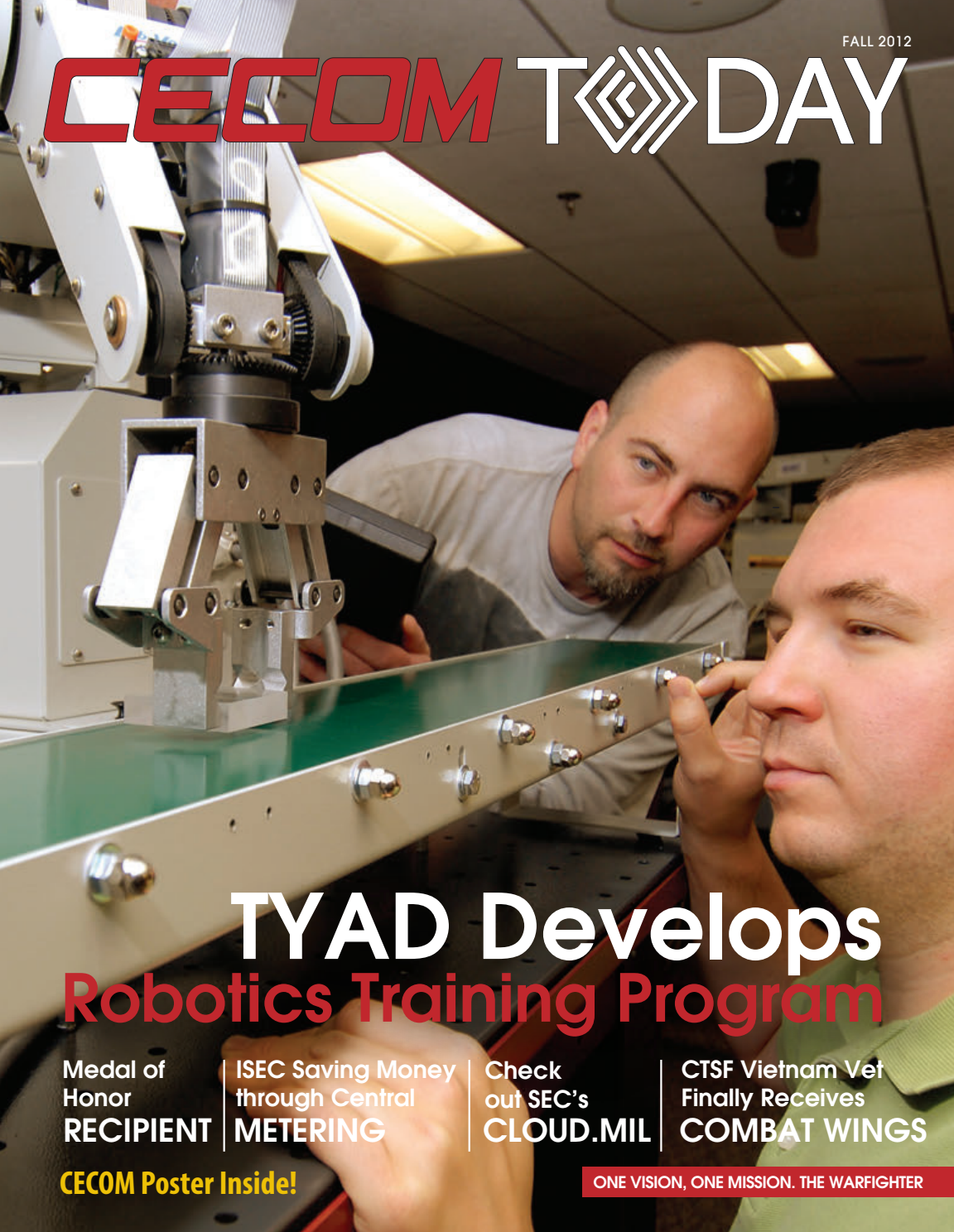# CECOM T❖DAY

TYAD Develops
Robotics Training Program

Medal of Honor RECIPIENT

ISEC Saving Money through Central METERING

Check out SEC's CLOUD.MIL

CTSF Vietnam Vet Finally Receives COMBAT WINGS

CECOM Poster Inside!

ONE VISION, ONE MISSION. THE WARFIGHTER

Protect Your Workplace

Cyber Security Guidance

Employees

- Make your passwords complex. Use a combination of numbers, symbols, and letters (uppercase and lowercase).

- Change your passwords regularly (every 45 to 90 days).

- Do NOT give any of your user names, passwords, or other computer/website access codes to anyone.

- Do NOT open e-mails or attachments from strangers.

- Do NOT install or connect any personal software or hardware to your organization's network or hardware without permission from your IT department.

- Make electronic and physical back-ups or copies of all your most important work.

- Report all suspicious or unusual problems with your computer to your IT department.

Management & IT Department

- Implement Defense-in-Depth: a layered defense strategy that includes technical, organizational, and operational controls.

- Establish clear policies and procedures for employee use of your organization's information technologies.

- Implement Technical Defenses: firewalls, intrusion detection systems, and Internet content filtering.

- Update your anti-virus software daily.

- Regularly download vendor security "patches" for all of your software.

- Change the manufacturer's default passwords on all of your software.

- Monitor, log, and analyze successful and attempted intrusions to your systems and networks.

Report a computer or network vulnerability to the
U.S. Computer Emergency Readiness Team

Incident Hotline: 1-888-282-0870
or
www.US-CERT.gov

For more cyber tips, best practices, "how-to" guidance,
to sign up for technical and non-technical cyber alerts,
and to download this poster, visit www.US-CERT.gov

from the
EDITOR...

T he final issue of the year brings with it great stories. First, you get a preview of the commanding general's vision for the coming year and how that plan for the future will help CECOM help build the Army and Joint Force of 2020 and beyond. In doing so, Maj. Gen. Ferrell will discuss how CECOM's four lines of effort are structured to achieve five strategic goals for our Command. This is a must-read.

Tobyhanna doesn't disappoint as they look into the future with a robotics repair program and they garner yet another federal award for finally finding that leaky faucet. Tobyhanna's conservation project has saved millions in dollars and gallons of water. Way to go Toby.

Since we're on the subject of saving money… ISEC's been doing some saving of their own. The Army Central Metering Program is intended to measure and account for energy use. If all goes well, it should reduce energy consumption throughout the entire DoD.

While the Korean War has been over for more than half a century, the remains of U.S. service members are still being found and returned to their loved ones. Recently, an ISEC family member was part of such a ceremony to finally bring her uncle home and lay him to rest.

If you've ever worn a uniform then you know what preventative maintenance, checks and services (PMCS) means. And, you recognize the value of conducting good PMCS. But you probably also understand there are times when you just wish you could cut a few corners. You may have even done it so many times you didn't need to the manual anymore. Well, the future may actually be here thanks to the LRC. They've created an App for your Smartphone to conduct PMCS and eliminate many of the bulky manuals. Plus, as you finish your user level maintenance, you hit send, and your next level supervisor has the report immediately. Where was this 20 years ago?

Finally, I had the privilege of interviewing retired Army Staff Sgt. Salvatore Giunta, the first living Medal of Honor Recipient since Vietnam. I would tell you I have never met a more humble man. But after hearing him tell his story—not just what happened the night of Oct. 25, 2007—but his life before the Army growing up in Iowa, attending Basic Training and his first deployment to Afghanistan, it was I who was humbled before him.

Enjoy the issue.

One Vision, One Mission—**the Warfighter.**

Kelly Luster
Editor-in-Chief

About the Cover
Electronics Engineer Joe Raymer (foreground) and Electronics Mechanic John Roman check the robotic arm placement of a part on the conveyor belt during a robotics practical exercise. Raymer works in the Production Engineering Directorate's Automated Mission Support Division and Roman is assigned to the Intelligence Surveillance and Reconnaissance Directorate's Electro-Optic/Night Vision Division. (Photo by Steve Grzezdzinski)

CONTENTS

CG discusses Campaign Plan:
Fully Aligned for the Army of 2020

by Maj. Gen. Robert Ferrell

Today, as our Army emerges from more than twelve demanding years of sustained combat operations, we are now entering an era of both rapid change and reduced resources. Our future Army will become smaller – we know this. However, it will also become a more agile, flexible, versatile, integrated and networked Force – deployable and regionally responsive to the needs of the Combatant Commanders and our Joint Warfighters.

Each of the above characteristics of our new Force - agility, flexibility, versatility, networked and integrated – are directly connected to our CECOM and Team C4ISR missions. As a result, what our talented, skilled and committed workforce does – each and every day – is absolutely critical to not only sustaining C4ISR systems on today's battlefield - but just as importantly – to building the Army and Joint Force of 2020 and beyond.

As all of you know, to get where you want to go, you need a plan. Therefore, as CECOM begins a new year and enters a new era, we're developing a new Campaign Plan – to ensure our Command's efforts are fully aligned with both the U.S. Army and AMC's strategic guidance.

Our new CECOM Campaign Plan will take advantage of our Command's core competencies, along with our experience working shoulder-to-shoulder with our Warfighters, and will also leverage our proven ability to deliver cost-effective C4ISR support and services. It will identify four lines of effort that allow us to allocate and apply our resources effectively; drive innovative processes to provide C4ISR life-cycle support; continue to attract, develop and train a highly skilled workforce, and to improve our strategic communication initiatives.

CECOM's four lines of effort are structured to achieve five strategic goals for our Command: (1) to serve as the single logistics and sustainment manager of common joint tactical C4ISR systems; (2) to provide responsive Industrial Base capability; (3) to develop a 'Next-Generation' Software Support Model; (4) to streamline delivery of Field Support, and (5); to build strategic partners.

This coming year will be both a challenging and an exciting time for CECOM and our C4ISR team as we begin implementation of the new Campaign Plan. During 2013, our Command's priorities will include continued support to our OEF deployed forces, while simultaneously enabling the Army's transition from war to sustainment throughout the retrograde from Afghanistan. We will also ensure our life-cycle management strategies and alignment of our field support personnel provide the most effective and efficient support to Warfighters serving all across the globe. We will ensure CECOM's support to the development of the Army Network – the Army's number one modernization priority – reflects an integrated sustainment strategy. We will focus on each of these priorities throughout the new year, while also working to develop and enable our workforce – and by strengthening our partnerships all across the Army, Joint and Interagency communities. Moreover – we will continue to care for our tremendous Soldiers, Army Civilians and Families by working hard to enhance quality of life programs for our dedicated CECOM and C4ISR Team members.

After its release during the first quarter of CY-13, I would encourage everyone at CECOM and Team C4ISR to familiarize themselves with our new Campaign Plan. It provides a roadmap for how CECOM will engage with our strategic partners within Team C4ISR as we enter an exciting and challenging new era. Despite the many challenges ahead, this truly is a great time to be at CECOM. Since I first assumed command back in February, 2012 - not a single day has gone by that I haven't been impressed by our incredible workforce . Not only do you have a tremendous range of experiences and abilities, you also have an unmatched dedication to serving our Army, our Joint Warfighters and our Nation. It is truly an honor for me to work alongside you.

One Vision, One Mission—**the Warfighter.**

Efficiency, Camaraderie, Productivity

by Command Sgt. Maj. Kennis J. Dent

After a decade of war, our Army is changing and so are its people. We find ourselves at a unique and critical time in our Army's history. We're at a time when not only military personnel are in theater. . .but Civilians, too, have also made the commitment and are often standing in harm's way to support the joint Warfighter. We've evolved into a Joint Force. Over the past 11 years of sustained conflict, our forces have fostered relationships with our allies through unity and teamwork. We are still clearly on the same path of success.

