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AFMC Information Enterprise

IT warriors provide world-class support

intercom

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About the cover

This month's cover focuses on communications and information in AFMC.

Cover by Tech. Sgt. Mike Leonard

AFMC charts course for transformation

By Gen. Lester L. Lyles
Commander
Air Force Materiel Command
Wright-Patterson AFB, Ohio

Our Air Force is in a very dynamic period in its history. In response to a rapidly changing national security environment, the secretary of defense is setting new priorities and a new strategy for our nation's defense. The need for these changes has been dramatically and tragically emphasized by the recent attacks on America. The Air Force needs to adapt to these changing national security demands. This is nothing new for the Air Force. We've always been a "transforming" service.

We in Air Force Materiel Command need to help shape and lead that change by acquiring and sustaining new capabilities the Air Force will need in the future to maintain its dominant combat edge. If we're to continue providing world-class materiel support to our customers, we must clearly understand their changing requirements and periodically review how we do business. We must ensure our strategies, plans, policies, processes and organization are in tune with our customers' changing needs. The entire AFMC work force must become agents for constructive change, leveraging technology to efficiently and effectively support the warfighters' rapidly evolving requirements.

Information technology permeates every aspect of our business, enabling rapid AFMC response to warfighters' demands, anytime, anywhere. The AFMC information enterprise includes voice, video, network and data communications – vital keys to achieving the Air Force core competencies of Agile Combat Support, Rapid Global Mobility, and Information Superiority.

Our IT transformation strategy centers on tying e-business pursuits to objectives in the command strategic plan and the key focus areas of AFMC Vision 2020, including

General Lyles

innovation, and modernization of our information management infrastructure. We must leverage IT to support the transformation. To that end, we've appointed a new chief technology officer, Kenneth Percell, as the command's primary catalyst for e-business transformation. He is responsible for identifying enterprise-wide e-business opportunities and for integrating these new technologies into AFMC mission and functional operations. The CTO will work closely with AFMC's chief information officer to transform AFMC information systems to provide Information Superiority, not only for the warfighter, but also for AFMC warriors supporting our nation's warriors.

The AFMC CIO, Debra L. Haley, will establish standards and architectures for the IT network and e-business information systems. This will ensure efficiency and interoperability of our command's e-business. The AFMC CIO is focused on ensuring integrity and security of the network, and of the information it transmits. This focused approach incorporates a robust IT security environment and the newest capabilities of the Air Force Portal. Together, the CIO and the command's communications and information community will lead AFMC to the Air Force communications and information vision of *One Air Force … One Network*.

Ours is an extraordinarily complex and diverse mission. While the objective of our efforts is clear – world-class support for the

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AFMC comm and info initiatives aid transformation to 'information on demand'

By Debra L. Haley, SES
Chief Information Officer
and Director, Communications and
Information
Air Force Materiel Command
Wright-Patterson AFB, Ohio

Debra L. Haley, SES, Chief Information Officer and director Communications and Information, HQ Air Force Materiel Command, presents the AFMC/SC Airman of the Quarter award to Airman Matthew Krizmanich.

The AFMC communications and information community is well positioned to assist the command in leveraging information technology to facilitate a transformation to provide customers with information on demand. This transformation has been under way for four years and includes enterprise-wide software licensing, corporate-wide standard levels of service, common architectures, and proactive Information Assurance.

One of the early initiatives was the Corporate Architecture and Performance Standards process. CAPS establishes a baseline for current operations, identifies core and non-core services, establishes minimum and standard performance measures, benchmarks against private industry and other government entities for the most efficient and effective ways of providing core services, and develops a transition plan to achieve the ideal end-state. The ultimate goal is to standardize operations, identify and secure needed investment to modernize the infrastructure to support customer requirements, and achieve best practice unit cost at each base across the command. Where practical, the CAPS process has been applied to other AFMC communications and information product lines, such as mail services and base telephone services, resulting in development of associated transition plans.

Another communications and information transformation initiative involves network security. In May 2000, in response to increasing attacks on AFMC networks and identification of certain network vulnerabilities, we established a command-wide integrated process team to address Information Assurance and network security shortfalls. This effort, known as Operationalizing Information Assurance, is a four-phased approach to assist AFMC network professionals with proactively defending network resources. OpIA action items include closing known security gaps; standardizing security policies, procedures, reporting, and training; and adopting command-wide solutions to common Information Assurance and security problems. The first two phases involved correcting known deficiencies and implementing short- to mid-term solutions requiring less than one year to implement. Phase three involves solutions requiring longer than one year to implement, or which are dependent upon implementation of other IT modernization initiatives such as the Combat Information Transport System upgrades. Phase four involves IT solutions requiring additional funding approval in the program objective memorandum.

AFMC has stepped up efforts to monitor and assure all network personnel complete certification training mandated by the Air Force's Operationalizing and Professionalizing the Network program. This will assure our network professionals maintain current skills and hone new

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capabilities to keep up with rapid acceleration of information technology. By creating a climate favorable to innovation, we've positioned our personnel to become effective agents of change for the command.

The AFMC communications and information community is also rapidly implementing the Air Force Portal. In FY '01, we identified and validated more than 400 systems for migration. Portal licenses were distributed to 46 percent of employees, and the AFMC Network Operations and Security Center is providing help desk support to all users.

Consolidation of IT infrastructure assets is also a high priority. Since FY '98, AFMC has successfully consolidated e-mail operations, reducing software applications from more than 23 versions to one standard, command-wide, e-mail application, and consolidating 224 of 235 e-mail servers under control of the base network control centers. In addition, 270 e-mail servers were removed from service to ensure a more efficient, economical and effective AFMC network. Current plans mandated by the Air Force CIO are to consolidate file, Web and print servers. Likewise, AFMC help desk operations have been reduced from as many as one for each organization on a base, to one per base, under control of the BNCC. Furthermore, since 1998, the AFMC communications and information community has closed all unauthorized "back doors" command-wide, greatly improving information security and vastly reducing network vulnerability.

Together with the chief technology officer, we're aggressively pursuing integration of IT opportunities across the command; leveraging IT capabilities to provide common, corporate, self-service applications; and providing accessibility to accurate, reliable corporate databases and information. As stated in AFMC Vision 2020: "AFMC is rapidly replacing legacy information systems with Web-based capability…an e-business approach to improve customer support and feedback is our future."

Increasing customer demand for information requires us to ensure the security, reliability, and availability of our IT infrastructure. We will strive to leverage new technology, such as wireless communications, to provide high quality service to our customers. Another new technology that enables knowledge management and improves work force productivity is the command standard, Livelink. We are promoting use by all functional mission areas throughout AFMC.

These are just a few of many current IT modernization initiatives AFMC is pursuing. Future strategic IT objectives include convergence of voice, video and data; capability to provide voice-over Internet protocol to the desktop; remote administration capability; and continuing support for migration of legacy systems to e-business capabilities of the Air Force Portal.

The following articles give an overview of the broad scope of the AFMC IT mission. As the Air Force, and AFMC, transform to meet the challenges and demands of the new millennium, we in the communications and information community stand at the cutting edge of the transformation.

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warfighters – the breadth of our responsibilities makes it difficult to explain how much capability we actually provide to the warfighters. Perhaps Gen. Robert Latiff, vice commander of Electronic Systems Center at Hanscom AFB, summed it up best when he said, "Operational forces ask us to solve problems and deliver new capabilities." He's right, we in AFMC are the problem solvers! We're the part of the Air Force that comes up with "better, faster, cheaper" ways to make the warfighter more effective.

This issue of *intercom* is focused on AFMC comm and info problem solvers at work. These articles highlight only a few of the many ways AFMC's comm and info community is contributing to the Air Force mission. It isn't possible, of course, to show everyone and everything. Much of what we're accomplishing, as a command, cannot even be discussed at this time. However, in the following pages, you can catch a glimpse of how our IT warriors respond when called upon. As their commander, I am proud to say, you can be assured that their patriotism, dedication and professionalism are representative of everyone on the AFMC team!

Brooks comm squadron supports city-base project

By Sandy Noel
311th Communications Squadron
Brooks AFB, Texas

A city-base project involving Brooks AFB and the city of San Antonio is on track for implementation early next year. Congress authorized the relationship, which is expected to enhance Air Force missions and reduce costs of base operating support.

The two parties plan to evolve Brooks into a high-tech facility to be called Brooks Technology and Business Park. This will be done through partnerships with various educational, medical, and technological public and private organizations intended to complement existing missions.

Real property and some related personal property potentially will be transferred to the city and leased back to the Air Force. The city will provide Brooks with non-mission-essential support, such as ground maintenance and ambulance services.

From left: Col. Robert McMahon, SAF/IE; Pat McCullough, 311th Human Systems Wing business development office chief; Brig. Gen. David Cannan, Air Force Materiel Command civil engineer; Bob Sanchez, community representative; Honorable Nelson Gibbs, assistant secretary of the Air Force for Installations, Environment and Logistics; and Dr. Brendan Godfrey, 311th HSW deputy director. Gibbs visited Brooks to receive an update on the Brooks City-Base initiative and to emphasize its significance and support to the Air Force.

