



HIGH MACH

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Vol. 61, No. 23

Arnold AFB, Tenn.

PRSR STD
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December 8, 2014

AEDC completes longest engine test in its history

By Deidre Ortiz
ATA Public Affairs

For the first time, an accelerated mission test (AMT) was accomplished for the F101-GE-102 engine in the Aeropropulsion Systems Test Facility (ASTF) altitude cell C-1 at AEDC.

The \$21 million test program was the longest single entry of a jet engine in AEDC history. The engine ran more than 2,145 hours and completed 1,504 missions.

The AMT conducted on the F101, which is used in the B-1 Lancer, was highly successful, demonstrating a 4,000 Total Accumulated Cycle (TAC) life for the engine core.

AMTs simulate the wear and tear of an engine over a given period of time based on historical data from the field along with the environmental conditions that the aircraft are flying in. For example, aircraft flying in Alaska will be exposed to different life-limiting conditions

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A B-1B Lancer flies over northern Iraq after conducting air strikes. The F101-GE-102 engine, used in the B-1 Lancer, was recently tested in the Aeropropulsion Systems Test Facility (ASTF) altitude cell C-1 at AEDC. The test program was the longest single entry of a jet engine in the history of the Complex. (Air Force photo by SrA. Matthew Bruch)

Small Business Industry Days beneficial to Air Force, AEDC

By Deidre Ortiz
ATA Public Affairs

In an effort to increase partnerships and small business participation, the Air Force Test Center (AFTC) held the Air Force Small Business Industry Days (SBID) recently in Huntsville.

This three-day event highlighted small business capabilities and new concepts, showcasing existing small business products and promoting collaboration and integration of their services, products and technologies.

William Mallory, Small Business Innovation Research (SBIR) Program manager at AEDC, stated the event serves as an important networking and learning opportunity for those who attend.

"Numerous innovative



Maj. Gen. Arnold W. Bunch Jr., the Commander of the Air Force Test Center was one of the keynote speakers at the Air Force Small Business Industry Days (SBID) event held in Huntsville on Nov. 18-20. (Photo by Jason Austin)

technologies being developed by small businesses were discussed during the one-on-one sessions that could potentially address many of our capability gaps and technology

needs," he said.

Mallory explained these discussions are advantageous for AEDC because they lead to partnerships that will be beneficial to the Complex in

the future.

"The next step internally is to make decisions as to which technologies are a good fit

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Kenneth Gore's wife, Ann (left), Col. Raymond Toth (center) and Donovan King's mother Judith (right) get a closer look at the inscription on the dog tag, which belonged to Felix Edwin Gore, a Seaman 2nd Class who joined the U.S. Navy in 1945. Daniel Toth (in back) looks on. Donovan found the dog tag in his yard using a metal detector. (Photo by Rick Goodfriend)

Military dog tag returned to family of Navy veteran

By Deidre Ortiz
ATA Public Affairs

Everyone knows the saying, "You don't know what you have until it's gone." But sometimes it's also true that you don't realize what you're missing until it's found.

This was the case recently for Tullahoma residents and brothers Clyde and Kenneth Gore, who received the military ID tag, commonly referred to as a dog tag, which once belonged to their father Felix Edwin

Gore, Seaman 2nd Class in the U.S. Navy.

Using a metal detector, Donovan King, a sophomore at Tullahoma High School and a friend of AEDC Commander Col. Raymond Toth's son Daniel, found the veteran's dog tag in the yard of his home. Donovan gave the dog tag to Daniel to see if the Toth family would have a better chance of returning it to its rightful owner.

"We searched Google and

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Revolutionary Change: Progressing toward different operations

AEDC Commander, Col. Raymond Toth is providing periodic updates on AEDC's Source Selection efforts to the entire workforce via email and video messages called "What's the Buzz?". The High Mach will print those messages and transcripts in a series titled "Revolutionary Change." Additionally, Toth's messages and other information can be found online at www.arnold.af.mil/transition.

Team AEDC,

We are making great progress in moving contractually to a different operating model. Two enterprise-level contracts, Precision Measurement Equipment Laboratory (PMEL) and Performance Based Remediation (PBR), have been awarded and varying phases of work has begun. The remaining four contracts are in various states of source selection, but we have released Requests for Proposals for all four efforts – Test Operations and Sustainment (TOS), Facility Support Services (FSS), Technical and Management Advisory Services (TMAS) and Base Communication and Information Technology Services

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HIGH MACH

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An Air Force Materiel Command Test Complex

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The *High Mach* office is located at 100 Kindel Drive, Suite B212, Arnold AFB, Tenn. 37389-2212. Editorial content is edited and prepared by AEDC support contractor ATA. Deadline for copy is Wednesday at close of business the week before publication.

This commercial enterprise newspaper is an allowable ATA contractor publication for personnel at AEDC.

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The complex's vision: Be the nation's best value ground test and analysis source for aerospace and defense systems.



Core Values

- Integrity first
- Service before self
- Excellence in all we do



Vision

"ATA will be a trusted partner in delivering best value warfighter support and asset stewardship to AEDC"

Core Values

- Be accountable for our own actions
- Ensure the safety of individuals and equipment
- Demonstrate the highest integrity and ethical standards
- Communicate clearly and openly
- Deliver professional and technical excellence
- Nurture, enable and treat people fairly
- Align with customer goals and objectives
 - Use disciplined and innovative processes
- Continually improve in all that we do

Commander Toth sends holiday best wishes to Team AEDC

By Col. Raymond Toth
Arnold Air Force Base Commander

As we near the end of 2014, I wanted to take a moment to wish everyone all the best during this holiday season and reflect on what we accomplished this year.

Over the last twelve months, we accomplished the highest test workload in nearly a decade and we did it with our smallest staff ever, proving we can be both effective and efficient.

- The Air Force Research Laboratory stood up a new branch at Arnold, cementing our partnership in aerospace development.
- Our Space and Missile

Combined Test Force (CTF) supported the U.S. Air Force Nuclear Weapons Center (AFNWC) by testing the largest solid rocket motor to date at AEDC.

- We started two new contracts - PMEL and PBR - as part of our larger transition to a new contractual model.
- Our Flight CTF and Analysis Branch helped the A-10 Thunderbolt II community develop new wing enhancements to improve the performance and maintainability of the aircraft.
- The Space and Missiles CTF helped NASA understand what happens when satellites and

space debris collide.

- The Propulsion CTF achieved a 98 percent efficiency rating while putting 2,600 Total Accumulated Cycles (TAC) on an F135 engine for the Conventional Take-Off and Landing version of the F-35 Lightning II Joint Strike Fighter.

Those are just a small sampling of the big test events that made national headlines, but we all know there was an amazing amount of additional work, including testing, sustainment, improvement and modernization, instrumentation and controls and other critical work that occurred that never made those headlines but was



Col. Raymond Toth

equally important!

During the month of December, many of us will take time off from work to celebrate the holidays and ring in the New Year. Whether you are celebrating one of the many faith-based holidays or merely getting caught up in the spirit of the season, I'm

sure each of you is looking forward to some much needed time away from work.

You earned the time off. But please remember our fire fighters, police and operations center staff who work 24/7/365 schedules. Also remember those men and women in uniform in combat operations which know no holiday.

During this busy holiday season (we are still busy here at work, too) I encourage you to keep all your safety training in mind and have a plan for the task you're about to do. If you are at a

See TOTH, page 5

Dealing with holiday stress at work

By Brian Meverden
AEDC Safety Office

Everyone is familiar with the tension that the holidays can cause at home, but the workplace can be similarly frantic and filled with anxiety during the season. Having the added pressures of holiday-shortened deadlines, end-of-year demands, and similarly stressed customers, to name a few.