And now, our troops are coming home, bringing with them the opportunity for the Army to reposition itself and prepare to sustain our nation's defense strategies. I'm proud to say I work with a team of Soldiers and Army Civilians who have shown time and again the dedication and expertise to sustain our nation's forces and support our Combatant Commands.

I am proud of our CECOM personnel who have kept pace with the demands of battle on more than one warfront—never wavering—and continuing to evolve with it. We have an opportunity to set conditions as we transition to a CONUS mission which is Sustainment focused.

You have done a great job these past 11 years supporting the needs of the Warfighter. Sometimes you provided answers to new issues at a moment's notice. You developed innovations to address new problems that arose in an operational environment often difficult to ascertain. And now, we have a chance to look at those issues, build on lessons learned, and position our Army to be pro-active in laying the groundwork for the Army of 2020.

We are focused on building the leaders of tomorrow and continue to foster a commitment to the Army and Army Civilian Profession. At CECOM, we are providing more professional development opportunities to our workforce to posture ourselves to support the Army's Prevent, Shape and Win strategy. We are facing times of fiscal constraints and much will be asked of you, but I am confident you are ready. The leaders we develop within our ranks now will take us into the Army of 2020. We need your expertise to realign our business processes to maximize our productivity while remaining efficient as we prepare to enter and environment of fewer resources. Through your efforts, our force is better integrated than ever before. But to be at your best, we need you to be healthy, mentally and physically tough, trained and ready. You are our most valued asset and we must take care of each other to ensure our Soldiers and Civilians remain versatile and agile.

We are a value-based organization. . .an organization built on mutual trust and respect with the American people. To keep that trust, we must remain steadfast and true to our values of honesty and respect for one another.

We are a community of servicemen and women—in and out of uniform. Together, we will take the Army and CECOM to a new height of efficiency, camaraderie and productivity. It is with your dedication to professional development and patriotism that we will be successful. I am proud to be a member of your team.

Thank you for your service and a job well-done.

One Vision, One Mission—**the Warfighter.**

Liaison Officer Supports SAMD Foreign Military Sales in Iraq

by Corrina Panduri, LRC

Joseph Balancier III is currently assigned as a Liaison Officer (LNO) at the Embassy Military Attaché Security Assistance Annex (EMASAA) in Baghdad, Iraq. He is an intern with the Army Materiel Command Fellows Program and is in his second year with the U.S. Army Communications-Electronics Command (CECOM) Security Assistance Management Directorate (SAMD). As a forward deployed LNO, he supports the Foreign Military Sales (FMS) mission by interfacing directly with the customer and the Office of Security Cooperation - Iraq (OSC-I).

Balancier serves as the central point of contact for all inquiries regarding communications equipment and services provided by CECOM across FMS cases in execution. He is a magnet for the all-encompassing questions regarding Army managed electronics, and is happy to provide assistance and pertinent information on CECOM FMS policy and procedures. Working directly with the Iraqis has given the LNO a keen situational awareness of customer concerns, as host nation personnel share their stance on particular programs and their effect on Iraqi national security. This, along with other data provided by OSC-I, has been an important factor in improving FMS case development, tailoring the security assistance effort to better meet mission needs.

One of Balancier's main duties is functioning as the Contract Officers Representative (COR) for multiple FMS contracts in theater. Operating in Iraq requires vendors to adjust to constant changes in the business environment. New laws and regulations often have an impact on the contractor's right to operate in the host nation as well as personnel security. Having the COR in a forward position is one method of keeping the Contracting Officer (KO) in the loop, allowing Army Contracting Command (ACC) to better prepare for and react to issues developing on the ground. In an effort to improve the communication process, Balancier facilitates meetings with the Government of Iraq (GoI), OSC-I personnel, and vendors to ensure requirements are well understood and concerns are addressed early. The meetings are functional, but also serve to better develop relations between the USG and host nation personnel.

Key to Balancier's success is his team back at CECOM SAMD located on Aberdeen Proving Ground, Md. For him to operate as a Subject Matter Expert (SME) across the operational environment of CECOM equipment (as well as the Foreign Military Sales process), he must draw on the experience and expertise of those on the home front, consulting with them daily to meet the constant information needs of the customer and OSC-I. Thanks to them, CECOM SAMD is able to support the security assistance mission in Iraq and provide a very knowledgeable face to the field.

Joseph Balancier III, at right of photo, assists in issuing the M113 APC to the Iraqi Army at Camp Taji, Iraq. The M113 carries communication systems provided by CECOM as part of an Foreign Military Sales Program.

Robotics training helps depot prepare for the future

by Justin Eimers, TYAD

The Business Management Directorate's Technical Development Division offers introductory classes in robotics to train employees on a future workload that may one day call the depot home.

Since more robotics equipment is deploying to the field, the military recognized the need for a primary overhaul and repair facility. Division Chief Lynwood Turlington said by offering this class, the depot has positioned itself well to receive this workload.

"The opportunity to add a robotics workload to the depot is here," he said. "Tobyhanna has the training in place and is ready to welcome such a mission."

The extensive three-week training focuses on robotic programming and the variety of tasks that robots now accomplish. Training instructor Mark Butler said the course length is necessary to cover "advanced theory" and perform "realistic lab exercises."

Hands-on training lets students experience how robots can be programmed to perform many functions. After learning how to use and control the robotic arms, students move on to build and program mobile robots, a tracked vehicle and a wireless-controlled robot that functions similarly to a human.

"The robotics class is an excellent addition to the classes Tobyhanna already offers," said electronics mechanic Joseph Galada, who completed the Introduction to Robotics Course in June.

Christopher Meyers, electronics mechanic in the Command, Control and Computers/Avionics Directorate's Business Automated Test Equipment Repair Branch, said the training provides helpful skills and gives employees a glimpse into the future.

"The class taught us how robots and drones could be used to perform jobs that are too strenuous or dangerous for humans," said Meyers. He completed the Introduction to Robotics program in May.

The division also offers advanced electronics courses including radar, electronic warfare principles, modern digital communications, microwave fundamentals, antennas and phased arrays, and receivers and transmitters.
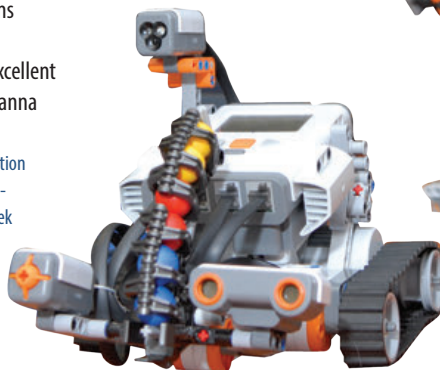
Students check the program operation of a track robot and wirelessly-controlled robot as part of a three-week robotics training class.

by Steve Grzezdzinski

ISEC Family Ties: Korean War prisoner laid to rest after 60 years

by Sandra Rosario and Capt. Francisco Polzin, ISEC

Pamela Nicholson, IT specialist systems analyst with ISEC's ESED, reads the online news story about her uncle, Sgt. William Travis Barker, who was laid to rest at the Central Texas State Veterans Cemetery in Killeen, Texas, Aug. 15., 2012. Barker was taken prisoner and later died during the Korean War.

Sixty years after his capture by the Chinese during the Korean War, Sgt. William Travis Barker was laid to rest by his family with full military honors in August. He had been captured during a decisive battle fought less than five months after the North Korean forces crossed the 38th parallel into South Korea.

Pamela Nicholson, a U.S. Army Information Systems Engineering Command employee, is very familiar with this story—Barker was her uncle.

 Barker was reported missing on Dec. 1, 1950. He was an Army medic assigned to the 503rd Field Artillery Battalion, 2nd Infantry Division, during the Battle of the Ch'ongch'on near Kunu-ri, North Korea. "He wouldn't leave the wounded Soldiers, and so he was captured with them," said Nicholson.

Barker was sent to Prisoner of War Camp No. 5 in Pyoktong, North Korea. His fellow prisoners, who were later released, confirmed his death had occurred on Feb. 18, 1951.

Barker's remains were held along with other unidentified remains at the National Memorial Cemetery of the Pacific in Honolulu, Hawaii. On April 25, 2012, the Joint POW/MIA Accounting Command in Pearl Harbor, Hawaii, and Armed Forces DNA Identification Laboratory at Dover Air Force Base, Del., identified his remains. These agencies confirmed his identity by dental records match, DNA analysis and other forensic methods. His sisters, Nicholson's mother and aunt, provided the samples for the DNA analysis. Nearly four months later on June 30, the Defense POW/Missing Personnel Office reported malnutrition as his cause of death.

On Aug. 15, 2012, Barker's four remaining siblings, along with their families, laid him to rest with full military honors at the Central Texas State Veterans' Cemetery in Killeen, Texas. He was posthumously awarded the Purple Heart and numerous decorations in recognition of his meritorious service.

While describing her patriotic uncle, Nicholson revealed her uncle had more than one enlistment. "The first one was when he was 17," she said. "He enlisted in the Air Force, and when my grandmother found out, she made him get out. So, when he turned 18, he decided to go into the Army and make a better life for his family."

Barker, the oldest of 11 siblings, was born in Rockwall, Texas, on June 2, 1929 and would have been 83-years-old this year. Although he did not survive the Korean War, Sgt. Barker's memory lives on through his family and his honorable military service.

C4I Summit Leads to Interoperability Achievements for SEC

by Ray Perez & John Franz, Field Support Directorate

Submitted

Gen. James D. Thurman, Commander U.S. Forces Korea, and Maj. Gen. Robert S. Ferrell, Commander Communications-Electronics Command, talk at the C4I Summit held at Camp Mobile, Korea.

Submitted

Ray Perez, SEC Far East Region, explains to Keta Vi, SEC Contractor, Col. Keith R. Harris, U.S. Forces Korea, Assistant Chief of Staff, Deputy J6, and Lt. Col. Barton R. Lawrence, 2ID G-6 how Blue Force Tracker/JCR tracks are displayed on Command Post of the Future systems.

Last March, U.S. Forces Korea (USFK) staff visited the SEC C4ISR Integrated Training Environment-Cell (CITE-C) at Yongsan Korea to discuss planning and execution of a command, control, communications, computers and intelligence (C4I) summit. The SEC team helped the staff assess which U.S. systems should be displayed during the summit which took place at Camp Mobile, Dongducheon, Republic of Korea (ROK) from July 18-19, 2012. USFK conducted the event to demonstrate U.S. and ROK tactical C4I systems in the inventory along with their current capabilities, and to highlight challenges for joint and combined interoperability.

The event, executed by the 2nd Infantry Division (2ID) and the 6th ROK Corps, used equipment organic to U.S. and ROK division/corps-level command posts (CP) to identify gaps and shortfalls across warfighting functions. SEC field software engineers pre-staged, configured and set-up C4I systems including the Distributed Common Ground System-Army, the Army Field Artillery Tactical Data System and the Command Post of the Future, and remained at the summit site to ensure all systems were operational. 2ID and 6th ROK Corps deployed and set up tactical CP with elements of their organizations and their C4I systems that reflected a corps, division, brigade, battalion, and command and control on the move platforms to demonstrate how they interoperate. Static displays and overviews of Global Network on the Move-Active Distribution, Army Airborne Command and Control System and the 532nd Military Intelligence Battalion Deployable Intelligence Support Element were also provided at the event.

