



HIGH MACH

Serving the World's Premier Flight Simulation Test Complex



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Major milestone at AEDC's large military engine test facility for new mission-critical capability

By Philip Lorenz III
ATA Public Affairs

On Nov. 19, Rosemary Matty led a ribbon-cutting celebrating the success of a \$3.6 million investment project to modernize and expand the capabilities of the nation's largest military aircraft engine ground test facility, located at the Arnold Engineering Development Complex.

"This is the first of the Advanced Large Military Engine Capability (ALMEC) program projects to be completed," Matty, AEDC's program manager for ALMEC, said. "The success of this project required many organizations across the base to pull together as a team."

Britt Covington, AEDC executive director, agreed with Matty's characterization of the collaborative nature of the project.

"Congratulations to the team – the team obviously goes beyond just the folks who got the plaque here today – I mean all 120 people who are involved in this project," he said. "This is the first of nine projects, related to improving and modernizing this facility in ASTF and the test cells that it supports. I applaud each of you for your contribution to this effort, which at \$3.6 million dollars, is a pretty big project. But at the end of the day, in 10 years, we'll get that \$3.6 million dollars back – it'll save money."

Matty said to fully appreciate this milestone it helps to understand the scope of the whole program.

"[Ultimately] ALMEC will improve



From left to right, Dr. Saeed Zadeh, AEDC Test Systems Sustainment Division's chief of acquisitions; Kirk Rutland, technical director of the Test Systems Sustainment Division at AEDC; Britt Covington, AEDC executive director; Rosemary Matty, AEDC's program manager for the Advanced Large Military Engine Capability (ALMEC) program; Dan Flanigan, ATA project manager; Col. Patrick Tom, AEDC Test Division director; and Lt. Col. Brent Peavy, AEDC's Turbine Engine Ground Test Complex director, take part in a ribbon-cutting event marking the completion of the ASTF C1/C2 Temperature-controlled Cell Cooling project. (Photo by Rick Goodfriend)

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AEDC's Precision Measurement Equipment Laboratory

60-years plus of unrivaled mission support into the future and beyond

By Philip Lorenz III
ATA Public Affairs

When Arnold Engineering Development Complex's (AEDC) engineers conduct mission-critical flight simulation testing on leading-edge aerospace systems, including aircraft, rocket motors, spacecraft and missiles, they rely heavily on what the Complex's Precision Measurement Equipment Laboratory (PMEL) provides.

What PMEL's workforce does is the "behind the scenes" effort that ensures that the test data is consistently accurate.

"Data is the reason we test," said Lt. Col. James Peavy, AEDC's Turbine Engine Ground Test Complex (TSTB) Test Division Branch chief. "If we don't accurately measure and record the event then, in effect, it never happened. It is critical to have instruments with the accuracy and precision to measure both the expected and unexpected events. PMEL has the folks that do this vital work for us. You can't have a world class test facility without a world class instrumentation capability. They rarely get the credit they deserve, but for every successful test we do at AEDC there are hundreds of hours of hard work and support from the PMEL shop."

"The PMEL is responsible for assuring all the critical instruments we use in the test facilities are calibrated to be consistent with the NIST (National Institute of Standards and Technology) and that's the whole foundation of assuring we have quality data in our test facilities."

Dr. Ed Kraft

Dr. Ed Kraft, AEDC Chief Technologist, said the AEDC's PMEL is not only unique, but has an excellent reputation for a good reason.

"The PMEL is responsible for assuring all the critical instruments we use in the test facilities are calibrated to be consistent with the NIST (National Institute of Standards and Technology) and that's the whole foundation of assuring we have quality data in our test facilities," said Kraft. "One [factor] is the nature of the work we do here and then the magnitude of it, too. They [PMEL's technicians] calibrate from 8,000 to 9,000 instruments a year and we deal with precision measurements. If you go to a flight test, they obviously do a lot of measurements also, not nearly as precise because they can't control the environment the way we do. The volume and the precision our folks have to deal with is what set us apart from those other labs."

Dr. Kraft credits the lab's far-reaching and solid reputation among the complex's customers to the highly-skilled technicians, the forward-looking management of PMEL's leadership and the lab's state-of-the-art equipment.