With the added pressure comes the increased risk of having a mishap. Here are some tips to help reduce some of the workplace pressure.

Maintain your perspective

Set yourself realistic goals and do what you can actually get accomplished. Do you need to coordinate with other offices? If so, their holiday schedules may conflict with yours and accomplishing the task ear-

lier may avoid any potential problems.

Break up big projects into smaller ones and determine the order for getting things accomplished. Avoid multi-tasking in this instance because it could end up costing you more time and prevent you from getting things accomplished.

Keep your calendar updated with both your work and personal schedule so you can avoid conflicts.

Leave it at home or work

You've heard don't take your work home, but leave the holiday stress at home too. You're likely not the only one in the workplace feeling overwhelmed at home with obligations and family tension. Try to keep the office as stress free as possible for everyone and have fun. There is nothing wrong with enjoying your time at work and making

the effort to help co-workers adjust to a more stress-free office.

Exercise

It's easy to cut exercise out when you need more time for work, errands or some other task. Exercise naturally reduces stress, improves your mood and gives you some time to yourself to clear your head. If you just can't find the time, at least do something physical every day, even if it's dancing in the office to lighten the mood for a moment. Do what you enjoy.

Sleep

Avoiding a few hours of sleep to get things done doesn't seem like much, but it adds up taking a toll on your body. When you don't get enough sleep you're not as productive and you can become grumpy which can increase your stress level.

Exercise, as previously mentioned, can improve your sleep which is often disrupted by stress and anxiety.

Ask for help

Many of us don't normally ask for help. We prefer to handle our normal workload, juggle the personal life and just make things happen. With the holidays you lose workdays and the availability of resources. Add the end-of-year tasks, customer needs, 4 o'clock emergencies and your normal duties at work and you have cooked up a recipe for task saturation! Ask for help!

If you're not busy, offer to help someone else. Reduce the stress in the office and help yourself and others gain control of the stress in life.

Have a safe and enjoyable holiday season. We look forward to seeing every one of you in 2015!

Hagel resigns as defense secretary

By Tech. Sgt. Jake Richmond
Defense Media Activity

WASHINGTON (AFNS) – Praising Defense Secretary Chuck Hagel's "class and integrity," President Barack Obama announced Nov. 24 at the

White House that Hagel will leave his post.

The president said Hagel has agreed to remain in his position until a successor is nominated and confirmed. For that, Obama said, he is "extraordinarily lucky and grateful."

"When I asked Chuck to

serve as secretary of defense, we were entering a significant period of transition," Obama said.

That transition included the drawdown in Afghanistan, the need to prepare U.S. forces for future missions, and tough fiscal choices to keep the military strong and ready.

Last month, Obama said, Hagel came to him to discuss the final quarter of his presidency. It was then that Hagel initially determined that, having guided the department through this transition, it was an appropriate time for him to complete his service, the president added.

A Steady Hand

"Over nearly two years, Chuck has been an exemplary defense secretary," Obama said, crediting Hagel for providing a steady hand during the modernization of the administration's strategy and budget to meet long-



Chuck Hagel

term threats, while still responding to immediate challenges such as the Islamic State group and the Ebola outbreak in West Africa.

Hagel said he is "immensely proud" of what the department has accomplished during his tenure.

"I believe we have set not only this department, the Department of Defense, but the nation on a stronger course toward security, stability and prosperity," the secretary said.

AEDC Visitor Center Christmas holiday schedule announced

The AEDC Visitor Center hours for the Christmas holiday period are set.

According to Arnold Police Operations Officer, Michelle Frame, the Visitor Center and Gate 2 will be closed Dec. 25 – Jan. 1.

Personnel who are working during this time and have an emergency need for a common access card (CAC) that would result in a work stoppage may contact the base Operations Center

at 454-7752 for emergency assistance.

Personnel requiring base access during this time who have lost or forgotten their base entry badge or CAC may contact the Base Defense Operations Center at 454-5662 to arrange for an Air Force Form 75 or a temporary badge as applicable.

Both the AEDC Visitor Center and Gate 2 will reopen Jan. 2 at 6:30 a.m.

Smoking Policy

1. The following revised AEDC smoking policy is effective immediately. Smoking is permitted solely in designated areas identified by a plastic "smoke genie." This receptacle is for the sole purpose of cigarette butt disposal. If there is no receptacle, smoking is not permitted in that area. It is the responsibility of all smokers to clean up the area surrounding the receptacles for any cigarette butts on the ground. Smoking in government-owned vehicles is strictly prohibited. Personnel are allowed to smoke in their personal vehicles at any time. Smoking areas will be held to the absolute minimum and will be located in low traffic, low visibility areas away from points of building ingress/egress and air intakes. A map of all authorized smoking areas is available on the AEDC web portal at https://papro.arnold.af.mil/PORTAL/images/Smoking_area_map.pdf. Smoking near a facility in an area not designated on the map is prohibited and any smoking receptacles located in areas not shown on the map will be removed. All "smoking permitted" and "no smoking" signs will be removed unless specifically required by OSHA.

The fact a person smokes has no bearing on the number of breaks they may take. Breaks should be taken in accordance with the company/agency personnel policies that apply to all employees.

Smoking, including the use of electronic cigarettes and smokeless tobacco, is prohibited in any area, at times when official business is being conducted with government clients, test customers, outside visitors and dignitaries, and where official business is being conducted including conference rooms, auditorium settings, business meetings, or in any other area where Air Force regulations specifically prohibit use. Containers of tobacco waste product, including sealed containers, must not be left unattended or disposed of in trash receptacles. Users of smokeless tobacco must flush tobacco waste down the toilet. Due to the nature, appearance, and safety concerns of electronic cigarettes (also known as "e-cigs"), the use of said products will abide by the same rules for tobacco products stated above and governed by AFI 40-102, *Tobacco Use in the Air Force*.

2. Supervisors at every level will ensure this policy is followed. Disciplinary action is appropriate for repeated violations.

3. Updates to this policy will be made in the future to further align with Air Force guidelines.

4. This policy remains effective until rescinded. (This policy is dated December 20, 2013)

Action Line

Team AEDC

I believe in free and open communications with our Team AEDC employees, and that's why we have the Action Line available. People can use the Action Line to clear up rumors, ask questions, suggest ideas on improvements, enter complaints or get other issues off their chests. They can access the Action Line in one of two ways: via the AEDC intranet home page, and by calling 454-6000.

Although the Action Line is always available, the best and fastest way to get things resolved is by using your chain of command or by contacting the organization directly involved. I encourage everyone to go that route first, then if the situation isn't made right, give us a chance.

Col. Raymond Toth
AEDC Commander

Technical Interchange Meeting held at AEDC focuses on hypersonic capabilities

By Deidre Ortiz
ATA Public Affairs

An Air Force and Navy Technical Interchange Meeting (TIM) on ground testing of materials for high-speed aerospace applications was recently held at AEDC to discuss needs across the community in terms of current tools and methodologies.

Representatives from AEDC, Air Force Research Laboratory (AFRL), Naval Surface Warfare Center, Defense Advanced Research Projects Agency, National Aeronautics and Space Administration and several universities gathered Nov. 19-20 to exchange information.

According to Glenn Liston, chief of the AFRL High Speed Experimentation Branch at AEDC, the goal of the meeting was to

better characterize what's currently being used by the materials community to evaluate oxidation and ablation behavior for high-speed applications.

