA)
*Sergeant Jackson also was Senior NCO of the Year for the National Air Intelligence Center
**Master Sgt. Bobbi Kreiser
552nd Computer Systems Group, Tinker AFB, Okla.
**Sergeant Kreiser also was base SNCO of the year

NCO
Tech. Sgt. Clifford Peterson
375th CSS, Scott AFB
Tech. Sgt. Kenneth J. Cormier
497th IOG, Bolling AFB
Tech. Sgt. Rodderick R. Hill
497th IOG, Bolling AFB

Airman
Airman 1st Class Vanessa C. Maske
375th Computer Systems Squadron, Scott AFB
Senior Airman Latrice N. Reese
497th IOG, Bolling AFB

Category II Civilian
Debbie Mills
375th CSS, Scott AFB

Category I Civilian
Carl Holloway
375th CSS, Scott AFB

***QUARTERLY** (Jan.-March)*

Field Grade Officer
Maj. Stacy Miller
AMC/SC, Scott AFB

CGO
2nd Lt. William G. McCulley
AETC CSS/SCNC, Randolph AFB, Texas
Capt. Robert Borja
AMC/SC, Scott AFB
1st Lt. Jennifer Prahl
786th CS, Ramstein AB, Germany
2nd Lt. Meredith Henry
552nd CSS, Tinker AFB

Senior NCO
Senior Master Sgt. Revonnia F. Hornsby
AFIAA, Bolling AFB
Senior Master Sgt. Steven V. Stanphill
HQ AETC/SCML, Randolph AFB
Master Sgt. Edward Hilton
AMC/SC, Scott AFB
Master Sgt. Douglas C. Walker
786th CS, Ramstein AB
Master Sgt. Joseph Samulowitz
552nd CSS, Tinker AFB

NCO
Tech. Sgt. Rodderick R. Hill
AFIAA, Bolling AFB

Tech. Sgt. William R. Parker
HQ AETC/SCXX, Randolph AFB
Tech. Sgt. Donita Curtis
AMC/SC, Scott AFB
Staff Sgt. Matthew D. Higgins
886th CS, Ramstein AB
Tech. Sgt. John Engstrand
552nd CSS, Tinker AFB

Airman
Senior Airman Gary A. Sapone
86th CS, Ramstein AB, Germany

Valor and Recognition

If you've received an award, promotion, or some other recognition, tell the rest of the Communications and Information community. Send an e-mail to intercom@scott.af.mil or mail it to AFCA/XPPA (*intercom*), 203 W. Losey St., Room 1200, Scott AFB, IL 62225-5222

ABS	Air Base Squadron
ACOMS	Air Communications Squadron
AETC	Air Education and Training Command
AFCA	Air Force Communications Agency
AFIAA	AF Intelligence Analysis Agency
AFFMA	AF Frequency Management Agency
AFCQMI	AF Center for Quality and Management Innovation
AFPCA	AF Pentagon Communications Agency
AFSOC	AF Special Operations Command
AFTAC	AF Technical Applications Center
AFWA	Air Force Weather Agency
ASOS	Air Support Operations Squadron
AMC	Air Mobility Command
AMW	Air Mobility Wing
CCS	Combat Communications Squadron
CG/Comm Gp	Communications Group
CLSS	Computer Logistics Support Squadron
CS	Communications Squadron
CSG	Computer Systems Group
CSO	Computer Support Office
CPSS or CSS	Computer Systems Squadron
DISA	Defense Information Systems Agency
EIG	Engineering Installation Group
EIS	Electronics/Engineering Installation Squadron
IOG	Information Operations Group
JCSE	Joint Communications Support Element
MSG	Materiel Systems Group
RSG	Regional Support Group
SC	Communications and Information
SSG	Standard Systems Group

Airman 1st Class Kenton Laubhan (also group winner)
552nd CSS, Tinker AFB

Senior Civilian
Lynne M. Patrick
AETC CSS/SCNC, Randolph AFB

Category III Civilian
Ray Force
AMC/SC, Scott AFB

Category II Civilian
Frankie Carson
AMC/SC, Scott AFB

Category I Civilian
Amy Titcombe
AMC/SC, Scott AFB
Susan "Carol" Granger
786th CS, Ramstein AB, Germany
Cheryl Stefenel
552nd CSS, Tinker AFB, Okla.