The C4I Summit began with introductory remarks from Gen. James D. Thurman, Commander United Nations Command, Republic of Korea – United States Combined Forces Command, and United States Forces Korea, and Gen. Seung Jo Jung, Chairman of the Republic of Korea, Joint Chiefs of Staff. Senior-level summit participants included the commanding generals of 8th Army, 2ID, III Marine Expeditionary Force as well as Maj. Gen. Robert S. Ferrell, Commander, Communications-Electronics Command (CECOM). Ferrell said, "We have established a CENTRIX-K link between the USFK J6 and SEC at the 4ISR Center of Excellence. The SEC is now working with Col. Karlton Johnson, the USFK J6, to obtain a priority list of their interoperability issues."

In response to the CG's stated priorities, the SEC created a tiger team headed by Lt. Col. Thomas B. Gloor, SEC Military Deputy, consisting of representatives from SEC's Communications Directorate Joint On-demand Interoperability Network (JOIN) Team and Field Support Directorate Far-East Region to assist in the holistic architecture assessment and analysis of the interoperability issues between US and ROK C4I systems and to develop solutions for these issues.

On Aug. 8, 2012, SEC achieved connectivity on the plain text side between JOIN at Aberdeen Proving, Md., and the SEC CITE-C via the Combined Enterprise Regional Information Exchange System-Korea network. This was a milestone as the connectivity now offers the opportunity to conduct tests and validate C4I system interoperability. Coordination with the USFK J6 to identify systems requiring interoperability solutions is in progress. With the leadership of CECOM commanding general, the SEC tiger team is working to put together the concept and execution plans for conducting interoperability tests of US and ROK C4I systems.

TYAD Conservation Project reduces waste, garners federal award

by Jacqueline Boucher, TYAD

by Tony Medici

Tom Wildoner, environmental protection specialist, checks a drinking water leak detection sensor.

It's a homeowner's worst nightmare—waking up to the sound of rushing water from a leaking or broken pipe. Now imagine your home is a 143-building installation consuming millions of gallons of water that could be lost.

At Tobyhanna Army Depot, technology is plugging leaks and has earning Tobyhanna national recognition. Environmental experts have launched a high-tech solution exceeding expectations and earning the 2012 Federal Energy and Water Management Award (Project Category).

Installing the Acoustic Leak Detection System has saved millions of gallons of potable water in the last two years, by using underground sensors, strategically placed within the depot's water distribution system. When used in conjunction with water pressure monitoring, environmental experts here say it has proven to be a formidable system in helping find and repair leaks.

Last year, Tobyhanna joined six Army NetZero pilot installations in each of three categories: energy, water and waste. NetZero seeks to bring the overall consumption of resources on installations down to an effective rate of zero.

As an Army NetZero water test facility, Tobyhanna is well on its way to meeting a 50 percent water reduction by fiscal year 2020 through aggressive water conservation efforts, water use surveys, water meter installation, water/waste water recycling efforts and rainfall harvesting. Leak detection is one part of a multi-faceted system of monitoring this important utility system.

Environmental Specialist Thomas Wildoner pointed out that through water conservation and leak detection efforts the depot has already exceeded established goals.

"We're sharing lessons-learned, equipment manuals and scope of work for this project with other installations in an effort to help them achieve these same water reductions," he said.

Information on acoustic leak detection was also uploaded to the U.S. Army Corps of Engineers Engineering Knowledge Online Portal according to Wildoner.

"The use of acoustic leak detection sensors is an innovative approach to determining the source of water distribution system leaks," Wildoner said. "Minimizing leaks and losses within a water system is critical to increasing efficiency and conserving water resources."

A few years ago, federal agencies were tasked to improve water efficiency and management by reducing potable water consumption by two percent each year through fiscal year 2020, or 26 percent by the end of fiscal year 2020.

Tobyhanna accepted the challenge by installing 55 acoustic leak detection sensors at various places on the water distribution system. The total cost of the sensors, remote reading equipment and initial installation was $88,000, according to Wildoner. He explained that the acoustic sensors are attached magnetically to major valve stems on the installation and read once a month using a wireless device.

The sensors successfully identified eight water leaks during a seven month period, decreasing water use by more than 46,000 gallons per day. It also helped lower the depot's annual water use from 75.8 million gallons in fiscal 2010 to 58.8 million gallons in fiscal 2011.

Using specialized microphones and acoustic meters, leak detection surveyors can monitor sounds and isolate leaks in a pipe. Each sensor can detect leaks in a 500-foot radius.

"Data is collected from each site and then downloaded onto a computer for display and analysis," Wildoner said. "Leak detection and acoustic leak sensors are reliable and cost effective methods to save water. It is through the routine monitoring and maintenance of our system that we ensure continuous improvement and success in meeting our NetZero goals."

USB-to-Ethernet Adapter Saves Training Costs

Donald Meyer, from the Communications Security Logistics Activity (CSLA) New Equipment Training Team, Fort Huachuca, Ariz., devised a solution for utilizing a USB switch in CSLA's In-line Network Encryptor (INE) KG-175D training. This alleviated the need for having two computers per student, giving the Army a short-term savings of over $25,000 in hardware costs, maintenance and shipping. Previously, two laptop computers were needed to handle what are known as red and black operations; however, with the switch, both can be emulated using just one laptop by changing one of the USB ports on the laptop to an Ethernet connection. This solution saves money not only by reducing the need of purchasing and maintaining hardware by half, but also saves on shipping costs to training locations. The training team can now train twice as many students, thereby eliminating the need for making multiple visits to individual sites. While this solution has proved invaluable as a training tool, it has not yet been approved for use in live networks.

Success of the Fleet Management Expansion Team Transition

The Fleet Management Expansion (FMX) program improves readiness for training base equipment, and partners TRADOC schools with commodity-oriented commands. The FMX team has raised the Operational Readiness (OR) rate of the TRADOC Fleet from a historical average of less than 90 percent to 98 percent overall for fiscal year 2011. In addition to raising the OR rate and utilizing CECOM reach back capability, the FMX team was able to realize a cost avoidance of over two million dollars in maintenance expenditures for TRADOC. While it appears complex, the FMX transition was an excellent blending of efforts to improve training, fleet readiness and enable each partner to focus on its core mission and improve support to the Soldier. The success of the FMX program at Fort Huachuca and Fort Gordon is a clear indicator that TRADOC and the Army can realize significant increases in equipment readiness and availability when the workforce is aligned correctly.

IT Service Management System (ITSM)

ISEC is working closely with the Network Enterprise Technology Command (NETCOM) to implement the IT Service Management System (ITSM). This initiative employs best practices and includes improved processes and implementation methods to provide additional value-added functionality. ITSM provides an improved trouble ticket solution and enhanced asset management. This will result in an effective and efficient means to manage the Army's Enterprise Network.

Army Data Center Consolidation (ADCCP)

ISEC has been charged with providing IT engineering services to the Army's CIO/G6 on a number of enterprise modernization efforts. Through a partnership with the Software Engineering Center (SEC), ISEC is supporting the Army Data Center Consolidation (ADCCP) initiative. ADCCP is a five-year initiative designed to reduce and consolidate the Army's data center inventory. ADCCP will generate a significant cost savings that would reduce the Army's data center inventory by 75 percent by the end of FY15.

CTSF shares expertise, facilities with 85th CAB

Fort Hood's 85th Civil Affairs Brigade was afforded the expertise and facilities of the Central Technical Support Facility (CTSF) in preparation for and execution of its culmination exercise (CULEX) recently.

The 85th CAB was given the use of the CTSF's Mobile Expansible Configurable Container (MECC) for its brigade tactical operations center during the III Corps Road to War pre-deployment CULEX.

The CTSF Operations Branch worked with representatives of the 85th for several weeks prior to the exercise, and Operations and Test Branch personnel helped the unit configure the MECC to meet the unit's needs.

The 85th conducted pre-CULEX training, and, according to a unit spokesperson, was able to meet all of its training objectives. During the actual exercise, 85th CAB Soldiers used the specially-configured MECC to conduct light-of-sight radio communication with retransmission teams deployed through the Fort Hood training areas. The unit also conducted Blue Force Tracking (BFT) mission simulations, communicating with BFT-equipped platforms in its motor pool.

In addition to providing the MECC, the CTSF provided much of the communications network and C4ISR workstation infrastructure so the brigade could successfully meet its pre-deployment training mission requirements.

"Checks through the exercise," CTSF Operations Officer David Neely commented, "confirmed CTSF support (was) vital in enabling the brigade to execute its training mission."

TYAD programs saving money

A Value Engineering study saving the depot $1,293,173 focused on the Dewar Assembly of the Bradley Basic Sight Assembly. Prior to the study, when the Sight Assembly exhibited a low level output during repair, the Dewar Assembly was replaced at a cost of $12,926 each, equaling a total cost of $1,298,899 per year. Results determined 85 percent of the Dewar Assemblies could be repaired instead of replaced. Under the Value Engineering method of repairing the Dewar Assembly, costs were reduced to $5,726 each for a savings of $1,293,173 per year. Repairing instead of replacing the Dewar Assembly reduces the Total Life Cycle Ownership Cost. This efficiency increased throughput by eliminating procurement lead time of the Dewar Assembly since the assembly can be repaired instead of replaced.

A Tobyhanna Army Depot employee identified an alternate source of supply for relays used in the repair of environmental control units. Prior to finding the new source of supply for the relays, they were purchased at a cost of $390 each. The new source of supply provides the same relay at a cost of $7.99 each. This is a savings of $382 per relay. Based on 832 environmental control units requiring four relays per unit, which were repaired during the evaluation period, this efficiency resulted in a savings of $318,240. The new source of supply will be used for all future environmental control units resulting in additional savings for the depot and the customer.

ARAT Supports CREW

The SEC Army Reprogramming Analysis Team (ARAT) - Program Office is the Executive Agent for Army rapid software reprogramming of force protection systems, charged with Software Reprogramming for Army, Joint Services, and coalition Aircraft Survivability Equipment for Airborne Platforms, as well as providing sustainment support to Ground Force Protection Systems (CREW) for Joint Services. Under the original equipment manufacturer, the U.S. Army was paying about $4 million per Mission Data Set software update for the AN/APR48 Radio Frequency Interferometer System, with updates requiring three years to complete. The ARAT-PO took over responsibility and reduced the cost of updates to $450,000, while also reducing the time to complete an update to three months. Not only does the ARAT Program Office team reduce costs, but critical value is added in the protection of the aircraft. For example, a CH-47F Chinook costs $32 million for just the airframe, while ARAT's entire PPSS budget was $25 million for 2010, with software updates applied to all of the Army's 4,000 helicopters of various types in the fleet, all of which need force protection software updates to maintain their security.

42 years after service, CTSF safety officer receives Combat Wings

by David G. Landmann, CTSF

When Central Technical Support Facility (CTSF) safety officer Craig Jones joined the Navy out of high school in 1965, he probably never thought he'd be hanging out of the side door of a Huey firing a machine gun at a pajama-clad enemy in the jungles and rice paddies of Vietnam.

But that is how he spent a year of his military career, between 1969 and 1970.

Now, 42 years after the fact, Jones is being recognized for his service. Recently, CTSF Director Col. John C. Matthews, at Jones' request, pinned the Navy Combat Aircrew Wing award on the former Sailor's chest.

