

intercom

Journal of the Air Force C4 community ☆ March 2004



- ▶▶ Wireless comm provides challenges, solutions
- ▶▶ Hi Tech Pre-flight for KC-10 Extender crews
- ▶▶ Today's Special: Free Internet

intercom



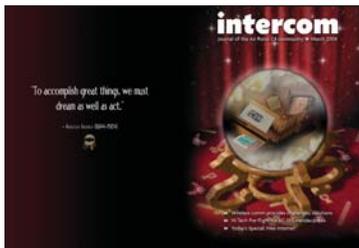
6 **Wireless communication**
1st Lt. Rachel Laughlin



12 **Camera phones pose security threat**
Master Sgt. Darrell Lewis



18 **Civilian volunteers for duty in Iraq**
Mr. Gerald Sonnenberg



This month's cover, themed "Wireless Comm" is designed by Tech. Sgt. Jim Verchio, Intercom Editor.

4 **From the Top:** How the Air Force is dealing with the personal wireless comm revolution

Col. Dave Kovach

6 **Wireless comm provides challenges, solutions for Air Force people**

1st Lt. Rachel Laughlin

8 **Hi Tech Pre-flight**

1st Lt. Dwain Stevens

10 **Today's Special: Free Internet**

1st Lt. Shilette Addison

11 **Aerial ports streamline cargo processing with wireless technology**

Mr. Martin McGibney

12 **Camera phones pose security threat**

Master Sgt. Darrell Lewis

18 **Civilian volunteers for duty in Iraq**

Mr. Gerald Sonnenberg

19 **Global Broadcast Service**

Mr. Gerald Sonnenberg

20 **Point of View:** Veteran's wish shows love of Air Force

Maj. John Thomas

23 **Then and Now:** Maj. Gen. Rupert H. Burris

Mr. Don Gasper

24 **Time Machine:** Just a few technology milestones

Master Sgt. Karen Pettitt

26 **Civilian Focus:** New system uses merit principles for hiring, firing

AFCA Civilian Career Force Management Branch

27 **News Briefs:** New developments: Virtual technology; Patriot Express; and Weather Centric Ops **KUDOS:** Standardized WGM Course; AF-CIO wins award; and Network usage policies

30 **Techno Gizmo:** Multi-functional copiers



24 **Just a few technology milestones**
Master Sgt. Karen Pettitt

THE JOURNAL OF THE AIR FORCE C4 COMMUNITY

Gen. John P. Jumper
Air Force Chief of Staff

Lt. Gen. Tom Hobbins
Deputy Chief of Staff for Warfighting Integration

Lt. Gen. Ronald E. Keys
Deputy Chief of Staff for Air and Space Operations

Ms. Susan A. O'Neal
Acting Deputy Chief of Staff for Installations and Logistics

Maj. Gen. Charles E. Croom Jr.
Director of C4ISR Infrastructure DCS for Warfighting Integration

Brig. Gen. (sel) Ronnie Hawkins
Director of Communications Operations

EDITORIAL STAFF

Col. David J. Kovach
Commander, Air Force Communications Agency

Lori Manske
AFCA Chief of Public Affairs

Master Sgt. Karen Pettitt
Managing Editor

Tech. Sgt. Jim Verchio
Editor

This funded Air Force magazine, published by Helmer Printing, N. 6402 790th St., Beldenville, Wisc. 54003, is an authorized publication for members of the U.S. military services. Contents of the intercom are not necessarily the official views of, or endorsed by, the U.S. Government, the Department of Defense, or the Department of the Air Force.

Editorial content is edited, prepared and provided by the public affairs office of the Air Force Communications Agency.

Submitting to the intercom

Stories should be in Microsoft Word format and should be no longer than 600 words. Photographs should be at least 5x7 in size and 300 dpi. Submit stories via e-mail to intercom@scott.af.mil.

Subscription requests

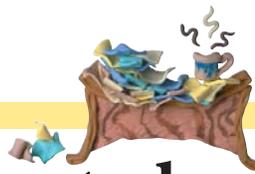
E-mail all mailing requests or address changes to intercom@scott.af.mil.

Comments to the staff

Comments, and letters to the editor, may be e-mailed or sent via the postal service to AFCA/PA, intercom, 203 W. Losey St., Room 1200, Scott AFB, IL 62225-5222.



<http://usaf.smartforce.com>



Technology at work, at play

By Tech. Sgt. Jim Verchio
Intercom Editor

Wow! Technology is everywhere. It's amazing to think the cellular telephone came into its own just a little more than 20 years ago. When it was introduced, people needed a heavy duty appliance dolly just to get it into the car. Now, it can just about fit into any wallet. It's a telephone, a camera and we're using it as an electronic ballot box to vote for our favorite "American Idol."

In Europe, cellular technology is reaching new heights. They can purchase a soda out of a vending machine via their favorite cellular gadget. Where will technology bring us?

In 1973 the VHS tape was the industry standard for home entertainment. In a relatively short time, a mere 22 years, the DVD not only revolutionized home entertainment, it also changed the way we travel. The family minivan is now a rolling theater, and our favorite CDs now contain videos and bonus footage of our favorite artists. DVDs hold more than 17 gigabytes of information when only 10 years ago the biggest desktop computer hard drive peaked at a mere 400 megabytes. I remember when I installed 16 megabytes of RAM into my computer. I was in heaven. Could life have been any better? The answer is yes. My home system is now running 1 gigabyte of RAM. Now the question is, will it ever be enough?

Technology dictates the way America wages battle. Global Information Grid, Time Sensitive Targeting, Expanded Bandwidth and shortening the time in the kill chain are the buzz words being spoken at the Pentagon and around the world where America's military is leveraging technology in the War on Terror.

When I read the *intercom* submissions, I am continually amazed at how comm and info warriors are turning bare-base locations into modern (at least technologically speaking) networking meccas. Because of your dedication, commanders can make split second decisions perhaps saving lives in the process. Unmanned Aerial Vehicles can stream video back to the United States without having to put a pilot in harm's way.

Our technology must be fine tuned, embraced and controlled for America's warfighters to remain on top, and comm and info warriors are at the tip of the sword when it comes to technological innovation. You are the mighty steed the warfighter depends on to get to the fight. Your swiftness, strength and endurance is getting the job done, and it's getting done faster and better than ever before thanks to the comm warriors who continually prove why No One Comes Close.



Intercom themes for the remainder of the year

June: A Day in the Life

July: Lead Commands

August: Training

September: EAF Update

October: Information Assurance

November: Transformation Update

December: Airborne Communications

Send e-mail to:
intercom@scott.af.mil

Deadline for submission

Submission deadline is 45 days prior to the month of publication.

JAG
in a Box

Fritz Mihelcic
AFCA Deputy
Chief Counsel



Second numbers

I've been issued a government wireless phone with dual number capability. Can I activate a personal second number on it?



Maybe, but there are some hoops you have to go through first. AFI 33-106, Managing Personal Wireless Communications

A Systems, has the basic guidance you'll need. First, your unit commander should decide if this will be allowed.

If you get the green light, the communications manager will brief you regarding your personal liability for all costs associated with the activation and use of the second line. Then you'll have to sign an agreement that contains personal liability and hold harmless provisions in it. Essentially you're agreeing to pay the personal bills and reimburse the government if it gets billed for your personal use. After you've signed the paperwork, you can get your personal line activated, with all the personal bills going to you and not your workplace. When it's time to turn in your government phone, you must ensure your personal account is closed and final charges for it have been paid. You'll need to be able to verify this payment prior to surrendering the phone. Remember, this is a privilege, not a right. Get permission before you enjoy your streamlined wireless future!

Send in your question to:

AFCA-JA@scott.af.mil
or call DSN: 779-6060

How the Air Force is dealing with the personal wireless comm

REVOLU

By Col. Dave Kovach

AFCA commander

Communication devices have revolutionized the way people interact. The inventions of the telephone, television, and the Internet have fundamentally changed our lives by providing information, increasingly on demand and “on the fly.”

From
the Top

Advances in Personal Wireless Communication technology have added unprecedented mobility and portability, allowing users to access information wherever they are.

The military is increasing its reliance on PWC devices and services to leverage these characteristics, as well. **PWC technology is enabling our nation's military, resulting in a lighter more mobile force while promising vast new capabilities for the future.** AFCA, through its Lead Command Management role, supports PWC technology by ensuring the Air Force develops and acquires secure, integrated capabilities.

PWC encompasses a wide and rapidly-growing variety of portable communications capabilities. The Air Force and the Department of Defense use a variety of PWC devices including Land Mobile Radios, cell phones, pagers, mobile satellite services, and wireless e-mail systems.

LAND MOBILE RADIOS

Land Mobile Radios make up the earliest PWC family. These devices evolved from the much larger two-way radios that our military deployed in the 1930s. Field officers used these single channel radios for communicating with headquarters. **Development of solid-state devices, and smaller, more capable batteries made it possible to reduce the size of two-way radios down to the “brick” profile that commanders carried around as recently as 15-20 years ago.** Today, LMRs come in a variety of sizes and shapes and with a multitude of features to suit operational needs. Battlefield commanders, mobile fire, police, and other first response emergency teams use LMRs for voice communications.

The increased use of wireless devices coupled

with finite frequency spectrum resources led the National Telecommunications and Information Administration to issue a narrowband-mandate for LMRs. This mandate requires the Air Force to replace all of its in-garrison (non-tactical) LMRs used in the United States and its Possessions. This phased transition must meet two separate dates targeted in the mandate—Jan. 1, 2005 and Jan. 1, 2008 deadlines. To successfully meet these deadlines, AFCA partnered with the MAJCOMs to develop the Air Force Narrowband Migration Plan.

