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ONE AIR FORCE ... ONE NETWORK



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About the cover

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intercom
focuses on
*One Air Force ...
One Network.*



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AF/SC

Lt. Gen. John L. Woodward Jr.
Headquarters Air Force
Deputy Chief of Staff for
Communications and Information
and Deputy CIO



It's an exciting time for Air Force dot-com warriors. Today's Air Force is depending on information technology and those who develop and operate it like never before.

Information technology allows our Air Force to engage rapidly anywhere in the world — global reach, global power, and global vigilance. Along with awesome capabilities, IT brings new challenges for our community. In July 2000 the Secretary and Chief of Staff placed us on a fast track to reshape business processes and embrace network-centric operations. Our senior leaders set the course and gave us an unprecedented opportunity to put combat power of our networks in the hands of every airman.

So, how are we doing? We've made tremendous progress! Last summer 11 focus groups led the way for the communications and information community in making the Air Force more effective and efficient. Major commands, headquarters agencies and product centers sent their best people to Washington to establish a roadmap for Air Force-wide implementation of IT initiatives. We're establishing new processes to develop and field exciting new capabilities at lightning speed so airmen have the information technology tools they need to do their jobs more efficiently and more effectively.

Everyone has a stake in this effort, and we are pursuing an enterprise-wide strategy to build the standards, policies and information technologies that make *One Air Force ... One Network* a reality.

Our Air Force Portal team is doing great things. Accounts have grown from just 200 in December to more than 160,000. The portal, a self-tailored decision support tool set, is delivering applications that provide quantum improvements in mission capability. It provides combat power by providing fact-based determinations and decision dominance, assuring delivery of knowledge/information, and building "communities of interest," a key part of knowledge management. Soon, every user will have the portal at their fingertips, allowing them more convenient and faster access to the information they need to do their jobs. It will be the

one entry point to the majority of information people may need from any Air Force source.

We now have well over 200 modules available via the portal. We have support and commitment at every level. We're partnering with the Air Force Surgeon General to integrate medical IT and resources within the Air Force network enterprise.

We are fielding a portal that is based on standards. Our Portal Developers Guide explains how to build applications according to the Air Force Integration Framework—one that will coexist with other applications we use on the job and an absolutely essential key to ensuring capabilities built anywhere can be used everywhere. The Portal Managers Guide, written for users and managers, explains how to improve functionality or use what's already there.

The Air Force Directory includes more than 700,000 Air Force members. It's a simple, intuitive and very useful tool that provides phone numbers, mailing addresses, and e-mail addresses—an Air Force-wide electronic base operator. E-Mail Server Consolidation is providing enhanced server security. Air Mobility Command's pilot effort is providing e-mail services for Charleston and McConnell AFBs from servers located at Scott AFB. As we continue consolidating e-mail servers, Web servers, functional servers, storage area networks, and applications, we'll achieve greater efficiencies in server operations and tighter security.

We have other good news stories as well. One important way we're keeping pace with the need to replace IT because of shorter and shorter equipment life

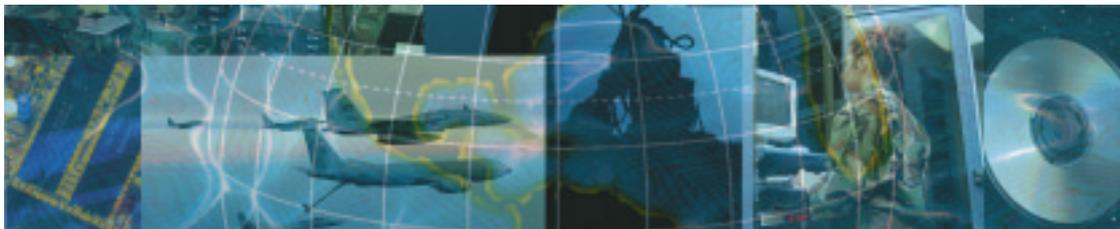


Lt. Gen. John L. Woodward Jr.

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Acting CIO

John M. Gilligan
Principal Deputy Assistant Secretary
of the Air Force for Business and Information
Management



One Air Force ... One Network – What's in it for me?

You have probably heard the phrase, *One Air Force ... One Network* and have questioned what it really means to the Air Force. When you think of *One Air Force ... One Network*, visualize yourself being able to access the most current databases, most efficient applications, and the critical information you need to perform your mission—from anywhere in the world using a trusted Web-enabled environment. Imagine being able to update your home address or other personal information—that otherwise would have required you to stop working, travel to a personnel or finance center, and wait in line—right from your desktop. Envision yourself being able to access “decision-quality” information that is available from your single source. Now you’re beginning to understand what *One Air Force ... One Network* really means to you.

It is an overarching vision to leverage information technology to increase efficiency, morale and combat capability. The vision begins with the Air Force Portal. The portal (<https://MY.AF.mil>) will ultimately become every Air Force member’s default browser home page of choice as it provides the official “window to the world of information” necessary to accomplish the mission and remain informed. The CIO community has made great progress over the past few months increasing the operational content on the portal. The portal registry has been institutionalized and provides visibility and ownership of more than 1,600 self-service and combat support capabilities. Of those, 278 operational capabilities have migrated to the portal—with an additional 500 capabilities projected to come. The user registration process has been successfully decentralized and currently has more than 165,000 registered users.

The Air Force recently began several initiatives to improve portal usability even more. Some of these include redesign of the portal home page, building pre-designed templates based on user roles, additional guides to aid in page customization, adding more non-Air Force business content, and expanding collaboration or community of interest capabilities to support your business processes.

Another goal in achieving our *One Air Force ... One*

Network vision is the consolidation of servers located throughout the Air Force. Our initial consolidation efforts have been very successful. We have reduced e-mail servers to the point where almost all Air Force personnel now receive e-mail support from each base’s or MAJCOM’s consolidated server location. This has freed many personnel from having to

perform server administration duties and allowed them to focus on their primary warfighting skills. This is just one example of how leveraging IT can increase efficiency, mission performance, and help achieve our *One Air Force ... One Network* vision.

Another important aspect in achieving our vision is to lay the foundation—the architecture. We are improving architecture policy, guidance and standards to facilitate effective IT resource management, to support architecture-based IT investment planning, and to ensure enhanced warfighter IT-based capabilities development and fielding. Our architecture and standards improvements will allow for interoperability across the globe.

By now, you’re probably wondering how you can obtain access to the portal. Accounts are apportioned to major commands/FOAs/DRUs based on their plan. Contact your local Base Network Control Center or Help Desk for assistance. If they are unable to assist you, contact your MAJCOM/FOA/DRU POC (located at <https://MY.AF.mil>, click on status and FAQs, then MAJCOM POC).

One Air Force ... One Network ... it’s not just about networks and computers—it’s about reengineering our processes to increase combat capability and enhance our quality of life!



John M. Gilligan

SAF/AQ

Lt. Gen. Stephen B. Plummer
Principal Deputy Assistant Secretary
of the Air Force for Acquisition



Meeting the challenge of tomorrow's acquisitions through the AF Portal

The Air Force Portal will be a gateway from any standard Air Force computer to multiple Air Force systems without requiring the user to install additional software on the computer. The number of registered users of the portal has grown from 50,000 in October 2000 to 162,051 in July. The long-term goal is for 750,000 users. Our goal in SAF/AQ is to enable all acquisition professionals to use the Portal to perform their job by extracting timely information immediately from a variety of sources.

We are migrating existing applications to the Air Force Portal to greatly simplify access to diverse information. Within AQ, all capabilities have been or will be incorporated into the portal. These capabilities permit easy access by acquisition professionals to critical information needed to perform their duties in support of the Air Force mission, and allow those individuals to review their acquisition-related personnel information online. The Management Policy and Program Integration Directorate's Acquisition Career Management Division's, "My Acquisition Career" application will enable members of the work force to review their acquisition-related personnel information online and ensure personnel are used to their full potential. Acquisition applications on the portal will provide all Air Force personnel access to sites providing acquisition information and guidance. The Contracting Directorate has implemented a virtual Intranet within the portal allowing access to schedules, topics of interest, staff meeting notes and the like. By using the portal, this Intranet is available to any directorate member from any Air Force computer regardless of location.

While we are adding existing systems to the portal, we are also adding new systems. All new portal content is being developed to Open Standards to ensure technical flexibility and long-term sustainability. Additionally, the Air Force Portal has been embraced as the presentation service of Global Combat Support System Air Force.

As we head towards full implementation of the Air Force Portal, AQ anticipates future expansion of AQ IT initiatives, including Web-based, role-based access, single data-entry, self-servicing, multiple views based on the user's role. Use of the portal will provide simplified access to key programmatic information. This will benefit action officers by reducing time expended collecting and verifying data, and provide Air Force leadership with timely information to improve decisions on critical acquisition programs.

SAF/AQ continues to look at opportunities that will maximize the benefits of the Air Force Portal. We see the Air Force Portal as an enabler for achieving the Air Force vision (global combat power and situational awareness) by providing accurate and timely information for aerospace warriors anytime, anywhere.



Lt. Gen. Stephen B. Plummer



LeaveWeb brings leave processing into 21st century

Technical Sgt. Inda Weeds' wife just called. The in-laws are making a surprise visit tomorrow and she'd really like him to take a few days of leave. He's up to his eyeballs on a hot tasker from his boss. With a little luck, he can finish today so work-wise the leave won't be a problem. However, how can he walk the leave paperwork through and wrap up this hot tasker at the same time?

Start the James Bond theme music.

1130: He turns to his PC, logs on to LeaveWeb, checks his leave balance (good!), and updates a template with the days and location specifics — all of his regular data (phone number, unit, SSAN, etc.) is already on the form. At 1132 he e-mails his request to his boss and goes back to work. Zip!

1134: The boss' e-mail inbox "dings." She clicks on the embedded link and approves the leave with two clicks of the mouse. Instantly her electronic approval is on its way to the unit leave clerk. Zap!

1135: The unit leave clerk verifies leave data. Sends. Zing!

1138: The finance computer confirms all is in order and notifies the supervisor and Sergeant Weeds that the leave is approved and he's authorized to depart as planned.

The names in this scenario have been changed to protect the innocent. The timelines have not. It really works this fast.

At most bases, we still process leave just as we did 30 years ago when I was an airman. Not for long. We're updating leave processing through an initiative called LeaveWeb, a Web-based leave request, approval and tracking system.

LeaveWeb allows members to request and obtain leave approval without using FormFlow or printing a paper form.

The member simply selects dates of leave, completes the leave address, and identifies their leave approving official. The system assigns a tracking number and automatically e-mails the approving official a link to approve the leave request. The request moves "through the system" electronically from member to approving official to orderly room. When the member returns from leave, the process is just as simple.

LeaveWeb has gone through rigorous testing and concept approval stages, including GAO approval to replace the signature requirement with a User ID and password. The Air Force Audit Agency has been heavily involved in each step and sees incredible advantages in terms of time and money saved. (The "Sergeant Weedses" of the Air Force do to).

LeaveWeb is currently installed at 10 bases and part of the Pentagon with more than 44,000 users. LeaveWeb brings leave processing into the 21st century.



James R. Speer





Dash 1 delivers Air Staff, Secretariat content to Air Force Portal

One of the many success stories since the introduction of *One Air Force ... One Network* can be found within the Headquarters Air Force Dash 1 System. This system delivers Air Staff and Secretariat content to the Air Force Portal.

By creating unified access to existing systems, the HAF Dash 1 team, together with functional Webmasters, were able to identify redundancies and unify many development efforts. The HAF Dash 1 was also able to deliver new capabilities. One of these is a centralized training database that tracks individual participation and completion of required annual training. However, functional organizations remain responsible for content accuracy and delivery.