The reason for the gap between the time Jones served as a door gunner in the Navy's Helicopter Attack (Light) 3 (HAL-3) Squadron Seawolves and the presentation of his award, Jones said, is fairly involved.

In the wake of the Korean War, Jones explained, the Department of the Navy awarded the Combat Aircrew insignia to enlisted personnel engaged in aerial combat. The U.S. Marine Corps subsequently retained the special Combat Aircrew Insignia to recognize and distinguish its air crews who had been engaged in combat missions.

by David G. Landmann

CTSF Operations Officer Craig Jones, right, is overcome with emotion, as CTSF Director COL John C. Matthews pins Navy Combat Aircrew wings on him. Jones earned the Navy honor in the Vietnam War as a combat helicopter door gunner. The award was presented to him 42 years after his service in the U.S. Navy.

It was the Seawolves' contention that the Navy's HAL-3 door gunners should have received the same honor.

"Our missions," Jones said, "were truly combat missions. We were sent out to provide fire support for SEAL (Sea, Air, and Land) teams."

According to the Seawolves Combat Aircrew Wing Coordinator Dick Catone, the missions flown by the HAL-3 Squadron were "truly combat in the purest sense," and Seawolf door gunners should have been presented with the award retroactively.

"But," Catone wrote, ". . . requests to obtain approval for retroactive awarding of the Combat Aircrew Insignia were denied."

Finally, after continued lobbying efforts, the chief of Naval Operations approved the awarding of the Marine Combat Aircrew insignia to Navy personnel who flew in combat while assigned to Marine Corps units as crew members. It took a little longer, but it was determined that Jones and his fellow

> ❝ We got shot up and shot down. We got shot down once and counted 117 bullet holes in the helicopter. ❞ ~ *CTSF Safety Officer, Craig Jones*

Seawolves could, and should, receive the insignia because their missions involved direct combat support to not only Marines, but Army special forces, the Navy "brown water" sailors on river patrol craft in the Mekong Delta.

The award, it was determined, could be accorded to Navy door gunners and door gunners only.

Jones' 42-year-long path to the pinning ceremony actually began at Aberdeen Proving Ground in the early years of the Vietnam conflict.

"I went through training there to install miniguns on helicopters," Jones said.

At the time, a minigun was a six-barrel, air-cooled, electrically-driven rotary machine gun that became the weapon of choice on the attack helicopters used extensively in Vietnam in combat missions.

As the Vietnam War progressed, Jones recalled, the Navy saw its SEAL teams operating in the Mekong in need of helicopter-borne fire support.

"So the Navy got hold of some Army 'reject' birds and fixed them up," he said. "It was my job to install the miniguns in them, but I ended up volunteering to be a door gunner."

Jones was assigned to Detachment 6 of the HAL-3 Squadron that was made up of a total of nine detachments with two helicopters to a detachment. He was one of eight door gunners in the unit.

His job was to clip his gunner's belt to a D-ring in the back of his UH1-A helicopter and fire, as necessary, a hand-held M-60 out of one of the chopper's two gaping side openings. By his estimation, Jones flew more than 200 missions from that vantage point, and was part of Operation Slingshot in the Mekong Delta.

"We got shot up and shot down. We got shot down once and counted 117 bullet holes in the helicopter," Jones recalled with a smile.

But it was only one bullet that convinced Jones it was time to leave the Seawolves.

"We were on a mission, and I actually saw a bullet – a black dot – coming toward me. It passed my head and hit the back of the helicopter. That's when I knew it was time to move on," he said.

Now, 42 years after that bullet whizzed past his head, Jones said he was pleased, and even relieved, to receive the Combat Aircrew wings.

"It is really special to be recognized for something you did," he commented, "but when this chapter is over, that's it. I'm ready to put (Vietnam) behind me now."

Did you know?

The U.S. Department of State has selected the Financial Disclosure Management (FDM) system developed by SEC as their sole source for filing financial disclosure reports. Multiple DoD and non-DoD Executive Branch agencies use FDM to automate their financial disclosure reporting and reviewing processes. FDM was recently recognized with two awards at the 18th National Government Ethics Conference. The State Department has a total of 4,000 OGE 278/450 filers.

CECOM Hosts Medal of Honor Winner at C4ISR Center of Excellence

by Kelly Luster

Oct. 25, 2007, was like any other day in Afghanistan. Giunta and the Soldiers in his platoon set out in the pre-dawn hours as part of a battalion-wide mission to recover equipment taken from a scout and gun team overrun by enemy fighters on a patrol days before. It was critical to recover the equipment according to Giunta. They had an "M240-Bravo, suppressed M4s, Night Vision Goggles, lots of ammo," he said. "One of the critical pieces for us was the Night Vision Goggles. We owned the night. We can see things they can't, we used infrared lasers for a lot of the stuff we do. We mark with infrared lasers. We see it, they can't. Now, all of the sudden they can see everything we can see."

After sitting in place roughly 14 hours, with the sun starting to set, his unit started planning to withdrawal from the operation. Above them on the mountain 3rd platoon had the high ground, and below in the village was 2nd platoon. Providing over-watch were two Apaches and a Blackhawk with the command group.

Uncharacteristically, the platoon had to leave by the same route it arrived. "We never go in the way we go out," said Giunta. "It creates a pattern. It's bad business, we don't do it." In this case, there was really no other choice, they could jump off the mountain or return the way they came.

Unpretentious and without airs, standing about 5 feet 10 inches, weighing 175 pounds, Sal likely would blend into most crowds on most days. Today however, he walked onto to stage to a thundering ovation. The entire time motioning "down" with his hands to those who came to hear him speak and

saying, "please, please…take your seats… you're too kind…"

But such is the character of the man who came to Myer Auditorium at the C4ISR Center of Excellence. Retired Staff Sgt. Salvatore Giunta, is a very modest man. Having stood with him only moments prior to his introduction as he prepared to walk onto stage, one could only imagine just how modest a man.

Sal, as he prefers to be called, reached into his left inside suit pocket and retrieved from it a light-blue ribbon adorned with thirteen white stars in the front, upon which there is an eagle clasping a gold bar upon which the word "Valor" is written, an inverted five-point gold star hangs just below—in the center is Minerva's head surrounded by a wreath and the words "United States of America." Sal only places the Medal of Honor around his neck just before he prepares to address the audience. He said, "I only wear this for the people who came to hear me speak, not for me."

SERVICE AND SACRIFICE

"This is kind of a special place for me to come to," said Giunta as he began. "I think this group is different from most groups I talk to. War is not fought by an individual. It is fought by a collective group of people. And it's not just the people fighting in combat; it's all the support behind those people in combat. This is a true place of support."

Although Giunta wears the nation's highest military medal for valor, he paid tribute to everyone who served in the military by asking everyone in the audience who served in any branch of America's armed

services to stand to be recognized.

"If you have ever served in any branch of the service, in war or peace, raise your hand," said Giunta. "If you volunteered to support your country will you please stand and be recognized. Stand up. Thank you for your service."

Sal explained to the listeners why service to one's country is beyond reproach and should be held in the highest regard by everyone.

"To wear the uniform, or having worn the uniform, you have written a blank check to the United States of America for up to and including your life," said Giunta. "It's not up to you when it gets cashed. It's not up to you how much it will be worth or how much it'll be cashed in for. It's not for your own benefit, but for our country's benefit and for that—I thank you."

As he began recounting the events that occurred in the pre-dawn hours five years ago to the day, Giunta earlier said it doesn't get easier to talk about. And then he began where he always begins.

EARLY LIFE

"Well, I'll start at the start. I was an easily excitable child. I didn't have a whole lot of direction. I wasn't very goal-oriented, I had a lot of energy and I liked to go in every direction at the same time. This made me not the best of students, but an exciting kid."

He said he remembered Sept. 11, 2001, when he was a sophomore in high school in Eastern Iowa. Giunta said his chemistry teacher turned on the TV because an airplane had just flown into one of the World Trade Centers in New York. And then the second aircraft flew into the second tower. It was

then it became an act of terrorism—a deliberate act of war.

"I felt this anger inside me," he said. "I felt this burning and steam and I wanted to do something and I wanted to get them back, but I didn't know how. But, as life does for so many people who are 16-years-old and in high school, life moves on."

Giunta said his focus moved to graduating high school and the feeling of getting back at those who had perpetrated the act of terrorism in New York subsided—or at least he thought.

Where Giunta grew up in Iowa, he said there wasn't a strong military presence, nor was there a member of his family in the military. "It just sounded like possibly something fun to do," he said.

Late one evening Giunta was mopping the floor at his job at a local Subway where he was a 'Sandwich Artist.' He said he heard an advertisement on the radio for a local Army recruiter who was giving away free T-shirts. According to Giunta, he wasn't planning to make Subway a career and a free T-shirt sounded pretty good.

The next day he found himself face-to-face with an Army recruiter who pitched the sales pitch of the century.

"Son," the recruiter began. "We're a country at war. We've been in Afghanistan since 2001. On March 26, 2003, we entered Iraq. We're fighting on two fronts. At 18-years-old if you want to make a tangible difference—a physical difference you can see at that moment, join the military."

Giunta said it was a pretty solid speech, but it still didn't sell him volunteering for the military. "I just came here for the free T-shirt," he said. Giunta took his shirt and left. But over the next 10 days, what the recruiter said resonated within him. Giunta felt he could make a difference and it

sounded like an adventure. So he went back to the recruiting station and enlisted.

The recruiter said, "Alright, what do you want to do?" Giunta said until that point he didn't know there were jobs in the Army. He thought it was just like the "Army" and then the Army just sorted it out and then gave you something to do.

"I want to spit, swear, shoot guns, jump out of planes, fight bad guys and drink beer," said Giunta. "The recruiter said, "We have that job description—Airborne Infantry—it's going be perfect.""

YOU'RE IN THE ARMY NOW

He enlisted for four years. But he didn't really set any goals other than getting deployed and fighting the enemies of his country. But when he actually went in to the Army, he learned something very different—you don't just get to join and go fight, come back and kiss pretty girls and drink beer—there is training, training, and more training through which you earn respect, service and responsibility.

Giunta said there's an understanding of a system that has been in place long before he joined the Army.

"Most people learn lessons are taught through pushups and flutter kicks. That's how I learned best," said Giunta.

But physical conditioning was not the only attribute the Army had to offer said Giunta. The Army brought together people from more walks of life from different backgrounds and from various parts of the country, then dropped them all into one place and watched them grow into one cohesive unit working together like a finely tuned and oiled machine.

"We were from all over the United States…from Washington, Florida, New York, and Iowa. They put us with each other

not as leaders and subordinates, but as peers in a completely different situation from anything we were used to. They taught us things none of had thought to learn before. We learned not to rely on ourselves, but rather to rely on those around us. I'm with a bunch of other new guys, and because I'm part of this team and I've started building this family, this strength, this bond that will carry us through combat."

After basic training Giunta went to Airborne School and then reported to his unit in Vicenza, Italy, the 173rd Infantry. "I remember sitting in that recruiter's office looking at a magazine," said Giunta. "There was a picture of this guy down on one knee, he had parachute crap hanging all over the place, he was muddy in the dirt, and he had just jumped into Iraq. That was the 173rd."

Giunta said he felt very fortunate to be assigned to the 173rd.

"They were a special group—true Soldiers. Not just any Soldiers, but Soldiers with experience, with knowledge, men who were willing to impart that knowledge through counseling and mentorship, through pushups! It was a pretty good place to be able to come in and be able to be put to the test immediately. No one is going to cut anyone any slack!"