Medals

Defense Meritorious Service Medal
Master Sgt. Jeffrey H. Dale
JCCC, Pentagon

Meritorious Service Medal
Lt. Col. Kerry Sisler (3OLC)
Senior Master Sgt. Ted Crincoli Jr. (2OLC)
Senior Master Sgt. James A. Sprakties (3OLC)
Senior Master Sgt. Neil R. Custer (3OLC)
Senior Master Sgt. Bruce E. Palmer (3OLC)
Master Sgt. Joy S. Robinson (2OLC)
Tech. Sgt. James D. Kerce (1OLC)
Capt. Tony C.M. Chu
Master Sgt. Paul A. Kester
Air Force Communications Agency, Scott AFB
Master Sgt. Isreal Rosado Jr.
514th AMW/CS, McGuire AFB, N.J.

Aerial Achievement Medal
Senior Airman John Hastings
552nd CSS, Tinker AFB

Air Force Commendation Medal
Tech. Sgt. Barry D. Richmann (2OLC)
AFCA, Scott AFB
Master Sgt. Lisa Flynn
Tech. Sgt. Anitamar Ventresca
514th AMW/CS, McGuire AFB
Capt. Michael Allen
2nd Lt. Raymond Chester
Tech. Sgt. Todd Sapp
552nd CSS, Tinker AFB

Air Force Achievement Medal
Tech. Sgt. Mark A. Bies (2OLC)
Senior Airman Stephen A. Diegidio (2OLC)
Senior Airman Julie M. Geddings (1OLC)
Senior Airman Constine J. Jack III
786th CS, Ramstein AB
Tech. Sgt. David E. Pearson (3OLC)
Staff Sgt. Eric A. Wernet (3OLC)
Senior Airman Rory M. Cattelan
86th CS, Ramstein AB
Senior Airman Sharon KM. Johnson (1OLC)
Senior Airman Steven A. Johnson
886th CS, Ramstein AB
Senior Airman Gary A. Sapone (1OLC)
Airman 1st Class Jeffery V. Mickelson
86th CS, Ramstein AB
Maj. Christopher Weimar
Master Sgt. Gary Cook
Tech. Sgt. Tanowa Watson
Tech. Sgt. Peter Proscia
Staff Sgt. Alvaro Bonilla
514th AMW/CS, McGuire AFB
Staff Sgt. Jonathan Bradley
Staff Sgt. Manual Matute
552nd CSS, Tinker AFB

Air Force Expeditionary Medal
Staff Sgt. Manual Matute
Staff Sgt. Jacob Tarrant

Retirements

Lt. Col. Kerry Sisler
Senior Master Sgt. Ted Crincoli Jr.
Senior Master Sgt. Neil R. Custer
Senior Master Sgt. Bruce E. Palmer
Master Sgt. Joy S. Robinson
Tech. Sgt. James D. Kerce
AFCA, Scott AFB

E-MAIL

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telephone is that your conversation is truly confidential between you and the other party, while e-mail can haunt you for years to come. Even if you delete an e-mail immediately after you send it, the receiver may forward your message to a third party, who in turn sends it to another person.

Before you know it, your original message has rolled down the paperless mountain, starting an avalanche of subsequent messages, and becoming a virtual "abominable snowmail." This **e-mail tail**, growing from the body of your original message, could continue to tell your tale long after being deleted from your computer.

Also, deleting an e-mail on your system may not be a "no-kidding" deletion, since it's only an erasure of the pointer to the message, rather than the message itself. Computer experts might still be able to resurrect your deleted e-mails, which could then find their way into the courtroom. It's like throwing away the keys to your car: You and others may not be able to open the car, but a locksmith can. The telephone is a better choice in situations where you want to make more informal, off-the-record or secure comments.

For all its ease of use, e-mail is similar to a telephone, with one important difference: It has a very long shelf life. If you prefer not to see your comments on the front page of a daily newspaper, you can help protect yourself by giving your correspondent a jingle, rather than zapping him or her an e-mail.

Minimize risk and maximize security by exercising caution in your use of e-mail.