In conjunction with this plan, we successfully programmed for centralized funding to satisfy most mission-critical system migration requirements. Individual commands are still responsible for directing the migration of LMR assets and funding their non-mission critical requirements.

GLOBAL VOICE & DATA CONNECTIONS

In addition to base or small-area coverage, the Air Force requires connectivity for deploying and en route forces to reach back to home station. To meet these requirements, commercial Mobile Satellite Services, such as Iridium and INMARSAT, provide global voice and data access connectivity to the public telephone system.

Through the use of military gateways and security enhancements, DoD subscribers are able to use these systems to support conventional military operations, special operations, and military operations other than war. Troops relied upon MSS extensively in Operation Enduring Freedom and Operation Iraqi Freedom for en route communications, senior leader support, search and rescue, initial base opening operations, and other critically important mission areas.

AFCA, as the Lead Command for commercial MSS, helps facilitate service requirements and guides future integration into the Air Force mission/capability portfolio. In this role, AFCA provides Air Force headquarters and major commands a single advocate for their requirements. We work with MSS vendors and monitor technological advances to



TION

identify systems to meet user-identified needs. AFCA provides this knowledge in the form of recommendations to MSS managers and users to assist in compatibility, interoperability, and operational testing, and evaluation of MSS products and services.

CELLULAR & WIRELESS DEVICES

While MSS products are growing in proliferation due in large part to global contingency operations over the past few years, PWC devices using commercial cell-based wireless infrastructure have become most common. **Cell phones, pagers, and wireless Internet devices have become essential to supporting time-critical communications, and in many applications, for accessing command and control and intelligence, surveillance and reconnaissance information.**

The proliferation and functionality of these devices have created an industry that produces innovations seemingly daily. Only about a decade old, cellular companies have expanded coverage nationally and have moved from voice-only to voice and data services; moreover, in the past few years the use and availability of Global Services-Mobile cellular technology has created global wireless telephone connectivity.

To meet demand for higher bandwidth capabilities such as e-mail and messaging, providers continue to rapidly upgrade their systems. Marrying increases in bandwidth and services, handheld devices will eventually, and perhaps soon, rival today's PCs in processing power and data storage.

ENSURING SECURITY

Experts are predicting future cell-based PWC to converge to a single device. Essentially, this device will be a handheld computer with integrated voice and data communications capabilities. While PWC technologies can enhance Air Force mission effectiveness, we must remain vigilant to the inherent security vulnerabilities these devices pose to the Global Information Grid. **As communicators, our responsibility is to**

ensure employment of PWC technologies is done in a manner that ensures maximum interoperability among subscribers, integration across capabilities and platforms, but most importantly, providing security compliance with DoD standards. We must make users aware of both existing security technologies and policies that govern the use of these devices.

For instance, the Air Force, and specifically AFCA, is working daily with vendors to create security add-ons for existing products and ensure security is built into new products. NSA has approved Type 1 encryption available for some LMRs, commercial MSS, and cellular phones.

In addition, AFCA and other agencies are working to develop security policies and procedures that keep pace with emerging PWC technologies. However, the continuing challenge for each of us is the balance between security and operational needs.

The future possibilities of wireless communications have led to a proliferation of interconnected "smart devices." The rapid evolution of PWC devices will continue to provide the Air Force unprecedented opportunities to achieve our decision superiority and information dominance goals.

As communicators, we need to understand the concepts and applications of the wireless revolution. This understanding will provide our warfighters the best tools to accomplish their missions, while also making certain these technologies integrate into our Global Information Grid and security architectures. "Finders, Deciders, Shooters." That's our vision—let's make it happen now, but also happen right.

Editor's note: Pervasive computing is done with portable devices that have wired network, wireless network, and cellular connectivity to networks so that you are always connected no matter where you go. Information on demand is available if you are at your desk via wired media. The key to PWC is that the information follows you wherever you go.



Wireless Communications

Providing challenges, solutions for Air Force people

LMR USE: A primary communication tool, but they present challenges to the user.

CELLULAR PHONES: Keep people in touch with their units and can offer e-mail and picture-taking capability.

LAPTOPS: Their portability makes them an asset during TDYs. They can be used to file trip reports or watch a DVD during time off.

IRIDIUM PHONES: A futuristic alternative to cellular service, they offer coverage in regions where cell phone can't get a signal.

By 1st Lt. Rachel Laughlin
3rd Combat Communications
Support Squadron

TINKER AIR FORCE BASE, Okla. — Wireless technology developments in recent years have greatly increased the amount of information available and the rate of receiving this information. Airmen have benefited from these improvements in-garrison, deployed and off-duty. While there are many good things that come from wireless technology usage, the equipment has its limitations.

Land Mobile Radios are still the work-horse of wireless communications. They have been around since the 1960s and can be seen being used by just about every career field and every rank. LMRs are typically maintained by contractors, and repairs, replacement parts and upgrades can be expensive.

Also, acquiring frequency clearances can be difficult in foreign countries. LMRs work best in short range; however, areas with thick vegetation and hilly terrain can degrade reception. Because they can be encrypted, LMRs are typically used in the field as a command and control asset and are not usually found in the office environment.

Recent developments in technology have provided comm solutions where LMRs are not a solution. These newer

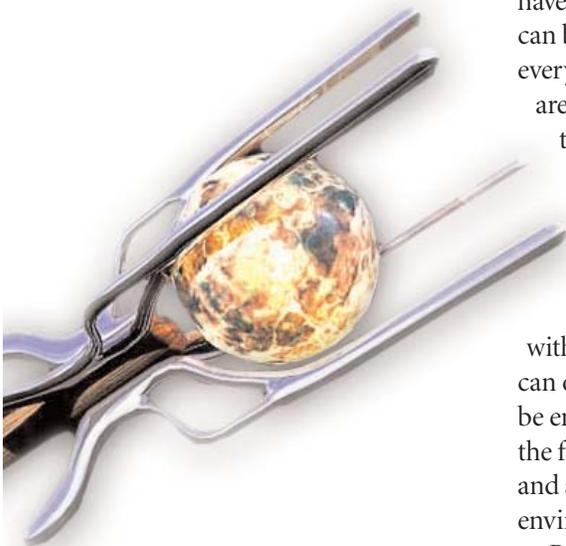
technologies can also make the in-garrison and off-duty life of an airman much more convenient.

Cellular telephones make personnel easily accessible 24 hours a day. Commanders, first sergeants and those on mobility status rely on their cells, either personal phones or those issued to them, to keep up to date with situations in their work centers. Added features on phones, such as e-mail and picture taking capability, can work in a pinch when a computer or camera is not available. Two-way pagers on cell phones can replace LMRs in certain circumstances.

This 24-hour availability is beneficial, but can have its side effects. No one wants to be the person who has his or her phone ring in a meeting when they forgot to turn it off, or receive a call about work during the weekend while enjoying time with family. Cell phones can also help make meeting friends off-duty easier, provide a tow truck when a car breaks down or contact a designated driver when someone has had too much to drink.

Laptop computers, found everywhere both at work and home, also make temporary duty assignments easier for Air Force people. Laptops can store files given from other TDY participants, be used to draft trip reports and even show a DVD on the flight home.

Satellite communications also offer a



wireless option. **Iridium satellite tele-phones** operate similar to cellular tele-phones but establish connectivity on a satellite constellation. They operate anywhere in the world, making them a popular option for site surveys. Iridiums can connect to DSN or commercial lines and have voice mail and secure call options. Their portability makes them useful for mobile missions, and they can also be used to activate communications circuits. They have a lower per minute cost than cell phones. Their drawbacks include a high initial cost of \$4,000, and they generally cannot be operated indoors.

But, its worldwide connectivity makes Iridiums a popular option when traditional and cell phones are not available. For example, 1st Lt. Carlos Serbia is planning the communications architecture for an upcoming 3rd Combat Communications Group mission to the mountains of Ecuador. The terrain between mission sites does not allow for voice services via microwave connectivity, and there is no cell phone coverage in the area. Lieutenant Serbia relies on Iridium service in these mountainous areas. He said, "Iridiums give you a capability that you cannot match with any current Air Force technology."

There are other devices that can be used for personal communications. **Personal Digital Assistants** can easily organize appointments and provide a means to check e-mail remotely. **Commercial walkie-talkies** also provide communications, but they are not used on Air Force deployments because frequency clearances cannot be obtained.

Frequency clearances

Frequency clearances can be difficult to get because available band-

width is limited and valuable.

Frequency manager Staff Sgt. Scott Cook said, "The main issue with wireless technology is cluttering of the radio frequency spectrum by government and civilian agencies worldwide."

Sergeant Cook saw this cluttering first-hand. He saw blips on a TPS-75 radar that indicated a downed aircraft. People at the base where he was stationed spent seven hours searching for it. What they discovered was the source of the radar signals was a goat with a wireless chip embedded in its

neck. It had wandered into the path of the radar and was believed to be the cause of the radar blip. The result of frequency interference between the radar and the chip in the goat was panic and wasted manpower.

Along with frequency clearance difficulties, wireless communications tools face another difficulty. Many of them violate emissions security regulations when in a classified area. Various devices have different parameters to stay in range with to avoid violating emission security regulations. People need to review AFI 33-203, AFMAN 33-214 v2, or contact their unit information assurance officer for specific regulations.

Operations Iraqi Freedom and Enduring Freedom have shown wireless communications are necessary to get C2 information rapidly to personnel on the front lines. Wireless communications capabilities continue to grow for both on-duty and off-duty use.

Wireless revolution

The next frontier in wireless communications comes with the development of wireless computer networks. **WLANS** have been assessed and implemented by the Air Force Communications Agency's Technology Directorate for the past 10 years.