Another success is the empowerment of the user. Using information technology capabilities, the HAF Dash 1 team, along with the Air Force Pentagon Com-

munications Agency, assists airmen in performing their jobs by providing authenticated, remote access to information.

Having a single point of worldwide, 24-hour access to common elements such as e-mail, news, bus schedules, conference rooms, and on-line training results in a more effective Air Force and a better quality of life for its members.

Please visit the HAF Dash 1 System at <http://www.hafdash1.hq.af.mil> for more information.



William A. Davidson

AF/SC

Continued from Page 3

cycles is to streamline and Web-enable the ordering process — in other words, use IT to buy IT. The name is “AF Way” and it’s a powerful combination of our automated inventory system, a contract that helps standardize the kinds of IT in the Air Force and leverages better prices by volume purchasing (CIT-PAD at Standard Systems Group), and a Web-enabled process developed in Air Combat Command.

We have made great progress over the last few years in shoring up our defenses to ensure we have continued communications when and wherever we need them. We have an

operational response to network threats through our Information Condition “INFOCON” policy. We have better security through our network management services and base information protection, resulting in fewer root-level intrusions and improved capability to block network attacks. We have improved awareness through continuous security awareness training and education and our Information Assurance year-long campaign.

Our efforts help to assure that all Air Force networks are operationally ready, appropriately sized, and defended in depth.

We are making great strides in how we train our comm warriors by modernizing equipment and class-

rooms at Keesler AFB and recruiting the brightest and best instructors. We are using computer based training and Network Training Centers that feature in-sourced and out-sourced courses and instructors.

We have a great start and we’re accelerating to climb. Our enduring challenge is global access to assured, high-fidelity information for decision dominance. Success in the fast moving world of global mobility, precision engagement, and agile combat support depends on information: the right information, at the right time, and in the right form that is useful to the operator or user. *One Air Force ... One Network* is our formula for success!



One Air Force ... One Network successes

Air Force Personnel is in the midst of a cultural transformation as we leverage information technology in the future. An integral part of our personnel vision is to develop a seamless force support system centered around customers and providing our commanders with mission-ready airmen. We are re-engineering to streamline our processes, automating what makes sense to automate, and creating synergies with other support service agencies to maximize support to commanders and customers. Our IT end state is to provide a means by which our customers can retrieve personnel data and conduct personnel business via Web technology at home, office or deployed.



Lt. Gen. Donald L. Peterson

The Virtual Military Personnel Flight and Virtual Civilian Personnel Flight are effective tools we use to “push” personnel services to the customer at the customer’s own time and location. The vMPF/vCPF offer numerous data and product retrieval options to our members, such as obtaining various applications (Exceptional Family Member Program, Humanitarian, Thrift Savings Plan, Federal Employee Health Benefits Plan, etc.). For individuals searching for a home, members can log on to the vMPF and obtain a proof of ser-

vice certificate to apply for VA loans. Although we’re pushing a considerable amount of data to our customers, our MPFs, CPFs and PERSCO units remain committed to providing those services that require “face-to-face” customer service. It’s our goal that this combination of “pull” and “push” services will reduce the amount of time our customers are away from their workplace traveling to the MPF, CPF or PERSCO units for service, and to improve service to our customers by enabling them to transact personnel business through direct interaction with the personnel system from their workplace, home or while traveling.

Air Force Crossroads (www.afcrossroads.com) is another premier tool the Air Force is using to leverage IT. Air Force Crossroads was fielded for the benefit of active duty service members, civilian employees, Reserve/Guard members, retirees and family members. Crossroads reinforces Air Force leadership’s commitment to providing a sense of community for members and their families. Crossroads supports the relocation assistance program, teen forums, the financial management program, DOD Dependent School initiatives, employment resources for service members, civilians, spouses and youth (Job Bank), and a host of other family and community resources. The site even hosts an easy one-step process for locating more than 300 DOD installations worldwide, including information on local communities and a complete photo gallery of each Air Force installation. Air Force Crossroads, with its enhanced communications and available resources for the entire Air Force community, will serve as a contributing factor toward improving recruiting and retention.



Enhancements extend reach of AFLINK

Just over six years ago, we introduced Air Force Link as the Air Force's official public Web site. Today AFLINK generates three million page downloads a week and is a popular link on the Air Force Portal. The Air Force Public Affairs team is working hard to ensure it provides both the military and public with timely and accurate information about our Air Force and its people.

For instance, recently we added a "press release" link to the home page of AFLINK. With AFLINK's ever-increasing popularity, our press releases are getting much higher visibility.

We also launched the Air Force Issues & Answers site, <http://www.issues.af.mil>. Issues & Answers provides "one-stop shopping" for Air Force leadership on everything from talking points on emerging issues to policy guidance. The site includes or has links to numerous other resources: images of Air Force people and weapons systems, the USAF Strategic Communication Plan, NOTAMS (special messages from the Chief of Staff), sources of reputable public opinion data, senior leader speeches, and more.

An exciting use of information technology is for Web-based surveys for communication research. A traditional paper-and-pencil or telephone survey can cost \$50,000 or more. A Web-based survey can be administered for \$2,000 and yield results virtually overnight.

The Chief of Staff collected feedback from airmen on the proposed Air Force symbol in this way. The next project to use this technique will be an internal information study this fall that will explore how Total Force members get their information and what sources they find most convenient, reliable, relevant and credible. As the Air Force Portal comes fully online, this capability should expand and provide an additional means for senior leaders to get feedback from members on important issues.



Brig. Gen. Ron Rand

Very soon we will add Air Force Image Express to AFLINK. Image Express is currently a separate public affairs tool used to distribute images of Air Force people, operations and weapons systems to various news media around the world. Putting it on the Web will extend our reach internationally.

We're teaming with SC to ensure we stay on top of the latest in technology and Web page design, so stay tuned for further AFLINK enhancements in future months.



AF/IL

Susan A. O'Neal
Headquarters Air Force
Director of Plans and Integration,
Office of the Deputy Chief of Staff,
Installations and Logistics



Portal is enabler for IL's Agile Combat Support goals

Installations and logistics information technology capabilities are migrating to the Air Force Portal.

The Air Force Portal is more than a “logical evolution” for our information technology systems; it’s a “revolutionary change” in how installation and logistics business is conducted.

The Air Force Portal is as much about a change in culture as it is about a change in technology.

The Air Force installations and logistics community has aggressively embraced the Secretary of the Air Force and Air Force Chief of Staff’s direction to migrate functional applications to the Air Force Portal.

AF/IL sees Air Force Portal technology not only as an enabler for its Air Force Agile Combat Support goals, but also as a major step toward achieving the Chairman of the Joint Chiefs of Staff’s “Joint Vision 2020” objectives.

Among the key benefits AF/IL sees in adopting the Air Force Portal are standardization of IL business in-

formation, significant improvements in IL information timelines, standardized information access and presentations, and reduced training requirements for IL users around the world.

The IL Systems Program Office (at both Maxwell/Gunter and Wright Patterson AFBs) started migrating IL IT tools to the Air Force Portal in February.

Now, with more than 80 IL IT capabilities accessible via the portal, the IL SPO is well on its way toward achieving its objective of making the Air Force Portal the single point of entry for all systems and information.

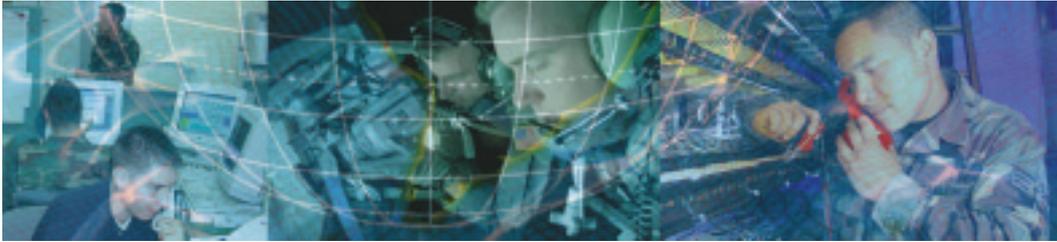


Susan A. O'Neal

Air Force
Portal

[Home](#) | [Feedback](#) | [Status and FAQs](#) | [Help](#)
Welcome Guest!





Convergence and competency – the way ahead

The revolution that began at the Air Force Information Technology Summit last summer launched a strategic alliance between the Air Force Surgeon General and the Air Force Communications and Information communities. In the months following, we've built a substantial partnership aimed at total integration of medical information technology functional requirements and resources within the Air Force enterprise. This joint venture is destined to lead the way for our respective communities to meet and exceed our mutual requirements. Some end-states that we will attain as a result of continued teamwork include:

- Timely transformation of data into information vs. focus on data transport
- Properly aligned resources, programs and missions to core competencies
- Reduced total cost of ownership
- 360-degree joint view of plans, programs, policies, resources and requirements
- Holistic perspective – total requirements – reduce piecemealed, incremental solutions
- Improved oversight and visibility of assets and execution
- Synchronized efforts – reduced redundancy and duplication
- Standardized Air Force enterprise architecture

Since announcing our partnership in April, we have seen significant results and rapid progress towards improving our defense-in-depth posture, reducing and/or eliminating overlap, redundancy and duplication, lowering costs through standardization, and achieving better visibility over our substantial asset investments. Notably, we've been able to springboard several initiatives to assure the long-term viability of our enterprise IT investment portfolio from a life-cycle management perspective. In the near term, we will address mutual objectives in the areas of application and infrastructure research and development, modernization and sus-

tainment. This will allow us to address performance and quality of service requirements and streamline management oversight to improve asset visibility while closely cooperating in programming, planning, budgeting and execution efforts for sustainment and modernization requirements.

This highly successful construct is well received throughout our respective communities and viewed very favorably among other Air Force functional communities. We are positioned to serve as a model for doing business across the entire enterprise. As of this publishing, the partnership view is now being actively extended across the entire Air Force to each major command surgeon and directorate of communications and information. We have seen impressive progress toward resolving critical issues of mutual interest and I firmly believe the timing could not be better. Ultimately, through these endeavors, we will be able to unlock the true potential of our most important asset – our people. The Air Force Medical Service stands to reap huge dividends as we re-focus our precious human resources to patient care and decision support, ultimately improving the quality of life for all our beneficiaries.



**Lt. Gen. Paul K.
Carlton Jr.**

Air Education and Training Command

People are the fuel that drives technology

By **Gen. Hal M. Hornburg**
Air Education and Training Command commander

When people think of the United States Air Force, they think technology—aircraft, satellites, missiles, precision weapons, and advanced computer networks. But our essence isn't technology; the true essence of the Air Force is our people ... our airmen make our force the premier institution that it is today.

And I can tell you with assurance that the young airmen we have serving our nation today are the most technically competent generation we've ever had. They're unfazed by the diversity of emerging technologies we see because that's the environment they grew up with. And the fact is, our Air Force counts on



their technological savvy and capabilities.

Through my travels around our force and in talking with our people, I've never seen better, brighter, more vibrant, or more

technologically competent airmen than I see today. It's vital for us to focus our training and education efforts toward developing technological expertise in each airman.

AETC's mission is to replenish our Air Force's combat capability with high quality, professional airmen. To do that, we train airmen to operate across all Air Force core competencies—of Aero-



Gen. Hal M. Hornburg

space Superiority, Precision Engagement, Information Superiority, Global Attack, Rapid Global Mobility, and Agile Combat Support. To attain Information Superiority in our high-tech environment, it's critical that we retain our highly trained, highly-qualified airmen. This keeps our role as technology leaders in the forefront and focuses our training to meet the most demanding communications and information challenges possible.