PMEL has long provided AEDC's customers with calibration of test mea-



Master Sgt. Lars Mirandamuller, AEDC PMEL/Chemical Laboratories section chief, and Dave Compton, Aerospace Testing Alliance (ATA) PMEL manager, examine a high voltage divider during a recent inspection held annually at one of the most unique calibration labs in the world. (Photo by Jacqueline Cowan)

surement instrumentation such as voltage, temperature and pressure measurements and dew point standards at the appropriate intervals to ensure measurements that are traceable to the NIST. These are standards recognized nationwide.

Certified by the Air Force Metrology and Calibration (AFMETCAL) program facility in Heath, Ohio, PMEL has even led the way in setting measurement standards for the military.

Dale West, ATA's supervisor of the mechanical labs at the PMEL, said, "The measurements we make at AEDC in our

test cells, wind tunnels, turbine cells and our space chambers, we want those to be the same measurements that would be made anywhere else in the country.

"We're providing traceable measurements that are made at AEDC," West said. "Our PMEL provides that traceability back to a national standard which is the National Institute of Standards and Technology (NIST)."

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HIGH MACH

Arnold Engineering Development Complex
An Air Force Materiel Command Test Complex

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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 assert 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

'This is how we do' - NCOs

Commentary By Chief Master Sgt. Michael Warner
Command Chief, Air Force Materiel Command

WRIGHT-PATTERSON AIR FORCE BASE, Ohio – The other night I was driving home from work listening to the radio. A commercial came on for Mountain Dew and Jason Aldean, a popular country singer, said, "This is how I do" – then went on to explain his life philosophy. Later I saw a commercial with another music star that was advertising for Mountain Dew. He also said, "This is how I do" and explained his philosophy. That "how I do" tagline prompted me to think about what we do as NCOs. In essence, "this is how we do."

This is how we do: the mission. As Air Force Chief of Staff Gen. Mark Welsh III said, "No one will care how well you take care of your people if we lose the next war." NCOs understand the priorities of the Air Force, our command, our center, our wing and our squadron. We know how important it is to educate our Airmen on the mission so they know what they are driving toward and how their actions are instrumental in getting that mission done.

This is how we do: values. NCOs know, care about and enforce our core

values. We embrace, preach and live the guidelines set forth in our Enlisted Force Structure, and we absolutely embrace the responsibility to train our Airmen in their specialty, and to teach them how to be professional Airmen.

This is how we do: priorities. NCOs know what is important. People are important. What is going on in their lives is important. Development of our Airmen is important. Discipline is important. Fitness is important. Honest, direct feedback and honest evaluations are important. Leadership by example is important. Open communication with Airmen is important. Face-to-face interaction is important.

This is how we do: conviction. NCOs know when to stand up for what we believe – standards, discipline, core values, EPR ratings that are earned. When something needs to be said, NCOs say it. When something needs corrected, NCOs correct it. If someone has earned recognition, NCOs make it happen. We cannot just go with the flow, be silent or ignore problems. Because we stand up for what we

believe, inaction is not part of our behavior.

This is how we do: leadership. First, NCOs know leadership is hard work. For every one leader, there are 1,000 critics. This does not deter us. Hard work is expected; hard work is given. There is no room for laziness in good, old-fashioned NCO leadership. Being an NCO is tough, but so what – it wouldn't be as critical to our Air Force, our mission or our Airmen if it weren't tough. We earned the promotion because our leadership knew we could do it.

Secondly, once we've proven ourselves up to the challenge, NCOs realize that leadership is a gift given by those who follow. Being in charge and being a leader are not the same thing. NCOs know the difference and we know it is us who determines where we stand. NCOs embrace that leadership isn't a popularity contest – it is about living up to what it means "to serve" and to be called Sergeant. We know Airmen don't want a soft leader. They want someone who will push them to be the best they can be, to challenge them, to discipline them, to listen to them and to care about them.

Finally, NCOs use digital as a tool, not a leadership method. NCO leadership



Chief Master Sgt. Michael Warner

"NCOs realize that leadership is a gift given by those that follow. Being in charge and being a leader are not the same thing. NCOs know the difference and we know it is us who determines where we stand."

is all about one-on-one, face-to-face, daily dialogue with our Airmen. Being an NCO means training them and leading them in person, not by absentee means. Just because it is quicker to send an email or make a phone call does not mean it is the best way to lead.