"This includes understanding their merit as screening tools to judge materials performance in actual aerospace flight conditions," Liston said. "It also includes anchoring the various tools and methodologies against accepted reference non-flight test techniques."

Topics of discussion included development of new testing paradigms for traditionally higher-cost techniques that enable screening in simulated relevant environments at costs that are affordable for the basic research community and implementing new methods to accurately correlate the disparate results de-



Wayne Hawkins, pictured center, speaks to those who attended the recent Technical Interchange Meeting about the flexible nozzle at Tunnel A during a tour of the von Kármán Gas Dynamics Facility (VKF). VKF, which is comprised of supersonic wind tunnel A and hypersonic wind tunnels B and C, is used to obtain large aerodynamic and aerothermodynamic databases to develop supersonic and hypersonic flight vehicles. (Photo by Rick Goodfriend)

rived from the various test techniques commonly used by the materials community. A dedicated lab-scale

arc jet facility with appropriate diagnostics, flexible accessibility and cost effectiveness was one example.

The group plans to host future workshops, technical interchanges and projects, possibly in conjunc-

tion with National Space & Missile Materials Symposium (NSMMS) or other national forums.

Historian tells of Gen. H.H. Arnold's path to perseverance in leadership

By Raquel March
ATA Public Affairs

AEDC Historian Chris Rumley recently spoke at the American Institute of Aeronautics and Astronautics (AIAA) Tennessee Section meeting about General of the Air Force Henry "Hap" Arnold's life and legacy.

Rumley remarked that few people know the details of Arnold's life or the types of adversities Arnold endured before he built and led the largest Air Force the world has ever known.

"I think it is important for the communities surrounding Arnold Air Force Base to know something about the man this base was named after," Rumley said. "You know, Hap Arnold's short list of accomplishments is pretty amazing. He was taught to fly by the Wright Brothers in 1911; his first solo flight was on a Wright B Flyer with propellers driven by a chain and sprocket mechanism linked to a piston engine."

Rumley spoke about several of Arnold's other accomplishments to the AIAA members, such as he was fourth in line to the Army chain-of-command during WW II, and he was one of only nine men who ever wore the rank of Five-Star

General. He also noted that Arnold is the only person to receive a Five-Star rank in two military services – the Army and Air Force.

Rumley said, "That is an impressive short list, yet outside the Air Force, Hap Arnold is virtually unknown."

Joe Wehrmeyer, an AIAA member and AEDC engineer, attended the meeting and recalled parts of the speech that were memorable to him.

"To me, the most fascinating thing about Hap Arnold's life story is how he was with the Air Force at the beginning; when he was one of two pilots for two Wright brothers' airplanes," Wehrmeyer said. "And then all the way to the end of World War II, when the Air Force had over 75,000 airplanes – all under his command."

In 1912 Arnold received the first Mackay Trophy for flying a 42-mile triangular circuit and for establishing a new world altitude record of 6,540 feet. Later that same year, after narrowly avoiding a crash that would have been fatal, he decided to quit flying.

"He was really shook up after that event and told his superiors, 'I cannot even look at a machine in the air without feeling that some ac-

cident is going to happen,'" Rumley said. "He asked to be relieved from flight duty and the request was granted. That could have been the end of his story with the Air Force. However, Hap came back to a flying squadron four years later with some encouragement from friend Billy Mitchell who promised him a promotion to Captain if he would overcome his fear of flying."

There were other difficulties that occurred before Arnold would present the need for an aerospace research and development program in a press conference. And Arnold didn't shy away from controversy.

"In 1925, he was nearly thrown out of the military for his role in the Billy Mitchell Court-Martial," Rumley said.

The court-martial cited that Mitchell violated the ninety-sixth article of war in that he spoke out about two military flight disasters blaming the Navy and War Departments for incompetence and negligence.

Rumley said, "Hap Arnold was warned that testifying on Mitchell's behalf could damage his career, but he took the stand to defend his long-time friend anyway. After the trial, Hap was ac-



AEDC Historian Chris Rumley discusses the life and legacy of General of the Air Force Henry "Hap" Arnold to the American Institute of Aeronautics and Astronautics Tennessee Section members in a meeting on Oct. 30. (Photo by Rick Goodfriend)

cused of improperly using his position in the information office to influence the outcome of that trial and was given two options, resign or face his own court-martial.

"This is another point in Hap's story where he could have simply disappeared from our history. He chose the court-martial, but the Army decided instead to exile him to Ft. Riley, Kan."

Rumley recalled that there were other instances where Arnold's career could have sent him in different directions but he persevered.

"He learned lessons from his failures, maintained a

positive outlook and made the best of every assignment," he said. "I think that is a good lesson for each of us. The sum total of General Arnold's assignments gave him a unique experience and background to lead that was unmatched by any of his contemporaries. When our nation needed a Hap Arnold, it was no coincidence that Hap Arnold was ready to lead. We owe Hap Arnold a debt of gratitude for his visionary leadership that helped win the war and gave our Air Force a technological advantage for over 50 years."

Wehrmeyer compared Arnold's leadership to other people of technological vision. "He was a mover and a shaker for a new technological phenomenon, like Steve Jobs and Steve Wozniak were for the personal computer or Henry Ford for the affordable car," Wehrmeyer said. "Chris' talk really brought home that point to me."

Rumley said that due to Arnold's leadership the Air Force grew from 20,000 to 2 million people. And that the aircraft inventory increased from 1,800 to nearly 80,000.

Tool to safeguard PII scheduled for December rollout AF wide

24th Air Force Public Affairs

JOINT BASE SAN ANTONIO-LACKLAND, Texas – The Digital Signature Enforcement Tool is scheduled for Air Force-wide integration Dec. 5, providing Microsoft Outlook email users with an interactive, automated virtual assistant to help ensure the security of personally identifiable information.

"I can't overstate the operational importance of preventing PII breaches," said Maj. Gen. B. Edwin Wilson, commander of 24th Air Force and Air Forces Cyber. "It's not an IT problem, it's a Total Force problem and DSET is an effective tool the Total Force can use, right now, to help reduce inadvertent PII breaches."

Beyond potential identity theft, PII breaches can lead to significant compromises in operational security. For example, a well-meaning member working to meet an

operational deadline sends an unencrypted email, containing PII on several unit members, to a "non .mil" email account. The sender could be attempting to get ahead on a project or be providing a status update to unit members on pending unit movements. Unknown to the sender, hackers have compromised email transport infrastructure between the sender's desktop and one of the destination, "non .mil" desktops. Hackers intercepting this unencrypted email traffic can utilize the newly acquired personal information to form specifically targeted attacks, known as spear phishing, to acquire additional information such as account numbers or passwords. Unfortunately the attack does not stop there. Once an attacker has acquired enough information, he can simulate user accounts or even pass off communications on behalf of the service member, who



is likely still unaware that his information has been compromised. Those false communications could be leveraged to gain digital access to Air Force systems, or even physical access to installations and personnel. Obviously, the negative implications caused by PII breaches are severe, and equipping the force with tools to mitigate the risk is paramount.

DSET version 1.6.1, an updated version of the DSET 1.6.0 software already in use by the Air National Guard, Air Force Reserve Command, and Air Force Space Command, contains fixes for some previously identi-

fied software bugs as well as enhancements to make the digital tool more effective.