Air Mobility Command

By **Gen. Charles T. "Tony" Robertson Jr.**
Air Mobility Command commander

"Air Mobility Command has taken the lead in server consolidation to manifest the Air Force goal of *One Air Force ... One Network!* We began our efforts with our e-mail servers and have had a number of major successes so far. With computer processing power doubling every 18 months, AMC's best and bright-



est are pressing on smartly ... working hard to make this happen while simultaneously wrapping in the best of today's technology as it evolves. Mobility 2000, aka M2K, was an equally complicated ... and worthy

... undertaking, which has flourished and is quickly becoming the standard "mode of operation" in our Tanker Airlift Control Center. Bottom line:

AMC continues to focus on the deliberate, intelligent and rapid modernization of our equipment, infrastructure and processes, as we



Gen. Charles T. "Tony" Robertson Jr.

simultaneously capitalize on the technology revolution to make even more dramatic changes in how we fight and win America's wars."

Air Force Special Operations Command

By **Lt. Gen. Maxwell C. Bailey**
Air Force Special Operations Command commander

From Burma to Kosovo, Special Operations warriors have been involved in military operations that demand immediate access to critical information. Tremendous advancements in information technology now offer us an extraordinary and diverse range of capabilities, from tried-and-true line-of-sight radios to advanced space-based communications systems.



Air Force Special Operations Command deploys to remote, often austere, locations around the world, so it's absolutely necessary that we continue to equip our operators with the latest technology available. Special ops missions require that we be quiet, lean and lethal, so in the interest of our nation's security, we must continue to remain one step ahead of our adversaries as they compete with us for information dominance. Our advantage lies with the fully exploited network-centric approach to warfare currently being



Lt. Gen. Maxwell C. Bailey

crafted in the *One Air Force ... One Network* concept.

IT is our force multiplier that is fundamentally changing the process of warfighting throughout the entire spectrum of combat operations, so we will continue to leverage IT in support of our "quiet professionals."



By **Lt. Gen. James E. Sherrard III**
Air Force Reserve Command commander

Air Force Reserve Command continues to depend heavily on information technology to stay trained, informed and prepared to support the Air Force mission at all times. In the year ahead, we'll concentrate heavily on server consolidation to help reduce high demand for scarce IT manpower resources. Web server consolidation has al-

Air Force Reserve Command

ready paid high dividends for AFRC in terms of a much reduced security vulnerability. AFRC had no intrusions for the first six months of the year. We plan to maintain this outstanding trend.

AFRC is pressing ahead to Web-enable software applications to bring improved capabilities to our reservists through the Air Force Portal. As I stated in my previous comments, Air Force Reserve members must have readily available, easy access to information on the Web to maintain their high state of readiness. Our intent is to push for that access with innovative IT solutions that we can work within Air Force guidelines. We'll continue to

advocate for IT tools to better maintain unit cohesiveness, while simultaneously supporting worldwide Reserve deployments and rigorous training requirements.



Lt. Gen. James E. Sherrard III



Air Force Portal

Cornerstone of *One Air Force ... One Network* vision

By Lt. Col. David Packham

*Information Dissemination and Management Division
DCS/Communications and Information
Washington*

“My.AF,” cornerstone of the *One Air Force ... One Network* vision, makes astounding use of available technology to help people minimize the time and effort it takes to collect and use information they need to work more efficiently, make better decisions, and achieve better mission results. Albert Einstein once said, “Genius is in the simplicity.” Reducing this monumental task to the simple terms of the concept has not been easy. But even in its infancy, the early results have been amazing.

Information portals have been around for quite a while. However, it wasn’t until April of last year, when Air Force leadership met with several industry-leading IT professionals, that the idea for an Air Force Portal took off. As My.AF has taken shape, many of the initial characteristics described in the vision are being realized:

- * A worldwide window into integrated, self-service, Web-enabled information and capabilities
- * Accessible anytime, anywhere
- * The primary point of access for all Air Force personnel to individual, functional and operational services
- * [Leveraging] smart push/pull technologies ... to

optimize information dissemination

* [A] simple, intuitive user interface requiring only basic Internet browsing skills

* Personalized content selection and layout to meet individual roles and responsibilities

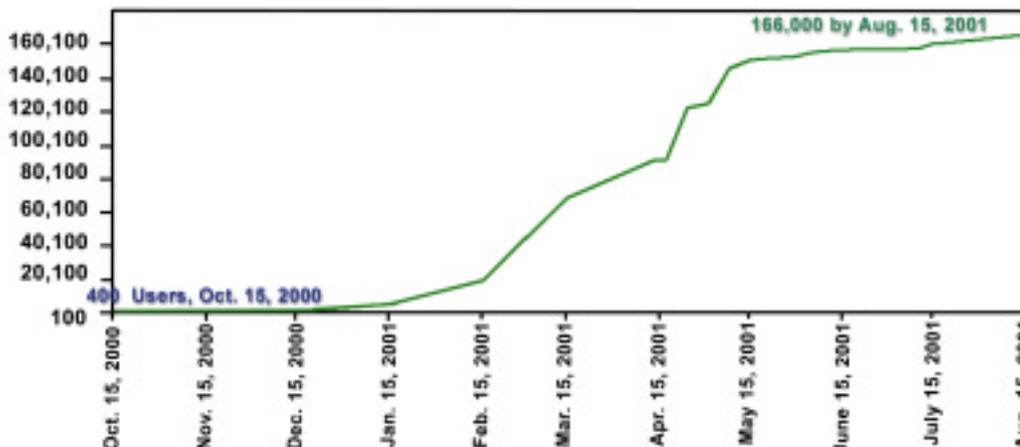
My.AF is growing by leaps and bounds. The number of registered users in October was less than 1,000. By April there were 120,000 registered users and more than 165,000 last month. Eventually the Air Force Portal will include more than 700,000 users, becoming more than likely the largest portal in the world.

Providing access to all authorized applications used by Air Force people through the portal is the biggest challenge. The sheer number of legacy (preexisting) applications and new capabilities is huge. Some applications were designed to work, for instance, at only one base, in one squadron. Others are used by all Air Force personnel, like the Personnel Data System. Since April the amount of available applications and information services has risen from 23 to more than 250, but there are more than 1,600 others waiting to be introduced into the portal or, if unnecessarily duplicative, eliminated from use.

Another key challenge is developing a taxonomy. What’s a taxonomy? Organizing the hundreds of applications, thousands of links and thousands of pieces

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My.AF User Registration



Server Consolidation

Consolidation improves combat effectiveness, peacetime efficiency, quality of life

By Lt. Col. Stan Andray
Network Systems Division
DCS/Communications and Information
Washington

Last fall we embarked on a series of initiatives aimed at improving our combat effectiveness, peacetime efficiency and quality of life. One of these initiatives was the reduction, through consolidation, of the thousands of computer servers owned by our Air Force. By reducing the sheer number of servers, we hoped to reduce the complexity of our network, increase network security, lighten our deployment packages, enable our non-IT professionals to focus on their core competencies, and free resources for modernization and quality of life.

Jan. 3, the SECAF and the CSAF directed the Air Force to consolidate servers and established these milestones:

Milestone 1: Consolidate all e-mail servers at base level by June 30.

Milestone 2: Consolidate all networks, servers and desktop services at one base per MAJCOM by August 30.

Milestone 3: Consolidate all servers at all Air Force bases by Sept. 30, 2002.

The Air Force has stood up to the challenge and delivered. More than 99 percent of the Air Force now receives e-mail support from a base's single service provider instead of spending scarce Air Force resources for a duplicative capability. In the process we've freed up approximately 1,000 Air Force members, who supported these servers full and part time, to better focus on other Air Force needs. At the same time, we increased the security posture of our network, while maintaining

equal or better service.

As we've progressed beyond e-mail consolidation, we're well on our way towards consolidating all servers on each major command lead base. This was a huge undertaking, and we've seen up to a 98 percent reduction of servers scattered on a base and more than 96 percent reduction of separate service providers. We still have a long way to go, but the dividends are beginning to pile up. Server counts and network management locations are decreasing, and as a result even more Air Force members are better able to focus on critical warfighting needs. Also, informal talks with those managing servers indicate your progress in consolidating servers is improving morale and retention of our IT work force. The message is clear—this is the right thing for our Air Force; as such, AF/SC is normalizing Server Consolidation Working Group functions into staff processes.

What's next? We're learning our lessons along the way, and they form the foundation of Air Force level guidance that will keep us on vector as we continue this journey. A Server Consolidation Milestone 3 conference is set this month at Andrews AFB, Md., to share those great ideas so prevalent in our Air Force. Also, we will continue to measure the efficiency and effectiveness of server consolidation and will use those measurements to adjust course if needed.

The Air Force information technology initiatives, including server consolidation, are equal partners with all elements of our total Air Force modernization effort. While we're still only at mid-course, we're on target and on time. The Air Force has embraced leveraging information technology as a core transformation agent for America's Air Force in the 21st century and, at light speed, that transformation is well under way.





Enterprise e-mail

Consolidating services across the Air Force

By Col. William T. Lord

*Director of Communications and Information
Air Mobility Command
Scott AFB, Ill.*

During the 2000 Information Technology Summit, commercial IT leaders briefed Air Force senior leadership on leveraging technology to better accomplish the Air Force mission. From this summit, Air Force leaders developed several initiatives to support a comprehensive Air Force IT architecture to further the vision of *One Air Force ... One Network*.

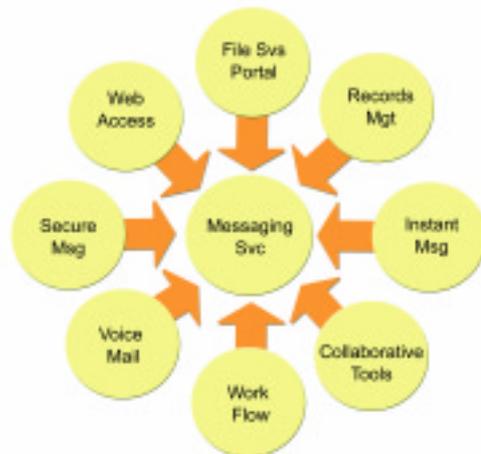
One of these major initiatives identified at the IT Summit was consolidation of e-mail servers at a central location. Many large commercial IT companies use one corporate facility or a group of facilities to handle all of their company's e-mail. Air Mobility Command was chosen as the "lead command" to develop a plan to implement a similar approach, and to migrate AMC bases to a central e-mail operation. The rest of the Air Force is watching as AMC sets the standard for how the Air Force will conduct e-mail operations in the future.

The main objective of the e-mail consolidation effort is to implement an equal or better e-mail system that significantly reduces the Air Force cost of ownership. Several derived objectives include:

- * Migrate to a central location with back-up
- * Create a consolidation "template" for other commands
- * Support the USAF's Active Directory end-state

- * Deploy Windows 2000 for the command
- * Support non-AMC tenants
- * Ensure "defense-in-depth" information protection

Consolidating servers at one location produces several benefits to AMC. Primarily, it provides enhanced service to more than 100,000 users through increased reliability and availability. Consolidation allows AMC to use one e-mail solution vice 12 base-unique solutions. Standardization permits operations and maintenance on servers to be cleaner and quicker, requiring less familiarization training from site to site. And, the bottom line: An investment in e-mail consolidation saves money over time, through reduced hardware procurements, and related savings in operations and maintenance services, requiring fewer people.



Consolidation better uses scarce resources. It lowers life cycle management costs by reducing the number of items that continually need to be upgraded. It allows better use of manpower. Instead of having a few skilled administrators at many locations, AMC will have a fully trained staff at one site. Consolidation should reduce work group manager involvement and refocus remaining comm-computer personnel to handle distant-end customer support.