Currently, the Combat Information Transport System Program Management Office is responsible for developing WLAN architecture in compliance with Air Force security regulations. Current WLAN systems do not provide access points with strong enough security to support most Air Force requirements, but fast improvements in encryption technology show WLANS will soon be the next big communications implementation.

WI-FI GADGETS



According to statistical research, laptops are replacing many desktop systems because of their convenience.



Blackberry Personal Digital Assistants help commanders stay organized and in touch with their support staffs.



Around since the '60s, Land Mobile Radios remain the wireless workhorse of the Air Force, but they present obstacles.



HI TECH PRE-FLIGHT

Boomers look to replace manual calculators with PDA software

By 1st Lt. Dwain Stevens

805th Communications Support Squadron

SCOTT AIR FORCE BASE, ILL. — The KC-10 Extender has enhanced the nation's Global Reach and Global Power capability by bringing more than 170,000 lbs of cargo, 356,000 lbs refueling capability and 75 troops to any fight.

This transport capability and refueling transfer rate of 1,100 gallons per minute were vital to its flawless execution of combat and long-haul missions supporting Operation Enduring Freedom.

Despite the awesome lifting muscle the KC-10 provides, its boom operators rely on a 20-year-old, functionally obsolete hand-held calculator to determine the aircraft's in-flight weight and balance. Software engineers from the 805th Communications Support Squadron are working to remedy that. New software, developed by Mr. Gary Jung and Airman 1st Class Charles Edwards, is being tested at Boeing Laboratories, and will revolutionize the pre-flight load balancing activities and eliminate the need for manual load balancing calculations.

Using a Palm operating system on a Personal Digital Assistant, boom operators can now plan and record fuel offloaded for tanker aircraft. In addition, the new software provides faster and more accurate center of gravity computations. Other graphical enhancements are compartment representations for on-loading and off-loading of cargo to prevent aircraft tipping. The boom operator's PDA package also contains numerous conversion utilities, such as center of balance, pressure, temperature and cargo-restraint applications that automate the process of ensuring the proper number of forward, aft and lateral straps or chains have been applied to prevent cargo shifting during flight. While the software is not used for in-flight load balancing, it may be used to



Example screenshot

check balance if the proper inputs are provided.

Ultimately, this system upgrade makes mission planning more efficient and faster while reducing human interaction and possible errors. AMC boom operators believe the new software and PDA toolset could shave up to 30 minutes off the pre-flight preparation time for every KC-10 mission.

Once approved by Boeing, the KC-10 weight and balance application will clearly increase the operational velocity and overall effectiveness of the airframe and its crew.







**AMC airports
get connected**

By 1st Lt. Shilette Addison

Air Mobility Command
Communications and Information
Directorate

SCOTT AIR FORCE BASE, ILL. —

Commercial airports have several computer kiosks providing Internet access and places where people can plug in their laptops. Those airports have the right idea. Now Air Mobility Command air terminals are doing that too.

“We must ensure we’re providing communications and information capabilities that are just as expeditionary as our fighting forces. The ability to communicate within our force structure should be ever present. That’s what we’re striving for — a constant connection,” said Col. Michael Basla, Air Mobility Command’s Communications and Information Director.

To achieve this constant connection by June 2004, AMC’s Communications and



Information directorate is incorporating a plan to place computer workstations — kiosks — and ports to connect laptops in most of AMC’s passenger terminals, billeting lobbies, and base operations facilities. Each location will have at least two computers located in a public area accessible to all patrons. All official Department of Defense travelers may access the Internet on these systems, and active duty people can access their Webmail. They will also have access to local software applications like Microsoft Office.

If that isn’t enough, the kiosks offer an added bonus for some: Remote Access Servers via Virtual Private Networks. Travelers may be able to connect to their home bases and work on these kiosk PCs as if they were sitting at their desks by connecting to their command’s VPN gateway.

The kiosk initiative is implementing this in three phases. In Phase I, which is complete, the workstations were installed

at all baseside locations. In Phase II, the PCs connect via a consolidated commercial Internet service provider solution across AMC. In Phase III, AMC’s overseas en route locations install and connect the kiosks. People on the move are now able to connect to the Internet via terminals in AMC CONUS passenger terminals, lodging lobbies, and base operations facilities at no cost to the user. If a family member is delayed, or deploying troops are awaiting transportation in the terminal, or someone is simply enjoying an extended stay in lodging they can make last minute contacts with family or add finishing touches to a performance report.

“With today’s technology and AMC’s commitment to excellent service, it’s no surprise AMC is offering such a valuable service to the crews and families transiting its system. Whether it is refueling, cargo, passenger service or information services, AMC keeps making the right connection,” Colonel Basla added.

There will be at least two computers located in a public area accessible to all patrons.



DECREASING WORKLOAD

Aerial ports streamline cargo processing with wireless technology

By Mr. Martin McGibney

Air Mobility Command
Communications and Information
Directorate

SCOTT AIR FORCE BASE, ILL. —

Although the private sector was using wireless technology before the Department of Defense, Air Mobility Command's Global Air Transportation and Execution System, known as GATES, has come on board full-speed while surpassing expectations.

The first wireless equipment introduced by GATES was an Intermec Janus 2020 barcode scanner or Hand-held Terminal, referred to as HHT.

As with many technological pioneers, the original scanners were more cumbersome than useful, didn't always work correctly and were commonly referred to as boat anchors or paperweights. Despite some early problems, however, a few aerial port workers used the handheld because it reduced the trips between an ever-changing work area and a computer terminal.

The downfall of the old GATES HHTs came when the Air Force Information Warfare Center identified security risks from the radio frequency wireless local area network in April 2002. While the facts were being gathered, immediate preventative measures were implemented resulting in a cease-and-desist on all wireless devices. The good news is that as a result of the incident, more people became aware of wireless technology issues. The exposed vulnerability helped solidify wireless policy and made people

think about inclusion of wireless capability as part of the base infrastructure. As technology improved, senior leaders recognized the advantage this wireless technology offered them: streamlined cargo processing and greater accuracy of in-transit visibility. Literally tons of cargo could be captured and relayed within minutes of scanning.

Now, newer, more powerful HHTs are being fielded at the aerial ports thus replacing the old model. The new HHTs use the Microsoft Windows Operating System and have more memory and a faster processor. The GATES software was updated to provide the user with the same Graphical User Interface screens they were familiar with on the GATES client PC. In addition, the new HHTs provide real-time updates to the GATES database and timelier in-transit visibility information for senior leadership. Its Virtual Private Network software protects the wireless transmissions through federally-mandated encryption points to the wired VPN on the network. As a result, the new HHTs provide the required security and user functionality.

The users love it, and two separate papers have already sung its praises. A September, "Air Force Times" article states, "Testing with the new terminal cut processing time to three minutes a pallet or less — slicing 33 hours of work a day to 10." In addition, an article in Dover AFB's base newspaper, the "Airlifter," stated, "Based on what we're seeing, this has the potential to more than double our pallet production."



Intermec Janus 2020
barcode scanner



Now, newer, more powerful HHTs are being fielded at the aerial ports, cutting the workload dramatically.



Camera phones pose security threat

By Master Sgt. Darrell Lewis

Oklahoma City Air Logistics Center Public Affairs

TINKER AIR FORCE BASE, Okla. — Carrying the latest “have-to-have” electronic gadget may mean big trouble for the person who brings it into unauthorized locations.

Officials from the National Security Agency said in an advisory that new cellular phones with integral digital cameras pose an unacceptable security risk to homeland security. This type of phone is not authorized for use or possession within any Air Force building processing classified information.

“Communications are getting faster and easier,” said Jane Guidicini, Air Force Communications Agency certified emission security technical authority. “While that does help speed communications, it can also unfortunately allow classified information to get out of a classified area inadvertently or otherwise.”

“We realize occasionally the restrictions might seem overly strict when the new technologies come out, but it’s better to be overly cautious than to have an incident,” Ms. Guidicini said.

“It takes just a little common sense to realize that if you have a cell phone with a camera, you should leave it

home if you work in a classified area,” said Tech. Sgt. Shon Kloeping, 72nd Security Forces Squadron NCO in charge of physical security.

If someone in a restricted area has one of the phones with a camera capability and a security forces troop discovers it, he or she would be forced to confiscate the camera for review of unlawful images, Sergeant Kloeping said.

Additionally, civilian employees could face federal charges and military members could face federal charges and Uniform Code of Military Justice actions.

But it’s not just a good idea to limit their use in “secure rooms” where classified information is being processed, said Peter Bryant, Air Force Materiel Command security forces directorate information security chief.

“You should watch how you use and carry those anywhere you’re dealing with sensitive or proprietary information,” he said.

If people see someone using any unauthorized camera without coordinating with base agencies, contact the base security forces squadron, Mr. Bryant said.

Sergeant Kloeping added, “It all comes down to being aware.”



To avoid the chance of compromised security, camera phones should be left at home.

This type of phone is not authorized for use or possession within any Air Force building processing classified information.





Up ya go

Maj. Jon Petruzzi and Staff Sgt. Jason Bulgin climb a 120-foot-tall radio tower at Baghdad International Airport. Major Petruzzi is commander of the Expeditionary Communications Squadron, and Sergeant Bulgin is a cable antenna maintenance specialist with the squadron.