"DSET 1.6.0 launched back in July to three major commands," said Alonzo Pugh, cyber business system analyst for 24th AF. "Feedback has been overwhelmingly favorable for the use of the tool, and version 1.6.1 is definitely ready for Air Force-wide usage."

DSET is regarded as a short-term fix to help all Air Force network users protect PII, specifically if that information is to be included in an email communication. DSET 1.6.1 still only scans for PII in the form of social

security numbers, leaving overall responsibility on the user to safeguard the sensitive information in all of its forms.

"First, the user should ask him or herself if the PII in the email is truly necessary," said Pugh. "DSET scans the email draft before transmission. If PII is identified, DSET will notify the user through a series of pop-up windows. This interactivity allows the user to make a conscious decision of how to proceed with the information in question."

According to Pugh, if the information must be transmitted, encrypting the PII is all that is necessary to protect the data during transmission. DSET will trigger when it detects potential PII in an email, giving the user the opportunity to delete the information if not necessary to the communication, encrypt the information, or override and transmit the email as originally written.

If the file containing PII is

already encrypted – through the Microsoft Office "protect" permission feature or some other software – DSET will not trigger and the email can be sent as usual to any recipient's email address, whether ".mil," ".com," etc.

However, if the email itself is encrypted through Microsoft Outlook, the communication is only safe to transmit to a recipient's ".mil" email address. An email encrypted in this fashion cannot be sent to any "non-.mil" addresses. If the user attempts to do so, DSET and Microsoft Outlook will provide pop-up boxes explaining the user's options.

"I can't overstate the importance of reading the information in the pop-up box," said Pugh. "Read the training materials on the use of DSET; read the training slides on how to use Microsoft Office features to encrypt various documents; understand how these tools can help you safeguard PII."

Evans shares his red, pink, white and green thumb for the holidays

By Raquel March
ATA Public Affairs

A botanical sign of the holiday season is the appearance of poinsettias in multiple varieties and AEDC employee Rick Evans prepares Evans Plant Farm for the busy poinsettia season in July.

"We start out [growing] our poinsettias in July to be sure that they are the proper size and that the colors will be ready by the end of November," said Evans, an electrical technician in the ATA Aeropropulsion Plant Assets Branch.

Evans and his family grow six varieties of poinsettias at the Murfreesboro greenhouse. He has grown the Christmas plant for 25 years with his wife Gail in different sizes and colors such as pink, white and red, which is his favorite.

"We have to prune them a few times as well as making sure that they receive plenty of fertilizer for vibrant colors," he said. "Then right after Thanksgiving we start delivering poinsettias to churches, fundraisers and of course to the wonderful people at the base."

Evans sells about 6,000 poinsettias during the holidays. He admits that the "holidays are a lot brighter when we sell out of poinsettias."

Poinsettias are indigenous to Mexico and Cen-



Rick Evans, fifth from left, captures a holiday family moment with his family in their Murfreesboro plant farm. Pictured with Evans, left to right, is son Heath Evans, grandson Wyatt, daughter-in-law Morgan, wife Gail and daughter Tonya. (Photo provided)

tral America. The plant was introduced to the United States in 1825 by the first U.S. Minister to Mexico Joel Roberts Poinsett.

Today the flower is known as the Christmas Eve Flower in Mexico.

Once a poinsettia is taken home for display, care must be taken with providing the right conditions for the plant. Evans says if it is

too wet, dry, dark, cold or hot then the plant will lose its leaves. He also added "a little food for thought."

"Poinsettias are poisonous but only to the degree that you would have to eat your weight in them to have a belly ache and in my case that would have to be a whole lot of poinsettias," he said.

Once the holiday sea-

son ends, the poinsettia can be induced to re-flower by pruning, providing minimal water and moderate indoor light. The flowering portions of the plant are bracts. They aren't actually flowers, but instead they are leaves that change color due to photoperiodism – a process of 12 hours of continuous darkness daily combined with light for at least

five days.

"After poinsettia season is over, I like to spend time with my family on Christmas to celebrate the birth of Christ and reflect on all that God has done for me throughout the year," Evans said.

Evans's love for Christ has led him and his family to participate in numerous mission trips where they

helped others with building wells and providing electricity and medical needs.

Evans said his participation in approximately 20 mission trips would not have been possible without his 35-year employment at AEDC. He plans to retire in February and looks forward to helping with more missions to Kenya and working at the plant farm.

IBEW receives ATA donation for Children's Christmas Fund



ATA recently made a donation to the International Brotherhood of Electrical Workers 2113 (IBEW) for the Kids for Christmas event, which enables foster children to go Christmas shopping and purchase gifts for their loved ones. Pictured is Annette Painter (left), financial secretary for IBEW, accepting the donation from Carol Smith (right), administrative assistant for the AEDC Fire Department and representative of the ATA Employee and Community Activities Committee. (Photo by Rick Goodfriend)

BUSINESS from page 1

for AEDC and to then prioritize them," he said. "Once that is complete we will begin advocating for funding through the Commercialization Readiness Program (CRP) and other externally leveraged funding sources so that these technologies can be brought to AEDC to further our capabilities."

Douglas Hoffelt, director of AFTC Technology Transfer and Research, stated SBID is also valuable to small businesses because it makes them more aware of the Air Force vision.

"The participating small businesses receive better understanding of the AFTC's future needs and this provides them an insight on where they may want to focus their efforts," he said. "Parallel informational briefings were also provided for small businesses to inform them on the processes involved in securing government contracts. This event was very successful for all involved."

This year, 206 small business representatives from 147 small busi-

nesses across the nation attend the SBID. Of the 65 government personnel at the event, 23 were from AEDC and 18 were major defense contractor representatives. In total, 306 people attended.

Representatives from AEDC participated in various programs throughout the event, presenting 34 technology needs briefings and sitting in on approximately 80 one-on-one sessions with small businesses.

In addition to the one-on-one sessions, General Session presentations were given by senior Air Force keynote speakers, including Maj. Gen. Arnold W. Bunch Jr., the Commander of the Air Force Test Center; Mark Teskey, the director of the U.S. Air Force Small Business Programs; and Richard Lombardi, the Air Force Deputy Assistant Secretary for Acquisition Integration.

"We ensure we have senior level Air Force keynote speakers to welcome and provide attendees insight into the level of importance that the Air Force is giving this approach to embrace

small businesses to better our support to our warfighters," said Richard Flake, CRP program manager.

Flake mentioned that SBID offers more than other conferences in that it more often than not will lead to business opportunities.

"These events directly involve Air Force subject matter experts (SMEs) identifying small businesses of best fit to business opportunities and technology based needs," he said. "Numerous months of data mining the Small Business Administration's discovery database, as well as the DOD SBIR database, provided small business candidates... one-on-one sessions. We go much further than the typical conference preparation that simply provides attendees the opportunity to collaborate. We focus and expect results that are followed up to ensure we take advantage of all matches identified."

It's anticipated that these partnerships will lead to lower costs and more agility in support of the warfighter.

VETERAN from page 1

put the word out among the AEDC Woman's Club to see if anyone knew the family," Toth said. "I also brought it into work with the intent of having Chris Rumley (AEDC historian) see what he could do."

In the meantime, the AEDC Woman's Club came through and found the family by putting a post on Facebook. Seeing the post, the Gore Family was elated and contacted the Woman's Club.

Donovan and the Toth family later met the Gores at the AEDC Visitor's Center to return the dog tag. Upon presenting the dog tag to the family, the Commander stated mementos mean a lot to the family of veterans, so it was a fortunate turn of events to have found the recipients.

"I think this says a lot of Donovan; it would've been easy not to have done anything with it," he said.