One of the major concerns with consolidating e-mail is the potential for a single point of failure. If a virus infects the system, a hacker attacks it, or if equipment simply crashes, it could result in the loss of e-mail for the entire command. System robustness is of critical concern – for as the AMC commander, Gen. Charles T.



“Tony” Robertson Jr. said, “E-mail is a command and control system for AMC!” These concerns are addressed via a robust system architecture (see Figure 1) using state-of-the-art software applications.

Building for the future, the e-mail consolidation is constructed on a scalable, resilient architecture established on open industry standards. Key pillars of the AMC architecture include:

- * Proven, reliable, industry-standard hardware.
- * Air Force standard software: Windows and Exchange 2K.
- * High capacity bandwidth over redundant links.
- * Standardized e-mail business rules, evolving to include electronic records management.
- * USAF compliant Active Directory services for the entire command.

The concept of enterprise management is essential for success. Centralized expertise focused on key areas – network and system performance – enables high quality of service for the entire command. Enterprise management also simplifies user (client) operations. And, finally, multi-layer protection at both the network and the host base provides defense-in-depth information security.

Establishing Scott AFB as the center for consolidated e-mail required additional (wide area network) bandwidth from each base to Scott. Several factors were taken into consideration, including systems, infrastructure on the base, and interbase bandwidth capacity. Eventually bandwidth rose to the top as the primary consideration due to the long lead times required to procure. This determined which bases would be migrated first.

The migration process involves eight steps.

1) The first step is to conduct a visit to the base being migrated to gather data to develop a user migration plan.

2) Step two is to build the Windows 2000 infrastructure. First, the Windows 2000 root for the base is built. Then, an AMC child domain is created for the base.

3) The third step prepares the base for Exchange 2000. A security group is created. Gunter Annex then preps the root and AMC preps the child. The Active Directory Connector is then installed.

4) Exchange 2000 is installed in step four.

5) Step five prepares users for migration. First, in parallel with users cleaning-up their e-mail accounts, a trust with the NT 4.0 domain is created. Then, an Exchange 5.5 swing server is installed. Next, a base IXOS is installed and the archive process begins. After

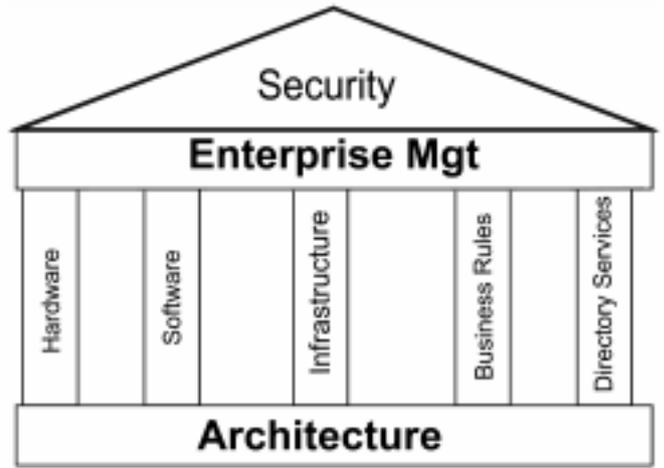


Figure 1 Based on a Robust Architecture

that, a Profile Modification script is configured. Finally, the Global Address List is synchronized.

6) The sixth step is where SMTP routing is tested.

7) User accounts are migrated in step seven. The archive created in step five is sent to Scott AFB. Then a loop is entered. The loop has the following steps:

- * Identify user priority
- * Move users to the swing server
- * Run the Migration Wizard tool
- * Disable the user’s local account
- * Run through the test criteria

Only a set number of users go through the loop at one time. When the first set of users completes the loop, the next set is sent through the loop. This continues until all users are migrated.

8) The final step is to clean up everything. This is complete when all that occurred is properly documented.

As expected, lessons learned from such a large undertaking are varied and numerous. But, one that comes through loud and clear: Prepare! Prepare! Prepare! Proper upfront planning with on-site visits mitigates horror stories in the end. Each base is unique, with individual challenges. There will still be times when problems arise, but having a well-defined exit and recovery strategy (with regular back-ups!) allows recovery to occur as quickly as possible. Other lessons learned are posted on the Web at: https://cssweb.scott.af.mil/nosc/E-mail_Web/index.htm (access via dot-mil domains).

E-mail migration is just one step in the overall modernization and consolidation of IT within AMC. We should look forward to seeing greater reliability and performance from our IT systems, as the Air Force fulfills the vision of *One Air Force ... One Network*.



AF makes major advances in directory services

By Wing Commander Andrew Powell
*Architecture and Technology Division
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Washington*

Air Force Directory Services are more than just “White Pages” and the direction given to this focus group in October was to “provide an enterprise-wide directory service able to provide secure, timely control and access to all resources required of a network-centric Air Force.” In short, “it is an honest broker—a third party that directs users to authoritative data.”

Since our last update in March there have been major advances toward fielding the first capability increment of Air Force Directory Services.

- AFDS remains the key enabler toward the delivery of an enterprise Public Key Infrastructure for the Air Force. This will lead to the formation of an AFDS “delivery team” as part of the PKI Project Office.

- AF/SC provided \$1.6 million to deliver a first spi-

ral capability that allows the synchronization of key user information for up to 175,000 Air Force network users from a variety of sources by Oct. 31. This Air Force Meta Directory will store common user information such as name, rank, social security number, organization, telephone, e-mail and PKI certificate that is currently stored and maintained in separate directories across the Air Force. The Meta Directory will pull this user information from designated authoritative sources and then synchronize that information back to all the systems that needed it – “Enter Once, Use Many Times.”

- A pilot meta directory capability was formally declared July 31 and currently supports a network able to link Global Directory System, Air Force Global Address List and PKI information across sites in San Antonio, Montgomery and Washington. The network has allowed successful testing of the selected product and will be further expanded through this month. An interim approval to operate is expected.

PORTAL

From Page 14

of data for easy sorting, deciding what should be available in My.AF and how to keep it current.

One important measure for the value of applications and capabilities in My.AF is use. Metrics are being refined to more fully determine how, when and why people use various parts of the portal. Armed with this knowledge and a good feedback loop for content not included, developers can make sure the portal content is “sticky” — in other words, it has what users want and need. Metrics can also point out performance and responsiveness characteristics, or other existing or potential problems. This way, the definitive design of the portal is largely in the hands of the people who know best how it should work — its users.

Some organizations had already

implemented portals before My.AF was launched. Plans are to integrate all of them into one common tool. Through the formal acquisition process, the Air Force will soon select the solution that will become version three of the Air Force Portal.

A tremendous amount of effort has gone into the Air Force Portal process to date — yet there’s much more to be done. Air Force leadership, through the change-over and from the top, has fully supported Air Force Portal efforts and remains as committed as ever to its successful implementation. Hundreds of airmen, every day, are involved in the planning, development, use and measurement that’s revolutionizing how the Air Force collects, manages, disseminates and acts on information: My.AF — the newest Air Force weapon system in an already unbeatable arsenal.

Several sources of information can help Air Force members understand what My.AF is, how to get access and find out what applications and/or data is available now, learn what is planned for the near future, and so on:

For overall My.AF guidance, management and other general information (such as how to get an AFP account), visit <http://www.gcass-af.hq.af.mil/library.cfm> and see the Air Force Portal Management Guide.

For those interested in the technical aspects of the AFP or development, visit http://www.herbb.hanscom.af.mil/esc_opps.asp?rfp=R135 and view the AFP Developer’s Guide.

For learning about content, see the Portal Content Registry at <http://www.gcass-af.hq.af.mil>. Several policy letters available at <http://www.cio.hq.af.mil> provide additional insight into Air Force leadership vision, expectations and plans for IT now and down the road.





Information Assurance and Communications Transport focus groups conclude

By Capt. Mitch Maddox
*Information Assurance Division
 DCS/Communications and Information
 Washington*

The Information Assurance and Communications Transport focus groups are great success stories for our community. Both concluded their efforts and helped pave the way for an Air Force-wide change from a base-centric environment to a major command-centric Air Force Intranet.

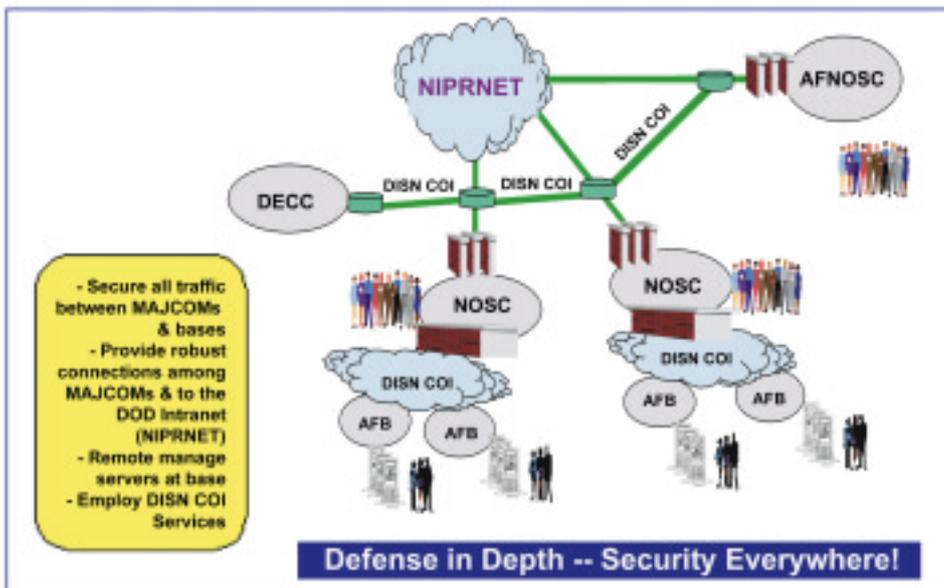
The Information Assurance Focus Group was tasked to identify ways to leverage future concept of operations and architecture to address and correct current deficiencies in our Information Assurance posture. To achieve this goal, the group recommended the Air Force adopt network centric architectures and agreed on fu-

ture network topologies. The group also verified that existing Information Assurance architecture would support the proposed future topologies. In March, the Information Assurance Focus Group officially concluded when it merged into the Information Assurance Domain Architecture Working Group.

Originally directed to develop a network-centric “everything on the Web” Air Force, the Communications Transport Focus Group also recommended the Air Force shift toward a MAJCOM-centric Air Force Intranet. The group worked with the Combat Information Transport System Program Management Office to revise the program plan for future installations to help achieve this vision. This new plan will ensure future program office efforts will further Air Force migration toward a MAJCOM or network-centric topology.

Transport and Information Assurance

Transport and IA
Runway and ramp space for the AF Network



- * Community of Interest Intranet
- * Improved network performance
- * Reduced exposure to threat
- * Improved IA defense at MAJCOMs
- * Build Up Network Operations and Security Centers
- * Finalizing architecture, design and product selection
- * Investment Strategy
- * Leverage MAJCOM
- * FOC FY05/06 (current budget)

- * One Enterprise Directory Service
- * Electronic Identification
- * Key enablers PKI/CAC, Server Consolidation, Biometrics



How *One Air Force ... One Network* affects Total Force

By Chief Master Sgt. Gene H. Theroux
104th Communications Flight
Massachusetts Air National Guard
Westfield, Mass.

What does the phrase *One Air Force ... One Network* mean to an Air National Guard communications flight?

To the 104th CF, Massachusetts ANG, it means we must train and certify our network professionals, and train our users, to the same level as our Air Force active duty counterparts. It also means we must accomplish viable certification and accreditations of our local networks and ensure the servers and workstations are AFCERT compliant. We must have contingency plans and configuration management plans. We must provide training to our users at every opportunity to ensure local procedures and instructions are viable and workable. We must have accountability. The network as a weapons system must be operated and maintained by trained and certified professionals, and all its users must be licensed, to ensure that we are not creating a vulnerability in the Air Force network.