Staff Sgt. Verlin Levi Collins / 1st CS

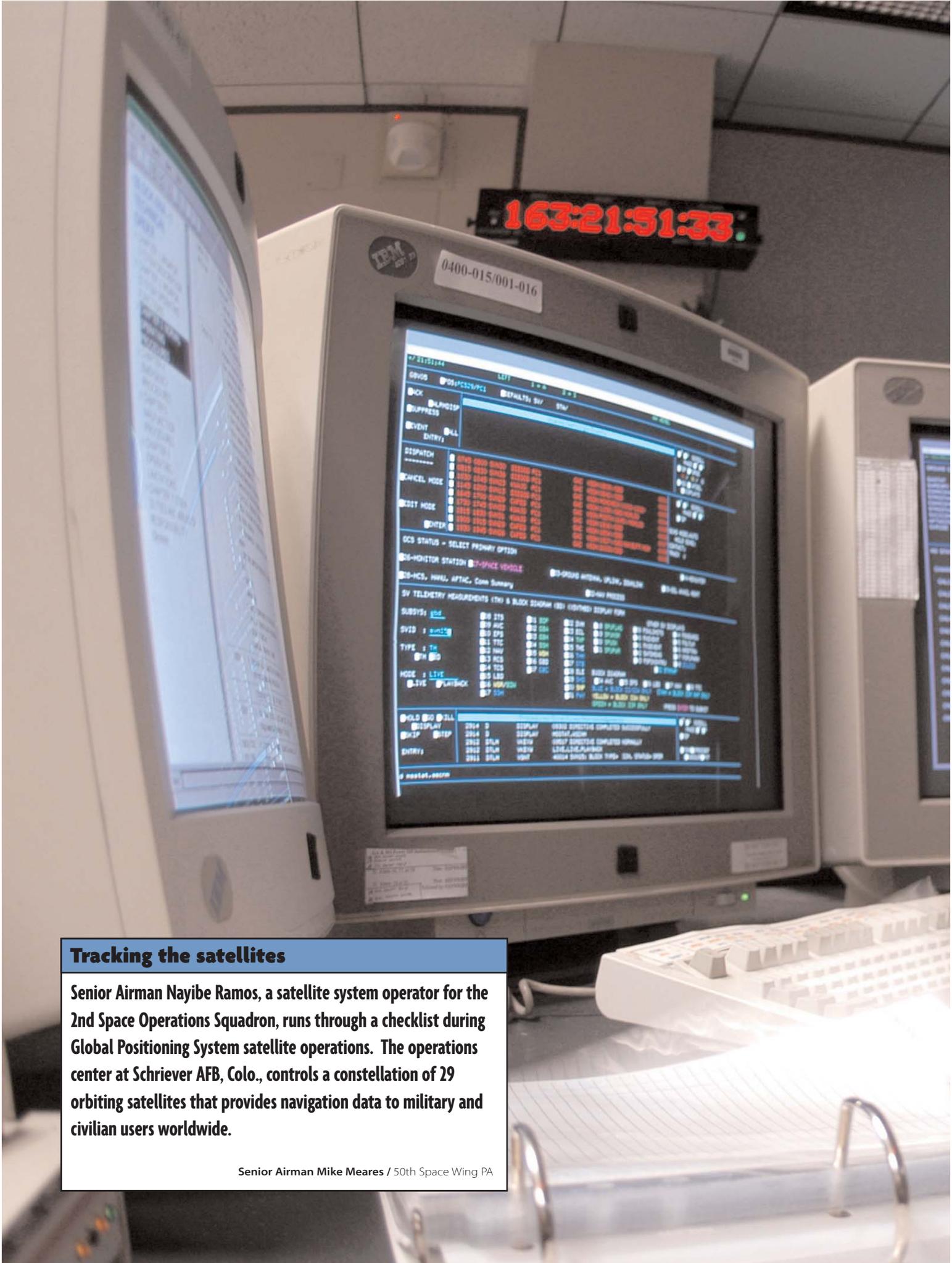


Standing still

Senior Airman Robert Mascorro marshals an RQ-1 Predator aircraft at Tallil Air Base, Iraq. The Predator is a remotely piloted vehicle that provides real-time surveillance imagery supporting Operation Iraqi Freedom. Airman Mascorro is assigned to the 46th Expeditionary Reconnaissance Squadron.

Staff Sgt. Suzanne Jenkins / 1st CTCS





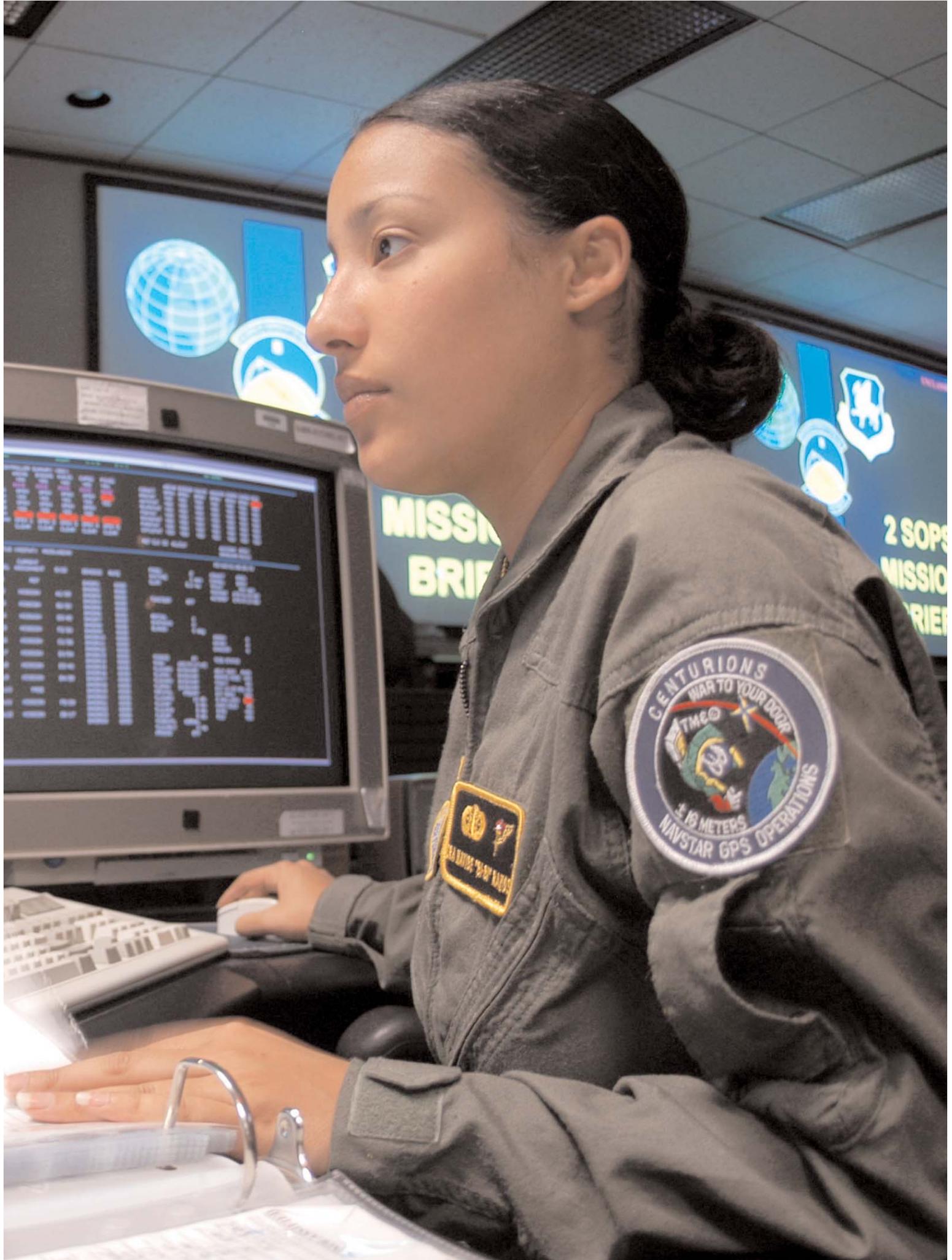
163:21:51:33

0400-015/001-016

Tracking the satellites

Senior Airman Nayibe Ramos, a satellite system operator for the 2nd Space Operations Squadron, runs through a checklist during Global Positioning System satellite operations. The operations center at Schriever AFB, Colo., controls a constellation of 29 orbiting satellites that provides navigation data to military and civilian users worldwide.

Senior Airman Mike Meares / 50th Space Wing PA



Answering the call Civilian volunteers for duty in Iraq

Photos and story by
Mr. Gerald Sonnenberg
AFCA Public Affairs

Editor's Note: This article is the first in a series of stories covering Ms. Moore's deployment to Iraq.

SCOTT AIR FORCE BASE, ILL. —

Ms. Judy Moore served her nation in the Army for 21 years. Though she may no longer wear Army green, this retired sergeant major is not finished answering her country's call.

"I've spent my lifetime responding when needed," said Ms. Moore, who is an information technology specialist at the Air Force Communications Agency.

That's why when a short notice tasking from the Office of the Secretary of Defense asked for a civilian volunteer to work with the Coalition Provisional Authority in downtown Baghdad for at least six months, she applied.

As a civilian IT specialist, Ms. Moore evaluates computer network systems for their networkiness, interoperability with other systems and

their sustainability for the future. These same skills, as well as others she possesses, are needed by the OSD to fill a slot in Iraq.

"My children thought those days were over," she said.

There is a spark in her eyes and a confident tone in her voice as she speaks. She's very excited about going, but she also has some apprehensions about going to a city still often rocked by explosions. Only part of that has to do with not knowing exactly what she will be doing in her job. With her technical background, Ms. Moore puts her feelings into percentages — 80 percent excited, 20 percent apprehensive.

While sitting in an office waiting for her passport information to be processed, she watched news reports about another attack on U.S. troops.

"The news takes on a whole new intensity now. I'm aware of the differences and sensitivities there. I don't want to misrepresent us," she said.

As she prepares to deploy, there is a familiarity for her: Law of Armed

Conflict, anti-terrorism and chemical warfare training is not new to her, but it is new or, at least, less frequent for civilians.

Deployment specialists, who are experts at deploying active-duty people, are inventing the process as she gets ready. What to bring with her and what to wear takes on a new meaning.