Toth added he's appreciative of efforts such as this because it's important to "remember our veterans and what they've done for

our country."

Felix Gore joined the Navy on Jan. 6, 1945, and served for a while before being honorably discharged for medical reasons. Throughout his life, he continued to be a public servant, becoming deputy sheriff in Tullahoma and then working in Nashville as a guard.

Felix passed away Dec. 12, 1980, but the family mentioned he has remained a role model, even influencing younger generations.

"His grandson Johnny Gore and great-grandson Justin Gore have followed in his footsteps," said Ruth Gore, wife of Clyde.

Johnny works as a police officer in Tullahoma and Justin is currently a Navy recruiter in Franklin, Tenn.

Having the dog tag will now help serve as another lasting reminder of Felix's service to the nation. The Gores thank Donovan, the Toth family and all those involved in getting it returned to their family.

Virginia Tech AFROTC visits AEDC

Cadets from the Air Force ROTC Detachment 875 at Virginia Tech recently visited AEDC, and while on base learned about the various test facilities and their capabilities. 1st Lt. Joseph Achenbach, pictured second from right, uses part of a model to explain how the high speed impact and ballistics facility, G-Range, works. (Photo by Rick Goodfriend)

TEST from page 1

than an aircraft flying in the Middle East.

"The 11-month, 4,000 TAC AMT equates to about 10 years or approximately 4,700 flight hours of actual engine usage," said Mike Dent, lead engineer of the AEDC Aeropropulsion Test Branch.

Because they're meant to affirm durability and life limits during the development and operational use of jet engines, AEDC project manager Josh Hartman explained that AMTs simulate flight hours at an accelerated rate.

"This is why 2,145 test hours equates to about 4,700 flight hours," he said. "The primary purpose of this 'accelerated pace' is to save on test costs and schedule."

He added the engine goes through a series of thermal cycles to simulate the Low Cycle Fatigue (LCF) that the engine would experience in the actual field.

"The cyclic behavior is the 'damaging' portion of the engine running and is therefore the most important part of the AMT mission," Hartman said.

The F101 engine test was accomplished in C-1,

which is not a typical test site for an AMT. The test cell was used while the Complex's primary sea level test cells were occupied by F135, F119 and F100 engines for the F-35, F-22, and F-16 fighter jets.

Hartman stated that the AMT was also unique in other ways, aside from being completed in an altitude cell. For example, before the 12-month period required for the test program, the test cell underwent extensive modifications to the Exhaust Gas Management System (EGMS) bulkhead on its aft end, as well as cell cooling air modifications.

"The largest requirement was for a diffuser to be installed that allows for the plume from the engine to pump down the test cell to draw in cooling airflow without the need to run any plant machinery for sea-level testing, which significantly saves on test costs," Hartman said. "The atmospheric intake was successfully used in

C-1 for the first time, allowing for a path for the engines inlet air without running plant airside machines."

Initially, acoustical issues created higher than desired vibrations that caused a delay in the start of the test.

Acoustics can be damaging to the test cell infrastructure, as well as the test article. Therefore, Hartman along with the test team and General Electric used an experimental approach to solving the problem.

"Plume penetration water sprays were added to get cell acoustics down to an acceptable level by injecting water directly into the engine plume to drive down the acoustical energy by flashing the water into steam, using the high latent heat of vaporization of the water," Hartman said.

The vibration problems and late delivery of the engine set the program behind schedule. To assist in getting back on schedule, 24-hour operations, four days per week

were initiated in November 2013.

A portion of the AMT required hot summertime temperatures to achieve engine inlet temperature requirements. Unfortunately, summer 2014 in southern middle Tennessee was not as hot as previous summers. This meant that AEDC had to generate the heated air, which comes at an undesirable expense.

Had the test been accomplished in the Complex's sea level cells, a much more affordable heated inlet capability would have been avail-

able. Luckily, with the help of a Jacobs Engineering Research Grant, a plan was devised to minimize plant costs.

"The mass flow of the F101 requires two 27,000 horsepower compressors," Dent said. "A 'hybrid' concept was tested and implemented that required only one compressor with the balance of the air mass requirement being supplied through an atmospheric inlet hatch."

This process also allowed the test to continue running 24 hours by using the heated inlet at

night when temperatures are lower and sea level operation during the day for inlet conditions that didn't require the hot inlet temperature. Cost savings were approximately \$380,000.

"The test ran 24-hour operations, four to six days per week, to finish in time to prepare for a high priority test with a firm start date in C-1," Dent said. "AEDC's operating contractor did a tremendous job integrating all the plant, test cell, maintenance and utility requirements to make this a success."

TOTH from page 2

holiday party and plan to drink, make sure you have a sober designated driver. If you're hanging Christmas lights, use proper protective equipment and tools. Be mindful of what you're sharing on social media and your privacy settings. Also, be cautious if something "just doesn't look right" in both your physical and virtual environments.

Just as important this season is to remember your co-workers who may not be surrounded by family or who may choose not to participate in holiday celebrations. Be respectful of each other, and also be mindful of those who may need emotional support during this time.

I ask you all to take the time to refresh yourselves. We have a full test forecast and a busy transition period ahead, and I need all of us to be at the top of our game.

Thank you for all you do for our nation every day. I'm honored to serve beside each of you.

Dr. John Schmisser receives 2014 Outstanding Aerospace Engineers Award

By Barbara Birdsong
*University of Tennessee
Space Institute Community
Relations*

TULLAHOMA, TENN. — Dr. John Schmisser was one of nine graduates of Aeronautics and Astronautics Engineering to be honored as a 2014 Outstanding Aerospace Engineer at Purdue University during an awards banquet on Nov. 7.

The Purdue University designation of Outstanding Aerospace Engineer recognizes the professional contributions of graduates from the School of Aeronautics and Astronautics and thanks them for the recognition that their success brings to Purdue and the school.

Criteria for the award states that recipients must have demonstrated excellence in industry, aca-

demia, governmental service or other endeavors that reflect the value of an aerospace engineering degree.

“My education at Purdue not only provided a strong scientific engineering foundation, but also contributed to a variety of opportunities throughout my career. The Aerospace community appreciates the enduring excellence of the School of Aeronautics and



Dr. John Schmisser

Astronautics and being a Boilermaker has had its

advantages,” Schmisser said.

Schmisser graduated from Purdue University with a Ph.D. in aeronautics and astronautics in 1997 after earning his bachelor’s degree in 1990 and master’s degree in 1992 in Aerospace Engineering from the University of Texas at Austin. Schmisser joined the faculty of the University of Tennessee Knoxville Department

of Mechanical, Aerospace and Biomedical Engineering in August 2014. He teaches and leads research at the University of Tennessee Space Institute.

Prior to joining the faculty, Schmisser was the chief of the Energy, Power and Propulsion Sciences Division and program manager for Aerothermodynamics within the Air Force Office of Scientific Research (AFOSR).

Taking care of Airmen: How Air Force mental health services helped an Academy leader

By Ray Bowden
*U.S. Air Force Academy
Public Affairs*

U.S. AIR FORCE ACADEMY, Colo. (AFNS) — Chief Master Sgt. Max Grindstaff, the Academy’s command chief, said taking advantage of Air Force mental health support services helps him cope today with the deaths of nine Americans he served with in Kabul, Afghanistan.

“I sought counseling because I needed it,” the chief said. “If I feel like I still need it, I’m going back. I owe it to my fellow Airmen. I owe it to my family.”