Some may say they're not funded and staffed to accomplish these requirements, or they lack support from unit commanders or senior leadership to designate capable personnel to fulfill the many duties of COMPUSEC manager, workgroup manager, equipment custodian, computer systems security officer or security awareness training education manager. Others may say they don't receive adequate guidance from their functional managers, or their wing commander is too busy and not available to support the COMPUSEC program or to fulfill his responsibilities as the DAA. Some may contend section supervisors are unwilling to release personnel for 3A0X1 AFSC or WM training during Unit Training Assemblies. Or they're just unable to acquire local funding to send personnel to Position Certification Guides related commercial schools and seminars or are unable to acquire quotas for the Air Force formal schools. Many feel their staff cannot accomplish the PCG training tracks with CBTs alone, or their personnel don't have time to accomplish all the CBTs required by crew position training tracks. Others may argue that they don't have the staffing, training, capability or support to accomplish certifications and accreditation of our local networks. Still others feel that with all the requirements levied upon them;

(be it AEF tasking, or what they may feel is the most trite ancillary training requirement) that there is just not enough time to adequately accomplish these requirements and to support the day-to-day operation.

I've thought long and hard over these many issues, concerns and complaints that others have expressed, including many members of our staff. We talked about these issues within the branch. We looked at Air Force Instruction 33-115, Vol. 2 and although not applicable to the ANG, we believed in the intent and spirit of this instruction and we chose to comply with the requirements to the best of our ability with the limited resources available to us. We became focused and began working these programs diligently. We used AFI 33-115, Vol. 1 daily, the gaining MAJCOM's compliance directory (ACCD 90-283, including the draft of Jan. 9, 2001); we used the Automated AFCERT Implementation Module (AAIM - <https://wwwmil.acc.af.mil/aaim/>); we used the QTPs and other tools available at Q Flight <https://wwwmil.keesler.af.mil/81trss/qflight/welcome.html>.

We visited other Web sites:

AFCA – <https://www.afca.scott.af.mil>

ACC – <https://networks.acc.af.mil/scnm/TTPs>

AFSPC – https://midway.peterson.af.mil/2letters/sc/wgm_training.htm

AETC – https://www.aetc.af.mil/sc/scm/IM_infopage/

From these sites, we acquired material we thought could help us. We spoke with other units that were successful in meeting program requirements, we had outsiders come in and accomplish staff assistance visits to evaluate our programs, and we networked with our counterparts.

We felt that if we built a rock solid training program, we would not have to browbeat supervisors or unit commanders to release their personnel to attend our scheduled training. Their personnel would be eager to attend, and their newly demonstrated performance in providing service would sell the programs. We felt it imperative that the WMs provide benefits to their customers right out of the chute and focused our training on "task qualification." We established a second training facility and began to provide simultaneous training sessions and tried to maximize use of our computer classroom. We decided locally to fully implement the Core Automated Maintenance System for training throughout the Comm Flight and for the 3A0X1

AFSC throughout the Wing and geographically separated unit.

The implementation of CAMS for Information Systems was the right decision and it provided us the ability to have viable MTLs for all work centers, and training visibility ledgers that clearly showed where our holes were. It also identified where we needed to place emphasis. We acquired the CAMS psuedo files for the appropriate AFSCs for both the CFETP and AFJQS and loaded them into the system. We assigned our personnel to the appropriate crew positions and updated CAMS to reflect these assignments. We required our work centers to publish training schedules with emphasis on achieving task qualification. We required the work centers to write lesson plans and have all the resources identified and available to conduct the training. We felt we needed to standardize the training and to ensure consistency throughout the wing for the 3A0X1s. We designated three NCC personnel to be trainers and certifiers for the WM program. We required our help desk personnel to complete WM and crew position training – this ensured our NCC HD personnel could answer questions and provide solutions for the unit WM. We required all staff sergeants and above to attend the Air Force Training Course and then to participate in conducting training.

We used the experience and skills of our traditional force in all aspects of our operation, including training our full time staff. We built a PCG training plan, and maintained a book that contained the CBT courses, training tracks, student CBT performance records of individuals assigned to crew positions, and maintained the certificates of completion for courses (community college, AFCA seminars, local commercial training, etc). We used the community college and other local commercial training centers to jumpstart our training and certification programs. We required these personnel to give back to the organization and use the Train the Trainer concept whenever we can.

We wrote good certification and accreditation packages for our local networks and used every opportunity to associate and strengthen our security policies. We used the WMs throughout the organization, knowing without their help we could never be fully AFCERT compliant. We considered these personnel an extension of our staff and felt compelled to provide them tools to be effective. We implemented service level agreements with the GSU to define responsibilities and support.

We used the Intranet to publish Web pages for cus-

tommer education, the base newspaper to emphasize Information Assurance issues, and Outlook Public Folders to post processes for our WMs. We gave WMs access to our job control program to open trouble tickets and maintain the status of jobs in their areas. It also provided them a database to account for their time, for manpower credit and be able to provide their supervisors a record of their performance of WM duties.

Through this journey we've discovered that we can influence our success by being focused and patiently working the many programs, processes and issues. We chose not to waste energy by complaining or pointing a finger or making excuses why we couldn't meet program requirements or fully comply with AFIs, AFSSIs or the gaining MAJCOM's compliance requirements directory (ACCD 90-283). We ultimately believed in *One Air Force ... One Network* and took responsibility for our local processes to meet or exceed minimum program requirements outlined in the instructions. We feel this journey will help to ensure our personnel become fully trained, competent and able to integrate into other like organizations, regardless of component, be it active duty, Air National Guard or Air Force Reserve Command. We are ready to deploy seamlessly for AEF and other real-world contingencies.

During our Unit Compliance Inspection in June, the ACC/IG validated our processes and confirmed we had taken the right course. We did not walk away from the challenges working with the Air Force as one force presents to a Guard unit. We fully intend to be part of *One Air Force ... One Network* now and in the future. We seek constant improvement in processes and programs to ensure we remain current with Air Force standards and continue to provide the greater force with the trusted systems they need to maintain a secure operational posture.

We feel other similar organizations can be as successful as we have been – if they make the same commitment and focus towards compliance as we did. They too will be rewarded with a stronger organization: a local network that is both robust and secure, and a trained and professional staff. The most important reward is having users that are competent with the standard core of application software, while being cognizant of Information Assurance issues. These policies produce users who have an understanding not only of what AFI 33-119, AFI 33-129, and TMAP mean to them, but also to the many users of a more robust and secure Air Force network.





How do you like ‘them APLS’?

By Tech. Sgt. Richard A. Johnson

*U.S. Air Forces in Europe Air Postal Squadron
Ramstein AB, Germany*

The U.S. Air Forces in Europe Air Postal Squadron, in conjunction with the USAFE Communications Systems Squadron and the United States Postal Service, is developing a postal locator system to expedite the processing of forwardable and undeliverable mail. This will be implemented in six phases. Phase 1 begins this month, and the final phase, Phase 6, begins in January. Although currently scheduled for implementation in USAFE only, it is designed for potential use throughout the military postal system.

The Automated Postal Locator System is a Web-based application located on a central server maintained by the USAFE Air Postal Squadron. It maintains data records used to locate customer mail delivery information, performs postal directory functions, prints reports and labels, and provides utility functions for Postal Service Centers at military post offices in Europe. It allows multiple users to access and modify the database simultaneously. APLS will replace 42 separate locator databases on stand-alone computers throughout the command. The system can be accessed from any platform that supports a Web browser meeting the definition of an open system. Every PC is also connected through the NIPRNet to the USAFE Consolidated Internet Server providing access to a relational database where the APLS (pronounced “apples”) data is housed. As part of the USAFE Consolidated Internet Server platform, the system is load balanced, redundant, and data is archived daily.

Once logged in, postal clerks view customer information such as name, rank, box number, organization, and family members’ names. Data can be searched by name or box number to locate specific information. Filters can be used to delimit view of the data. Common user functions, such as closing and deleting mailbox accounts, are completed through simple mouse-click combinations or manual shortcuts.

APLS offers postal managers several administrative report options. Reports can be printed for all records, closed records, deleted records, open boxes, and population. Forwarding address labels (with patron’s

new address) and PS Form 3579, Undeliverable Standard Mail (A) & (B) and Special Standard Mail (B), are both easily available. To maximize productivity, each workstation will be connected to its own laser printer to print forwarding address labels. A single high-definition printer, connected directly to the LAN server, is all that is needed to produce APLS reports.

APLS also makes PCS moves easier. The system gives inbound personnel the option of obtaining a post office box using USAFE’s portal for newcomers—an important element of the command’s new First Look program. With PCS orders to any USAFE installation, an individual will be able to request a post office box via the Internet. The member’s new mailing address will appear within seconds of completing a simple online form.

Military post offices are unnecessarily burdened by tons of undeliverable Standard B (bulk rate) mail, addressed to people no longer assigned to the base. Bulk mail, mostly catalogs and advertisements, cannot be forwarded. Unfortunately, postal specialists can’t always tell the customer has departed until they see the closed lock box, so they must still handle and sort it.

When connected to the USPS National Change of Address database, publishers will be able to expedite subscription changes through an address matching procedure. In this process, a customer submits a change of address card to the losing post office, which updates NCOA. The customer then notifies the publishers of his or her new address. The publisher matches the new address against the new address on file at NCOA, and sends the item. This procedure works for mail sent by any company that is an NCOA subscriber. APLS has the potential to reduce misaddressed and undeliverable Standard B mail shipped to Europe by more than 30 percent by identifying address changes to publishers before mail enters the postal system.

APLS will significantly improve service to the community. It will make obtaining a post office box easy for customers. It produces an array of valuable administrative reports for postal supervisors, and more significantly, it greatly reduces waste – time, energy and money – through smarter management and improved communications. How do you like “them APLS”?

'Triple C' integrates monitoring, control, reporting of comm assets

By 2nd Lt. Eric Carrano
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Ramstein AB, Germany

The CCC, or "triple C" as it is referred to by personnel working in the 86th Communications Group, at Ramstein AB, is an innovative work center concept never before seen in the communications arena. The vision was cast for a communications focal point combined with a Unit Control Center that totally integrates monitoring, control and reporting of all communications assets. The 86th CG originally had 13 sections/work centers with specialized communications control functions, all operating independently. This included electronics maintenance complex workcenters, Network Control Center sections, long-haul transmission systems control, and information management functions. While effective in their respective spheres of influence, traditional job control, network control, and systems control functions complicated customer service notification procedures, which resulted in disjointed communications capability reporting to wing leadership. Thus, CCC is the solution to one integrated Communications Control function. Before CCC existed, the 86th CG commander did not have a standing UCC. Now, the CCC becomes that needed UCC and provides 86th CG leadership with a decision support communications focal point during real world and exercise contingency operations.

Incorporating maintenance, network and systems control into one work center along with a UCC is a daunting task. Total integration was implemented in three phases. Phase I, which includes maintenance control (event management) and the first-tier readiness function (UCC), is close to 100 percent complete. Phase II, the network control (enterprise management) portion, is 50 percent complete. Currently CCC is using NetIQ and HP OpenView to monitor availability of key network equipment/nodes and operational servers. The CCC network control function is headed toward incorporating conceptual and Web-based reporting tools with robust performance and fault management capabilities. Using these conceptual tools (e.g., NetIQ's AppAnalyzer and Pegasus) allows the CCC a proactive monitoring approach. With Web-based reporting tools, the CCC is



86th Comm Group comm warriors watch over the DII, the Kaiserslautern Networks and all communications maintenance functions.

able to provide customers and commanders with more timely and accurate information. A robust performance and fault management program will allow leadership to determine the "health" of the infrastructure/network and make informed decisions on upgrading or replacing old network devices.