The men Giunta served with led by example. Nobody expected us to do something they hadn't already done or weren't out in front of the formation leading the way. The 173rd had high standards for every Soldier, regardless of rank or position.

"In the 173rd, they didn't ask me to run a 12-minute 2-mile, they ran a 12-minute 2-mile and they said you better keep up!" said Giunta.

The 173rd was also full of experience. Soldiers who had been to war and could pass on valuable lessons learned to the new guys.

"I came into the military under strong leaders—strong young leaders," said Giunta. "My team leader was 21-years-old and had a year of combat experience and a jump star—a combat jump on his wings and had seen death. His name was Sergeant Nicholas Post. He told me that war was not everything I thought. It was going to be difficult. It was going to be hard and we can say we train as we fight, but it will always be harder when it really happens. Because the stakes are high! In training you can run the lane again, you can try again, in combat there are no second chances."

Giunta said the day before his unit was due to deploy to Afghanistan was one of the most exciting days of his life. No other day in his life to that point could compare.

"I remember the day we were going to deploy. I have never been more excited for anything in my entire life. I was never more ready to get something underway than my first chance at combat—my first chance to serve my country. But then I got there and I realized, Afghanistan is a really different world from what I expected, it wasn't going to be what I had seen on TV, it wasn't going to go down how I expected."

After arriving in Afghanistan, Giunta and approximately 35 other troops spent most of their time about 20 klicks away from any other "friendlys" in the middle of the mountains running missions 24/7. Not long after they arrived at their mud hut in the middle of Afghanistan, a truck bringing supplies to fortify their position hit an IED killing several Soldiers. Giunta was among those detailed to recover the Soldiers' remains.

DEATH TAKES ITS TOLL

"This was the first time I ever experienced a true loss," he said. "I served with these guys. I saw what they were capable of. This isn't someone who forgot to look both ways when crossing the street. These were the biggest, the strongest the fastest people I'd ever met. They died in a second—reduced to a mess on the ground—and it hurt me. I didn't know how to handle it. I'd seen dead people before, but they were all old and they weren't wearing the same uniform I was wearing… this was different."

Within a week or so, Giunta's unit was tracking a high-value target when they lost another Soldier. Their numbers quickly dropped from 35 to 29 and it had a dire effect on Giunta's emotional state.

"I got down on myself and I started thinking this isn't really what I signed up for, I'm not signing up to be a target or a sucker, but I don't how to handle this any other way and I have a pretty good feeling this crappy mountain in Afghanistan is going to be the last place I see."

If not for one of the experienced 173rd NCOs, Giunta might have remained in his slump.

"I was sitting on my cot one day all sad faced," said Giunta. "My team leader, Sgt. Post, came in and he had said, 'What's wrong dude?' and I just told him, I think this isn't going to play out well for us. I think this is "Bad News Bears" and he said in the simplest words, 'Tomorrow will come whether you're in it or not. What you have is the opportunity to do is make a difference. If when it's your time to make a difference, you give 100 percent, you cannot regret the outcome.' Simple words, I'm a simple man, but meaningful, but he was right. If I get sad or get down on myself, I can't be productive at the level I was before and there's lot to regret of you're only working at 90 percent."

Fortunately, those words motivated Giunta and helped him through the rest of his deployment. Upon arriving back in Italy he learned another lesson that was common,

though tough among Soldiers across the Army at the time—Stop Loss. While Giunta was nearing the end of his enlistment and was ready to end his adventure and move on to the next chapter, the Army made other plans for him.

"By them [the Army] having other plans I was able to get promoted," said Giunta. "I became a leader. I had the ability to lead the way I was led—and that's by example. A leader by definition should be in front. A leader shouldn't say, 'Hey go do that,' they should say 'follow me!' That's the kind of leadership I was under. That's the kind of leader I wanted to become."

Becoming a leader was only a small part of what the Army had in store for Giunta. Additionally, elements of the 173rd were already preparing to deploy to Afghanistan again including Giunta's unit.

Arriving in-country again in 2007, Giunta immediately recognized they were in a far different world from his previous deployment. "We were in different terrain," he said. "It was much more mountainous. We were half way up a mountainside. About 135 troops spread across a valley, six miles by six miles. We had three FOBs (Forward Operating Bases) set up. The closest one was directly across the valley—straight-line distance probably two klicks (2 kilometers) walking distance four to eight hours depending on the weather and how high the river was. And [enemy] contact was every day."

The other thing Giunta said was different about this deployment was his ability and confidence to lead his team. "As a leader I was able to instill the confidence in my guys that was instilled in me—the same confidence that was instilled in me through work ethic," said Giunta. "We know we came here more prepared…we're bigger, we're faster, we're stronger, and we worked harder."

THE NIGHT EXPLODED

Because the terrain was so tight and so difficult to traverse the platoon walked in single file with about a 10-15 meter-interval between each Soldier to avoid an incoming enemy grenade killing more than one Soldier. As they started to move, perhaps no more than 400 meters from where they lay in wait the entire day, ". . .it seemed like the whole world kind of exploded on us," said Giunta. As it turned out, what exploded was an L-shaped ambush Giunta's comrades had just walked into.

Giunta said his immediate reaction was to check the two men on his team—the two directly under his command. As he turned he saw Pfc. Kaleb Casey standing straight up with an M249 SAW (Squad Automatic Weapon) with his finger pressing the trigger. Giunta said, "He stood there and just started roping rounds. He shot all 200 rounds, he didn't stop, and he didn't take his finger off the trigger. . .at night, when you shoot that fast—he looked like a dragon blowing fire. By him doing this, he allowed us the freedom of movement."

Pfc. Garrett Clary began firing his M203 grenade launcher. He was firing 40mm grenades, which are about the size of a fist. The ambush line, according to Giunta, was extremely close, so the grenades were likely landing beyond the line. Giunta turned his attention back to the front, toward the ambush because Clary and Casey were doing what they needed to be doing by providing suppressive fire for survival of the group.

As Giunta moved forward he saw Staff Sgt. Erick Gallardo drop and his head twitch "in a bad way," Giunta said. "I was overcome with anger. I ran forward because I thought I needed to grab Gallardo because I thought I needed him not to get shot. I ran forward and I grabbed the handle on the back of his vest. As I was running back he started stumbling to his feet."

After a quick inventory of grenades, Giunta and Gallardo began bounding forward to link up with two other Soldiers who were still forward of their position, Spc. Frank Eckrode and Sgt. Josh Brennan. After throwing grenades at enemy positions and bounding, they made it to Eckrode.

"As I threw my last grenade we came up on Eckrode," said Giunta. "Eckrode was shot twice in the leg and twice in the chest. The vest stopped both of the shots to the chest. As we were running forward, Gallardo went to Eckrode. Because of what Gallardo instilled in us—confidence in one-another—I knew Eckrode was going to be fine."

As night continued close in around him, Giunta continued to make his way forward looking for his friend, Sgt. Josh Brennan. "I ran all the way up front. I figured I'd run and fight next to Brennan. I knew Brennan charged the Ambush line."

But as he arrived where Brennan should have been, he was perplexed—his friend was not there. So he continued a little further when he finally saw three figures in the dimly lit night. But this too was confusing.

"I couldn't grasp who beat me up there and why they were going so far in the wrong direction," he said. "As I came to realize what I was really seeing was two enemies, two bad guys, whatever you want to call them, carrying away Sgt. Brennan—one by the hands and one by the feet. I tried my best to eliminate the threat. I shot both of them—dropped one on the spot—the other one jumped over the side. I grabbed Brennan and took off back the direction I came. The same way I had with Gallardo, by that handle on the

by Kelly Luster

Retired Army Staff Sgt. Salvatore Giunta describe the events of Oct. 25, 2007, earning him the America's highest military award for valor, while speaking at the C4ISR Center of Excellence, Aberdeen Proving Ground, Md., Oct. 25, 2012.

back of his vest, he [Brennan] was alive. . . he was shot about seven times, in his legs, his arms, his chest, his mouth. He was talking the whole time. . ."

Giunta started working on his friend, trying to provide as much first aid as he could while calling for a medic. The entire time he reassured his friend and told him one day he'd be telling 'hero stories.'

Giunta had no way of knowing at the time why the medic never came. Spec. Hugo Mendoza, the combat medic held in such high regard by everyone in the unit and upon whom Giunta had called two times prior to this night, had been mortally wounded during the ambush.

As the firefight ended a MEDEVAC arrived to get the casualties out. Sgt. Brennan was the first to be hoisted due to the seriousness of his injuries. Prior to loading the wounded and dead however, equipment had to be separated. Weapons, ammunition, ballistic vests, assault packs protective gear, essentially anything the Soldiers were carrying when they started the patrol was now divided among their fellow Soldiers to carry back from the patrol.

Giunta said "The responsibility that once belonged to another person, now belongs to us—our team—our brothers. It was heavy. I carried Bennan's weapon. I carried his assault pack. I carried the extra "small D." I carried the extra rounds and I felt that and I missed him already."

As the men completed the two–hour hump back to their base camp, they discovered Spc. Eckrode was going to be fine. Two other Soldiers who were injured in the firefight were also fine. They were in and out of surgery. However, not all news was good. The unit's beloved medic, Spc. Hugo Mendoza, was killed-in-action during the ambush and Sgt. Josh Brennan succumbed to his injuries during surgery.

Over the next few days the Soldiers conducted AARs and drafted sworn statements ensuring they did what they were supposed to do. The Army prides itself on learning from mistakes and lessons learned. On the third day, Giunta's company commander told him he was being recommended for the Medal of Honor. He said "How can you try to award something on such a terrible day? How can you award me with anything? That entire firefight I shot maybe 30 rounds—maybe one magazine. While Casey stood up and roped out a 1000, maybe 2000 rounds and made himself a target. Staff Sgt. Erick Gallardo had done everything I did. I did exactly what was expected of me and what I would expect anyone else to do. I no longer worked at Subway. We were professional Soldiers. We didn't enlist to learn accounting or learn how to type. We signed up shoot weapons and bad guys. This is what was expected of us."

And, just as was expected of good Soldiers, four days later, he and his Soldiers were back out on patrol. "One bad day happens all the time to different units or different groups—not just in the army—it happens to everyone. But what we're expected to do is to continue. We still have a job, we still have a mission, and we still have a team that exists. And now, we owe it to our brothers to continually give one hundred percent because they already gave their one hundred percent the day they needed to," said Giunta. He and his friends in the 173rd wouldn't leave Afghanistan until the following July totaling more 15 months in combat.

EVER SO HUMBLE

Ending as he started—ever so humble—taking his right index finger and pointing to the Medal of Honor around his neck Giunta said, "The only reason this is around my neck is because that's where it's supposed to be worn. The only reason why I'm the only one wearing it is because it's only big enough for one. What this medal represents is all of us—all of us who have fought—those who have died, not just in this war, but also past wars. Those who have made America, America, and those who keep America, America. Too often we take these privileges, these freedoms, these rights we receive because we were fortunate enough to be born here, and we take them because they were given to us freely, but they do not come for free…this medal represents all those who made sure we can live free, all of us can be free, and stay free."