Communications support to base missions, organizations and personnel will not change under the unique arrangement. The 311th Communications Squadron will continue to provide services to government organizations, enabling them to accomplish their missions and communicate with community representatives. The 311th will also continue to meet the challenge of assuring vital network security.

The squadron will implement and maintain programs directed by Air Force and Air Force Materiel Command headquarters, enhancing the squadron's capabilities and providing first-rate customer service.

Telephone services will continue with high support, maintenance and customer satisfaction. The equipment control office remains one of the squadron's primary functions, and the work group manager program goes forward with training and certifications.

The Brooks city-base project creates new relationships and possibilities for the future. For example, it's expected many private firms that share Brooks' research interests will open facilities here. The squadron's challenge will be to ensure good communications with these firms to promote synergy, while maintaining separation of communications infrastructures. The bottom line is the 311th Communications Squadron is demonstrating its ability to support Air Force communications needs in a city-base environment.

Communications group keeps base in touch

By Robert K. Ackerman
Editor-in-Chief
Signal Magazine
AFCEA

Bandwidth and security, two items of vital concern to military communicators worldwide, is the bailiwick of the 88th Communications Group, a base-level organization that provides communications infrastructure for Wright-Patterson AFB. Comprised of about 500 military, civilian and contract personnel, the group is responsible for maintaining flight line communications, and serves as the base telephone company. It manages two central offices supporting 35,000 telephone voice lines.

Most of the group's activity, however, is geared toward data networks. Even though this is a responsibility shared across the base, the 88th provides core infrastructure for communications utilities. John Bartoli, civilian assistant to the 88th CG commander, said the group manages about 20 percent of 24,000 base desktop units.

It also supports acquisition system program offices and the Air Force Research Laboratory, which Bartoli said has "the most challenging telephone requirements." High on the lab's wish list is bigger and faster bandwidth, including high quality of service.

For example, a typical ethernet throughput availability of 8MB per second requires eight minutes to transfer a 500MB file. A 5GB file requires 83 minutes. Increasing throughput to 60MB per second will speed a 500MB file through in one minute, and the 5GB file will transfer in just 11 minutes. The lab moves files as large as tens of gigabytes on almost a daily basis, Bartoli explained.

Remote visualization is another increasingly more frequent activity that calls for considerable bandwidth. More than 6MB per second can be required for transferring imagery from a computer server to a desktop. Animating the images at 10 frames per second can bring the total to 60MB per second.

"A lot of our focus is on how to grow backbone infrastructure to support this – not just within the base, but with inter-base people," Bartoli said.

The Air Force's combat information transport system program addresses backbone requirements for major core facilities. Wright-Patterson is scheduled to benefit from CITS by 2003 or 2004, Bartoli related. Until then, the base will increase its capacity incrementally. Backbone around the base is a growing asynchronous transfer mode mesh, with a majority of circuits operating at OC-12, or 622MB per second. The base has two separate network configurations, divided by a highway and connected by an OC-48 link, at 2.488GB per second.

The 88th Communications Group, Wright-Patterson AFB, Ohio, is responsible for maintenance of flight line communications.

After bandwidth, the biggest demand from 88th customers is security, Bartoli said. Increasing business-to-business requirements have made security a pressing concern for lab and SPO users. In addition to secure identification and authentication, the group employs the standard Air Force border protection suite. Maintaining security with high bandwidth is "a constant risk management

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Eglin facility provides real-time data on open-air testing

By 2nd Lt. Timothy J. Lindenberger
96th Communications Group
Eglin AFB, Fla.

What good is a weapon if you don't know its accuracy or its ability to inflict damage? Providing that kind of information is the role of the 96th Communications Group's central control facility at Eglin AFB. The CCF affords real-time data and visualization in support of open-air testing at Eglin. In 1996, the 96th used the Department of Defense-sponsored high-performance computing initiative to upgrade the CCF. The HPC initiative enabled the group to vastly improve quality and performance of computing services and products delivered to its customers, presenting definitive answers to warfighters' questions in three basic areas:

Mission control and analysis. The CCF provides a central site for test control and state-of-the-art analysis. CCF users can expect tighter control of classified and unclassified test environments, an improvement in weapons test and evaluation quality, enhancement of test productivity, shorter data reduction turn-around times, and access to quick-look data products.

General-purpose computers supporting the CCF give direct access to most range data sources, including radar, global positioning system, gulf range drone control system, surveillance radar, and telemetry data sources. Real-time application programs process data collected during missions to provide instant analysis and control information.

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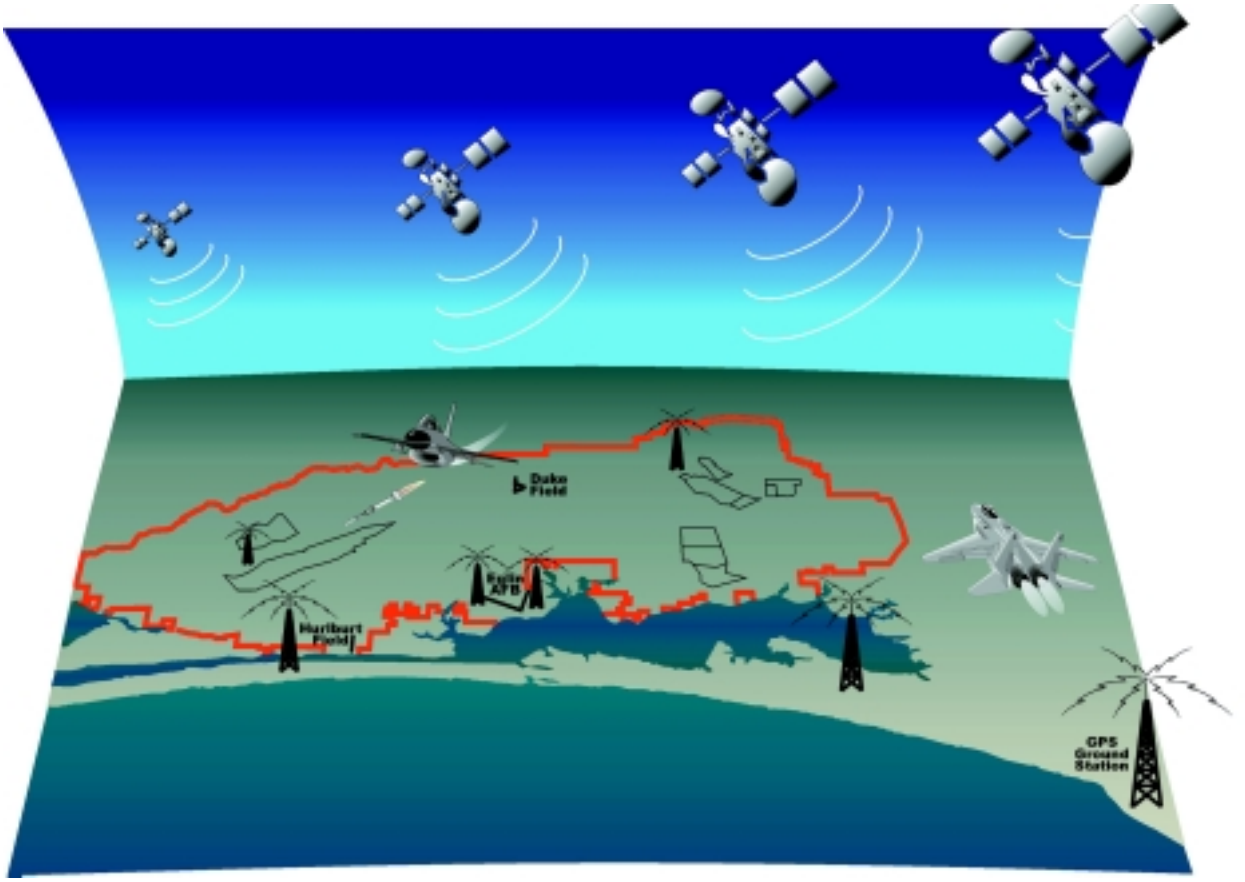

Eglin AFB's extensive land, water and open air test mission environment uses a system of integrated GPS satellites in conjunction with precisely located GPS ground-based receiving stations to provide high precision Time-Space-Position Information, which is critical in evaluating performance of a wide variety of smart bombs and missiles tested at the Air Armament Center.

Technicians monitor parameters while visualizing the overall status of an open-air test mission as events occur in real-time, in a mission control room in the central control facility.

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The range scheduling system resolves the actual number and types of missions that can be supported in real-time. Computer resources and system flexibility are sufficient, however, to simultaneously support many types of missions.

Aircraft control. The CCF's aircraft control capability provides information needed to implement the desired mission flight plan. Mission control consoles are used for positive aircraft control with data from Eglin precision radars, the Tyndall AFB GRDCS, GPS, and surveillance radar. Some single vehicle parameters that can be computed are position, altitude, heading, velocity, dive angle and acceleration.