Just under way is Phase III, systems control. Leadership has begun to migrate transmission Systems Control and the DISA facility control office functions into the CCC. Integrated Network Management System is the core tool currently used in the CCC. INMS allows the CCC to monitor theater wide-area transmission systems and common-user networked systems (Theater SDH "ATM" Ring, IDNX, DRSN, SIPR, NIPR). Additional plans include incorporating Transmission Monitor and Control, Base Transport System Monitor, and Facility and Circuit Tracker, which are currently used in the Technical Control Facility.

The vision for future operations is to integrate monitoring and control for all communications and information systems on a single multi-layer network management system platform to monitor from the GIG all the way down to edge devices and client performance. However, the CCC is still pressing toward the vision set forth by the 86th Communications Group.





Engineering future systems using information architectures

By Navy Cmdr. Susan R. Sablan

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Is programming an art or is it engineering? This question was bandied about at the water cooler by early computer applications coders. The slickest geeks came up with their own clever ways of maximizing performance with only limited memory to issue instructions. Programming was done at the machine-level, requiring thinking in actual bits and bytes. Many of the applications were financial, so the results could be checked, and the answer was either right or wrong. Art in writing such code had its place. As long as the “right answer” was produced, no one much cared how it was formulated. The actual methodology for producing that code or planning for that system wasn’t of great concern. Now, fast-forward a little over a quarter of a century, and look at what we are asking programmers to design and build today.

In the new millennium, the demand is for interoperable systems that provide decision-makers real-time knowledge in an environment where there may not even be communications lines. Information technologists must deliver “right answers” under the worst of circumstances, from a conflict between nation states to a natural disaster. The result of providing bad or untimely information isn’t a billing error, it’s potential loss of life. In our military, Information Superiority, or the capability to collect, process and disseminate an uninterrupted flow of information while denying an adversary’s ability to do the same, is the underpinning of the joint warfighting vision of the future. Based on all this, we should no longer ask if building information systems is an artistic or engineering endeavor. Surely the only way to produce accurate repeatable results is to use a sound, well-documented and proven strategy for employing information technology.

One of the best tools for doing this is to use the concept of “information architecture” to understand operational processes. First, current processes are ob-

served and documented, and then projections are made to conceptualize how those processes will differ in the future. Much as a conventional architect must begin with the end in mind and prepare many views of the building he is designing, so must the systems architect. This allows the decision-maker and the information systems planner to abstract their thinking into a common language, and engineer systems from concept to reality.

In accordance with SECDEF direction, USTRANSCOM used the DOD Architecture Framework and its three core architectures (with mandatory products) to document and prescribe our information environment and vision. The first view, or operational view, is a description of the tasks, activities and information needed to accomplish or support a military operation. The systems view is a description of the information systems that support that operation and their connections with other systems. Finally, the Technical view is the minimal set of rules and standards to which any system in the architecture must conform.

For close to a decade, USTRANSCOM has been developing its expertise in using an information architecture framework to plan and build systems. The first printed version of our architecture was the USTRANSCOM Enterprise Architecture, published in 1999. That “as is” architecture documented the business processes and information systems that enabled strategic mobility from a Defense Transportation System perspective. DTS is that portion of the worldwide transportation infrastructure which supports DOD transportation needs across the range of military operations. It consists of those military and commercial assets, services and systems organic to, contracted for, or controlled by the DOD. This architecture extends beyond those activities of USTRANSCOM and the Transportation Component Commands – Air Mobility Command, Military Sealift Command and Military Traffic Management Command – to include activities of the entire DTS community.

While documenting the current environment was helpful in understanding all the complex dependencies that make up DTS today, it was not instructive for the future. To ensure systems of the future would be de-

First Look Portal provides 'high tech, high touch' Web services to USAFE

By 1st Lt. Jay A. Crossler
USAFE Theater Web Architect
Ramstein AB, Germany

Gen. Gregory Martin, the USAFE commander, wants to revolutionize the way we do business in USAFE. "Our current processes are not broken; however, with your help and today's technology, we will revitalize our business approach to ensure we take care of USAFE people and their families," said Lt. Gen. Glen Moorhead, USAFE vice commander. We want them to have an impression that makes them want to serve, one that makes them want to stay, or, if they are here on temporary duty, one that makes them want to come back and be a part of this great team.

General Moorhead continued, "I envision an end state where our members enter a USAFE Web site and perform most of the administrative paperwork (hassles) of moving before arriving in USAFE. The Web site will include capabilities to enroll family members in DODDS schools, sign up for a postal box or TLF, register on childcare and housing waiting lists, register pets in a kennel, and prepare most in-processing paperwork."

The USAFE NOSC has completely restructured itself to support these innovative goals. We've put together an Enterprise System Branch composed of two teams – programmers and system administrators. Two contractors specializing in Web programming complement four Air Force programmers (two of whom work exclusively on First Look initiatives). By combining judicious training with TDY help from bases, we've worked beyond our limited resources to form a very skilled and experienced Web development team.

The Air Force Portal will eventually hold all the functionality that we're building into First Look. We've designed a modular framework to quickly add new applications and to speed the process of converting applications onto the portal. When the new version of the portal goes live and we have enough internal knowl-

edge of Java server pages and Oracle, we'll be poised for a very painless transition.

Our software was developed completely in house – using active server pages and Microsoft Access databases. We designed to support the lowest common denominator and allow scalability to an enterprise level. Even with a very low end solution like Access, our software tracks hits, browser types, client graphic settings, searches and allows remote browser administration while supporting thousands of users.

We were initially using WebTrends Analyzer to give us feedback on user hits – but we developed our own solution when DOD guidance prohibited tracking of user IP addresses. Our internal solution is faster and tied directly into our links database while allowing optional IP tracking. This also gives us the ability to track every link on our site and show a ranked order of most popular links – very popular with our users.

We've also added some useful USAFE-specific applications: a language translator and currency converter link to services provided on civilian sites. We are building interfaces for eWorks, action officer training, directorate bulletins and other tools to improve our business processes.

We are working hand-in-hand with USAFE/DP to develop other useful tools – both a sponsorship application (similar to the Army's S-gate application) and an in/out-processing tool (that will synch up with ACC's existing site). A training application is being tested that will show as a module on the user's portal – listing all tests and training that must be completed. Currently, we are tracking SATE, LOAC and awareness training, to name a few. A waiting list sign-up application (for pre-registering on housing waiting lists, childcare lists, Ergo testing, and pass and ID appointments) will also assist in day-to-day life.

We are excited about using Web technology to move our enterprise into the next millennium. Check us out at <https://www.mil.usafe.af.mil/>!





USAFE embarks on next evolution in network comm – centralized remote administration

By **2nd Lt. Eugene D. Turnbaugh**

Chief of Operations

U.S. Air Forces in Europe Network Operations and Security Center

Ramstein AB, Germany

What would you say about an IT initiative that takes dedicated manpower from 75 to 18? One that enables 24-hour support across the MAJCOM; even at the smallest sites? One that ensures theater standardization and puts the most technically competent individuals in charge of your most sophisticated network equipment? The USAFE Network Operations and Security Center will embark on the next evolution in network communications. The initiative is called centralized remote administration and it's changing the paradigm of network control. Remote administration is possible due to advances in technology that allow a centralized location to securely administer a network from afar. This effort spans the base perimeter infrastructure, to include the external hub, firewalls, routers/switches, and the external Domain Name System. Also, this includes the high-level administration of Microsoft Exchange and Outlook Web Access servers. As wide-reaching and critical as this initiative is, the USAFE NOSC will centrally execute these functions with only 18 highly qualified and experienced individuals.

The processes of managing a project of this scale involved the input of USAFE's best and brightest technicians. The NOSC hosted two weeks of technical discussion in which detailed procedures, standardized configurations, and refined NOSC-base responsibilities were created to allow the USAFE NOSC to exercise true command and control over the enterprise network. This fairly simple concept works on the premise that the job doesn't change, simply the location from which it's performed. Administrators will execute their activities through a secure link to dedicated servers at each location. From these servers, the NOSC has inside-the-base access to all administered devices and services. Along with the redundancy built in by having additional servers, the newest technologies for firewalls and infrastructure also allow secure login capabilities in the event of loss of internal connectivity.

The founding of centralized network control is being spelled out in most draft IT documents, describing it as the "NOSC-centric" solution. The advantages are many. A common reiteration at any IT meeting is establishing standardized configurations. Our experts' visionary approach to this process included stating which switch ports would house which systems – an effort that will dramatically shorten the troubleshooting process. USAFE firewalls currently maintain only 15 percent similarity in configurations. This command standard makes us document our services, justify the deviations, and forces us to keep it current. Detailed, best-practice checklists and procedures ensure the same activity gets performed identically across the command. Bottom line is that the synergy of experts working together enables better service, longer up-times, and faster problem resolution.

As important as a clear delineation of responsibility is for centralized control, a well-defined and accountable means of communication must be in place for the process to work. To this end, we developed a change management process for defining how the NOSC responds to base-initiated and downward-directed changes, to include: a start-to-finish POC, a technical review board, an implementation process (which includes scheduling, testing and roll-back procedures), and an elevation process. This Web-enabled process will allow all levels of leadership to see change status at any time. Also, USAFE continues to develop a centralized trouble-ticketing schema to allow Web-enabled input and processing of day-to-day problems. These clear and well-defined lines of communications will ensure all interested parties' concerns are being addressed.

Our current environment continually asks us to do more with less. As our experienced talent pool decreases, this initiative draws less from those shrinking waters. This initiative builds rigor into the most critical elements of our networks and, among others, truly exercises the tenet of "centralized control, decentralized execution." As the sun rises on this new day in communications, this improvement in network operations will ensure our community of 35,000 users continues to operate in the most stable and responsive environment ever.

Blackberry use catches on during Beta test

By Tech. Sgt. Mona Ferrell

*Air Force Pentagon Communications Agency
Public Affairs
Washington*

Communications has come a long way since the conception of the Air Force in 1947. Recent developments like the Air Force Portal, the Internet and the Air Force white pages have made working on your desktop computer much easier, but what about when you're out of the office? Understanding that on-the-spot communications and information is vital to the success of the mission, Headquarters Air Force, with the help of the Air Force Pentagon Communications Agency, came up with the answer: Blackberry personal digital assistants.

Originally set up by AFPCA in March 2000, the Beta test provided 40 key Air Staff personnel PDA units for temporary evaluation. The test was used to determine if the new pager-sized units enhanced HAF mission objectives by providing wireless e-mail receiving and sending capabilities, said Josh Dobbs, AFPCA PDA support contractor.

"Because of the nature of their jobs, our high-ranking Air Force officials needed something that allowed them wireless access to their e-mail, calendar and contacts while they were out of the office. The Blackberry systems seemed like a viable option," he said. "(The Blackberry) is compact, easy to use and integrates with our existing network, providing a wireless extension of the user's mailbox. Basically it provides the benefits of being 'connected' while on the move."

The evaluation, which lasted approximately three months, was very successful, said Casey Goeckerman, AFPCA information technology consultant. "The Beta test users were able to receive, reply to, and forward text e-mail messages just as if they were sitting at their desk," he said. "In addition, using a small cradle, the Blackberry would allow users to synchronize other vital computer functions like their calendar, contacts and notes from their desktop computer. It really increased the efficiency of their communications processes."

This increase in efficiency gave a "go" to the full implementation of the two different Blackberry systems in use now – the RIM 950 and the RIM 957. "After the success of the Beta test, the test units were exchanged for (others) which increased the device's storage capac-

ity from two to four megabytes of memory," Dobbs said. "In addition, we've also made RIM 957 units, which have five megabytes of memory, available to all of our general officers and SES civilians. We've distributed 221 Blackberry units to personnel we support throughout HAF."