Grindstaff served as the NATO Air Training Command and 438th Air Expeditionary Wing command chief at the Kabul International Airport from May 2010 to May 2011.

He speaks fondly of his nine coworkers, two of whom were Academy grads.

“We all got there at different times in our tours and many were due to depart within a few months of me,” he said. “We all talked about how it would be to leave together. I was as close to them as I was to any Airman. Some of them I lived next door to in the dorm.”

Grindstaff was nearing

the end of his deployment and “everything was going smoothly,” he said, until April 27, 2011, when an Afghan pilot killed all nine with a firearm. The chief’s eyes filled with emotion when describing this inside attack and the loss the victims’ families must still feel.

That morning, Grindstaff was in an office a few doors down from a first-floor operations center in the Afghan Air Force Headquarters building. On his way into this office, he passed the group as they headed into operations center.

“It was 10:11 a.m.,” he said. “I remember looking at

my watch.”

The group included Lt. Col. Frank Bryant of Knoxville, Tennessee, an Academy graduate and F-16 Fighting Falcon pilot.

“Lt. Col. Bryant was an air operations guy,” Grindstaff said. “He had the most beautiful deep southern voice. He was a complete southern gentleman.”

The chief went to his office, about 100 yards from the operations center. Soon, “things got chaotic,” he said.

“We got a text from someone inside the (command center),” Grindstaff said. “We hunkered down for a bit and established se-

curity on the building. Gunfire was reported and I ran outside. I ran back to the operations center and a medic stopped me. He said ‘Chief, there’s nine dead in there.’ I asked him, ‘Nine Afghans, nine contractors, nine what?’ He said, ‘Nine Airmen.’”

Later that day, the chief identified the victims’ bodies and moved their gear into his room.

“You could tell from their positions some died defending each other,” he said. “It was terrible. I had the personal effects of all these guys in my room. Their bloodied gear was a somber reminder of the tragedy.”

Also killed were Maj. Philip Ambard, a Venezuelan immigrant and a former Academy Language Department assistant; Maj. Jeffrey Ausborn of Randolph Air Force Base, Texas; David Brodeur of Joint Base Elmendorf-Richardson, Alaska; Raymond Estelle II and Charles Ransom of Joint Base Langley-Eustis, Virginia; Capt. Nathan Nylander of Davis-Monthan AFB, Arizona; Master Sgt.

Tara Brown of Joint Base Andrews-Naval Air Facility Washington, Maryland; and retired Army Lt. Col. James McLaughlin, a contractor from Santa Rosa, California.

Five Afghan soldiers were injured. According to Associated Press reports, at least one was shot in the wrist and the others suffered broken bones and cuts.

Though he knew the tragedy would affect him, Grindstaff pushed the thought aside in the immediate aftermath of the attack.

“I remember thinking, ‘You’ve got to take care of your people,’” he said. “You keep telling yourself, ‘You’ve got to take care of your friends. We’ve got to get them home to their families.’ You just focus on the situation and the things you’ve got to do.”

Still, for all the initial commotion, the chief knew he would eventually have to take care of himself. He met with an Army combat stress team chaplain three days after the attack.

See **AIRMEN**, page 7

Ascend Federal Credit Union returns \$5 million to members

By Greg Davis

Ascend Federal Credit Union

TULLAHOMA, TENN. – Members of Ascend Federal Credit Union are getting a \$5 million

Christmas present.

The amount represents bonus dividends and loan interest refunds that will appear on members' December statement. Over the past decade, a total of \$55 million has been

returned to Ascend members.

"While a member return is never guaranteed, our volunteer, unpaid Board of Directors has examined our financial situation for each of the

past 10 years and voted to share the success of the credit union with the people who make it successful – our members," Ascend President and CEO Caren Gabriel said.

Gabriel said the mem-

ber return rewards loyalty with Ascend. The more savings someone has with the credit union, the greater the bonus dividend, and the more loans the individual has, the greater the loan interest refund.

The credit union opened in 1951 as the AEDC Federal Credit Union to serve the employees of Arnold Air Force Base. In 2006 the name changed to Ascend Federal Credit Union.

Air Force identifies nickel-free material for F-35 aircraft systems

WRIGHT-PATTERSON AIR FORCE BASE, Ohio (AFNS) – Nickel-based materials are used in several components of today's fighter aircraft; however, working with these materials can be dangerous for installers and requires special handling procedures.

Through a Small Business Innovation Research (SBIR) contract with the Air Force, Triton Systems, Inc., located in Massachusetts, developed a nickel-free material technology that

is positioned for transition to several F-35 Joint Strike Fighter applications. Transition of this technology is anticipated to save \$550 million across the aircraft's lifecycle.

"Identifying environmentally benign and more affordable alternatives to nickel will provide significant benefits across the Air Force," said Maj. George Woodworth, an Air Force Research Laboratory researcher. "Implementation of Triton's non-nickel-based

material system will significantly reduce sustainment costs and eliminate the risk of exposure for factory workers, military maintainers and depot workers."

The nickel-free conductive filler material was developed in close collaboration with F-35 equipment manufacturers. Triton has used its manufacturing process and pilot manufacturing scale equipment to demonstrate several relevant product forms. It has also demonstrated fully formulated

resin systems that meet the specific technical requirements for the F-35 program.

According to Woodworth, the initial success Triton achieved under the SBIR program led to additional funding through the Rapid Innovation Fund (RIF) program. The RIF award enabled Triton to mature the technology to a level appropriate for qualification and transition into aircraft.

The Air Force SBIR and Small Business Technology Transfer (STTR) pro-

grams are mission-oriented programs that integrate the needs and requirements of the Air Force through research and development topics that have military and commercial potential. The SBIR program was established by Congress in 1982 to fund research and development (R&D) through small businesses of 500 or fewer employees. The STTR program was established in 1992 to fund cooperative R&D projects with small businesses and non-

profit U.S. research institutions, such as universities.

The Air Force SBIR and STTR programs provide more than \$300 million in funding for research and development activities by small businesses annually. With this budget, the Air Force funds research from the early stages of concept development until it transitions to military or commercial use.

(Courtesy of the 88th Air Base Wing Office of Public Affairs)

AIRMEN from page 6



Chief Master Sgt. Max Grindstaff is among the many Airmen who have benefited from the Air Force's mental health services. He took advantage of the mental health services in 2011 to help him cope with the aftermath of an inside attack while he was deployed to Afghanistan. The chief hopes his story encourages Airmen who witness or experience trauma to take advantage of the Air Force's numerous support programs and get help themselves. Grindstaff is the Air Force Academy's command chief. (U.S. Air Force/Carol Lawrence)

"I was still in shock in a lot of ways, but knew I had to see someone," Grindstaff said. "I didn't want to bring this home. After meeting with the chaplain, I knew I'd be better off if I was seen again after I got home and was able to put some distance between myself and the date of the attack."

Grindstaff said everyone kept a close eye on each other after the shooting.

"We tried to care for each other as best we could," he said. "I'm telling everyone to get help, to get seen, and the Airmen are checking on me saying, 'Chief, you too.' After this happened, they all said, 'Don't let this follow you. Get seen.' What Airmen do naturally is take care of other Airmen before they take care of themselves, so getting help for ourselves can often be the last thing on our mind."

Later, Grindstaff thought of Bryant.

"I heard his voice in my head saying, 'Get seen Max. Don't let this keep you down. You've tried to take care of everyone else, but now you do it. Get help,'" he said.