Telemetry. The telemetry facility, or Telemag, located within the CCF receives telemetry signals from aircraft, weapons systems, ground targets, and virtually any instrumented device through various Eglin test sites. Telemag then processes and delivers test data to real-time displays, storage on various media, and the CCF user. High-speed telemetry processing systems within Telemag can support multiple simultaneous mission scenarios and playbacks.

CCF is another tool helping to assure warfighter effectiveness and success in combat.

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trade-off question," said Bartoli.

The group works with several commercial companies for services, while other base organizations have consulting contractors to support security plants. "We manage a set of contracts that we make available to the Wright-Patterson community, and we've been very successful with small 8(a) companies," Bartoli said.

At the top of Bartoli's wish list from industry is wireless solutions that support higher bandwidth.

People skilled at data and network security are the group's greatest personnel need, Bartoli explained. Overall, the most important employee quality is adaptability to change.

"We've grown up with a voice domain separate and distinct from the data domain," he said. "Those domains now are merging, and how that will work out is a big question in many of our minds." (*SIGNAL Magazine, September 2001, official publication of AFCEA, reprinted with permission*)

AFMC CIO Support Working Group prioritizes corporate IT investments

By Randi Bodey
Communications and Information Directorate
Air Force Materiel Command
Wright-Patterson AFB, Ohio

The Air Force Materiel Command CIO Support Working Group was formed in 1998 under direction of AFMC Chief Information Officer Debra Haley. The CSWG has command-wide representation, and functioning as an arm of the AFMC CIO Council, its duties are to:

* Serve as the AFMC forum for addressing information technology issues from a corporate perspective.

* Serve as the facilitating body for identifying, prioritizing and developing common IT projects and requirements for AFMC.

* Provide technical advice and direction for corporate IT projects and requirements, acting in the capacity of a functional review board for corporate IT requirements presented to the CIO Council.

* Identify, document and cross-feed IT best practices and innovative implementation approaches.

* Review command policy and guidance for corporate IT initiatives, standards, deployment and implementation strategies.

CSWG membership was comprised of voting members from each AFMC center and base, selected by corresponding members of the CIO Council. In June 2000, representatives from each of the headquarters mission areas were added as voting members. Functional area representatives from all other headquarters two-letter organizations were also added as full-time, non-voting members.

The CSWG chairperson's focus is to engage headquarters mission area and field organizations in a shared IT investment planning process. This helps eliminate duplication of IT functions and activities, and links corporate IT planning to a top-level analysis of corporate goals, problems, best practices and strategic IT opportunities. The CSWG membership has developed a cohesive relationship that encourages brainstorming about the value added, problems, and issues of various IT initiatives, and fosters ideas on applying IT in functional environments and business applications. CSWG activities don't end with submission of requirements. The group performs oversight throughout the lifecycle of each CIO Council approved IT project, and participates in review of all documentation generated – from development of requirement specifications, to integration and sustainment of selected solutions within existing infrastructure.

In addition, the CSWG reviews documents, policies and procedures, and various initiatives for the command generated elsewhere – for example, the Air Force IT Summit.

Keeping informed about what's going on in the Air Force overall enables the CSWG to make informed decisions for the good of the command. The CSWG also maintains alliances with industry leaders and receives briefings from groundbreaking companies during semi-annual CSWG conferences.

Since the first requirements call in 1999, the CSWG has received 98 corporate requirements from the field, and assessed and incorporated them – along with downward directed requirements – into AFMC's corporate requirements process. The CSWG conducts a rigorous requirements review, first verifying a "corporate" need, then racking and stacking remaining requirements for future fiscal years.

Some of the command-wide IT initiatives identified and worked by the CSWG include: $2.1 million in copper cable upgrades; standardization of AFMC's messaging software in terms of architecture and product; $3 million investment in network protocol analyzers for troubleshooting base networks; and deploying the Tivoli standard desktop management tool. These initiatives have moved the command closer to migrating AFMC networks to a weapon system environment, while ensuring all customer communications and information needs are met.

The CSWG has provided valuable expertise to the command by assuring IT efforts continue to afford the most needed and desired corporate capabilities.

Information: heart and soul of IT

By Mechille A. Braden
Logistics Information Division
Oklahoma City Air Logistics Center
Tinker AFB, Okla.

Visibility of the right information at the right time is both a challenge and an opportunity. Users at Oklahoma City Air Logistics Center, Tinker AFB, and across Air Force Materiel Command access information from 60 legacy systems. Data is batch processed, requires manual entries through numerous input screens leading to "dirty" or compromised data, and – along with lack of data systems integration – presents many challenges to users.

Created in the early '60s, these systems focused on depot product management of supplies, material, induction of end-items, financial reporting and tracking labor hours associated with depot repair operations.

However, as new technologies evolved, these data systems did not. Private industry has focused on real-time, open architecture systems that avoid data transfer and interoperability issues. With evolution of communications and information technology in general, senior leadership must have access to immediate tools to improve their ability to make sound management decisions. Although many people feel legacy systems should be abandoned for a fresh suite of systems, cost is prohibitive. Therefore, we're developing workarounds and refreshes to these systems that will allow us to provide tools our users require.

Technical refreshes helped users overcome some challenges. Systems enhancements included transiting to newer platforms to take advantage of accessible and current applications. The Depot Maintenance Material Support System, G005M, identifies materials in support of maintenance work load. Created in the late '70s, G005M is undergoing modernization. This refresh will be more user-friendly and expedite data availability between system interfaces, while saving users input time.

Lt. Col. Steven W. Hailes, 72nd Communications Squadron commander, in the Tinker network control center.

The Depot Maintenance Accounting and Production System is being implemented at Tinker and other AFMC sites. A Department of Defense downward directed program, DMAPS eliminates several legacy systems and focuses on producing timely, auditable, reliable and useful information. It will follow provisions of the Chief Financial Officer Act of 1990, which mandates that organizations be compliant by FY '03.

DMAPS is also a first step towards activity based costing. ABC enables organizations to accurately identify what is owned, amount paid for items, and cost of conducting business at a minimum output level.

With other systems in the pipeline, portal technology, and improved integration tools, visibility of information on demand will become more of a reality. At Tinker, information is indeed the heart and soul of information technology.

Tinker comm warriors support warfighters

By Mechille A. Braden
Logistics Information Division
Oklahoma City Air Logistics Center
Tinker AFB, Okla.

DMAPS employees, Greg Eldridge (left) and Tom Baldwin (center), show Tinker employee Eric Little, KC-135 Unit Chief, how to use a pen table to scan job orders.

At one of the Air Force's most diverse bases, the 72nd Communications Squadron has teamed with the host unit, the Oklahoma City Air Logistics Center, to assure a sturdy communications infrastructure capable of providing base units and their global customers continuously reliable, responsive, and flexible command and control, communications and computer systems.

In addition to the air logistics center, Tinker is home to four wings, including the Navy's Command Strategic Communications Wing One, the 552nd Air Control Wing (Air Combat Command), the 507th Air Refueling Wing (Air Force Reserve Command), and the 72nd Air Base Wing (Air Force Materiel Command). It also has three groups: 3rd Combat Communications Group (ACC); 38th Engineering and Installation Group (AFMC); and 513th Air Control Group (Reserve AWACS). Among other represented organizations are the Defense Information Systems Agency and the Defense Logistics Agency.

OC-ALC has more than 14,000 employees whose primary focus is logistics and depot maintenance overhaul of many Air Force major weapons systems, including B-1B, B-2, E-3, KC-135, B-52A/C, and engine work load. Information technology has become critical to mission success as the base enters the 21st century.

"Our network is more than e-mail," said Brig. Gen. Loren M. Reno, OC-ALC vice commander and chief information officer. "Our mission critical systems operate on our network."

This forward thinking approach is the foundation for various strategic enterprise planning initiatives.

Creation of an IT organization will enhance corporate operating policies and procedures, improve business processes, increase Information Assurance and contribute to an increased level of service.

A wireless network, covering 25 buildings with more than 1.75 million square feet of shop floor, will allow 8,000-plus OC-ALC depot repair employees access to network resources, while providing flexibility in the depot work place environment.

As both private and government industries conduct business operations in an electronic environment, the Tinker portal will link business partners in a Web-enabled virtual environment. The portal will be the single logon access point for base network users to these applications and critical databases. By leveraging Internet technologies, users can participate in electronic process work

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From desktops to giga-FLOPs: ASC's critical IT functions

By Pat Montanaro
Information Technology Directorate
Aeronautical Systems Center
Wright-Patterson AFB, Ohio

Photo by Chuck Abruzzino

Pat Montanaro (left), deputy director of the High Performance Computing Division, and Dave Rothery, director of the Information Technology Directorate, Aeronautical Systems Center, inspect the recently installed ES-45 Compaq computer in the Major Shared Resource Center at Wright-Patterson AFB. The computer's 836 one-gigahertz microprocessors make it the 14th largest in the world, with a peak performance of 1.67 trillion calculations per second.