While the basic wireless service is the only thing AFPCA is supporting right now, the agency is also looking into giving its users a couple of options. "Currently, our PDA users can view their e-mail, but can't read any attachments. We're looking to change that," Dobbs said. "Once we get the software loaded to support this option, a user will be able to forward an attachment, such as a Microsoft Word document, to an e-mail address of a system that will convert the attachment to text and send it back to the user as a reply. Other file types, such as Microsoft Excel and Powerpoint, are also supported, but only the text is converted and remains fairly unformatted. For these types of attachments the solution isn't optimum, but it's still better than not being able to see the attachment at all.

"Another option that we're looking into is the Blackberry paging service," Dobbs added. "This service will allow people to call a 1-800 number and leave a text or voice message, basically just like a pager. All of these different options are user friendly."

Because of the expense of buying and maintaining the Blackberry devices and infrastructure, there are certain requirements that have to be

met before an individual can purchase one. Justification for a PDA needs to come from the individual's unit requirements officer, the same as for any other purchase request. In addition, the requester must obtain a signed letter from the commander or deputy of an organization at the deputy chief of staff or secretariat level justifying the request.

"The Blackberry units cost approximately \$350, and then we have to purchase a one-year wireless communications service for each unit, which comes out to about \$450 per device. The larger units are \$100 or more," Goeckerman said. "So, because of the cost, we don't hand a Blackberry out to just anyone; they have to have a justifiable need."



See **BLACKBERRY** Page 29

AF comm and info officer home page – a ‘virtual’ wealth of information

By Laura Arzavala
Air Force Communications Agency
Scott AFB, Ill.

The Air Force comm and info officer home page has been up and running since April and has received more than 7,000 hits.

“It’s great to see people are using the site,” said Col. Tom Verbeck, Air Force Communications Agency commander. “Users have responded with favorable feedback. Still, we intend to make it even better and want to make sure that every comm and info officer and civilian knows about the site and that it is a fantastic resource for them.”

The site was designed to provide comm and info officers and civilians information on career development, educational opportunities, assignments and much more. New information is added frequently, including most recently a “Deployment” page. There, users can find information on locations they may be deployed to at some point in their career.

The site also provides links to more than 400 technical refresher training sources with topics ranging from Acquisition of Information Systems to Web Development.



One of the best features of the site is the discussion board, where users can participate in interchanges on a variety of existing topics or open a new subject of conversation. There is also a private discussion group restricted to comm group and squadron commanders. “This Web site is just great,” said Colonel Verbeck. “I highly encourage all comm and info officers and civilians to make full use of its resources.”

The site location is: www.afca.scott.af.mil/33sx/.

BLACKBERRY From Page 28

Since the Beta test, the handheld Blackberry, with its e-mail and organizer capabilities, keyboard, trackwheel and all of its options, has become more than a solution, it’s now an Air Force benchmark.

“We were the first organization in the Air Force to use the Blackberry. However, within the last six months, we’ve had a lot of people

from different organizations call and ask questions about the system and how to set it up, including the Joint Staff,” Goeckerman said. “We’ve provided our Beta test results and documentation to the Air Force Communications Agency, Air Mobility Command, Air Combat Command and Pacific Air Forces. Organizations have even sent people here on temporary duty to see how our system is set up. I’m not sure how many organizations are using the Blackberry Air Force-wide, but we’ll

share our results with anyone who asks.”

It may have started as a Beta test at Headquarters Air Force, but Blackberry use within the Air Force has definitely caught on.

“It’s a matter of using resources,” Dobbs said. “A general who’s sent TDY to a base in California can still have access to his e-mail at the Pentagon. Now our top-level management can stay in touch wherever they go. It’s making our Air Force more efficient.”



AMC IMers participate in expeditionary operational readiness inspections

By Chief Master Sgt.
Chris Hedge
*Superintendent,
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Office of the Inspector
General
Headquarters Air
Mobility Command
Scott AFB, Ill.*

Air Mobility Command information managers recently participated in an Inspector General-generated expeditionary operational readiness inspection at the Alpena, Mich., Combat Readiness Training Center. This was the first time AMC deployed 6KAAC and 6KAAE UTC (unit type code) packages and the first time information managers have been formally inspected in

an operational setting in more than five years. The inaugural event for the IM community included a 6KAAC package from the 22nd Air Refueling Wing, McConnell AFB, Kan., and a 6KAAC and two 6KAAE packages from the 436th Airlift Wing, Dover AFB, Del.

AMC's EORI inspection concept is unique and mirrors the AEF construct, deploying UTCs from separate active duty, Air National Guard, and Air Force Reserve wings/units to establish a deployed Aerospace Expeditionary Air Wing. Information managers were challenged with IG-generated exercises that tested their skills in records management, publishing, administrative communications, Freedom of Information Act, Privacy Act, OPSEC, and ability to survive and operate. In one scenario, three members were required to wear their chemical warfare ensemble for four and one half hours.

Although deployed information managers weren't certain what to expect during this initial exercise, results were extremely positive and the 22nd ARW and 436th AW proved they were up to the challenges of supporting wartime taskings and requirements. The AMC



Two Air Mobility Command information managers speak with Chief Master Sgt. Chris Hedge (right), AMC IG, during an IG-generated expeditionary operational readiness inspection at the Alpena, Mich., Combat Readiness Training Center.

IG inspectors were particularly pleased with the units' ability to provide the deployed wing solid workgroup management and functional information management support. Two members of the 436th AW were cited for outstanding performance. Tech. Sgt. Barbara A. Thomas and Senior Airman Jessica Y. Song received AMC IG coins and certificates in recognition of their superb leadership, enthusiasm, and the compelling precedence they helped establish for AMC information managers.

Future EORI exercises will continue to include IM UTCs and information managers are excited about the opportunity to participate and prove their value in this operational environment. When deployed members were asked what recommendations they could make for organizations participating in future inspections, they strongly encouraged all AMC information managers to become familiar with the UTC Mission Capability Statements, AMC Master Evaluation Task List and clarifications, and AMC Pamphlet 90-202. These documents can be found on AMC/IG's Web site at: <https://amc.scott.af.mil/ig/html/index.htm>.

Opportunities for improving your strategic information management

By **Beatrice Ramirez**

*Communications and Information
Career Program
Randolph AFB, Texas*

As our dependence on information technology increases, so does the importance of managing that information. We (communications and information professionals) have successfully demonstrated and defended our networks as the critical systems that they have always been. However, we continue to struggle with ways to manage the multitude of information that traverses those systems. It is imperative that we begin treating the organizational information that resides in our systems and on our computers as a critical resource.

Managing information as a strategic resource throughout its life-cycle is challenging. It requires us to have a blend of technological and business acumen. As communications and information professionals, we all need to broaden our knowledge, skills and abilities in the information resource management field. Those with technical expertise need to broaden their skills by developing a business viewpoint, while those in the business and stra-

tegic side of our career field need to develop their technological management skills.

The Communications and Information Career Program recognizes that it is difficult for comm and info professionals to keep up with the rate of change in the telecommunications, computer systems, information management and multimedia fields. To attain the goal of total force strategic thinking, the CICIP has received senior comm and info leadership support to offer the following training and educational opportunities:

- * Undergraduate tuition assistance
- * Graduate tuition assistance
- * Continuing education
- * On-site courses
- * Distance learning

The pursuit and attainment of specific training and education credentials have been encouraged and recognized for many years by the CICIP and senior communications and information leadership.

Training and education not only enhance your ability to accomplish the Air Force mission, but they also improve your competitiveness for promotions and reassignments. The completion of academic degrees, cer-



tifications, Professional Military Education, and mobility will be essential if you want to be competitive for promotions to the GS-13 and above levels.

Additional opportunities to acquire experience can be derived by volunteering for organizational projects and CICIP sponsored career broadening opportunities. Career broadening allows the employee to obtain additional skills, and requires an Air Force-wide mobility agreement.

Information about CICIP sponsored training, tuition assistance, competitive job placement opportunities, is available on our Web site at <http://www.afpc.randolph.af.mil/cp/cicp> or by calling us at DSN 665-3691. Our team of comm and info professionals is available to provide career counseling to help you effectively manage your career. You hold the key to your future. So call us!



Photo by Tech. Sgt. Theresa McCullough

Switch saves \$1.9M

ROYAL AIR FORCE MILDENHALL, England (AFPN) -- Raymond Prouty from the 100th Communications Squadron here provides information to a caller from his station. Switchboard operations throughout the United Kingdom will now be based here and at Royal Air Force Croughton. The initiative is expected to save \$1.9 million in the next five years. Phone numbers for the installation switchboards will not change, and calls will transfer to the servicing switchboard automatically.

IA Awareness Campaign 2001

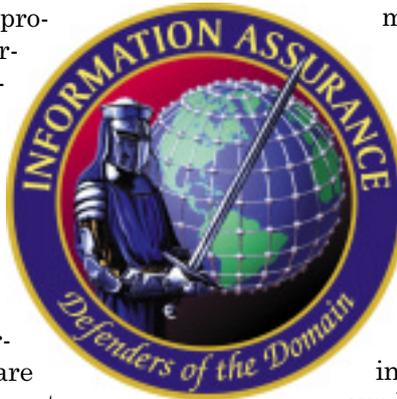
What's it all about?

By Col. John W. Maluda

Director of Communications and Information
U.S. Air Forces in Europe
Ramstein AB, Germany

What is the Air Force's Information Assurance Awareness Campaign 2001? The 2001 IA Awareness Campaign is an all out education effort focusing on all aspects of information protection. There are vulnerabilities inherently associated with the use of government computers, e-mail, and the Internet, as well as other common information "tools," including telephones, faxes and copiers. User awareness is the key to information protection, and the yearlong campaign is addressing security issues that directly affect the individual who has access to information and is using it. If individuals are not familiar with the rules of engagement, including the risks and appropriate safeguards, they're more likely to create vulnerabilities. The campaign is aimed at promoting sound Information Assurance practices throughout the Air Force by improving user awareness at all levels.

What is Information Assurance? Information Assurance is the protection of our critical and non-critical telecommunications infrastructure and computer technology. Information is power, and we're a high-tech information-driven Air Force. Trusted and timely information is critical to the warfighter, and the main-



tenance and defense of our information systems is vital to the Air Force mission.

We have to safeguard the confidentiality of information systems and the information contained within the systems. Information Assurance encompasses a full spectrum of protection and availability.

What is USAFE's role in the campaign? Major commands are charged with promoting Information Assurance awareness by creating educational products for distribution Air Force-wide. We're saturating the media with IA news, publishing articles, and airing public service announcements. Additionally, each command is charged with promoting a specific theme during one month of the campaign. USAFE's theme is "Information Assurance and our Allies" which we're emphasizing this month. USAFE is leading the charge for next year as well, with our IA 2002 calendar, which we're finalizing now for distribution Air Force-wide by the end of the year.

The Air Force is meeting the threat to information systems head-on by stepping up the tempo on awareness. USAFE is not only engaged, we're out-in-front in the effort, but I believe we can do even better. From this moment on, I challenge every member of the USAFE team – whether military, civilian or local national – to encourage Information Assurance Awareness, and practice information protection. Information Assurance is OUR responsibility!

Information Assurance – a personnel perspective

By Chief Master Sgt.

David A. Killman

U.S. Air Forces in Europe
Ramstein AB, Germany

I see an article on Information Assurance in the base newspaper nearly every week. I see IA flyers on bulletin boards, and I even spot the occasional IA poster hanging on someone's wall. It appears the folks in the IA business are doing a good job of spreading the word. I bet if I

read beyond the title on some of their material, I'd find some valuable information about protecting information systems. But I don't read that stuff. I'm a personnel guy. Computer security is someone else's job.