Ms. Moore has three grown children. The youngest, a daughter, seems the most worried. But all of her family has been extremely supportive.

Ms. Moore's oldest is a son who serves as an Army reservist. Mother and son were both on active duty during Desert Storm.

"The closest I came to Iraq when I was on active duty was when I was based in Turkey, but my son was with the 24th Infantry Division as they pushed toward the outskirts of Baghdad in 1991. He is a little jealous that I'm the one going there," she said. With an expression of confidence, she added, "Looks like I'll be going for both of us."



Top: Ms. Judy Moore undergoes mask fit testing prior to her deployment. Right: Ms. Moore, an information technology specialist, will be working with coalition forces in Iraq.



GLOBAL BROADCAST SERVICE

AMC officials demonstrate GBS' speed for delivering images, data, video

By Mr. Gerald Sonnenberg
AFCA Public Affairs

SCOTT AIR FORCE BASE, Ill.

—During the Gulf War in 1991, service-owned and leased commercial communications channels were so overwhelmed that crucial information, such as maps and intelligence data, had to be airlifted to the warfighter. It showed the urgent need for a worldwide, high powered system to broadcast military information. Thus began the development of the Global Broadcast Service, first used during peacekeeping operations in Bosnia. Air Mobility Command representatives, along with GBS experts from Hanscom AFB, Mass., and Keesler AFB, Miss., showed what GBS can do for the military worldwide, and demonstrated significant improvements to the system. The GBS is intended to deliver real-time information, video, data, imagery, and intelligence to the warfighter, and consistently provide it in a time-frame that allows them to act quickly.

IT'S SO COOL



While current satellite communications systems such as MILSTAR can relay a large graphic image in 22.2 hours, GBS can deliver the same data in 8.4 seconds and it frees up bandwidth on other systems for command and control use. Currently, GBS uses the Asynchronous Transfer Mode as its networking protocol because the only network encryptor available was the ATM based Fastlane KG-75. This "tech refresh" approach will reduce costs and the size of the suites from seven transit cases weighing 600 pounds, to four transit cases weighing 300 pounds. Conforming to the IP industry standard frees bandwidth for operational requirements such as tactical suitability. It also increases GBS broadcast capacity.

GBS & THE NEXT GENERATION RECEIVE TERMINAL

The GBS system has three major segments: **broadcast, terminal and space**. The **broadcast** segment is composed of the Satellite Broadcast Manager and the Receive Broadcast Manager. The **terminal** segment is comprised of the Primary Injection Points, Theater Injection Point, fixed and mobile ground receive terminals, shipboard receive terminals and, in the future, airborne receive terminals.

A PIP is a fixed earth station with the primary responsibility for injecting RF streams from the SBM to a specific satellite. The ground receive terminals receive and demodulate the RF signal from the satellite. The TIP is a transportable version of the SBM and PIP; it will be used by field commanders to directly inject theater specific data through the satellite.

The **space** segment is composed of satellites in geosynchronous orbit. The first phase is supplied by commercially leased satellites. The second phase consists of K/Ka-band GBS transponder packages hosted on three Navy UHF

Follow On satellites, augmented by leased Ku-band commercial transponders. The exact composition and hosting of the third phase will be on the Wideband Gapfiller Satellites.

One final refined piece is the dish antenna. In conjunction with the transition to IP, a Next Generation Receive Terminal is being developed. It uses integrated electronics with a tracking receiver and controller, as well as a lightweight tripod.

This reduces the antenna size and weight by more than 50 percent, and reduces the cost by 33 percent. It also allows for quieter antenna operation.



Master Sgt. Ed Hilton adjusts the terminal.

Veteran's wish shows love of Air Force

By Maj. John Thomas

Air Force Personnel Center Public Affairs

RANDOLPH AIR FORCE BASE, Texas — Reid S. Wyant is dying. His daughter called me the other day looking for help putting together the items so that he could be buried in his Air Force service dress uniform. He served 30 years as an airman. And it seems he's still one of us.

I got to thinking. What makes a person who has lived life as a civilian since 1980 want to be buried in his uniform?

I like to think maybe Service Before Self gets into your blood. After all, retired Senior Master Sgt. Wyant

Point of View

switched his cancer treatment from Eglin Air Force Base not too long ago because the war was forcing them to cut back care, and he wanted the active-duty people to get taken care of first. "Always thinking of others," his daughter says.

His daughter—her name is Andrae Harris—is helping care for him even as he edges closer to the end. She helps him plan it all out. Arlington National Cemetery was overruled by his wife, who wants him for eternity closer to family. Details like that.

Andrae says she always knew her dad was a hero. He was awarded the Airman's Medal for saving three swimmers' lives "in front of my very eyes, without a care to his own safety." He almost lost his own life doing it, she says. And that pales in comparison to his courage facing his cancer.

Sergeant Wyant might say it is the friends you find that make the Air Force something you want to be buried with. "I've never known anyone who did not like my dad," his daughter says.

A former commander, Col. Roger Andersen, still visits him at home. "They would both reenlist today," if they could, Andrae tells me. Reid Wyant's life with the Air Force

"When asked ... why the service dress uniform for the burial, he said that is what he has always worn for important events ..."

began when the young Air Force had been around for just seven years. "His uncle was a rear admiral and told him to join the Air Force," Andrae says. Seems his uncle was a smart man. She says "He caught a bus to Pittsburgh and never looked back."

I think he's looking back now. Looking back on the people he met as a munitions maintenance specialist and first sergeant. Born and raised in Kitanning, Pa., he served in North Africa, in the '50s; Cambodia, Viet Nam, Laos and Korea in the '60s.

In 1971 he was in Thailand. And he was in plenty of stateside places in between. But no assignment was more important than the move from Denver to Bentwaters, England.

That's where a boy, dirt-poor and often mistreated by his grandfather, a guy who dropped out of school and put his kid brother through college — well, England is where he met his wife, Doreen. To hear Andrea tell it, her mom's whole family fell in love with him. As much, it seems, as he loved the Air Force.

Upon retirement from his second career he moved from Dallas to near Eglin where he fried fish and chicken for squadron picnics. And where a couple of years ago they first treated him for cancer. And it was to Eglin that he went recently with his family to get all of his affairs together and prepare a final will.

I have never met Sergeant Wyant. But I have worked with people just like

him every day of my 12 years in the Air Force. I have served with loyal members of every service. And I am off to Iraq soon to work again with the State Department and other agencies.

People tell me to keep my head down when I go to Iraq. Instead I think I'll hold my head high, out of respect for people like Sergeant Wyant and all those he represents, like my own dad, and my father-in-law.

When Andrae asked him the other day why the service dress uniform for the burial, he said that is what he has always worn for important events, and he wanted his family to recognize him. His sense of humor is still healthy.

Maybe one day, I will ask to be buried in my service dress uniform, like Senior Master Sgt. Reid S. Wyant wants to be, "with full military honors."

In his case, the honor will be ours.

Author's Note: Retired Senior Master Sgt. Reid S. Wyant died Feb. 1 with most of his family around him. He died quietly and without much pain. He had time to tell his family goodbye. He knew it was time.

His son called me today to tell me the news and to thank everyone who contacted them in the past few weeks. He wanted to thank Chief Master Sgt. Malcolm McVicar, at Scott AFB, Ill., who mailed several uniform items, and to Senior Master Sgt. Fred Warner, at Maxwell AFB, Ala., who put together an entire uniform, ribbons, brass and all, and then drove with his family to Florida to deliver it in person.

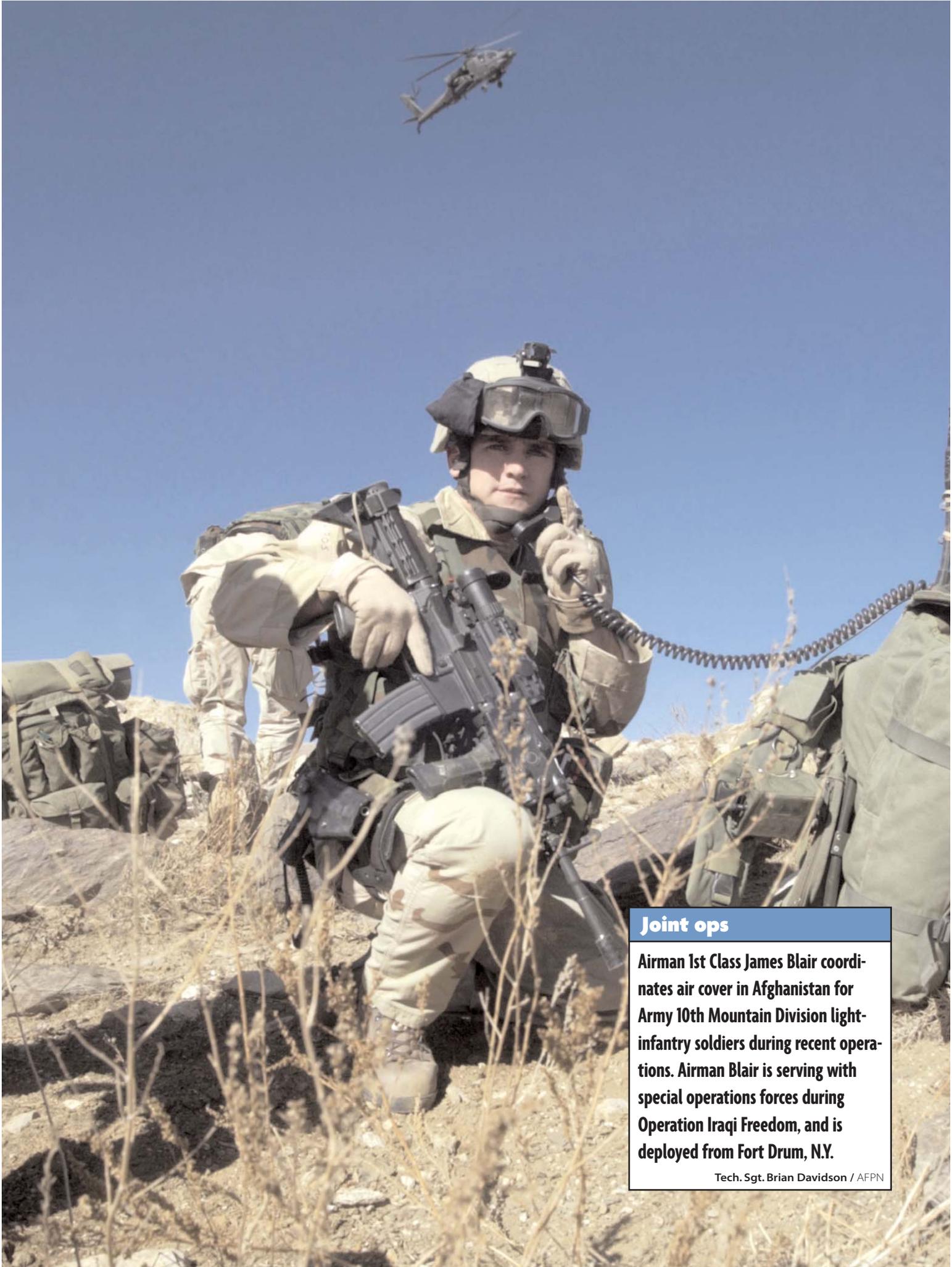
Needless to say the family was overwhelmed by the love that everyone who read about their father showed to them by contacting them or me.