From desktops to giga-FLOPs – or one billion 64-bit floating-point calculations – the Aeronautical Systems Center's Information Technology Directorate performs some unique IT functions in support of the warfighter. Led by Dave Rothery, this diverse organization provides the chief information officer support function for ASC, along with modeling and simulation, and high-performance computing to support the Air Force and the Department of Defense. The directorate has three divisions:

Strategic Investment and Planning Division. This division is involved in a wide range of initiatives critically important to the success of ASC. Its vanguard duty is to support Rothery as the center's CIO and to move ASC into the world of e-business. The CIO's goal is to reduce acquisition costs and accelerate product delivery to the warfighter. This includes developing and implementing corporate business processes, and providing IT for efficient use of information as a vital resource supporting acquisition business processes. To carry out this responsibility, the division created a strategic plan to define the direction for ASC to meet these goals over the next two to three years. In short, the division is ASC's IT expert.

High Performance Computing Division. As senior Air Force leadership emphasizes use of modeling and simulation to acquire and improve future weapon systems, this and the following division perform a crucial role in supporting that initiative. The High Performance Computing Division is at the forefront of this technology thanks to capabilities of the Major Shared Resource Center. Simply put, MSRC is super computing. It includes a full range of hardware, software and networks to perform billions of calculations per second, to answer tough technical questions for the research and development community.

The division actively participates in simulation-based acquisition. One of its most recent successes was supporting the Reconnaissance System Program Office to weaponize the Predator. Engineers used high performance computing to model and simulate the new configuration. This reduced test time and scheduling, and answered some tough technical questions before flight-testing. The MSRC's goal is to integrate its efforts throughout ASC and become an asset to program offices in support of simulation-based acquisition for new weapon systems.

Modeling and Simulation Division. This division has provided unparalleled support to the

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Communications and information: transforming the work force

By James R. Henley
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Air Force Materiel Command
Wright-Patterson AFB, Ohio

In its 1999 report "Sustaining the Sword," Air Force Materiel Command determined more than 65 percent of its information technology work force would be eligible to retire by 2005, and projected almost half would. "Graying" of the work force is of particular concern to the communications and information community, due to pending loss of much corporate knowledge and technical expertise. This loss, combined with the Air Force goal of moving to a network-centric mode of operation, requires serious management attention. After 10 years of downsizing with minimal recruiting and hiring, we have too few in the pipeline to fill the shoes of our retirees. And we aren't alone in facing this human resources crisis. In a January 2001 report, the General Accounting Office identified "work force management" as a high-risk area for the entire federal government.

The AFMC Human Resources Strategic Plan identifies three related objectives that address recruitment, retention and development of the AFMC work force. These objectives are supported in the AFMC Communications and Information Strategic Plan through the human resources enabling task. In support of that ET, we're implementing a work force development master plan, supported by a work force development planning guide, to combine all work force initiatives into a single executable plan to be updated annually. Our command human resources office has developed a command human resources information system to provide access to an integrated manpower and personnel database. CHRIS will be an important tool in the work force management process.

Re-skilling current work force and bringing new hires up to speed requires significant training resources. We've developed IT training templates based on the new Information Technology Management series (GS-2210), with a template for each of the 10 basic skills. They're accessible on the new communications and information IT educa-

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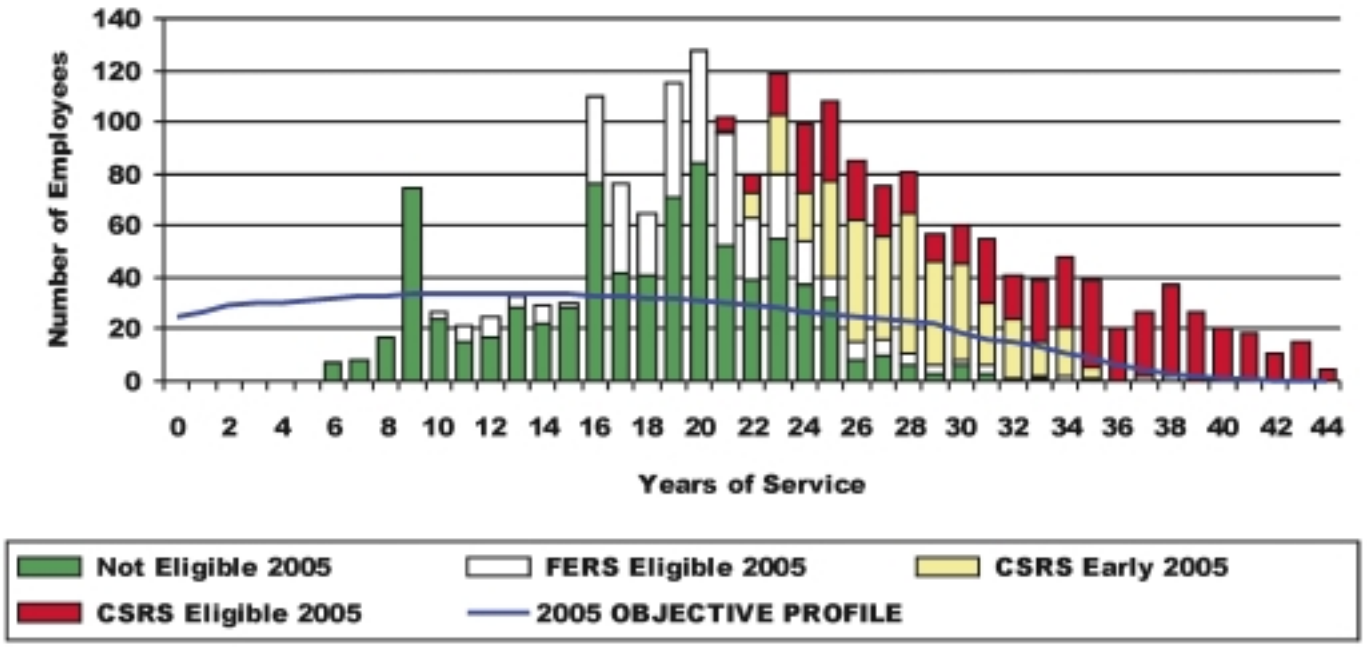

AFMC/SC target 2005 civilian work force years-of-service profile

Brooks worker 'nets' White House job

By Rudy Purificato
311th Human Systems Wing
Brooks AFB, Texas

Senior Airman Conrad Hernandez Jr., 311th Communications Squadron, began a new chapter in his career in August when he was reassigned to a four-year controlled tour in the White House Communications Agency.

The Brooks AFB network security defender said, "I didn't even volunteer for the job. It's definitely a step up. I'm both excited and scared – it will be a different environment for me," he said.

Traveling as part of a mobile communications team supporting the president, vice president, and secretary of state is definitely an opportunity of a lifetime. It's the type of assignment that his 311th CS supervisors had in mind when they pushed Airman Hernandez for the job. He received a promotion to senior airman below the zone.

"For the past three years, Brooks has been home to me," the airman said, admitting he's reluctant to leave.

At Brooks, he acquired training and experience in the network communications center and worked as an anti-hacker, setting up computer firewall blocks. When he asked during a White House communications interview why he was selected for the job, they told him he was chosen because of his Air Force record and commitment to a long-term career.

His new job will require a few adjustments. "They told me I'll be wearing a coat and tie (most of the time), and I'll be on the road for a third of the year," he said. Prior to reporting to his new assignment, Airman Hernandez's top priority was touring the White House.

TRANSFORM
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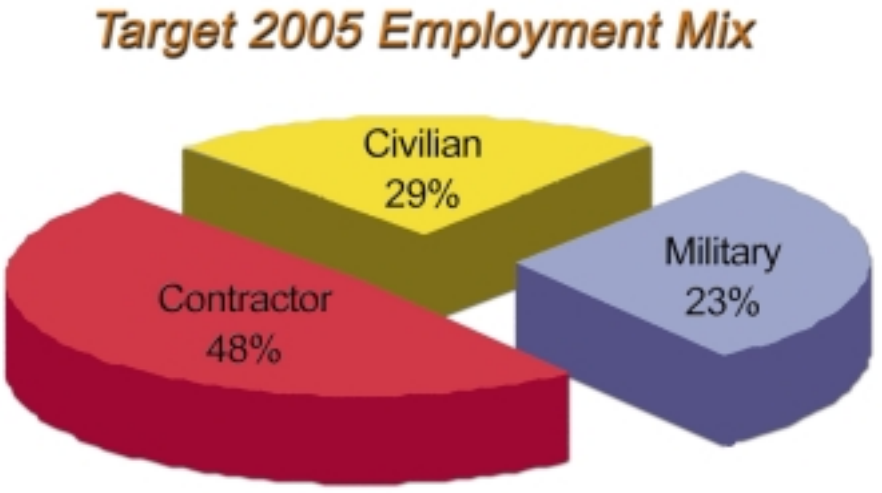

tion and training guide Web site at https://www.afmc-mil.wpafb.af.mil/HQ-AFMC/SC/it_training/, which provides a well-organized source of education and training guidance for all civilian and military IT professionals in the command. It provides tie-ins to the communications and information career program career paths for our IT and information management work force, and to the acquisition professional development program for our acquisition work force.