This is how we do: the Wingman Concept. People are our most valuable resource ... period. As the saying goes, people will never care how much you know until they know how much you care. Every Airman has a story – why they chose to serve, what they hope to accomplish, what degree they want to earn, where they want to be assigned. NCOs know those stories because we ask, because we care, because it is part of being an NCO. We know where our Airmen live, who they are married

to or dating, what their kids' names are, if their parents are sick. NCOs care about our Airmen and our Airmen know we are there to help. This is part of developing resilient Airmen for our Air Force.

This is how we do: honor. NCOs know being an NCO means something. It isn't about the pay. It isn't about the privileges. It isn't about the amount of time spent in the Air Force. It means something to be a leader of Airmen and to be entrusted with their development. It means something to be called Sergeant or Shirt or Chief. It means something because of all the great NCOs that have come before us and set the stage. We know we have to live up to all of that.

As NCOs, this is how we do!

Antiterrorism Force Protection surveillance operations

This week's *High Mach* Antiterrorism tips are on recognizing surveillance operations and actions to take if you suspect someone is conducting surveillance operations.

DEFINITION of surveillance:

- Continuous or periodic act of observing a person, a place, or a thing for the purpose of gathering information.

TYPES OF SURVEILLANCE:

- Stationary (e.g., person or vehicle)
- En-route Or Moving
- Technical Surveillance

INDICATORS OF POSSIBLE SURVEILLANCE:

- Illegally or suspiciously parked vehicles (e.g., along the installation perimeter or by high risk facilities)
- Occupied parked vehicles
- Personnel in unauthorized areas
- Personnel taking photographs, sketches or observing specific operations (air traffic, vehicle traffic, construction, etc.)

INFORMATION:

- The following types of information will facilitate the investigative process:
 - Date and time of the incident
 - Number of individuals involved
 - Description of the incident
 - Name and address of the location involved
 - Physical Description of person(s) involved
 - Physical description of vehicles involved

ACTIONS:

- Conceal your suspicions and movements
- Do not force a confrontation
- Stop operations being observed:
 - If possible and would not alert suspects
 - If operations are critical or sensitive, immediately stop actions
- Call the authorities at 454-5662 or 454-HELP (4357)
- Attempt to keep individuals under observation until authorities arrive.

REMEMBER: Antiterrorism and Force Protection is EVERYONE'S job.

The Arnold Engineering Development Complex Antiterrorism Officer is Dan Hawkins, 454-5504



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 three ways: via the AEDC intranet home page, Action Line boxes at the base cafeterias 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

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, you cannot smoke 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. In case of inclement or cold weather, employees are encouraged to use their personal vehicles if a sheltered designated smoking area is not available nearby. 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://lapro.arnold.af.mil/PORTALLimages/Smoking area map.pdf](https://lapro.arnold.af.mil/PORTALLimages/Smoking%20area%20map.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.

Regarding use of smokeless tobacco, 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. Smokeless is strictly prohibited in conference room meetings and other areas, e.g. PMEL, where Air Force regulations specifically prohibit.

Due to the nature, appearance, and safety concerns of electronic cigarettes (also known as "e-cigs"), they are considered to be in the same category of tobacco products whose use is governed by Air Force Instruction (AFI) 40-102, Tobacco Use in the Air Force. Therefore, all rules stated above for tobacco products apply to electronic cigarettes.

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 letter supersedes previous letter dated 28 October 2006, subject as above.

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and modernize key Aero-propulsion Systems Test Facility (ASTF) mechanical and electrical controls, facility monitoring systems, process air distribution and exhaust inter-cooling systems," she said. "This ribbon-cutting ceremony marks the first leg of a multi-year Test Investment Planning and Programming (TIPP) effort that began in fiscal year 2011 with a planned completion date set for fiscal year 2017.

"The C1/C2 Temperature-controlled Cell Cooling project is the first effort to be completed under ALMEC and it adds critical test cell cooling capability to the large turbine engine altitude test cells during near sea level testing (NSLT) conditions."

According to ATA design engineer Phillip Krepp, the new C1 and C2 cell cooling system was based on a successful design of AEDC's existing J1 and J2 test cell cooling system.

He said their team realized that retrofitting the C1 and C2 cell cooling system based on the J test cells' cooling system resulted in lower operating costs and satisfied capability requirements for a broader range of simulated flight conditions without sacrificing data quality.