While Giunta has hardly any regrets in life, there are a few. He said he would have loved to have gone to Ranger School. "I can't do it as a civilian," he said. Also, while he may be the recipient of the Medal of Honor, there were so many other good troops on that mountain that night—names often pushed aside when his is recognized. "Those guys who cared more about the people to the left and to the right—the guys who are the reason why I was standing on that stage. In this time in this picture that is painted, my brush stroke wasn't the first, isn't the last, wasn't the most spectacular, wasn't the biggest or the brightest, it just simply filled that space, all the other space was filled by the men around me."

The opportunity to hear a Medal of Honor recipient speak is rare. According to the Medal of Honor Society, there are 81 living Medal of Honor recipients with only three from the current war in Afghanistan including Giunta, Sgt. 1st Class Leroy Petry, and retired Marine Sgt. Dakota Meyer. Four Medals of Honor were awarded posthumously for service in Iraq to Sgt. 1st Class Paul R. Smith, Master-At-Arms 2nd Class Michael A. Monsoor, Army Pfc. Ross A. McGinnis, and Marine Cpl. Jason L. Dunham.

Giunta said the Medal [of Honor] has provided him a platform from which to speak about issues he deems important to the moral fiber and the future of the America. In particular, he believes taking every opportunity to speak young adults is an opportunity not to be missed to ensure to the success of our country and our military.

"I like to talk to high school and college kids," he said. "They don't understand how many opportunities are out there for them. Everything is an opportunity. Doors only close when you let them close."

"I talk about commitment and I enjoy service and I use the military because that's where I got it from, but we're all capable of doing anything we want," said Giunta. "An average person can become an incredible person with what you decide to do with your life and how you decide to go about it."

In the end, it was not retired Staff Sgt. Salvatore Giunta who should be humbled before us—but rather us before him.

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Army central metering program to conserve energy, save money

by ISEC Correspondent

FORT HUACHUCA, Ariz.—Recently, all eyes have been on the federal budget situation. While lawmakers are scrambling to cut costs, the Army has taken steps to reduce expenditures on its installations.

One way the Army hopes to save money is through a plan to conserve energy on its military posts, camps, and stations. The Army Central Metering Program is one of those initiatives, and the U.S. Army Information Systems Engineering Command (ISEC) is playing an integral role to ensure success during the implementation of this project.

According to the Army Metering Implementation Plan, meters will be placed on Army facilities to measure and account for energy use. These meters will provide data that will measure energy consumption by the hour.

"The intent is to reduce the consumption of energy throughout [the Department of Defense]," said Fred Abbitt, an ISEC physical and control system security subject matter expert. "There are a number of programs out there designed to reduce energy consumption on installations. The idea is that over the years, there will be a return on investment."

However, before the Army begins saving money, it must ensure the meters meet network and security requirements. ISEC has partnered with the U.S. Army Corps of Engineers to do just that. The meters are undergoing a round of testing and adjustments to secure the baseline of the devices which will eventually end up working on a network comprising of each individual meter. The meter will feed into building level controllers, which feed into the installation Enterprise Energy Data Reporting System, which finally feeds into the Army's Meter Data Management System.

In order to integrate the systems and network together on the Army's infrastructure, the equipment must be able to send the data securely.

"They will have network security in place to protect the data, to make sure that everything is safe and secure as it goes through," said Deborah Harvey, ISEC Corps of Engineers senior project lead. "We're actually building smarter systems that can protect themselves."

Harvey said the security precautions being put in place are intended to thwart potential hackers from gaining access to the system which could lead to data losses and false information. She also emphasized standardization is key and less man-hours would be needed once the system is fully operational.

"If we can consolidate those legacy systems into one or two up-to-date current systems and deactivate the legacy systems, we're saving resources." said Harvey. "If we can consolidate the data into one repository, we're hoping for a bigger, better picture on what's actually going on."

Abbitt explained the data collected will

> "If we can consolidate the data into one repository, we're hoping for a bigger, better picture on what's actually going on."
>
> ~ *Deborah Harvey, ISEC Corps of Engineers*

Aaron Sneary, an information assurance professional with the U.S. Army Information Systems Engineering Command's Information Assurance and Security Engineering Directorate, tests an electrical meter in a lab at Fort Huachuca, Ariz.


John Bishop and Aaron Sneary, both information assurance professionals with the U.S. Army Information Systems Engineering Command's Information Assurance and Security Engineering Directorate, hook up and test electrical meters in a lab at Fort Huachuca, Ariz.

be used to monitor energy consumption at facilities on military installations. He said it will also identify which buildings are consuming energy wastefully and will be able to pin-point exactly when it happens.

"We will eventually be able to determine when a particular building at a particular installation, appears to be consuming an excessive amount of energy," said Abbitt. "And, from a leadership perspective, contact the local installation and provide them guidance or a directive as to what to do to reduce consumption or investigate why it's occurring."

In turn, the overall concept behind the monitoring energy consumption is to save money. Abbitt and Harvey agreed that, in these lean times, fiscal responsibility is a must and this program will have a large impact on targeting resources that can be more efficient.
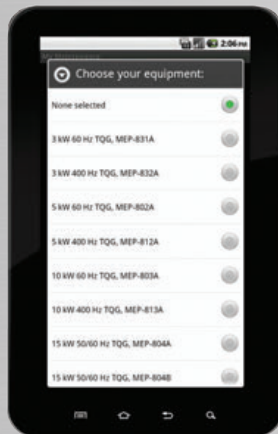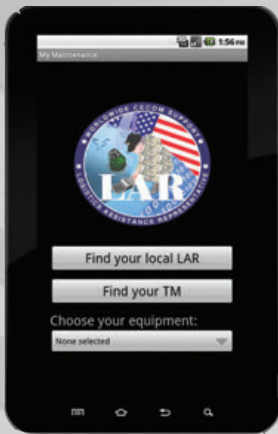
PMCS Goes Digital: Teaming Up to Build Apps for the Future

by Sarah West, LRC

The Power Environmental Directorate (PED) of the CECOM Logistics Readiness Center (LRC) strives to make preventative maintenance information regarding mobile power more accessible to the Warfighter. In partnership with the Field Support Directorate (FSD), PED designed and developed a mobile application or an "app" that can be downloaded to any Android phone or tablet and provides the same Preventative Maintenance Checks and Services (PMCS) information found in Technical Manuals.

PED's mission is to provide the Warfighter superior sustainment logistics support for power, heating, and cooling equipment. That includes providing equipment maintenance information and procedures in the paper Technical Manuals (TMs) or Electronic Technical Manuals (ETMs) viewable as a PDF in Adobe Acrobat. Logistics Assistance Representatives (LARs) report that Soldiers frequently misplace or aren't carrying their generator set TMs and cannot perform PMCS and scheduled maintenance tasks per the TM requirements. Not performing prescribed maintenance leads to premature component failures, increased life cycle costs, decreased readiness rates, longer repair times and unnecessary parts replacement. The information in most Generator and Environmental Control Unit (ECU) TMs do not have distribution restrictions and thus can be released in other formats. The Extensible Markup Language (XML) source documentation is ideally suited to creating other formats, such as an app.

Did you know?

Personnel from Tobyhanna Army Depot have installed more than 100 Training Multimedia Language Laboratories (TMLL) in 63 countries around the world, dating back to the first installation in 2003. Tobyhanna Army Depot has also sent more than 200 TMLL systems in various configurations directly to the customer for installation.

The Power PMCS App is a management and learning tool available to the operator and field maintainer. Everything a Soldier needs to know about doing maintenance on his or her generator set can be graphically displayed on his or her phone or a tablet computer. The app tracks users' interactions with the information presented; it tracks what maintenance was done by whom, when, where, and whether or not the user found equipment defects during the PMCS procedures. The new app helps engage equipment operators and maintainers to improve compliance with and performance of PMCS, scheduled maintenance tasks, and un-scheduled maintenance tasks by providing them an accessible, interactive, entertaining, and easy way to access generator set information.

PED and FSD presented the app at the 2012 PM Mobile Electric Power user conference. At least 77 military members at the conference downloaded the app directly onto their smart phones on the spot. We received feedback requesting new features to the PMCS app, such as barcode and serial number scanning and more equipment support. Military members asked about the possibility of customizing the PMCS app for the various branches of the armed services. Several individuals had ideas for other apps that would help support their missions. Many liked the idea of a global equipment tracking system or apps and were excited at the prospect of having apps that supported additional maintenance functions.

The Department of the Army is looking at opportunities and testing apps for Soldiers to use on smart phones and mobile tablet computers on the battlefield. CECOM's vision challenges the directorates to improve business processes using new technology to reduce total life cycle ownership cost of C4ISR systems. PED and FSD teamed up to break new ground in support of this broader organizational mission.

> " This App enables the soldier to perform PMCS in the field and instantly get the information back to their supervisor. The information is available in the palm of your hand. No more numerous manuals and paging back and forth. "
>
> ~ *Bob Rynard, Power & Environmental, Skill Training Lead*

Dang defies the odds, defines success

by Justin Eimers, TYAD

by Steve Grzezdzinski

An AN/TPQ-36 Firefinder Radar at Camp Victory during Operation Iraqi Freedom. Dang was specifically requested to help resolve issues with Firefinder systems at Forward Operating Bases in Iraq.

U.S. Army

Dang (center) deployed to Iraq in August 2011 to identify and fix a problem with a newly installed improvement transmitter on an AN/TPQ-37 Firefinder Radar System.

His life is the sort of story destined for a book or movie. From birth in Vietnam to a career as an interdisciplinary engineer, Ngoc Dang has proven anything is possible.

Born in Saigon, in April 1975, Dang grew up in a small village with no electricity or running water. Along with his older sister and two younger brothers, Dang helped with his parents' farm every day after school.

"My parents worked very hard just to provide us basic needs," he said. "It was very hard for us. All we had was our love for one another."

After finishing school in Vietnam, Dang's aunt and uncle sponsored a trip for him and his family to come to America in 1992. Unsure of what was ahead, Dang made the trip in hopes of attending college to receive a degree and learn English. After living in Fairfax, Va., for about a year, the family moved to Reading, Pa., giving Dang the opportunity to attend Drexel University in Philadelphia. He studied as a radio frequency and microwave engineer and landed a job with Lockheed Martin shortly after receiving his degree. This was the first step down a path that led Dang to the depot in 2004.

"I worked for Lockheed, Bell Labs, Northrop Grumman and Triquint Semiconductors before I became an engineer consultant at Tobyhanna," said Dang. "Wherever I've worked, I have always strived to set my goals high and aim even higher."

Dang works in the Production Engineering Directorate's Intelligence, Surveillance and Reconnaissance (ISR) Engineering Branch. He is the commodity expert for ISR systems. Branch chief Joseph Salamido says his expertise and experience are what set shim apart from the rest.

"His expertise with radar, in particular, makes him the go-to guy for resolving technical issues with current systems and for preparing Tobyhanna to support future radar systems," said Salamido.

After having to work so hard to learn English once coming to America, Dang applied that same mentality to his work at the depot.

"Dang's work ethic is second to none," said Salamido. "He is always willing to work long hours and answers his cell phone at all hours of the night to ensure technical problems are resolved as quickly as possible. He has a unique ability to troubleshoot complex problems quickly." Salamido believes this gift comes from Dang's extensive knowledge of radar systems and the theories behind how they operate. Combining this knowledge with extensive hands-on troubleshooting experience, he plays a vital role in the depot's commitment to the Warfighter.

"His position is extremely critical to supporting the overall mission of the depot. He resolves complex problems quickly, enabling us to meet schedules for critical systems and return these systems to the Soldiers in the field," said Salamido. "His assistance is so helpful that he has been specifically requested to help resolve issues with Firefinder systems at Forward Operating Bases in Iraq."