Another key tool in the work force management process is the individual development plan, which is the basic career development tool for civilian employees and military officers. We developed a comprehensive IDP guide for the communications and information community that was recently adapted by the education and training division for command-wide use. It provides a step-by-step process for personal assessment; identification of education, training and developmental assignments required to achieve career progression; and work sheets used by employees and supervisors to conduct skills assessments, define personal career paths, and build and revise the IDP.

We recognize capabilities of the communications and information work force are critical to Air Force success in the Information Age. We're taking challenges posed by the current work force crisis very seriously. We have a plan, and we're executing it.

A splicing we shall go

OPERATION ENDURING FREEDOM (AFPN) – An engineering and installation cable-splicing specialist from the 28th Air Expeditionary Wing attaches a connector to a fiber optics cable at a deployed location.

Photo by Staff Sgt. Shane Cuomo

WARRIORS

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flow and perform online transactions, such as parts ordering and tracking supply items with electronic scanning or bar-coding.

The 72nd CS commander, Lt. Col. Steven W. Hailes, focuses on the current environment with an eye on future requirements. "Our missions have evolved to the point that communications are integral to every operation. Any interruption of communications has a mission impact somewhere. From delivery of an air tasking order for the airborne warning and control system, an emergency action message for the Navy, timely deployment orders for 3rd Combat Communications Group, or production of aircraft or parts, our network infrastructure is the common thread and force multiplier."

Education and prevention are proven keys to a successful operation. Colonel Hailes' initiatives have included ongoing articles in the base paper covering a variety of topics, such as Information Assurance, personal digital assistants, user responsibilities and network monitoring.

"My personnel work diligently to keep our network and infrastructure secure and operational. The network has become a personal reflection of their abilities and pride," Colonel Hailes said.

Headquarters AFMC has recognized the innovative spirit and attitude of Team Tinker. Two base initiatives under consideration for command-wide implementation are network health, and workgroup manager and functional systems administrator help desk.

The network health initiative migrates existing network monitoring to a new, common, proactive, and easy-to-use approach. It automates command-wide reports to documents, and presents network capacity, performance, and reliability performance indicators.

WM/FSA help desk will integrate WM/FSA help tools with base network control center tools. This proposal increases standardization and efficiency and supports the help desk consolidation effort, while eliminating need for individual organizations to purchase help desk servers.

Tinker will continue to leverage existing and future technologies to increase readiness posture by becoming more efficient and effective. Its people are fighting a battle to improve IT services to their customers. With dedication and determination of communications personnel, this is indeed a base where warriors are supporting warriors.

GIGA-FLOPS

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warfighter. Its cornerstone, the Simulation and Analysis Facility, is a relatively new and rapidly growing resource. It leverages SIMAF capabilities to support aircraft yet to be built, including the Joint Strike Fighter. Engineers have successfully developed a synthetic environment loaded with variables an Air Force pilot would encounter in battle. Pilots fly virtual missions against existing and possible future adversaries to determine requirements for aircraft still in development. This capability saves years and dollars, and embodies the goal of simulation-based acquisition. However, the division is still in its infancy in this capability and is just beginning to realize what can be accomplished. The division's goal is to expand its ability to support many additional aircraft, including the F-22, F-15, F-16 and emerging unmanned aerial vehicle systems.

Rothery's vision is to leverage IT to improve warfighter support. While the directorate may seem far removed from operational missions, its impact is more significant than is readily apparent.

"We're challenged with finding new ways to provide better support to the Air Force in the future. We're at the brink of becoming a highly visible and mission essential asset to many of the vital programs at ASC, and will have a tremendous impact on the success of the Air Force for many years to come," Rothery said.

Balancing functionality and security

AFPCA provides perspective on PEDs

By Col. Howard A. Bower
Commander
Air Force Pentagon Communications Agency
Washington

You don't have to look very far in private industry, government or even here in the Air Force Pentagon Communications Agency to see that handheld portable electronic devices are quickly transforming the way we do business and interact with one another. Technology continues to push the envelope in ways not envisioned even three years ago. The functionality provided by laptops, personal digital assistants, cellular phones, pagers, and other PEDs, facilitates our ability to increase productivity, connectivity and mission effectiveness.

While we want to assimilate PEDs and other new technologies into the workplace, as a designated approval authority, I need to take a balanced approach regarding the associated security risks and vulnerabilities prior to approving their use. Security requirements and principles must be effectively integrated into the application of new technologies to mitigate any vulnerability they may impose on our existing information system infrastructure.

AFPCA is dedicated to providing "world class" information technology service and support to our customers. We protect and maintain the availability, integrity, confidentiality and accountability of our managed information system resources and information processed to ensure mission success.

To this end, any new PED technology must be evaluated from a security perspective to identify security vulnerabilities, to mitigate risks associated with these vulnerabilities, and to implement safeguards that will allow us to protect our vital information system resources and information. My DAA representative carefully reviews the systems security authorization agreement and supporting documentation, and I thoroughly assess his or her recommendations prior to approving any PED technology to process government information and connect to our information system infrastructure.

Success in protecting our information systems, networks and data depends upon each and every one of us. Please join me in practicing and promoting consistent application of security principles in the day-to-day use of our information systems.

Remember to only use approved information systems and technology – security is everyone's responsibility!

PEDs not just for 'whiz kids'

By Lt. Col. Chris A. Reasner
Director of Security
Air Force Pentagon
Communications Agency
Washington

Portable electronic devices are no longer seen as electronic toys for a minority of gadget-obsessed technology "whiz kids." PED technology – with extended memories, powerful processors, diary synchronization and wireless connections to Internet portal links for enterprise data – has caught the attention of our business, government and military communities.

The first generation of PEDs was more or less secure, due to their limited communications capabilities and storage capacity, which couldn't hold complex viruses or store large amounts of sensitive data. However, the newest PEDs offer greater functionality, connectivity options, and are capable of storing over 128 MB of data, which is sufficient to store personal or company addresses, e-mails, small

See **IA** Page 19

PDA use requires attention to IA

By Information Assurance Branch
Directorate of Security
Air Force Pentagon Communications Agency
Washington

Personal digital assistants have gained acceptance and are widely used throughout the Air Force, providing improved functionality to access and manage information, improve mission accomplishment, and increase personal productivity. The HQ Air Force office of the deputy chief of staff for communications and information issued Policy Memorandum 10-1-2001, outlining Air Force policy for use of wireless local area networks and personal digital assistants. This article outlines memorandum policy guidance for PDAs.

Palm pilot PDA

PDA application:

✍ PDAs are information systems subject to Air Force policy and guidance governing security and use of other information systems (for example, desktop and notebook computers)

✍ Individuals are authorized to use Blackberry-type applications as long as e-mail services remain in government hands, and you're not using a "store" and "forward" service.

✍ Most wireless PDAs use some form of commercial Internet service provider. Commercial ISP service is allowed as long as transmission, or encryption, security requirements are strictly followed.

Use PDAs to:

✍ Process unclassified information from desktop workstations. This includes typical features such as schedules, contact information, notes and e-mail.

✍ Take notes, save information, or write e-mails, when away from desktop workstations, whether down the hall or out of the country.

✍ Synchronize information with desktop workstations.

Don't use PDAs to:

✍ Process or maintain classified information.

✍ Dual auto synchronize PDAs on both your home computer and government computers, unless Air Force or DOD authorized licensed PDA anti-virus software is installed on the PDA.

✍ Synchronize information across a network using a wireless connection. The configuration required to permit this functionality introduces unacceptable risks into a network – opening firewall ports and sending passwords in the clear. Exceptions to this restriction are addressed on a case-by-case basis and require local DAA approval.

PDA operations:

✍ Disable auto sync on desktop application menus until needed.

✍ Install Air Force or DOD authorized or licensed PDA anti-virus software. After the PDA and computer have synced, turn off auto sync.

✍ Disable infrared port beaming capability. If the IR port can't be disabled, cover it with a visor, black electrical tape, or similar object or material.

✍ Disable radio frequency transmission capability, if it exists. A special consideration for security is important in a wireless network, since RF permeates the immediate transmission area. A direct physical link isn't necessary to receive radio frequencies, so protection against eavesdropping is imperative. This is especially critical for devices running Bluetooth, which operates at nearly the same frequency as 802.11 devices, and will interfere with direct sequence spread spectrum within 10 meters.

✍ Turn off PDAs when not in use.

✍ Restrict PDA cradle connectivity and hot sync to government official mailboxes on computers within secure network environments where classified work is conducted.

✍ Don't synchronize PDAs remotely by direct dial-in access to desktops.

✍ Ensure PDA connection through a remote access server account is protected by an authorized network control center firewall.

See **GLOBAL** next page

GLOBAL

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✍ To prevent proliferation of Trojan Horse programs and other computer viruses that PDAs may be susceptible to, install Air Force or DOD authorized licensed PDA anti-virus checking software.