"C1 and C2 test cells require cell cooling to protect instrumentation while conducting engine tests," he said. "The previous cell cooling system used either atmospheric in-bleed or the same air supply being provided to the test engine. This doesn't allow the customer the ability to set cell cooling temperatures.

"AEDC now has the capability to set true NSLT conditions in engine test cells C1 and C2 without running additional expensive exhaust equipment, resulting in reduced operating costs and increased plant efficiencies."

Employee promotes AEDC in community

By Raquel March
ATA Public Affairs

It's no surprise that Greg Sandlin, an Aerospace Testing Alliance (ATA) engineer, former Tullahoma alderman and Tullahoma Rotary Club member, readily promotes Arnold Engineering Development Complex (AEDC) in his community of Tullahoma.

AEDC's support contractor, ATA, encourages employee community support through volunteering, STEM (science, technology, engineering, and mathematics) educational support or monetary donations.

When a community support opportunity arose for a project that would benefit youth and their development, Sandlin urged the Tullahoma Rotary Clubs to

choose an aerospace theme promoting Tullahoma as a place of Aerospace Excellence because of its AEDC history.

The project, the Rotary Rocket Playground, was an upgrade to Tullahoma's Frazier McEwen Park playground facilities.

The playground was designed with two sections – one for children ages three to five and one for children ages five to 12.

Frazier McEwen Park is centrally located, within walking distance of many Tullahoma neighborhoods and available to all citizens. The park may receive visitors from the local community and visitors from areas within a 30-minute driving distance from the park.

Sandlin was one of many

advocates pushing the project forward and seeking funding.

The ATA Employee and Community Activities committee made a monetary contribution to add to the donation efforts of Tullahoma Rotary Clubs and the Tullahoma Parks and Recreation Department.

"It has been a privilege being involved in this project," Sandlin said. "It has been a tremendous team effort between the two Tullahoma Rotary Clubs, the Rotary District 6780, the City of Tullahoma and the State of Tennessee."

The complete cost of the two year project totaled approximately \$120,000 and was funded through donations and grants.

"My hope is that AEDC and its employees will continue to

donate generously to community organizations and projects as they have done so in the past," Sandlin said.

The Rotary Rocket Playground project was recognized for its accomplishments by receiving the 2011-2012 Lacy-Bomar Award.

The award recognizes excellence in service and is named for the past Rotary Club of Cookeville President James Lacy and past Rotary Club of Shelbyville President James Bomar Jr.

Sandlin said, "It [the Rotary Rocket Playground project] was in competition with projects from 65 other Rotary Clubs in the Rotary District."

Dec. 2 will mark the one year anniversary of the Rotary Rocket Playground opening.



The Rotary Rocket Playground is located in the Frazier McEwen Park, Tullahoma, Tenn. The Aerospace Testing Alliance (ATA) Employee and Community Activities Committee made a monetary contribution toward its development. Greg Sandlin, an ATA engineer, former Tullahoma alderman and Tullahoma Rotary Club member, suggested an aerospace theme for the playground promoting Tullahoma as a place of Aerospace Excellence because of its AEDC history. (Photo provided by Greg Sandlin)

PRECISION from page 1

PMEL includes 18 different measurement work areas throughout the lab, including pressure flow, force, mass and torque, and also AC and DC voltage electrical current, resistance, RF/microwave frequency, temperature and a dimensional measurements area.

West said the equipment throughout PMEL is "state-of-the-art and is operated and maintained in a stable, controlled environment."

Vince Chapman, with AEDC's Test Systems Sustainment Integration and Support Branch, said people like West and James Winchester deserve much of the credit for PMEL's excellent long-standing reputation among the metrology community and the customers they serve.

"Our PMEL's flow capabilities have really been a benchmark for the Air Force," he said.

"James Winchester's work to improve our flow capabilities has not only benefitted AEDC, but the entire Air Force. The metrologists at the Air Force Primary Standard's Laboratory have learned a tremendous amount from Mr. Winchester's work. They, in turn, have implemented many improvements with Air Force liquid flow calibration methodologies which have directly benefitted other bases in the Air Force Material Command, including Hill AFB, Utah and Tinker AFB, Oklahoma."

Winchester, who spent much of his 32-plus year career as an AEDC PMEL metrology and instrumentation & controls engineer, continues to contribute to an ongoing effort to perfect flow meter calibrations for test customers at the Complex.