Editor's Note: Sergeant Wyant is pictured with his wife, Doreen.



HE WHO HONORS ME,
HIM WILL I HONOR

SERVICE BEFORE SELF



Joint ops

Airman 1st Class James Blair coordinates air cover in Afghanistan for Army 10th Mountain Division light-infantry soldiers during recent operations. Airman Blair is serving with special operations forces during Operation Iraqi Freedom, and is deployed from Fort Drum, N.Y.

Tech. Sgt. Brian Davidson / AFPN

Maj. Gen. Rupert H. Burris

By Mr. Don Gasper
AFCA Staff Historian

The distinction of becoming the first non-rated officer ever to head an Air Force major command capped a long list of accomplishments which Maj. Gen. Rupert H. Burris achieved during his remarkable 34-year “blue suit” career.

While his exceptional career encompassed a wide variety of notable roles—airial combat over Nazi Germany, communications support in the field in Vietnam, and a host of key leadership positions culminating in commanding the Air Force Communications Service—he has continued his life of service during his retirement.

General Burris faced demanding challenges at a young age before and after putting on a uniform. He recalled years later: “I come from less than humble beginnings in having spent my early years the son of an Arkansas share-cropper. . . . My mother died [when he was 16]. I was virtually on my own from then until 1943 when I entered the [Air Corps at age 18]. I thought the military was great—I’d never had it so good!” As an enlisted gunner aboard B-17 bombers during World War II, he vividly recalls a harrowing episode when a near-collision with another B-17 in bad weather led to “going inverted in a bomb and gas loaded B-17 at 21,000 feet over France and spinning down to 7,000 feet before

a miracle recovery.” After the war, and a brief stint as an administrative clerk, he completed Officer Candidate School in 1948 and received his commission as a second lieutenant.

During his distinguished career, General Burris served in a variety of capacities while ascending in rank and responsibility. During his tour in South Vietnam (1967-68), he survived two attacks on Tan Son Nhut AB, fixed the Air Traffic Control radar at Phan Rang AB, and was picked up at Bien Hoa AB by his son, John, who flew Army helicopters. The general continued to accrue marks of distinction as his career came to a close. Shortly before his retirement in 1977, he “was astonished” to be selected as the third speaker for the newly established Air Force Academy Commandant’s Leadership Series (the first was General Curtis E. LeMay, legendary commander of the Strategic Air Command). The next year, he received the prestigious Order of the Sword from AFCS NCOs in recognition of his contributions to the enlisted corps. In reflecting upon this and the earlier distinction of becoming the first non-rated officer to command a major command, General Burris stated: “I understand and appreciate my great good fortune. . . .”

In retirement, General Burris focused on serving the local community around his home of Mt. Holly, Ark., (he now lives in nearby El Dorado, Ark.). He became involved in the



General Burris flew 30 missions as an enlisted gunner in B-17s during World War II.

community club, volunteer fire department, deer camp, and the El Dorado Country Club. In the latter capacity, he became club president and won several golf tournaments. Although his son was killed in action in Vietnam, and cancer claimed his wife, Jo, in 1993, his two daughters, four grandchildren, and two great grandchildren take their share of his attention and activities these days. He also remains a sought-after speaker who frequently shares his experiences and insights with various audiences.

He said: “The Air Force offered me opportunities, and the same remains true today. I’d urge becoming skilled at your job. Treat your fellow airmen, regardless of rank, with consideration and respect. Given the opportunity to help someone, give it your best shot.”



General Burris circa 1992.

“Treat your fellow airmen, regardless of rank, with consideration and respect.”

just a few

TECHNOLOGY



1844

The inauguration of commercial telegraph service (by William Cooke and Charles Wheatstone in England in 1839 and by Samuel Morse in the United States in 1844) was the first major technical undertaking using electricity.



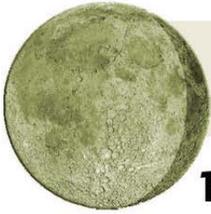
1906

Automatic dial telephone switching. Later in 1915 the first transcontinental telephone call took 23 minutes to set up at a cost of \$20.70 for the first three minutes.



1917

First radio-telephone, plane to ground voice transmission in the United States. Multiplexing combined two or more voice channels on one wire.



1946

Scientists at the Evans Laboratory succeeded in bouncing a radar signal off the moon.



1951

The world's first commercial computer, UNIVAC, was unveiled at Philadelphia. The Air Force acquired it the next year.



1955

First fiber optics appeared.



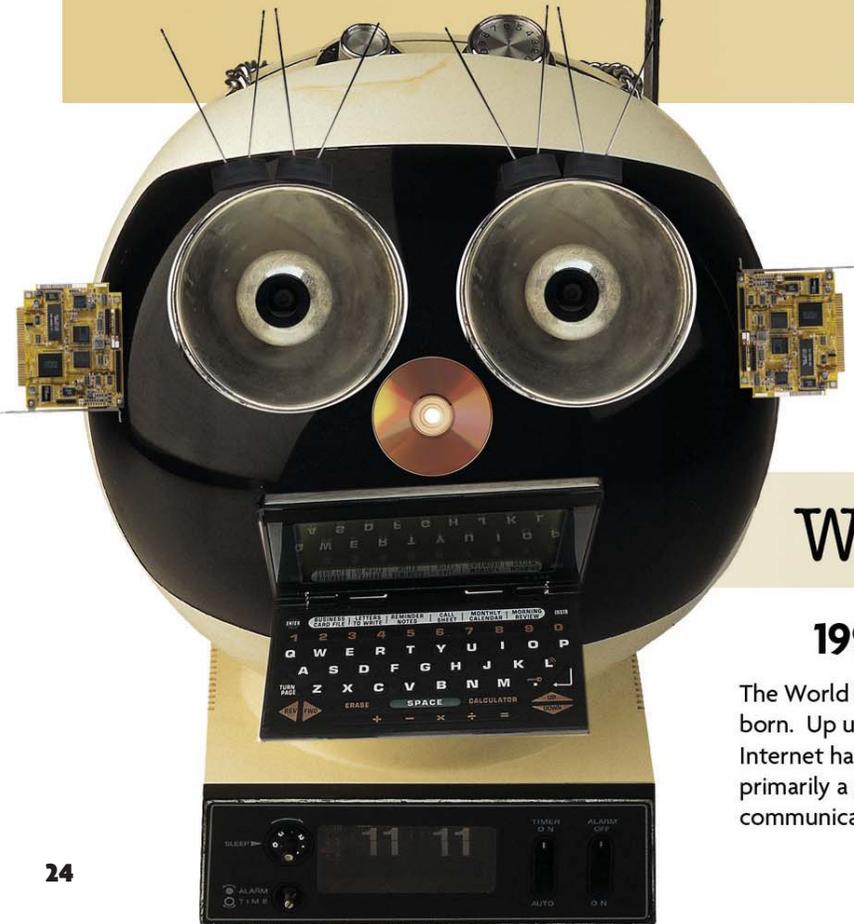
1957

Space age begins when the Soviet Union launches Sputnik I, the world's first artificial satellite.



1973

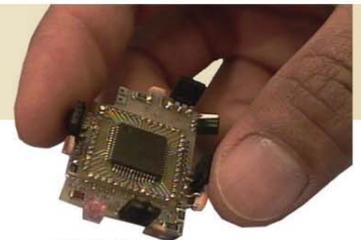
The VHS format was developed for the newly patented Video Cassette Recorder. In 1994 electronics companies agreed that VHS was to be the standard format.



WWW

1991

The World Wide Web is born. Up until now, the Internet had been primarily a government communication tool.



1993

The pentium processor is invented, paving the way for microcomputers.

Milestones



1923



A picture, broken into dots, was sent by wire.



1927

Philo Farnsworth assembles a complete electronic television system.

1935

IBM's first electronic typewriter came off the assembly line.



1959

U.S. Air Force successfully launches first Titan ICBM.



1966

World's first geosynchronous satellite, SYNCOM II. Parked over the Atlantic, it provided telephone, teletype and photo facsimile communications.