PDA security:

✍ Theft or inadvertent loss increases risk of compromising classified or sensitive information.

✍ Password protect PDAs according to AFMAN 33-223, Identification and Authentication. If the PDA is unable to use a password, increase physical access controls to prevent unauthorized access. To ensure protection of sensitive data on PDAs, strong security must be implemented. Password protection alone is insufficient. The critical element for successful deployment of mobile devices throughout the corporate enterprise is an effective mobile data-management solution.

✍ Include PDAs in the Network System Security Authorization Agreement. Ensure vulnerabilities are included in the threat and vulnerability assessment. Reflect handling, controlling and use of PDAs in network security policy.

✍ Individuals who have a requirement to use a PDA on the Air Force network must first request a government-owned PDA. If a government owned PDA is unavailable, and mission requirements dictate use of a PDA, the DAA may approve personal PDA use. Personal PDAs will not be connected to the Air Force network without justification and DAA approval. Justification must include mission requirements, government availability, and rationale for how the duty position will be enhanced. Privately owned PDAs should use the same operating system procured and supported by the government. Include handling of privately owned PDAs and software in the SSAA. Individuals must sign a PDA use statement identified in AFI 33-202, Computer Security, and include a Telecommunications Monitoring and Assessment Program monitoring notice as part of the issuing documentation.

✍ Don't use PDAs in classified, or emission security, environments, because of infrared and similar recording capabilities. PDAs shouldn't remain connected to IR for extended periods, since an external source may gain access remotely. Techniques exist which give an adversary ability to capture information displayed on a PDA screen from greater distances than might be expected. Many users assume 802.11b signals travel a relatively short distance, about 100 feet. They actually travel much farther, but are too weak to be detected by the tiny antenna in laptop cards.

✍ Empty PDA cradles, when attached to a user PC, can be used to clone a PDA. Care should be taken to physically secure cradles when not in use.

✍ PDAs, including privately-owned, that become contaminated with classified information will be confiscated by the organization commander or designated representative, and possibly destroyed, since there is currently no way to sanitize PDAs.

Working together, we can maintain availability, integrity, confidentiality and accountability of our information system resources. Please contact your information system security officer or Information Assurance office if you have questions regarding use of PDAs.

IA

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databases and word processing documents.

It's commonly recognized that PEDs, with their connectivity and desktop-like functionality, are becoming increasingly vulnerable to hacker and malicious logic attacks. Organizations must carefully evaluate PEDs, identify associated security risks and vulnerabilities, implement safeguards to mitigate any risks, and establish security policies and procedures prior to the designated approving authority approving their use.

PED technology is moving at warp speed, providing civilian and military organizations with amazing capabilities for our very mobile work force. Securely integrating this new technology into our information system infrastructure is a daily challenge. We welcome this challenge, but strive to provide the strongest level of security available, and the means to ensure effective security management prior to introducing any new technology into our information system infrastructure.

In providing supported commanders and functional communities with technological tools to improve mission accomplishment, extend network connectivity, and increase personal productivity, we must remain dedicated to protecting and maintaining availability, integrity, confidentiality and accountability of our information system resources – mission success depends on it.

‘Computers in the future may … perhaps only weigh 1.5 tons’

By Dr. Timothy Mucklow
Architecture and Interoperability Directorate
Air Force Communications Agency
Scott AFB, Ill.

That was then.

In 1945, the University of Pennsylvania’s Electronic Numerator, Integrator, Analyzer, and Computer measured 30 feet by 50 feet, weighed 30 tons, drew 140,000 watts of electricity, and had no operating system. Four years later, Popular Mechanics magazine made the comment quoted in the headline of this article, that over-the-horizon visionaries could foresee a time when computers might weigh only 1.5 tons.

This is now.

The turn of the millennium brought a new generation of portable electronic devices and personal digital assistants many times more powerful than ENIAC and possessing greater functionality and features. Easily held in the hand, these systems can process e-mail, record notes, synchronize information with desktop computers, retrieve contact information and schedules, and perform many other tasks. Other miniaturized electronics, such as shirt-pocket external drives for laptops, can readily hold up to 20 GB of files for ready access.

Photo by Master Sgt. Ed Ferguson

1st Lt. Ben Cook, Air Force Communications Agency, uses his palm pilot PDA to check his e-mail.

In short, over the past half century there appears to have developed an inverse relationship between hardware size and system capability. Along with exponential expansion of memory, speed and network capabilities, has come a commensurate threat to security of systems and information they process, store and transmit. Securing the University of Pennsylvania’s ENIAC was a straightforward proposition of turning off the lights at the end of the day, closing the door, and spinning the combination dial a few revolutions for good measure. Loss of data was usually the result of someone dropping a tray of punch cards rather than theft, and likelihood of someone stealing hardware was remote – unless he had access to a derrick and a couple of tractor-trailers. Over the years, we’ve made a trade-off between the convenience of ubiquitous access to information and security. A decade ago, no one was going to walk away and forget a bolt-studded TEMPEST Z-150 on a conference table or in a restaurant. The same cannot be said of today’s PEDs and PDAs.

Depending on the weather, it’s often easier to misplace a PED than an umbrella. While losing an umbrella might result in some minor inconvenience and a little cost, leaving a PED unattended in a public place could have catastrophic consequences for the Air Force. The jury is still out on whether utility and convenience of these devices really outweigh their inherent security risks. Even so, we must make every effort to protect these systems and information. Fortunately, good sense and strict adherence to existing policies and procedures can mitigate security risks.

The responsibility is yours.

PEDs, like all Air Force systems, must be accredited by a designated approval authority and must be operated and protected in accordance with the system security authorization agreement. Given the size, portability and vulnerabilities of PEDs, the user’s personal integrity is more important than with desktop systems. Password management and implementation, encryption, and physical security are just a few facets of the matrix of controls necessary to protect sensitive information. Before operating a PED, ensure you understand all security requirements and know how to exercise necessary procedures to protect these information resources. Portable electronic devices are just that, and each of us bears a personal responsibility for their safe and secure operation. **The future is literally in your hands.**

Air Force gears up for new civilian personnel system

By Tech. Sgt.
Tim Dougherty
Air Force Print News
Washington

When the Air Force changes over to the modern Defense Civilian Personnel Data System this month, it won't be a leap into the unknown. A series of tests, mock database conversions and a lot of hard work has officials giving a "thumbs-up" to planned deployment of the new system.

"We've spent a great deal of time and resources testing this system," said Shirley Williams, a member of the senior executive service and director of the Air Force Palace Compass program management office at the Pentagon.

"We've conducted many tests, both in the laboratory and in the field – at McChord (Wash.), Charleston (S.C.), Holloman (N.M.), F.E. Warren (Wyo.), Dobbins (Ga.) and Hill (Utah) Air Force bases. We converted the Air Force-wide database twice in mock conversion scenarios and feel confident that with all the testing, planning and preparation we've done, the deployment will go well."

It's difficult, if not impossible, to plan for the unknown, Williams said.

"We know the unexpected will occur," she said. "So in anticipation, we have a structure in place, and staff at the Pentagon, Air Force Personnel Center and major commands trained and ready to tackle any unforeseen problems."

The move to the modern civilian personnel system is a Department of Defense-wide initiative and is necessary to reduce cost and eliminate redundancy. Many of the computers and other hardware the current, or legacy, system uses are also becoming obsolete.

"The legacy civilian personnel system was identified as too costly to maintain, too difficult to modify, redundant and rapidly becoming obsolete since it was a mainframe-based system," Williams said.

The modern system will eventually compensate for projected losses planned in the personnel work force because of DOD-mandated personnel regionalization, she said.

The new system should be online the beginning of March, officials said. Major benefits for Air Force civilian employees will result from two Air Force-unique applications: the Civilian Announcement Notification System and the Employee Benefits Information System. These applications were developed to complement the modern civilian personnel system.

Employees will be able to register job and geographic preferences in the announcement notification system. Employees are then notified by e-mail when an employment vacancy matches their preferences.

The benefits system allows employees to review and update benefits on the Internet or by phone.

Officials expect the modern civilian personnel system to give employees quicker answers to inquiries, direct access to personal information, and the ability to update personal data.

Air Force training began early last year and is ongoing to ensure readiness for the February deployment of the system.

For more information, check out the Air Force Personnel Center Web site at www.afpc.randolph.af.mil/dpc.

552nd CSS releases cutting-edge scheduling software

By 1st Lt. Meredith Henry
552nd Computer Systems Squadron
Tinker AFB, Okla.

The 552nd Computer Systems Squadron recently released robust scheduling software to automate airborne warning and control system crew builds for the 552nd Air Control Wing.

The new program, AWACS Management System, is an integrated database that incorporates mission scheduling, crew scheduling, training, mobility, aircrew status and flying currency management into one Web-hosted application. AMS replaces five distributed legacy systems the 552nd Operations Group previously used to perform scheduling tasks. It greatly eases the schedulers' burden of accessing several systems in order to schedule one event. "In addition to crew builds, this integrated Web-based application has relevance in any unit for tracking personnel readiness," said Col. Rory A. Quesinberry, commander, 552nd Computer Systems Group. AMS makes all information available with a mouse click.