Winchester also helped to develop more accurate flow meter calibration processes, not just for AEDC, but for AFMETCAL, the Air Force, Army, and DOD facilities worldwide, according to Chapman.

PMEL Technical Manager Greg Holcomb said PMEL is comprised of a number of labs in an environmentally-controlled building. His current role is development of increased automa-

tion of calibration processes conducted in these various labs.

"My colleagues at the PMEL also calibrate optical transits to set up test equipment in the test cells, [to] get everything on the test cell center line and properly leveled," he said. "The PMEL also has a mass lab where calibrated weights are used for calibration of weighing scales. The mass lab also calibrates other weights which are then used for field calibrations of weighing scales.

"We also have a gas laboratory where hand-held analyzers are calibrated against standard gas mixtures to make sure that workers in the field know that adequate oxygen is available in breathing air and that explosive levels of hydrocarbons are not in the air."

Holcomb pointed out that the PMEL has an accelerometer and vibration sensor calibration station.

"Vibration sensors and accelerometers are used on numerous test articles as well as heavy plant equipment to detect oscillations, or if a bearing is beginning to fail or something of that nature," he said. "Then we have the electronics lab where both RF (radio frequency) and DC (direct current) electronic equipment is calibrated."

Holcomb continued, "We have a temperature lab and we have a hygrometry lab. In the hygrometry lab, we calibrate sensors utilized to measure moisture levels in air. This is done primarily to tell how much moisture is being carried by the air in the wind tunnels to maintain the right conditions for testing.

"The temperature lab is somewhat unique to the Air Force. We have the highest temperature standard available in the Air Force and we also have the lowest temperature standard in the Air Force. We can go from about 14 Kelvin to 2,750 Celsius and everything in between. The low cryogenic temperatures are for sensors that are used in the rocket test area, and for cryogenic test articles being delivered for work in our space chambers."

The higher temperatures are

utilized for calibrating optical pyrometers primarily for the arc heater facility, a materials test facility for missile and space re-entry vehicles' heat shields.

Chapman said the workforce at AEDC's PMEL, just like at any metrology laboratory, face challenges as technology continually evolves and calibration requirements for those technologies are worked out and established.

"The biggest challenge for PMEL – looking at the research and development course of events – we're seeing a lot of new items come in the door that they're not accustomed to supporting," Chapman noted. "Now they frequently have to write a test procedure or do some research to find out what's the proper way of calibrating [the test and test support equipment]."

"Plus, all of the calibrations are blessed by Air Force METCAL. So there's a process that they have to go through – not only on this end, but also exchanging information with Air Force METCAL to ensure that everyone's in agreement with how to calibrate and certify equipment."

Currently a senior engineer with ATA's technology branch, Winchester sees a bright future ahead for AEDC's PMEL, despite

ongoing economic challenges.

Winchester and Holcomb credit their team's academic backgrounds, on-the-job mentoring and the equipment available at AEDC in providing them all with the specialized skills to excel in their field at Arnold's PMEL.

"We have the calibration standards to meet the requirements of the state-of-the-art instrumentation that is used in the test cells at AEDC," Holcomb said. "The engineering and management support for the PMEL is always looking to the future to improve the certainty of our calibrations and increase the automation of our

calibrations to be able to support the instrumentation requirements at AEDC within current budget restraints."

Holcomb said he is confident about what lies ahead because of the teamwork between the lab's staff and those who manage and support it.

"The AEDC PMEL is well positioned to meet the upcoming calibration challenges of today's Air Force and future requirements," Holcomb said. "We have the best trained technicians who can adapt to the rapidly changing technology requirements of metrology."



AEDC PMEL Instrument Technician Barry Benson adjusts a capacitance diaphragm gauge using an automated vacuum gauge calibration system. (Photo by Rick Goodfriend)



AEDC PMEL Instrument Technician Danny Myers calibrates a pressure controller using a primary pressure standard. (Photo by Rick Goodfriend)

F-22's success is more than 'skin deep'

By Sr. Airman Joan King
3rd Maintenance Group

JOINT BASE ELMENDORF-RICHARDSON, Alaska (AFNS) – Many are surprised to discover that the largest organ the human body has is the skin. Skin provides a physical barrier against harmful, external factors. The F-22 Raptor, much like the human body, has a layer of skin called low observable (LO).