1972

First electronic mail delivery between two computers. "Pong" introduced and started video game craze.



1981

Laptop computer introduced. First mouse point device introduced.



1983

Cell phones go commercial.



1985

At the end of 1985, 2,000 computers had access to the Internet; by the end of 1987 that figure rose to 30,000; by the end of 1989, the Internet linked 160,000 computers.



1995

The DVD begins to replace CD-ROM since it can hold up to 17 gigabytes of information on its two sides. It can store audio, video and data.



1996

The satellite dish takes on the cable industry for TV viewing.



1996

The PalmPilot became the first truly hand-held computer.



1999

People start surfing the net with their cell phone.

By: Master Sgt. Karen Pettitt Source: AFCA HQ, WWW
*some items are illustrations only

NSPS

NATIONAL SECURITY PERSONNEL SYSTEM

New system uses merit principles for hiring, firing

The human resources management system for DoD civilian employees has ushered in an era of flexibility and increased fairness with the National Security Personnel System.

It will serve to replace outdated and often rigid civil service rules with a system that rewards excellent individual performance and recognizes the civilian DoD workforce as an integral part of the total force.

The Under Secretary of Defense (Personnel and Readiness) has created an NSPS Program Implementation Office to assist in developing this new personnel system throughout DoD.

Congress authorized NSPS in the fiscal year 2004 National Defense Authorization Act, signed by President Bush Nov. 24.

This sweeping reform allows the DoD to establish new rules for how civilians are hired, assigned, compensated, promoted, and even disciplined; but all within the framework of merit principles, accommodation of veteran's preference, and respect for employees' right to bargain at the national level.

The civilian workforce is crucial to our nation's defense, but the current longevity-based compensation system does not allow the flexibility to

attract, reward, and grow the most talented workforce we can.

Several measures under the NSPS will transform this process using such key elements as pay banding, pay-for-performance, and expedited hiring.

The Office of the Secretary of Defense has created a Web site that provides detail regarding NSPS design, range, and impact. It answers frequently asked questions such as:

What is pay banding and what does it mean to me?

Pay banding is the consolidation of existing pay grades into a few broad bands.

The small number of pay bands simplifies job classification and broadens pay ranges.

Positions are placed in one of several "career groups" in a pay band. Individual pay is set within the range of salary dollars in the band. This allows for more flexible pay-setting procedures.

An Air Force-level Web site is in the works as well, that will tailor presentation of NSPS to an Air Force audience. For example, current information indicates initial conversion to NSPS will be limited to 300,000 DoD wide, and will exclude

the Air Force units already in a pay banding demonstration project.

It's still important to research the changes designed to map our civilian workforce toward the same flexibility and adaptability as our military.

What's not going to change under NSPS is of equal note as well.

Elements key to the stability and welfare of DoD civilians such as merit system principles, rules against prohibited personnel practices, training, and anti-discrimination laws remain core under this new system.

The significant improvements under NSPS have been compared to those of the Civil Service Reform Act of 25 years ago by Secretary of Defense Donald Rumsfeld. He said, "These reforms will provide senior managers greater flexibility in managing our dedicated civil service, empower them to compete for high quality talent, offer compensation competitive with the private sector, and reward outstanding service.

It will build greater pride in the civilian workforce and attract a new generation of civilians to public service." NSPS—Transformation for a new era of warfighting support, transformation to put the right person in the right job. (Submitted by AFCA Civilian Career Force Management Branch)

NSPS Web site ● <http://www.cpms.osd.mil/nsps//>



New Developments

VIRTUAL TECHNOLOGY: In an effort to increase commercial potential of its technologies, the Air Force has launched a virtual technology shopping mall.

Found at www.sbirsttmall.com, the site was established for all Small Business Innovation Research technologies stakeholders, including small businesses, Air Force and other government acquisition agencies, prime contractors and major subcontractors, companies that facilitate investment and partnering arrangements, and companies that are interested in private-sector applications for SBIR dual-use technologies.

The mall is organized in a relational database format that allows customers to browse mall contents by firm, DoD technical area, government office, and state. In addition, the user can search for keywords or phrases (e.g., sensor, heat transfer surface).

The foundation of the mall consists of summary reports, success stories, impact stories, and SBIR award abstracts. By making SBIR technology and marketing information easier to find, the technology mall can facilitate opportunities for commercialization and partnering arrangements. *(Jill Bohn, AFRL/PA)*

PATRIOT EXPRESS: Fiscal realities and limited use have led U.S. Transportation Command to restructure Patriot Express, the military's chartered commercial air service for transporting servicemembers on PCS orders and their families to and from overseas locations.

Air Mobility Command, the air component of USTRANSCOM, manages the



IRAQI COVERAGE

Staff Sgt. Stacy Pearsall / 1st CTCs

Staff Sgt. Suzanne Jenkins scans the landscape over Iraq from a UH-60L Blackhawk helicopter as part of her duties as an aerial photographer. She's deployed from the 1st Combat Camera Squadron at Charleston Air Force Base, S.C.

Patriot Express program on behalf of the Department of Defense.

The system handles more than 340,000 passengers annually, however just over two thirds of the seats on the contracted aircraft are filled by passengers on PCS orders.

The Patriot Express system has four contracted U.S. gateway international airports:

Atlanta-Hartsfield, Baltimore-Washington, Los Angeles and Seattle-Tacoma, and four passenger reservation centers, or PRCs, in Germany, Japan, Hawaii, and the Continental United States.

Beginning next fiscal year through Fiscal 2008, the restructure will lead to fewer flights and leave only one gateway at BWI. Duty passengers will be able to travel on commercial airlines through the General Service Administration's City Pair program.

The restructure will not only save the government millions of dollars annually, PCS travelers will gain more flexibility in planning their overseas moves.

All Patriot Express routes, except

for those into locations with no commercial service or where there are force protection considerations, will be phased out over a four-year period.

In Fiscal 2005, the Atlanta gateway will close, and Patriot Express flights to Rhein-Main Air Base, Germany, will end.

The military will also adjust the frequency and size of flights to Guantanamo Bay, Cuba, and Keflavik, Iceland. In Fiscal 2006, service to Osan and Kunsan Air Bases, Korea; Kadena AB, Japan; Keflavik, Iceland; and Royal Air Force Mildenhall, England, will end.

The reservation center at Hickam AFB, Hawaii, and the gateway at Los

Angeles International Airport will close. Fiscal 2007 marks the end of service to three American bases in Japan: Yokota and Misawa air bases and the Marine Corps Air Station, Iwakuni, as well as the Japan passenger reservation center.

The Seattle gateway will also close, and AMC's main PRC at Scott AFB will increase its operating hours. In the last phase, slated for fiscal year 2008, service to Lajes Field, the Azores; Aviano AB, Italy; Rota, Spain, and Sigonella, Sicily, will end, the PRC in Germany will close, and AMC's PRC will begin continuous operations.

The restructure of Patriot Express will mean a reduction in the number of Space-Available seats, but Space-A travel is still available at many AMC passenger terminals on military transports.

Check out: public.amc.af.mil/SPACEA/spacea.htm.

The GSA has Travel and City Pair program information on their Services link at www.gsa.gov. *(Cynthia Bauer, AMC/PA)*



The Air Force is restructuring its Patriot Express missions.

WEATHER CENTRIC OPS: The Air Force Weather Agency began the process of moving dedicated circuits (stovepipe solutions) to Common User Communications to transmit and receive weather data files in July 2001. CUC refers to network centric systems that make up the AF and DoD networking enterprise. CUC systems such as the NIPRNET, SIPRNET, and Global Broadcast System provide networking capability available to all the services.

AFWA began the migration with a specific set of weather data files called TrimGRIB. GRIB (Grid in Binary) is the gridded data standard from the World Meteorological Organization for satellite imagery. TrimGRIB is a subset of GRIB that is customized and trimmed to remove unnecessary data. TrimGRIB model runs consist of a group of 19 files averaging 5 MB (40 Mb) in size. These files are sent from the Weather

Products Management and Distribution System servers at AFWA to WPMDS servers at each OWS four times a day. This data is used to update weather reports and forecasts. Since the value of the data decreases with time, the data transfer must be within the required delivery time. The team and the OWSs agreed that if the delivery time via the NIPRNET was as fast as or faster than delivery time via VSAT or T1, the migration to the NIPRNET should be made.

This allowed AFWA to net a cost savings of \$32,849 per month total for a \$394,188 annual savings. AFWA is also able to forego the requirement to increase the bandwidth available over VSAT.

Continuing in this effort, the STEM-AFWA has completed base-lining and plans to test performance of the network path between AFWA and other geographically separate units.

In addition AFWA is working to migrate from VSAT to the Global Broadcast System to transmit data to deployed Tactical Combat Weather Teams. This will result in more dollars saved for AFWA, the Air Force, and ultimately the American taxpayer.

(Rodney Futrell, 38th EIG)

KUDOS

STANDARDIZED WGM COURSE:

Wouldn't it be nice to not only have a standardized workgroup management training course, but also a standard method in place to document and certify workgroup managers?

That's exactly what Tech. Sgt. Lisa Collins, Mr. Norgremar Duran, Master Sgt. John Petty and Mrs. Diana Taylor, AMC's Computer Training Center professionals, accomplished for AMC's command workgroup managers.

The exportable workgroup management course was a way to stan-

dardize workgroup management training AF-wide. However, there was very little, if any, consistency between wings when it came to documenting, training and certifying personnel. To solve this dilemma within AMC, the command training center team created an AMC Workgroup Management JQS (AF Form 797), composed of two written exams to evaluate knowledge and comprehension, and developed a hands-on performance evaluation process. Now all AMC base training centers use the same documents and follow the same procedures to train and certify AMC workgroup managers.