This 15-month effort is a result of extensive collaboration between the 552nd CSG and the 552nd OG. Working together, they examined commercial software and investigated feasibility of producing the application in-house. Both parties agreed building the system in-house was the only way to ensure the program would completely satisfy operational needs. The 552nd CSS quickly fielded a team of eight software engineers to develop AMS through its entire software life cycle. By producing AMS in-house, the wing avoided approximately $3 million in contracting expenses. In addition, AMS reduced manpower necessary to complete scheduling and readiness management tasks, presenting a phenomenal opportunity to return aircrew members to their primary duties. The new system will support close to 2,000 air control wing users.

Functionality

Mission scheduling

This system's principal function is scheduling missions and aircrews. A powerful feature of AMS is its ability to graphically depict the availability and readiness of aircrew members. It enables squadron and flight-level schedulers to coordinate mission aircrews in an informed manner. Schedulers and managers can view the available members from the squadron in each crew position (Figure 1). This view shows each weapon director's individual status for various items that make him or her eligible for the mission. A green light indicates the person does not have any conflicts, while a red light indicates there is a problem with that particular item. The scheduler uses these lights to determine which members are best suited for a mission. Schedulers can staff and de-conflict a mission in a fraction of the time it took previously.

Training

Each 552nd ACW flying squadron has an office that tracks training requirements for their personnel. These offices schedule squadron personnel for the appropriate training classes.

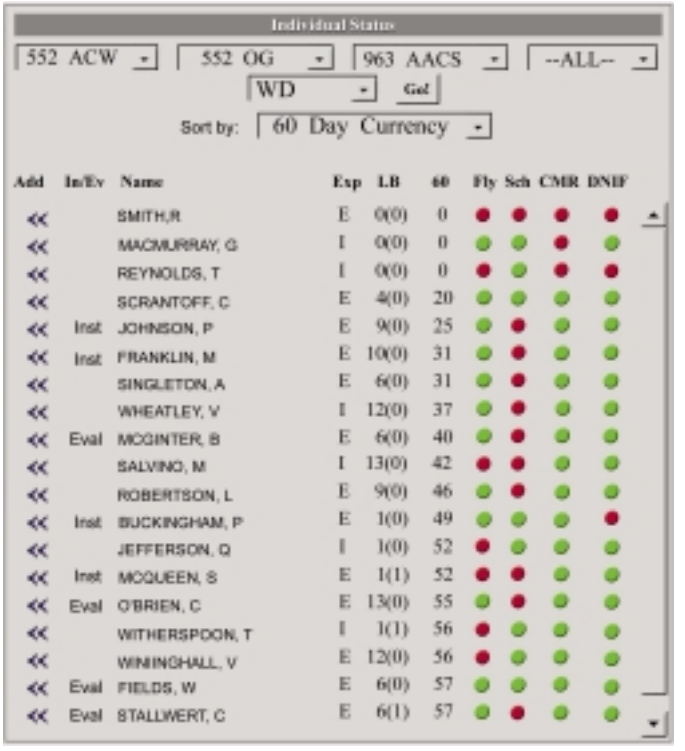

Figure 1

Tracking and scheduling training for more than 500 people in each squadron is an arduous task. It involves checking multiple, diverse sources for student currency and availability for a particular class. AMS has significantly simplified this process, placing all of this information in one location. The scheduler now looks at one screen to determine when an individual is due for training and whether his or her schedule permits training on a particular day.

Mobility

AMS' mobility component allows the user to determine whether an individual is qualified to deploy. Information generated in this section is also used in the mission scheduling and training sections. The system presents complete mobility information in an easy to read format. Aircrew members can also access their own mobility and training information in read-only mode. As shown in Figure 2, training items are color-coded based on due date.

The Development Strategy

AMS was developed by a team of eight programmers using Active Server Pages and SQL Server, and is hosted on Windows NT. The team was responsible for all phases and activities involved in development, including requirements gathering and analysis, use-case decomposition, prototyping, Web design, database design, coding, documentation, testing, server configuration, and customer training. They developed AMS using a spiral-type development methodology driven by risk, similar to the Unified Software Development Process developed by Jacobson, Booch and Rumbaugh. Key focus areas during development were risk management, prototyping, and extensive interviews with dozens of members of the 552nd Operations Group. AMS's modular and customizable code satisfies the wide variety of training and scheduling requirements of a flying wing. AMS's Web-based architecture allows access from any ".mil" network, allowing personnel to check their schedules and training information from deployed locations.

The Future of AMS

The AMS development team is excited about the future of this state-of-the-art system. It hopes to incorporate features such as coordination of AWACS aircraft with tankers and fighters, and wing-level sortie scheduling in future releases.

AMS also has the potential to become an Air Force standard scheduling tool for heavy, multi-person aircraft. Colonel Quesinberry said, "This is a great product that involves partnering with operations, improving the wing's rapid deployment efficiency, and innovation. ACC has requested we place AMS on the Air Force Portal so the entire Air Force can use its capabilities."

Green = 60 to 90 Days | Yellow = 30 to 60 Days | Red = 0 to 30 Days | Black = Overdue!

EVENT	DESCRIPTION	QUALIFICATION	LAST	DUE	Days Remaining	Next Scheduled	REQ	ACC	Vol Remaining	%
AA01	FLIGHT EVAL	NO FLY	11 May 2001	31 Dec 2001	233					
AC03	MSN QUAL EVAL	UNQUALIFIED	24 Jul 2000	31 Dec 2001	233					
AT00	OSI BRIEF	NO DEPLOY	11 Oct 2000	31 Oct 2003	902			2		
AT05	BUDDYCARE TRNG	NO DEPLOY	11 Jun 1999	30 Jun 2001	49					
AT90	ANTI-TERRORISM	NO DEPLOY	13 Jul 2000	31 Jul 2001	80					
AT99	ANCILLIARY TRNG	NO DEPLOY	24 Aug 2000	31 Aug 2001	111					
BF99	BLUE FLAG									
CR03	INIT CRM MSN	NO FLY	28 Jul 1999							
CR04	CRM REFRESH MSN		28 Jul 1999	31 Jul 2001	80					
CS02	INITIAL COMSEC		30 Jun 1999							
CS03	COMSEC READING		05 Mar 2001	30 Sep 2001	141			2		
CS04	COMSEC REFRESHE		05 Mar 2001	31 Mar 2002	323			1		
CW10	INIT CW GND		31 Aug 1998							
CW40	CONT CW GND	NO DEPLOY	24 May 2000	31 May 2001	19					

Figure 2

552nd CSS lieutenant to appear on 'Wheel of Fortune' in March

Story and photo by Cheryl Stefenel
552nd Computer Systems Squadron
Tinker AFB, Okla.

"Big money! Big money!" That's the cry and wish of contestants on the TV game show "Wheel of Fortune" – including 2nd Lt. Raymond Chester, AWACS project manager, 552nd Computer Systems Squadron, whose taped appearance on the show is scheduled to air next month.

Originally, Lieutenant Chester went along to a local mall with his wife, Michelle, who wanted to be on the show, to lend support for her entering a drawing to be auditioned. They decided since he was already there, he might as well enter his name too. Then as luck would have it, her name wasn't drawn, but his was.

"My wife was real excited for me, but didn't let me hear the end of it – the fact that I got picked and she didn't," he said.

He was called to audition at a local hotel, playing several rounds of the game, just like the real thing, but without the money, the lieutenant lamented. "We also had to take a 'Wheel of Fortune' test," he said. "The test wasn't too bad — it consisted of 12 puzzles with a few letters given, and you had to solve them." Potential participants were given five minutes for the test. Lieutenant Chester said he got about half the puzzles done.

"I think my big mouth helped me out a lot, since they were looking for people whose voice could project," he said.

The lieutenant flew to California to tape the show, with his family in the audience to cheer him on, the week after Thanksgiving. "I met Pat and Vanna, the host and hostess of the show. Vanna was really friendly. She came to the waiting area and spoke to all the contestants for a couple of minutes in her old pink sweats, with no make-up and straight hair."

2nd Lt. Raymond Chester, 552nd Computer Systems Squadron, Tinker AFB, will appear on 'Wheel of Fortune' around March 6.

When the time came to go on, he said he was so nervous he didn't remember most of the taping. He did remember some of the puzzles. He remarked he'd never forget the number of islands in Hawaii, because that question bankrupted him. Also, knowing that his wife and daughters – Daphne, 11, and Paige, 8 – were in the audience, and probably had all the puzzles solved by the first couple of letters, added to his nervousness, he said.

One thing that surprised him was how small the stage and wheel were. But, he said, the stagehands and people who looked after the contestants were very friendly. "They took good care of us. Fortunately, I did walk away with a nice sum of money," the lieutenant said.

To see how the lieutenant fared, watch the show, scheduled to air around March 6.