LO not only assists in retaining the jets' stealth capabilities but also prevents corrosion and other damages. Like human skin, the F-22's coating consists of several layers. The surface of the F-22 appears to be a simple gray paint, but in reality the high-tech surface renders one of the largest fighter jets virtually undetectable by radar.

"Arguably the most important capability of a fifth generation fighter, like the Raptor, is what low observable delivers - the stealth," said Air Force Maj. Patrick Pearson, a 3rd Wing F-22 pilot. The benefits of stealth technology may escape

some in terms of air combat. The ability of the F-22 to prosecute a lethal attack while remaining undetected is why it has the highest air-to-air kill ratio of any other fighter in simulated combat. While incredible lethality has defined F-22 tactics, the aircraft has also become known for its unmatched survivability.

"Survivability is the biggest [factor], so the jet and the pilot can come back," said Airman 1st Class Emmanuel Marioni, 3rd Maintenance Squadron LO technician.

Lethality and survivability are critical issues for the men and women in the LO shop, comprised of active duty Airmen from the 3rd Maintenance Squadron and reservists from the 477th Maintenance Squadron. Their daily work readies F-22 pilots to defeat the most advanced adversarial aircraft and surface to air missile systems.

Once a week, the LO shop conducts outer mold line inspections on the Raptor. All the information is placed into a data-



Airman 1st Class Emmanuel Marioni, 3rd Maintenance Squadron, inspects the skin of a 3rd Wing F-22 Raptor at Joint Base Elmendorf-Richardson, Alaska. Marioni is a low observable technician. (U.S. Air Force photo/Senior Airman Joan King)

base that rates its stealth capability, called a signature assessment system.

"The lower the SAS rating, the stealthier a jet is," said Senior Master Sgt. Dave Strunk, 477th Maintenance Squadron fabrication flight chief.

Strunk said that LO application falls into two areas - the removal of coatings to facilitate other maintenance and the removal and replacement to bring the SAS rating down. The job of an LO technician can be a chal-

lenging one requiring a high level of attention to detail and adherence to safety precautions.

"We are working all day every day," said Air Force Staff Sgt. Matthew Duque, 477th Maintenance Squadron LO technician. "We have 24/7 coverage to ensure a steady flow of progress from the start of a repair to finish. Our accurate cataloging of damages and sound repairs ensure that the aircraft is performing as designed."

The skin from the body

can be taken for granted until it is damaged. The behind-the-scenes efforts of the men and women of the 3rd Maintenance Squadron and the 477th Maintenance Squadron keep the Raptor at the top of its game.

"The constant attention to detail and upkeep from our LO section is essential to projecting the F-22's combat capability," Pearson said. "Knowing that our jets are fully ready to go gives me the confidence I need get the job done."

Award fee announced for AEDC contractor

By Kathy Gattis
ATA Public Affairs

The Air Force announced an award fee rating of 94 for the Arnold Engineering Development Complex's (AEDC) operating contractor, Aerospace Testing Alliance (ATA), for the period April 1, 2012 through Sept. 30, 2012. The award fee determining official, Randall Culpepper, gave the contractor high marks with excellent ratings in each of the six functional areas evaluated.

In a note to the workforce, ATA General Manager Steve Pearson said, "Congratulations on earning an award fee score of 94 for Period 18. Your performance is the reason we earned an excellent overall rating, and we truly appreciate the work each employee has performed in support of AEDC's mission."

Pearson said the company will continue to share the award fee money with employees in accordance with its policies.

ATA received more good news today. The Air Force extended the company's contract through fiscal year 2014. The company must earn extensions which require an average award fee score for two periods to be 90 or above and meet specific requirements.

ATA was awarded the center support and testing contract on June 30, 2003. The operating contract is for up to 12 years and worth potentially \$2.7 billion. ATA currently employs more than 1,865 people from 15 Tennessee counties and four states.

ATA is a joint venture of Jacobs Engineering, Computer Sciences Corp. and General Physics Corp.

For more information about AEDC, visit the center's Website at www.arnold.af.mil.



AS AN AIR FORCE CIVILIAN, WHERE CAN I FIND HELP?

We all face challenges, but we don't have to face them alone.

IF YOU NEED HELP WITH...