When the chief returned to his home station at Hill AFB, Utah, a few weeks after the attack, he took an Air Force post-deployment survey and within days, received a call from a mental health clinician assigned to the 75th Medical Group there.

"I answered that survey honestly, so I knew I would get a call. It was expected," he said. "So I went to mental health. I got help. I did not want to have to deal with the effects of this tragedy in 10 years. I did not want to have this yoke around my neck for the rest of my life. I did not want to increase the sphere of evil influence this attack could have on my life."

The chief visited a mental health clinician every two weeks for six months.

"It was very easy," he said. "When I first walked in, the staff asked if I wanted to use the (distinguished visitor entrance) because I was a chief. I said 'Heck no!' What kind of hypocrite would I be if I used a DV entrance? I'm not ashamed to admit I needed help."

The chief said he wasn't worried about being stigmatized for seeking help.

"There was a stigma back in the '80s when I came in, but 20 years of being on the battlefield has driven Airmen to be more pragmatic," he said. "Leaders are much more comfortable with getting the help they need and encouraging their Airmen to get help. It's an issue of integrity. If Airmen see their leaders getting help, they're more likely to get it themselves."

While some argue this stigma still exists, a mental health clinician here argues strongly against that stereotype.

"Historically, there has been an inappropriate and undeserved stigma associated with mental health care – an impact on one's career, an indication of weakness, perception that only 'crazy people' go to mental health," said Maj. (Dr.) Chad Ackison, a clinical psychologist assigned to the 10th Medical Operations Squadron. "In reality, mental health is just that -- health focused on wellbeing and improving the patient's quality of life. Although a diagnosis may be used by a clinician to identify symptoms that may inform treatment, ultimately we look at how these symptoms negatively impact someone's life and assist Airmen (to) create a plan to hopefully improve their wellness."

The goal of the Air Force's mental health services is to improve an Airman's wellbeing, Ackison said.

"Many no longer think in terms of mind-body dualism, meaning the mind is separate from the body, but rather embrace a holistic approach to health and wellbeing that assumes there's a connection between physical, emotional, behavior and the environment," he said. "This notion is referred to as the bio-psychosocial model and some clinicians would even add bio-psychosocial-spiritual model. By addressing all aspects of the person, we hope to make small changes in each of these areas to collectively improve overall wellbeing."

Airmen needing mental health support are not alone, Grindstaff said.

"With every champion we have who has been helped, we know there are 10 Airmen privately battling problems," he said. "If you stepped into a room of 50 Airmen, I guarantee you at least half have seen trauma. So they are not the minority. The great preponderance of Airmen experience significant trauma in combat and our mental health clinicians are so very well equipped to help. You are absolutely not alone."

There's still work to be done, but mental health support services here and across the Air Force continue to improve, Grindstaff said.

"We're almost there, but we can never rest on our laurels," he said. "You don't need a command chief to say they've gotten help for you to get help. Our services are more than credible in themselves."

The 10th Medical Group Mental Health Clinic offers comprehensive mental health services to include individual and couples counseling, psychological testing, educational classes, substance abuse education and treatment through the Alcohol and Drug Abuse Prevention and Treatment Program, and family services through family advocacy.

"The mental health clinic also oversees the Behavioral Health Optimization Program (BHOP) in Family Health, where behavioral health services are also offered," Ackison said. "Services in the BHOP model focus on specific issues such as mild mood issues, partner relational issues, sleep, stress and etc., and can usually be resolved within four sessions."

Ackison said Airmen can expect a comfortable

counseling environment but suggested they keep track of their medical documentation.

"In many cases, it benefits the patient to have medical or mental health issues documented for continuity of care between providers, ensuring they receive the highest quality of care," he said. "Documentation establishes a record that any issue that has developed has been treated, making mission-essential questions concerning worldwide qualification, clearance, cross training and etc., often more easily answered by the medical community."

Ackison said only limited information can be shared with an Airman's command unless a release of information is signed by the patient.

"Rare is the case in

which a provider would need to speak with command; those cases are limited to safety issues, mission essential questions concerning deployment and weapons status and etc.," he said. "The majority of the issues mental health sees are quite amenable to treatment so it's truly in the Airman's best interest to seek help for an issue prior it escalates into something much bigger."

Grindstaff recommends Academy supervisors familiarize themselves with Academy mental health services.

"If you're genuinely committed to your people, seek out our mental health clinicians and services so you can help your Airmen and their families," he said. "Visit the organizations. If you lead Airmen, find out where to take them, arrange

a visit, organize a commander's call attended by a clinician and tell your family how to get help. Seeing these clinicians face to face is so much better than an email or phone call."

Grindstaff credits the mental health counseling he received with helping him come to terms with the death of his friends and coworkers. He's now able to share his story and think of these Airmen without being overcome with debilitating sadness, he said.

"I feel better every time I tell my story about getting help," Grindstaff said. "It makes me feel good. If I share this story with anyone and it encourages them to get help, it will be worth it."

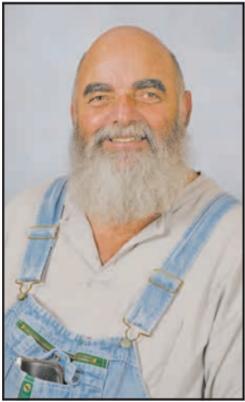
For confidential assistance, call Military One-Source at 800-342-9647.

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Milestones



Kenneth Delaney, ATA



Richard Evans, ATA



Sidney Steely Jr., ATA

35 YEARS

Kenneth Delaney, ATA
Richard Evans, ATA
Alice Moran, ATA
Mark Moran, ATA
Sidney Steely Jr., ATA

30 YEARS

Donald Bell, ATA
David Cox, ATA
Robert Reed, ATA
Terry Tucker, AF
Debra Williams, AF

25 YEARS

Richard Minor, ATA
Ricky Tate, ATA

20 YEARS

Joseph Coblisch, AF
Carlton Walker, ATA

15 YEARS

Sandra Alvarez, Premiere
Larry Philpott, ATA

10 YEARS

Joseph Chapman, ATA
Tony Pederson, ATA
Matthew Kennedy, ATA
Brian Knack, ATA

5 YEARS

Brian Barnes, ATA
Paul Frankowski, ATA

RETIREMENTS

Master Sgt. George Allen, AF
Phil Stich, ATA
Beverly Tate, AF
Col. Patrick Tom, AF

NEW HIRES

John Ashworth, ATA
Joseph Bedell, ATA
Delbert Campbell, ATA
Alexander Goodman, ATA
Melissa Hester, NAF
Laquisha Highsmith, AF
Kevin Jones, ATA
James Kirksey, ATA
Ryan Marlin, ATA
Karl Martin, ATA
Jason Miller, ATA
Michael Nelson, ATA
Glen Sartin, ATA
Richard Schueren, AF
Jeffrey Smith, ATA
Justin Thompson, ATA
Hanh Tran, ATA
James Whaley, ATA

PROMOTIONS

Wendy Carr, ATA
Cheri Mann, ATA
Terry Mullin, ATA
Danny Owens, ATA
Wesley Steelman, ATA



TERRA holds conference at Arnold

Craig Neel, the Atlanta-Nashville district director with the Office of Labor-Management Standards, speaks to attendees of the Tennessee Employment Relations Research Association (TERRA) 16th Annual Conference at Arnold Air Force Base on Nov. 13. The three-day conference is a forum to bring management and labor from middle Tennessee together to discuss current work-related issues that impact both sides and to find common ground on approaching those challenges. (Photo by Rick Goodfriend)



Getting ready

Crew chiefs from the 34th Aircraft Maintenance Unit perform a pre-flight inspection on a B-1B Lancer Nov. 18, during Green Flag-West 15-02 at Nellis Air Force Base, Nev. Green Flag is typically a joint exercise involving multi-role fighters and/or bomber squadrons, unmanned aircraft, electronic warfare aircraft and aerial refueling aircraft. (U.S. Air Force photo/Staff Sgt. Siuta B. Ika)

AFRL engineers awarded for fostering innovation, teamwork

By Leslie Klein

Air Force Acquisition Excellence and Change Office

WRIGHT-PATTERSON AIR FORCE BASE, Ohio (AFNS) –

Two Air Force electronics engineers received the 2014 National Security and International Affairs Medal for saving the lives of Soldiers in Afghanistan by creating and deploying a new aerial sensor system to help U.S. Army and special forces units detect and destroy deadly improvised explosive devices.