Getting a handle on e-mail

By Joseph J. Hinds
Office of the Chief Counsel
Air Force Communications Agency
Scott AFB, Ill.
and
Cheryle D. Gumaer
Enterprise Information Resources Management Division
DCS/Communications and Information
Pentagon

You've got e-mail coming out of your ears. Half your work day is spent trying to get your arms around a time-consuming monster that's growing faster than a T-Rex. And if you aren't careful, it may also bite like a T-Rex.

E-mail has replaced the telephone as the communications tool of choice. As a result, you probably devote half your time to sending or receiving it. You may handle several hundred messages each day and find yourself tending your e-mail patch like a gardener weeding out unwanted growth. And if you don't eliminate weeds daily, your e-mail account can become overgrown and unmanageable.

So how do you handle all of this e-mail? Even if you wanted to, it's probably inadvisable to just delete it. But if you don't delete it, an e-mail mountain may build until you're told messages in your inbox with attachments are slowing down the system, or your inbox is out of space.

Here are some tips to help you manage:

*** Edit your e-mail before sending it.** Many messages include an e-mail trail, or string of messages attached to the most recent one. Where practicable, try to cut this string, leaving only essential messages or parts of messages, or paraphrase earlier comments. In these instances, you must apprise the receiver of the source of the comments, and keep a copy of the string for future reference. Also review the list of addressees before hitting the "Reply to All" button.

*** Don't overlook advantages of the telephone.** Telephone calls are efficient and personal – and may require no record keeping beyond a memorandum for record where necessary to document pertinent details.

*** Eliminate e-mail messages that aren't official records, but for information only.** Talk to your supervisor or office records custodian to help determine whether an e-mail is a record. If it is, it should be stored in the official record keeping system. If a storage capability isn't available that supports filing electronic records, you must print and file them.

E-mail records must be stored, maintained and disposed of in accordance with Air Force guidance, including AFI 33-119, and AFMANs 37-123 and 37-139. Many offices continue to collect and store records, including e-mail messages, in the paper-based record-keeping system – that's the safest way. But e-mail and other desktop-generated electronic records can be stored in a folder established as part of an electronic file plan that duplicates the paper-based file plan. By establishing folders in this manner, they can be managed much the same as the paper-based folders.

The Air Force, through Air Force Communications Agency, is working on a pilot project for an Electronic Records Management System, demonstrating electronic records storage and information sharing from multiple locations. Check out the AFCA Electronic Information Management home page at www.afca.scott.af.mil/eim/ and click on the quick link iRIMS for progress on the pilot project. Until further guidance is provided on Air Force-wide deployment of ERMS, your best approach is to develop a record keeping process in accordance with guidance from your local records manager.

Destroying records without authority is punishable under the Uniform Code of Military Justice and civil penalty. So get help from your records management experts. When in doubt, don't delete.

If you have questions about Air Force records management, please contact your base or major command records manager, or Cheryle Gumaer, at (703) 588-6186 or DSN 425-6186.

Price named new DOD deputy for Spectrum, C3 Policy

PENTAGON, Washington – Secretary of Defense Donald H. Rumsfeld has announced creation of an office to establish policy in the area of command, control and communications and provide direction for DOD frequency spectrum issues. Steven Price was named deputy assistant secretary of defense for Spectrum and C3 Policy, reporting to Assistant Secretary of Defense John P. Stenbit.

This is the first time spectrum issues have been raised to the DASD level. As DOD's use of the electromagnetic spectrum for communications grows, it increasingly runs into potential competition, interference and coordination requirements for international and commercial frequencies. The department's longstanding bands of spectrum are critical to meeting the needs of the warfighter, yet also are considered prime by investors in third generation and ultra-wideband device markets.

Over the past decade, the government has ceded 247 MHz of bandwidth to industry – more than half in the desirable 3 GHz band. Maintenance of sufficient spectrum and bandwidth is essential to network centric warfare and Information Superiority, two key transformational tenets of joint operations like Enduring Freedom.

Price says his vision is to "help DOD build a global secure wideband network, with wireless access, for warriors in the field so that bandwidth does not limit or impede U.S. military capability. Transforming towards a network centric military that decentralizes decision-making by allowing access to information anytime, anywhere, and without concerns of bandwidth or interoperability, will help create the flexible, reliable and effective joint command and control systems that will be needed in the future."

Price came to DOD from LiveWire, a provider of software and outsourcing services, where he was president and chief executive officer. He is a lawyer by profession, with degrees from Brown University, where he graduated magna cum laude, Phi Beta Kappa, and Columbia University School of Law. His previous experience in government was as a special assistant to the U.S. ambassador to the Strategic Arms Reduction Treaty talks, under former President George H.W. Bush.

viewpoint

All the Air Force does is fly!

By 2nd Lt. Jim Coughlin
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When I was growing up, all I ever wanted to be was a pilot. I couldn't keep my head out of the sky. I worked hard to make my dream a reality. I figured if I wanted to fly, I needed to be in the United States Air Force. That branch of service deals with the air and this is it, right? This was my belief.

So, I began by joining Air Force Junior Reserve Officer Training Corps in high school. I received an AFROTC scholarship out of high school and went to college to become an Air Force pilot. I didn't go to become an officer. I just wanted to fly.

When I got to college in 1995, and they told me that it would be very hard to get a pilot slot, I told myself I wasn't going to let that stop me. But my grades disagreed with me and I knew my chosen degree of civil engineering wasn't going to give me the grades to help earn my wings. I changed my major to computer science, and later to management information systems. I figured it didn't matter what degree I received, I was going to be a pilot.

From that point, I went through college with good grades and eventually earned a pilot slot. I was going to fly, which is all the Air Force does, right?

I went to pilot training and my wife went into communications and information, or comm. I

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heard her talk about what she did at work and wasn't all that impressed, because I was flying and that's all the Air Force does. What did we need comm for? However, in spite of all my earlier aspirations, I soon came to the conclusion being a pilot wasn't for me, and I dropped out of pilot training. I had a year of service, was in the military branch that only flew, and wasn't going to be a pilot. So now what was I going to do? There couldn't be a career field as important as flying, right?

I thought about intelligence, to remain on the operations side of the house, and space and missiles, along with a couple of other career fields, before eventually deciding to be a public affairs officer. I'm a "people person" and I figured since I wasn't going to be flying, that's where I could best serve the Air Force.

However, when the Air Force Personnel Center took one look at my degree, they decided to make me a communications and information officer. I was less than impressed. My wife was a comm officer. I didn't want to be one too.

Since I tend to approach things with a positive attitude, I figured I'd see what happened. After being stationed away from my wife for the first year of our marriage, I thought it would be nice to be with her.

I was sent to Barksdale AFB, La., where my dad retired from the Air Force in 1993 as a master sergeant, and where I had lived since 1986. My wife was already there in the 2nd Communications Squadron, and I was going to be part of Headquarters 8th Air Force, the "Mighty Eighth."

Shortly after arriving, I was sent to basic communications officer training at Keesler AFB, Miss., where I first realized the Air Force does more than fly. At BCOT, I learned there are other important Air Force career fields. During one of our BCOT briefings, I was trying to convey to classmates the importance of comm in the military and I came up with the following analogy.

Imagine you just called and ordered a pizza for delivery. You wait awhile and it eventually arrives at your house. It smells good. You put it down on the table and open the box. Then it hits you that something's missing. Inside the box you have the sauce, cheese, pepperoni, ham, olives, sausage, green peppers and onions, but you're missing the most important part – the part that holds everything together. There's no dough. How are you going to eat your pizza? What should have been a tightly joined unit is all slopped into the box in chaos. You always took the dough for granted, but now that it's not there, you don't know what to do. Your pizza will never be the same.

Keeping this scenario in mind, imagine you're the joint forces air component commander, and you order a military package (pizza). When the package arrives, it's laid out before you. You have fighters, bombers, tankers, security forces, transportation, logistics, intelligence, and everything else you need (all the ingredients), except for one thing. Before you is chaos, because you don't have the basic ingredient that holds everything else together: Your communications (dough) is missing!

You forgot to request comm to be there. Now your planes can't land (no landing equipment), your security forces can't communicate (no radios), your transportation and logisticians can't communicate (no computers), and your intelligence assets can't get their gun camera footage (no base visual information or combat camera). Moreover you don't have satellite access, and you forgot to talk to your frequency manager to get frequencies approved. You panic. You don't have ears, eyes or a mouth. You can't fight and you will fail.

Then you're relieved to know this was only a bad dream. You realize that your "dough" will always be there. It was there before you arrived, and will still be there after you leave. Suddenly the world is a better place. Your package is complete. You have the resources necessary to fight. Comm is there and they will save the day. You're glad you didn't take them for granted.

We all know an Air Force operation without communications wouldn't happen in real life. No commander would ever want a "pizza" without the most important ingredient: communications. We should all be proud to be in the career field that truly is the "dough" for the military.

Next time you order a pizza, hopefully you'll have new appreciation of the importance of your role as a communications and information professional. A pizza without dough, like an Air Force operation without communications, is utter chaos. As I learned, there's a whole lot more to the Air Force than flying!