Yes, I'm a personnel guy; one who's experienced personnel's transition to the MILMOD system firsthand. I've seen the realities of a temporary loss of our personnel system and accurate personnel data — problems with promotions, assign-

ments, retraining, separations, reenlistments and even pay. "That action is on hold until we get our system back" rings in my ears. Sound familiar? The experts have worked the problems diligently and they have us on the road to "recovery." However, when personnel actions back up and decisions are put on hold, Air Force people are af-

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U.S. considerations – a NATO perspective

By Maj. James A. Lewis III
Headquarters Air North
Ramstein AB, Germany

“Networthiness” and network defense are often the first things to come to mind when we talk about Information Assurance. But simply stated, Information Assurance is having the right information, in the right format, to the right place, at the right time. As a U.S. Air Force member assigned to a NATO organization, I have found a few areas where we (USAF) can improve our capability to assure secure information exchange with our allies. The purpose of this article is to share some of the things I have learned to heighten awareness into some of the issues which should be considered when operating with our NATO allies.

NATO systems are unique

The North Atlantic Treaty was signed in April 1949—making the alliance almost as old as the USAF—and in that time, NATO has developed its own culture, regulations, procedures and military command structure. NATO has also developed its own communications and information systems, independent of those the United States (or any other nation) uses. If you want to communicate with NATO you should learn what systems NATO has and get access to them ... before you need them for operations. Sometimes I have encountered the perception among my U.S. colleagues that NATO is like a “United States-led coalition” where U.S. regulations and systems are dominant and we have coalition members (in this case NATO) tagging along for political support. Those who have that perception usually find themselves scrambling at the last minute before an operation or exercise to find work-around solutions to exchange information with NATO.

NATO systems may not be interoperable with U.S. systems

NATO expanded last year and now includes 19 nations. Common funding of the alliance is based on agreed formulas, but is generally a political and economic “ability to pay” method. The U.S. contributes roughly 25 percent of the common funding. Military contributions are also based on political and military ability. Consequently, in Allied Force the United States contributed the majority of all sorties flown. Clearly the United States is a major contributor and a very influential partner in the alliance. In many cases tactics and procedures have been standardized between the United States, the other nations, and the alliance. However, standardization and interoperability should not be assumed in communication or information systems. In fact, most information systems on which the Air Force relies are either not interoperable or not interconnected with NATO systems. If you are operating in Europe, get to know your NATO counterpart and

check before you assume anything about interoperability.

Who trusts whom?

The United States has some very powerful secured information systems with excellent connectivity, and we have gone to great lengths to ensure that all the dimensions of network security are addressed in these systems. But most of these are not interconnected with NATO systems or available to NATO members because of the need to protect the information and access to it. This is very appropriate. Understandably, the same is true for NATO. Each nation has different policies on network security ... some very strong and some not. For that and other reasons, NATO must protect their secured systems from being perturbed in any way by a nation’s system ... including U.S. systems. If you are looking for access to a NATO system, be prepared to prove your compliance with NATO security policies. Do you know what these policies are? The basic directives are C-M (55) 15 for NATO, and within Europe, AD 70-1.

Other considerations

Any communicator operating in Europe should be familiar with NATO systems and how to gain access to them. For example, ask yourself:

* Will you use a DSN phone to call your NATO counterpart? Not directly. NATO has its own network called IVSN. Do you know the telephone access codes between the two networks?

* What information system will you use to communicate? NIPRNET and SIPRNET are generally not available within NATO, even to U.S. members assigned to NATO. The secure command and control system used by NATO within Europe is ACE ACCIS ... do you have access? The air planning and tasking system is ICC ... do you have access?

* What about basics like electricity and operating frequencies? Will you expect 110v electrical power when operating from a NATO facility? Believe it or not, I had a U.S. unit discover they could not participate in a NATO exercise because they could not operate their equipment from 220v power.

* What secure voice will you use? Don’t say STU III – it is not releasable to NATO. If you need secure voice with NATO you should understand STU II, Spindex, Elcrovox, and the various key and equipment compatibilities.

Having the right information, in the right format, to the right place, at the right time ... that’s Information Assurance. Is the USAF prepared to exchange information with our NATO allies in a secure manner? There may be some areas in which we can improve. Hopefully the issues highlighted above will be food for thought, leading to improved Information Assurance when sharing information with our allies.

IA and allies – foreign national access to USAFE networks

By Master Sgt. David Berglund
*U.S. Air Forces in Europe
Information Assurance Branch
Ramstein AB, Germany*

COMUSAFE, our four-star general, has to prove he's completed Security Awareness Training and Education and has a favorable background investigation completed, before being granted access to the unclassified network. At the same time, there are thousands of foreign nationals and volunteers on the USAFE unclassified network without meeting access requirements ... until now.

USAFE recently published a supplement to AFI 33-202, Computer Security. The supplement provides procedures, for the first time, that combine the requirements from many higher-level directives and instructions for foreign national access into one workable process. The process is applied to all categories of foreign nationals requiring access to USAFE owned and controlled networks. Wing IA offices have already started applying the new policy, and are on their way to becoming compliant with Air Force and DOD requirements. In USAFE the lowest level approval authority for FN access is the USAFE/CV. Using the new approval process, the USAFE/CV approves the position or billet, and the unit commander must ensure the FN individual meets requirements before being granted access.

Foreign nationals are an integral part of the USAFE team. With

an estimated 9,000 FNs accessing the network in various capacities every day, it's understandable some say we can't do business without them. Here in USAFE we run the full range of types of FN access. Apart from the obvious number of local nationals employed by the DOD for base support functions, there are FN military members, both in NATO and coalition capacity, there are FN students, FN system administrators, FN contractors, even FN civilians working on one-time humanitarian missions. One could argue that nowhere else in the world are U.S. and foreign relations so close.

With 90 countries in USAFE, one can understand why we have so many different nationalities working with us. We have 35 nationalities on the network just within Germany. Each host country brings its own requirements when it comes to background checks – the Host Nation Files Check. In some countries the background check has to go to each of the local, state and federal levels separately. For others, like Turkey, that information is all kept locally, so the local check meets the requirements of AFI 31-501 Personnel Security Program Management.

Sounds like a lot to consider, and it is. However, our goal is to meet mission requirements and keep our networks secure. So even with all the variables associated with managing networks in a command that rests in foreign territory, we're very pleased to be implementing a process that wraps its arms around the USAFE network.



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fectured, and the mission suffers. Those comments aren't threats from an IA article, they're facts. Fortunately, we knew MILMOD was coming on line, and we were anticipating growing pains. What if we lost our system without any warning?

Yes, after my experience with system "inoperability," I'm left saying "what if?" What if we don't do the things we're supposed to do daily to protect our system? What if we suddenly lose all access to personnel information because of a breach of system security? What if it's totally unexpected, and our systems experts can't bring us back on line for a month, or two months? What if? The MILMOD problems were a "wake up call" for me, with IA taking on new meaning.

I think I'll take a second look at the wing IA office's article in next week's base paper. Maybe I'll read the information on security that pops up when I log on to the LAN tomorrow morning. I need to know the rules, and I need to follow them. I sure don't want to be the personnel chief who makes a simple mistake and brings down the whole personnel system. I wonder if that could really happen? I know one mistake can bring down a LAN. I also know there are a lot of vulnerable systems in the Air Force. I hope it doesn't take a "wake up call" to get other users serious about IA, but I'm afraid it might. After all, everyone knows computer security is someone else's job!

On the front line of Information Assurance

By Tech. Sgt. Diana Dillard

*U.S. Air Forces in Europe Network Operations
Ramstein AB, Germany*

The Air Force is fighting a war! This war is not being fought by conventional means in hostile skies or lonely outposts guarding against terrorism. No bombs, bullets or planes are employed in this fight, although critical resources are destroyed and our nation's security is threatened daily. This new form of combat is waged quietly in the medium of cyberspace by a new kind of warrior protecting critical information and the equipment used to process it. As a Network Defense Controller assigned to a major command-level Network Operations and Security Center, I'm on the front line every day. As such, I believe all fellow warriors in this fight should better understand the realities and importance of Information Assurance. Why? Because without proper Information Assurance, the Air Force may lose its ability to maintain Information Superiority. Ultimately, we could lose a conventional war without accurate and reliable information.

During the Gulf War, computer hackers accessed many Air Force computer systems. Although the intruders merely copied information, they could have easily altered information with disastrous results. Imagine being on an aircraft where the maintenance records were altered; instead of being sent to depot for maintenance, the plane is allowed to continue to fly. Or perhaps, at the height of the crisis, critical resupply of bombs, bullets or medical supplies don't arrive because a computer hacker changed the requisitions to ship toothbrushes and shoe polish instead. Do you really think we'd win a war with a crippled fleet of aircraft or by using toothbrushes and shoe polish as weapons? While this scenario didn't happen, the role of computer systems in future warfare will only become more complex and involved.

Though Information Assurance is a relatively new term, the concept of protecting Air Force information systems has been around for nearly three decades. What does information assurance really mean to you as a computer user in your day-to-day operation? The Air Force defines Information Assurance as those measures taken to protect and defend information and information systems by ensuring their availability, integrity, authenticity and confidentiality. I've asked several Air Force members what Information Assurance means to them. They commonly respond with, "It's that SATE training stuff we do once a year, you know, changing your passwords and such." This answer only addresses a small portion of what Information Assurance is really about, and minimizes everyone's important role in this daily battle.

Computer users' failure to use Air Force mandated

security measures and failure to apply basic common sense security practices result in many of the more common violations of Information Assurance. For instance, the Air Force was fundamentally unprepared to combat the Melissa virus attacks in March 1999. That virus, while mostly non-destructive, served as a wake-up call to the Air Force when it effectively caused a denial of service to 129 Air Force sites with an average downtime of 68 hours. That was a loss of almost three days of data communications capability. The Air Force fared better when the equally nefarious Anna Kournikova virus hit in February. Only eight sites were affected with an average downtime of two hours. Statistics show that the Air Force, in conjunction with commercial vendors, has gotten better and faster at providing updated protection against viruses. While MAJCOMs and wing Information Assurance offices work diligently to ensure we apply protective measures to base networks, they can't do the job alone. As good as we have become, I still cannot understand, from a network security position, why anyone in today's Air Force would actually open any e-mail attachment titled Naked Wife. Or, with a reported 200 new viruses released each month, why any computer user would purposely disable their anti-virus software, mistakenly thinking it slows their computer. Guarding against simple mistakes goes a long way in our fight for accurate, reliable and secure information.

While viruses grab news headlines and wreak havoc on our networks, protecting against viruses is only one aspect of Information Assurance. You may think it's OK to download "free" software off the Internet, but this software usually comes with a price. You might get more than you wanted. Free programs, such as chat software and games, often cause security problems for your system or for the base network. They can infect your computer with malicious computer programs, or even open security holes in the base firewall that can allow unauthorized users access to the base internal network. Consult your local workgroup administrator and applicable AFIs before placing unapproved software on an Air Force-owned computer.

Your everyday action on a computer can be as important to national security as generating combat sorties or preventing terrorism through good OPSEC. When we neglect common sense rules at our workstations, or circumvent regulations and directives, we diminish information security and directly threaten Information Superiority—an Air Force core competency upon which all other core competencies rely. The recent movie *Pearl Harbor* reminds us how vulnerable the United States can be when we let our guard down. Continued vigilance can prevent an attack of even greater proportions on this new battlefield of cyberspace. Together we are only as strong as our weakest link!