Dang's commitment to his job, the depot and the Warfighter has an impact on those around him. C4ISR Maintenance Engineering Division Chief Mark Viola said he has seen few people with the same amount of dedication.

"Dang has always struck me as a person who knew what he wanted to do with his talents and abilities and then gave 125 percent to achieve his goals," said Viola. "Dang consistently goes the extra mile, day in and day out. He never complains about the demands of his position. His level of dedication is among the very best that I have ever witnessed in anyone."

While his journey through life is inspiring and his rise through the ranks at the depot serves as an example of where hard work can lead you, Dang's humility speaks louder than any of it: "I'm just doing my job."

U.S. Army

Dang deployed to Iraq in August 2011 to identify and fix a problem with a newly installed improvement transmitter on an AN/TPQ-37 Firefinder Radar System. Here he is pictured standing in front of a mine resistant ambush protected vehicle.

Cloud.Mil

SEC's Cloud.Mil solution for DoD

by Farry Philippe-Auguste and Kim Heard, SEC

The Problem Statement

In its present form, the DoD data center "foot print" far exceeds both current and projected needs, making it unnecessarily expensive to operate and manage. This data center infrastructure evolved over many years around individual Component and program needs and is characterized by a lack of Enterprise-wide integration, an inability to effectively secure information and share it across the Department and with mission partners, an inability to effectively leverage new technology, duplication of systems and services, unnecessary complexity, and excessive facility capacity.

Building and running on-premise applications is complex, expensive, and risky. Each application requires hardware, an operating system, databases, middleware, Web servers, and other software. Once the stack is assembled, a team of developers has to navigate complex programming models like J2EE, .NET, Coldfusion and SAP. A team of network, database, and system management experts is then needed to deal with enormous complexity, such as new deployment architectures, management and monitoring of the resources, application lifecycle management, infrastructure licensing, security and scalability. Constant new business requirements coupled with new security requirements require changes to the applications, which then kick off a lengthy development, test, accreditation and redeployment cycle.

In light of these issues, DoD policy makers are looking to Cloud Computing for help in addressing these problems.

What is Cloud Computing

Cloud Computing is a model that conveniently enables on-demand, self-serviced access to a shared pool of computer resources (e.g., networks, servers, storage, applications, processing and data) that can be rapidly provisioned and released with minimal management effort or interaction.

Current Solutions

Several private Cloud solutions within the DoD are trying to tackle these problems by consolidating at the infrastructure layer. The centralization, abstraction and virtualization are accomplished at the network, storage and servers layers. Although some efficiency can be gained by leveraging this Infrastructure-as-a-Service (IaaS) model, none of the current solutions are fundamentally addressing the infrastructure software stacks (middleware or platform layer). There are a lot of conversations on how to stop the different silo'ed environments in the Army, but none of the current proposed solutions are consolidating and abstracting at that layer, which limits the actual return on investments and benefits associated with actually centralizing and consolidating DoD applications.

SEC's Cloud.Mil Solution

Cloud.Mil is a private Platform-as-a-Service (PaaS) solution that allows organizations to streamline IT operations, simplify application deployments, and lower the cost of IT operations by automating traditional complex manual administrative tasks and optimizing the number of software licenses required to run today's applications. Cloud.Mil offers a faster, more cost-effective model for application development and delivery. This is accomplished by providing a self-service, on-demand development and deployment platform for developers to quickly deliver the applications needed to respond to rapidly changing business needs and also provide IT managers real time performance metrics, audit and summary view of the applications in the cloud.

Cloud.Mil provides the entire infrastructure needed to deploy and run web-based applications and services over the Internet. This approach streamlines the Information Assurance (IA) accreditation process while increasing the security posture of the applications. Cloud.Mil allows for a unique abstraction layer that allows for consolidation at the middleware layer while still segregating application information. This unique approach maximizes the efficiencies gained while defense agencies are centralizing applications to the enterprise.

Cloud.Mil is a DoD-specific comprehensive end-to-end application management platform solution that simplifies the development, deployment and runtime management web-based applications and services. This is a DoD architected solution that is aimed at solving the DoD's unique challenges.

Cloud.Mil Advantages

With Cloud.Mil, DoD IT departments can focus on innovation instead of complex infrastructure. By leveraging the PaaS, organizations can redirect a significant portion of their budgets from "keeping the lights on" to creating applications that provide real business value.

The benefits of Cloud Computing for the DoD far exceed the challenges. Listed below are some of the benefits that Cloud Computing offers:

- Seamless failover and continuity-of-operations (COOP) features
- Single click deployment features
- Real time auditing
- Streamlined IA process
- Centralized realtime portfolio management
- Centralized management
- Maximized efficiencies gained with consolidation

Cloud.Mil is aligned with the DoD Cloud Computing Goal: Implement cloud computing as the means to deliver the most innovative, efficient, and secure information and IT services in support of the Department's mission, anywhere, anytime, on any authorized device.

news *you can use*

Recently, there has been talk in the news about security breaches in highly sensitive networks including one at the White House. In fact, you hear about it all the time. This company or that company got hacked, or another company lost information or so-and-so bank got broken into and so on. Many of those companies have some of the best security money can buy and they are still vulnerable. What about you? Are you vulnerable? Is your computer protected? Likely, you've probably been under attack and didn't even realize it. In fact, you've probably downloaded something unknowingly that's running in the background right now. It probably happened during lunch while you were surfing "Sports Illustrated."

So what exactly is spyware? Despite its name, the term "spyware" doesn't refer to something used by some super-secret squirrel-undercover operative, but more often by the advertising industry. In fact, spyware is also known as "adware." It simply refers to a category of software installed on your computer which may send you pop-up ads or re-direct your browser to certain websites or monitor the websites you visit. Some extreme or more invasive versions of spyware or adware can track every keystroke you type. Some may also use spyware for malicious intent.

So how can you tell if your computer may be infected with spyware? Often times it's

difficult. Spyware creators are very ingenious when typing code for their creations. However, there are some common signs. For example, because of the extra processing and memory needed by spyware, it may cause your computer to run slow or seem sluggish. If it seems as though you are inundated with pop-up windows or continually redirected to other windows or unexpected toolbars appear, these may be signs of spyware. Unexpected icons in the tool tray, changes to your homepage, search engine changes or certain keys suddenly seem to stop working properly, these may also be signs of spyware. You know your computer better than anyone else, don't be surprised if one of these little bugs has burrowed its way into your hard-drive.

So what can you do to prevent spyware from being installed on your computer? Start by stopping. Stop clicking on links with pop-up windows—pop-up windows are often the products of spyware. Clicking on pop-up windows may install spyware on your computer. To close the pop-up window, click on the "X" icon in the title bar instead of the close link within the window.

Choose "no" when asked unexpected questions appear—be wary of unexpected dialog boxes asking whether you want to run a particular program or perform another type of task. Always select "no" or "cancel," or close the dialog box by clicking the "X" icon in the title bar.

Be wary of "free""downloadable" software—there are many sites that offer customized toolbars or other features that appeal to users—don't download programs from sites you don't trust, and realize that you may be exposing your computer to spyware by downloading some of these programs—sometimes free comes at price which may be too great in the long run.

Don't follow email links claiming to offer anti-spyware software—like email viruses, the links may serve the opposite purpose and actually install the spyware it claims to be eliminating.

So, if all else fails and you're pretty sure you've got some sort of spyware on your computer, you need to take action. Start by running a full scan on your computer with an anti-virus software package. Some anti-virus software say they will find and remove spyware, but actually may not when it is monitoring your computer in real time. After you've run the full scan, set the software to prompt you to run a full scan periodically. Ensure you run a product specifically designed to remove spyware.

For more information about spyware, simply search the terms "spyware" or "adware." You may also check with your local G6 to see what information they may have regarding anti-virus software recommendations.

TAKING CARE *of the* WARFIGHTER

"The CTSF's experiences in the development and execution of Army Interoperability Certifications testing, and our history of successes in distributive testing – and our people – work together to assure the success of current and future AGILE Fire exercises, and will ultimately improve the tactical interface between commanders in the air and commanders on the ground." *~CTSF Director COL John C. Matthews on the execution of AGILE Fire exercises in CTSF test labs.*

"ISEC is fully committed to meeting the Warfighters' requirements. We deploy worldwide, wherever and whenever we are needed to increase and enhance the DoD's C4I capabilities. The services and infrastructure we provide not only ensures the success of the current mission but also has a lasting impact for our nation." *~Command Sgt. Maj. Brenda Kadet, ISEC Command Sergeant Major*

"Your team was very professional and represented your organization well. It was a pleasure observing and learning from experts in the COMSEC arena." *~Joseph R. Brown, 54th Signal Bn COMSEC Account Manager, in response to the audit of his COMSEC account by CSLA in Kuwait.*

"The service I've received concerning CCI [controller cryptographic item] turn in has streamlined our process and turned it from something I dread doing to something I tell my peers about. Great job!" *~ Kevin Joseph, Headquarters, U.S. Army Corps of Engineers, Northwestern Division, Portland, Ore.*

"It seems no matter what the problem is Tobyhanna either has the part or will find it in an expedient manner. Personnel repaired a $10,000 shredder. While we would have worked supply channels for a new one, Tobyhanna tracked down the right part for a cost of $173. That is value added." *~Joshua Devine, Headquarters, International Security Assistance Force, Afghanistan.*

U.S. Army Spc. Daishon Newton, assigned to the Zabul Provincial Reconstruction Team security force, provides security as members of the team make their way to a canal project site in Zabul province, Afghanistan.

by Staff Sgt. Brian Ferguson, U.S. Air Force.

by David G. Landmann

A Fort Hood-based III Corps Soldier, left, and a CTSF technician, right, study a display watching for simulated incoming enemy aircraft during a recent iteration of the continuing Air Ground Integration Layer Exploration (AGILE) Fire test series. The Joint test series involves Army, Air Force, Navy, and Marine personnel in nine locations across the country. The CTSF is the Army's center of operations in AGILE Fire exercises.

Highlights

CTSF/AGILE Fire

The CTSF was established in 1996 as a center for the rapid development and testing of what were then called the Army Battle Command Systems, and has evolved into the Army's strategic facility responsible for performing Army Interoperability Certification testing, systems of systems integration, and configuration management for all operational- through tactical-level LandWarNet C4ISR systems.

As the hub of the Army's Federated Net-Centric System of test facilities, the CTSF has the ability to link with remote test and tactical locations, and has in place proven procedures for distributed testing. The CTSF has taken distributed testing to new levels in its work on the Afghanistan Mission Network in the international Coalition Interoperability Assessment and Validation effort.

It is that experience and expertise that have proven invaluable in the Joint Air Ground Integration Level Exploration (AGILE) Fire exercises conducted over the past several years.

Linked with nine other test locations, the CTSF has helped gather data during AGILE Fire exercises that has helped to pinpoint gaps in Joint information exchange requirements, and that has been put to the task of developing effective information transfer between and within air and ground domains.

AGILE Fire efforts at the CTSF have, for example, focused on the interoperability between the Air Force's air and Army, Marine Corps, and Navy ground communication layers, and have helped capture the requirements for emerging technologies in interfacing with existing force structures. In the initial AGILE Fire effort at the CTSF, a total of 15 LandWarNet/Battle Command software systems were involved in the exercise, along with two Air Force software systems, and the joint InterTEC tools suite of systems.