Ben Tran and Sean Young, both from the Center for Rapid Innovation in the Air Force Research Laboratory at Wright-Patterson AFB were honored recently by the Partnership for Public Service with one of the Samuel J. Heyman Service to America Medals (SAMMIES). The SAMMIES are presented annually to honor members of the federal workforce who have made significant contributions to the United States. Recipients are selected based on criteria including commitment, innovation and the impact of their work on the nation as a whole.

Tran and Young led the development, testing and deployment of sensors, which were placed on unmanned aerial vehicles. In the first fifteen months of their first deployment, with new small unmanned aerial system (SUAS) technology in support of an Army division in Afghanistan, no Soldiers

in the unit were killed by roadside bombs. The second implementation has been in place for the past year and has exposed many IEDs and other malicious acts against coalition forces.

Miniature radio frequency sensors, which have increased sensing coverage over traditional SUAS technology, were inserted on the aircraft and enabled complete visibility on the range. This innovative technology was the first to use radio frequency sensors together with electro-optical and infrared sensors in this manner.

Tran and Young attribute much of their success to the relationships developed with their customers and integrated teams. By attending their customers' exercises and mission briefings, they developed a foundational understanding of the missions and the tools currently in existence to address the missions and find the gaps.

"At the beginning, it's difficult for anyone to establish a relationship with the customer," Tran said. "But working with leadership and other senior engineers, we were able to make the initial connections and continue to develop relationships."

Now, they receive phone calls from returning special forces who provide feedback on their systems and where they could make improvements.

"We'll take that feedback and we'll try to loop it back into our systems to continue

developing the technology to address their concerns or fill capability gaps," Tran said.

Once the development teams are established, Tran and Young are mindful to provide as much information to as many government and contractor personnel as possible.

"Understanding there are security and proprietary limitations, we operate under a full disclosure," Young said. "We want everyone to have an appreciation for the type of work they are doing and how it ultimately contributes to the war effort or technology gap."

"The question that always comes up," Young continued, "is 'Who is actually part of your team?' We make the team as inclusive as possible. It's not just the engineers and program managers. It includes the finance folks and the contracting officers and the security team. We really try to include everybody in all aspects, even if we know they have no equity on a certain part of the program. We give them a briefing on exactly what the system is and why it's important, which goes a long way in fostering a holistic team approach where everyone is motivated by the common purpose."

The team knows that due to the nature of their rapid acquisition work, everything they do needs to be done 'yesterday.' They said they take technical barriers in stride, and know nothing ever works exactly as

planned. They acknowledge the challenges and continue to move forward.

"It takes the right mindset," Young added. "You have to appreciate the work that's required and understand where you need to go and how you need to get there. We follow the same processes as everybody else. Just having these relationships help make our processes move faster."

"Putting people together with unlike minds where they have different backgrounds, different experiences, and different expectations really fosters innovation," Young continued. "We've taken engineers, and put them directly in the room with people who spend their days fighting wars, and ask how we can take their experience and our technology and provide them the best resources."

They also rely on a network of military, academic, and industry experts that they called iNET, short for the Center of Rapid Innovation Network. Composed of about 60 experts around the country spanning all areas of technical expertise, Tran and Young know they can reach out to any number of experts to help when problems arise.

"iNET allows us to go across the country and find the best of the best in every technical area," Young said. "If we could only reach out to one geographic area, we wouldn't have access to the same caliber of resources. It's more difficult to manage

a project where people are distributed, but with communication and regular status calls to make sure we're all working towards the same goals, it works."

Similar to USSOCOM's Ghost Program, the AFRL Center for Rapid Innovation deploys company grade officers and junior civilians as liaison officers to different deployed systems. Since 2009, more than 20 people have witnessed their systems in action through these volunteer deployment opportunities.

"Our leadership has been extremely supportive, allowing our folks to take their innovative ideas and implement them directly into the field, and then come back to the Lab with their niche technical areas and feed those lessons learned back into the Lab and Acquisition Cycle – it's been huge," said Tran, who deployed to and Iraq once and twice to Afghanistan since 2011.

Asked to advise the acquisition community on how to think outside the box and create innovative solutions, both engineers stressed the importance of relationship building and teamwork. Tran recommended attending professional conferences and operational exercises to meet technical counterparts and continue to build these crucial relationships.

"We show everyone their work is appreciated and use that to motivate the entire team," Young said.

Turkey Trot runners and community win



Runners at the AEDC Turkey Trot Run/Walk begin a 5K run at the Complex on Nov. 21. (Photo by Rick Goodfriend)

By Raquel March
ATA Public Affairs

More than 50 runners from AEDC and the community participated in the 29th Annual Turkey Trot Run/Walk at AEDC on Nov. 21.

The 5K race and 1.5 mile trail-walk/run was hosted by the Arnold Air Force Base Company Grade Officers' Council.

The council collected approximately \$2,000 and the proceeds from the race will

be given to Operation Stand Down of Nashville, The Good Samaritan of Tullahoma and the AEDC Children's Christmas Party.

The winners of each age and gender division received a turkey.

Turkey Trot Results

Men's Overall Winner – Conner White – time: 19:35

Men's 35 and under category winner – Andrew Nelius – time: 19:59

Men's 35-50 category winner – Lee White – time:

20:19

Men's 50 and over winner – Steve Lovett – time: 23:08

Women's Overall Winner – Keena Cornelius – time: 24:14

Women's 35 and under

category winner – Deidre Ortiz – time: 35:34

Women's 35-50 category winner – Jill Russell – time: 27:30

Women's 50 and over category winner – Maureen Burke – time: 26:29

AFA Outstanding AF Civilian Employee of the Year nominations due

By Janis El Shabazz
Air Force Personnel Center Public Affairs

JOINT BASE SAN ANTONIO - RANDOLPH, Texas (AFNS) – Air Force officials are accepting nominations for

the Air Force Association (AFA) Outstanding Air Force Civilian Employee of the Year.

Each year, the AFA recognizes Air Force civilian employees for outstanding achievement in four categories:

- Civilian Wage Employee (all federal wage system employees)
 - Civilian Program Specialist (GS-1 through GS-11)
 - Civilian Program Manager (GS-12 and GS-13)
 - Civilian Senior Program Manager (GS-14 and GS-15)
- Organizations and base-level personnel must contact their major command, combatant command, field operating agency or direct

reporting unit for applicable suspense dates and additional information regarding nomination procedures.

Each MAJCOM, COCOM, FOA and DRU may nominate one person for each category.

Completed nomination packages are due to the Air Force Personnel Center by Jan. 8.

For more information on Air Force recognition programs and other personnel issues, visit the <https://mypers.af.mil> website.