To further ensure standardization, the command training center team has sole responsibility for updating all training material, including the in-residence lesson plans, written exams, and performance evaluation. The team also developed AMCI 33-101, Workgroup Management Training and



Staff Sgt. Chenzira Mallory / 18th CS

Fixing fiber optics

Staff Sgt. R. K. Stephey operates in a 6-foot deep hole splicing fiber optic cable with a fusion splicer. The cable will be used for connecting Tallil Air Base, Iraq, with e-mail and Internet services. Sergeant Stephey, assigned with the 332nd Expeditionary Communications Squadron, has repaired 350 feet of damaged fibers and cables as of Jan. 30.

Certification, which set clearly defined program policies and procedures.

The AMC Computer Training Center professionals also took the initiative to expand upon the exportable workgroup management course to enhance the workgroup managers' ability to meet home station and deployed missions. Some material added to the in-residence course includes how to terminate UTP cabling, clean the inside of the computer and load/manage anti-virus software. To accommodate the addition of the new material and allow for more "hands-on" training, the course was increased from four to eight days. All AMC workgroup management course materials and training documents can be accessed at: https://www.amc.af.mil/sc/training/AMC_WM_Webpage/AMC_WM_Home.htm. (Chief Master Sgt. Irving Rodriguez, AMC/A6)

AF-CIO WINS AWARD: The Air Force's Chief Information Officer, Mr. John M. Gilligan, was named one of the 100 Premier Information Technology Leaders for 2004 by Computerworld magazine.

Each year, the magazine, which covers news from an IT manager's perspective, puts together a list of leaders who "use their wit and fortitude to keep their staffs and companies headed in the right direction." The publication focused on the Air Force-wide consolidation of all networks and servers at more than 100 sites worldwide.

Before the project, each Air Force installation housed numerous Local Area Networks and domains with a large number of servers. Many organizations used their own in-house personnel as part-time network and system administrators.

Typically, these people were not communications professionals and were trained to various levels of expertise. While e-mail service was "singled up"



Photo courtesy of 141CF/SCS

Readiness training

Air National Guard technicians from Fairchild Air Force Base, Wash., practice radio maintenance during a wartime exercise for nuclear, chemical and biological agents this past fall. They're from the 141st Communications Flight, Washington Air National Guard.

using Exchange, it was not fielded or administered consistently from base to base. This situation created an abundance of non-standard, unique configurations that increased the complexity of networks, as well as the time required to pass and share information.

Phase one involved the physical and/or logical consolidation of the unclassified infrastructure at 108 Air Force bases and was 91 percent complete by the end of 2003. Phase two began in January and will further consolidate the unclassified infrastructure through regionalized architecture at the 10 major command headquarters, to be completed by mid-2006.

The third and final phase involves consolidation of the classified support infrastructure, beginning in

late 2006 and ending mid-2007.

To date, 4,000 servers have been eliminated and 1,000 network domains have been consolidated. A projected savings of \$200 million per year in cost avoidance alone has been calculated based on phase one data collection.

According to Col. Norris Connelly, Director of Systems and Technology, Office of the Air Force Chief Information Officer, "This award recognizes the priority and value the Air Force places on the delivery of timely and accurate information to decision makers and information consumers.

"The astounding results at this early stage include substantial savings in operating costs and people, improved information sharing, enhanced information protection and security, and more efficient opera-

Network usage policies

From the first day users are given access to computer systems, a network acceptable usage policy must be agreed upon. This policy should inform the new user as to the "netiquette" that is expected of them, specifying who can do what, where, when and how. It should set boundaries for accessing the Web, e-mail systems, local computer programs and network resources. It should be patterned after the unit's overall Internet and network security plan as well as provide enough education and awareness to mitigate risks. It's not an issue for technologists to tackle, rather it's for leaders of organizations to establish and develop as the workplace, technology, and missions change. And, by doing so, you can ensure mission effectiveness. —Capt. Aaron Condel/AFRL

Attention all photographers!



Don't forget to submit your Day-in-the-Life photos by April 15!

Multi-functional COPIERS

Why the need?

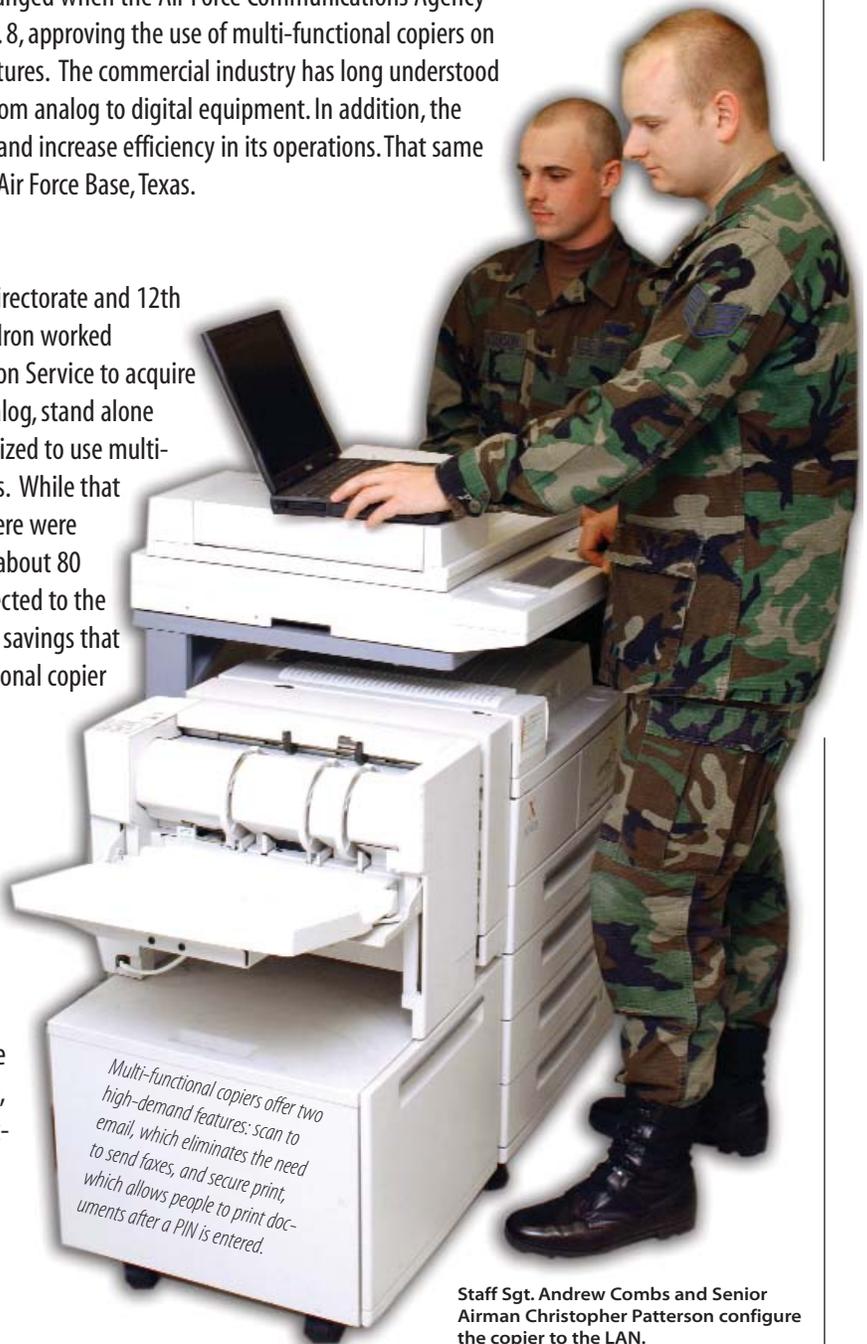
Until recently, Air Force security directives prohibited the connection of multi-functional (combined scan, fax, copy, and print) copiers to the base network. That policy changed when the Air Force Communications Agency released its new policy memorandum, dated Aug. 8, approving the use of multi-functional copiers on a network, including scan, fax, copy, and print features. The commercial industry has long understood and capitalized on the benefits of transitioning from analog to digital equipment. In addition, the industry continually looks at ways to reduce cost and increase efficiency in its operations. That same solution is now being implemented at Randolph Air Force Base, Texas.

What are the benefits?

The HQ AETC Communications and Information Directorate and 12th Flying Training Wing, and 12th Comptroller Squadron worked through the Document Automation and Production Service to acquire digital multi-functional copiers to replace old analog, stand alone copy machines. Initially, the base was only authorized to use multi-functional copiers as network printers and copiers. While that change reaped some cost savings, users found there were more potential savings to be captured. Currently, about 80 percent of 200 multi-functional copiers are connected to the 12 FTW network, and AETC is pursuing additional savings that may be generated by using all of the multi-functional copier features.

What's the future payoff?

AETC's goal is to reap these additional savings by drastically reducing or eliminating desktop printers, scanners, and fax machines for individuals by attrition. A cost analysis of AETC expenditures for printers, scanners, fax and copying requirements, based on analog, stand alone equipment showed a potential savings of \$650K per year by using the digital, multi-functional equipment. For example, when a desktop printer breaks, rather than replacing it with a new one, the workload is transitioned to the organization's centralized multi-function copiers. The savings can now be used for other high-priority items.



Multi-functional copiers offer two high-demand features: scan to email, which eliminates the need to send faxes, and secure print, which allows people to print documents after a PIN is entered.

Staff Sgt. Andrew Combs and Senior Airman Christopher Patterson configure the copier to the LAN.

CHARACTER



Character cannot be developed
in ease and quiet. Only through
experience of trial and suffering
can the soul be strengthened,
vision cleared, ambition inspired,
and success achieved.

HELEN KELLER (1880-1968)

"To accomplish great things, we must
dream as well as act."

– ANATOLE FRANCE (1844–1924)