AGILE Fire exercises II and III brought the Joint Air-Ground Integration Cell or JAGIC, to the CTSF lab, and AGILE Fire IV saw CTSF test officers and operators joining the effort to examine the Joint UAS Digital Information Exchange, or JUDIE.

Recently, the CTSF represented Army interests in AGILE Fire exercises V and VI, and served as the center of JAGIC operations for both events.

JAGIC's Troy Carraway, who headed up his organization's efforts at the CTSF, said the Fort Hood-based facility was exactly the right spot for the AGILE Fire events.

"From the JAGIC perspective the CTSF allows for actual integration of Army and Air Force systems. It is a venue that provides all of the systems we need for interoperability. It's a good choice."

At times, more than 30 Army, Air Force and civilian personnel have been engaged in the AGILE Fire effort in the CTSF's dedicated AGILE Fire lab on our facility's 40,000 square-foot test floor.

"The CTSF is honored," CTSF Director Col. John Matthews said, "to be able to provide AGILE Fire with the physical and technical support necessary to facilitate the success of its test events. In the broad scope of things, we see AGILE Fire as a step toward further enabling a joint, federated, testing concept."

ISEC provides A/V system upgrades, integration for Army Commanders

by Ron Turnidge, edited by Capt. Francisco Polzin, ISEC

The term audio visual (A/V) may bring to mind some simple red, yellow and white wired connections linking one's television and DVD player together. However, the meaning of A/V is much more complex for the engineers of the U.S. Army Information Systems Engineering Command (ISEC).

From microphones and speakers to high-definition video wall displays and cameras, ISEC's engineers have designed, installed and integrated A/V information systems into new and existing command and control (C2) facilities, conference rooms and operations centers at both the Army and Joint levels.

ISEC's engineers have been major players in the A/V system upgrades and integrations associated with numerous Army major commands (MACOMs) and headquarters. Some of these include the U.S. Army Training and Doctrine Command, U.S. Forces Command, First Army, and 1st Armored Division, as well as Joint commands such as the United States Southern Command and the Defense Information Systems Agency (DISA) Headquarters.

"The demand for ISEC A/V engineering required to support recent efforts presented us with a tremendous challenge to provide fully functional C2 A/V systems to fulfill each command's unique mission requirements," said Troy Roberts, director of ISEC's Enterprise Systems Engineering Directorate.

ISEC has been able to successfully meet the Army's A/V system project requirements through specialized training and extensive experience. Roberts said the professional development of ISEC's engineers centers around formalized classroom instruction, vendor-specific original equipment manufacturer training, on-the-job training and mentorship by its senior A/V engineers.

ISEC's recent experience has solidified its reputation. "It was a major vote of confidence by DISA when they requested support from ISEC for their headquarters relocation," said Roberts.

According to Roberts, the capabilities provided by ISEC, while mostly strategic in purpose, enable support of down range operations by Army leadership at the four-star level to Soldiers and Army elements.

"ISEC has engineered and fielded the majority of the MACOM A/V systems in the Army," Roberts said. "This means that, in a very real perspective, the Army is communicating using the systems we engineered. Of course, makes me very proud of what my folks have accomplished."

This SOUTHCOM conference room, known as the Conference Center of the Americas, in Miami, Fla. is one of many C2 facility A/V systems integrated by ISEC engineers for DoD and the Army.

New Marine Corps radar mission begins at TYAD

by Anthony Ricchiazzi, TYAD

Even the toughest Marine needs top–notch equipment and support to carry the fight to the enemy. Skilled technicians are using state-of-the-art facilities at Tobyhanna Army Depot to repair and test three Marine Corps surveillance radars; two of the radar missions are new to the depot.

The support, for the AN/TPS-59 (V)3 Long Range Surveillance Radar and the AN/TPS-63B Medium Range Surveillance Radar, is in addition to the AN/TPQ-46 Firefinder mission which began last year.

The TPS-59(V)3 provides coverage for all air traffic as well as tactical ballistic missiles in the area and, at 30 feet tall, is the largest radar system in the Marine Corps. The AN/TPS-63B radar automatically detects aircraft in heavy ground clutter, heavy rainfall and electronic interference.

"We will repair and test all the RF (radio frequency) equipment, including transmitters and receivers, and power supplies," said electronics engineer Rick Bekanich, Production Engineering Directorate. "Tobyhanna will repair mechanical components as well, such as motors, gearboxes, antennas and antenna drives."

One of each system is here now and once they are repaired, they will be tested at the depot's new radome and tower facilities. Bekanich said the depot will repair and test two TPS-59s and three TPS-63s per year.

"We will also repair and test what are called 'secondary depot repairables,'" said Ed Panner, an electronic integrated systems mechanic in the Intelligence, Surveillance and Reconnaissance Directorate. "Those are radar components, but not entire radars."

Once systems are tested, Tobyhanna personnel will provide fielding support for Marine Corps units.

by Steve Grzezdzinski

Satellite Transportable Terminal during the WIN-T Increment Two Engineering Field Test at Fort Huachuca, Ariz.

SINCGARS Theater Provided Equipment (TPE) Effort

by Judith Del Mastro, LRC

In fiscal year 2012, U.S. Army Forces Command (FORSCOM) identified Single Channel Ground and Airborne Radio System, SINCGARS, shortages to its higher headquarters, the U.S. Army Communications-Electronics Command, CECOM. CECOM's Logistics Readiness Center, LRC, coordinated with Tobyhanna Army Depot, TYAD, Product Manager Network Systems, PdM NS,, FORSCOM and Department of the Army G8 to take the lead and develop a support plan to resolve SINCGARS end item equipment on hand, EOH, shortages.

The approved plan centered on the development and execution of a three-tier approach. First, they needed to repair and assemble SINCGARS radio set configurations from Theater Provided Equipment assets that are returned to TYAD. Radio sets are then reissued to fill shortages in theater.

The second priority would then go to FORSCOM requisitioning the line replaceable units, or LRUs, ancillary spares and installation kits with Army Working Capital Funding, AWCF, to configure whole radio sets in theater to fulfill equipment authorization shortages.

Finally, PdM NS would obtain RESET funding from DA to support the procurement of power amplifiers and amplifier adapters to replace the LRUs the PM had released to the field due to losses during Operations Iraqi Freedom and Enduring Freedom. Procured LRUs to be used for set assembly and fielding of SINCGARS radio sets to FORSCOM units to fulfill equipment authorization shortages.

To date, TYAD has been funded $11 million for the fiscal year 2012 set assembly effort and is scheduled to produce 2,000 end items with another 5,400 to follow in fiscal year 2013.

Did you know?

Tobyhanna Army Depot's Antenna and Radar Range Campus offers 12 distinct test sites comprised of multiple test pads and specialized indoor and outdoor support facilities and equipment, which includes anechoic chambers and a 77-foot diameter radome. The campus supports Army, Air Force, Navy and Marine Corps testing requirements.

Goniometry, Enciphering, Deciphering and the Father of Cryptology

by Chrissie Reilly, CECOM

In the 1886 annual report by Chief Signal Officer Benjamin F. Fisher, he envisioned the Signal Corps not only providing communications, but also acting as the military intelligence bureau. This exact scenario never played out, but intelligence and cryptanalysis were significant parts of CECOM's organizational heritage, especially during the WW I.

The enciphering and deciphering of messages, according to specified codes, was included in the curriculum of the Signal School since 1912.

Although cryptography was used, the Signal Corps had not strictly practiced communications security prior to the First WW I. The War Department Telegraph Code of 1915 had chiefly served to reduce the length of transmissions, rather than as a means to assure their secrecy.

"Where SKILL and COURAGE Count"

SIGNAL ◆❈◆ CORPS
UNITED STATES ARMY

To enforce security, listening stations monitored friendly traffic for lapses in procedure. While signal officers performed cryptography, military intelligence officers conducted cryptanalysis, or the breaking of unknown codes.

In the Army Expeditionary Forces (AEF), however, the office of the Chief Signal Officer included a Code Compilation Section where officers devised the so-called River and Lake Codes, which were distributed to the First and Second Armies, respectively, for use in both wire and wireless communications.

While still a Captain, the future "father of modern American cryptology," Parker Hitt, knowing the U.S. Army field cipher was insecure, designed a more secure system as a replacement in 1914. In 1917, the Signal Corps widely adapted Colonel Hitt's cylindrical device and it remained in service the better part of three decades.

On the eve of WWI, Hitt applied for a two-year assignment to the Signal Corps. While teaching at the Army Signal School, he researched and wrote his groundbreaking work, The Manual for the Solution of Military Ciphers. Published in 1916, his book was the

first work of its kind in the United States in 100 years and laid the foundation for the nation's unmatched cryptologic achievements during the 20th century.

During the period of tension with Mexico, which culminated in Pershing's Punitive Expedition, Col. Hitt and his wife, Genevieve Young Hitt, "moonlighted" to solve intercepted messages. He gained a well-deserved reputation as one of the Army's most talented codebreakers, and Gen. Pershing selected him to be a member of his staff when the American Expeditionary Force deployed to France in 1917.

As a Senior Signal Officer with the AEF during WW I, Hitt oversaw the compilation of a highly effective code that replaced an awkwardly translated French coding system that was being used by American forces. He also supervised units that intercepted sensitive German communications with impressive results.

Historian Rebecca Raines from the U.S. Army Center for Military History wrote, "Radio's chief role was for intelligence purposes… signalmen on the ground used their radios to obtain information about the enemy." Signalmen during the First World War intercepted German ground radio communications, operated intercept stations, and even listened in on telephone and telegraph traffic.

In retirement during the 1940s, Hitt was an informal liaison between the Army and members of the American Cryptogram Association, but was anxious to serve in the war. Hitt returned to active duty from 1940 to 1944 as a corps area Signal Officer.

Using goniometry, or direction finding by means of measuring angles, Signal Corpsmen also obtained bearings on enemy radio transmitters so the location of the stations could be identified. A goniometer is a radio receiver and directional antenna used as a system to determine the angular direction of incoming radio signals. Goniometric stations could also detect incoming airplanes from their radio

signals. Furthermore, from the amount of radio traffic, the strength of enemy troops could be determined.

Radios could also be used to divert the Germans away from where attacks were being planned by broadcasting false radio traffic. The Signal Corps successfully exercised this ploy prior to the resumption of the offensive along the Meuse on Nov. 1, 1918. The radio section of the Signal Corps worked closely with the radio intelligence section of the General Staff, passing along the information it collected for transcription and analysis regarding enemy operations and intentions.

Among its many duties, the Signal Corps was responsible for revising and compiling all codes and ciphers used by the War Department and the Army. This expanded during after WWI and led to success in WWII. CECOM's continued intelligence, surveillance, and reconnaissance missions are built on the foundation of this early work.

At a time when the nation had no formal cryptologic service, CECOM's predecessor organizations performed innovative tasks and developed principles that would be used to protect U.S. military communications for decades.

For CECOM 'One-Stop-Shop' C4ISR support services, contact our Operations Centers…

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Central Technical Support Facility
Commercial:
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DSN: 312-738-4035 x2971/2030/2676
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Toll Free: 1-877-ASK-TOBY (275-8629)
Commercial: 570-615-TOBY
DSN: 312-795-TOBY
Email: usarmy.tyad.usamc.mbx.ask-toby@mail.mil
http://www.tobyhanna.army.mil