TRY THESE AGENCIES & THEIR RESOURCES

Health & wellness planning	AFMC Wellness Support Center	www.afmcwellness.com
Health screenings & education	Civilian Health Promotion Services	(931) 454-6440
Work, personal or family issues	Employee Assistance Program	(800) 222-0364
Mental health & substance abuse	Centerstone	(931) 461-1300
Unplanned pregnancy	Crisis Pregnancy Assistance Center	(931) 728-6440
Suicide prevention	National Suicide Prevention Lifeline	(800) 273-8255
Sexual assault & victim advocacy	Sexual Assault Response Coordinator	(931) 581-7494
Crime victim advocacy	Victim Witness Assistance Program	(931) 454-4657

DON'T FREEZE UP!

WINTER STORMS AND EXTREME COLD CAN BE VERY HARD TO HANDLE!

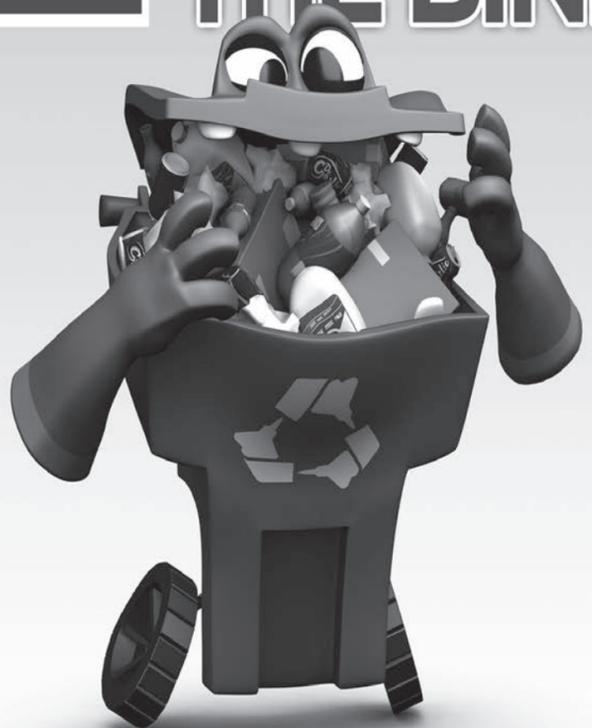


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DON'T FORGET TO FEED THE BIN!



Deployed Airmen setup remote connection to thank Ohio students

By Master Sgt. Russell Martin
451st Air Expeditionary Wing Public Affairs

KANDAHAR AIRFIELD, Afghanistan – It's not uncommon for deployed military members to receive boxes of goodies and letters from organizations and schools back in the United States.

Letters of thanks are also common but the connection forged by the 361st Expeditionary Reconnaissance Squadron Airmen was a little out of the ordinary.

Above and beyond one might say.

Senior Master Sgt. Jeffrey Taylor, 361st Expeditionary Reconnaissance Squadron superintendent, received a care package from an American History class at Mason High School, Mason, Ohio. The package was part of a Support the Troops initiative by Katie Hicks, Mason High School social studies department. The package contained snacks, supplies and some personalized letters to the Airmen serving at KAF.

"As the superintendent, I went through the box to see what I could distribute to my Airmen," Taylor said. "There were so many goodies and things that I was kind of overwhelmed. What really got me was the personalized letters expressing the students' support for troops. One letter was from Katie, the class teacher, so I did some research and reached out to her to let her know we got the package and to thank her for thinking about us."

From there, the two formulated a plan to introduce students at Mason High

School to an Airmen currently serving in Afghanistan. What started out as a selfless act of thanking America's Airmen became an opportunity for the Airmen to give students a real-life look into the deployed environment.

Since Veteran's Day fell on a Sunday, Taylor and Hicks coordinated five video teleconference sessions using Skype to talk with the students when school would be back in session Sept. 12. Each 20 to 45 minute session enabled more than 650 students and handful of Airmen to talk about everything from the food deployed service members eat to the sports teams they support.

Skype is a software application that uses a voice-over-Internet protocol to enable computers and mobile devices to perform video conferencing.

Taylor's initiative led to a cross section of Airmen taking part in teleconference sessions; from active duty to Air National Guard, officers to enlisted, and pilots and maintainers to administrative personnel. They all had one thing in common: the chance to talk with the next generation of Americans.

The experience left a positive impression on the students and faculty alike.

"This was certainly a memorable teaching day as we got to see the kid's truly engaged and excited about learning from all of you," said Hicks about the student's talk with Airmen. "We all came back up to our

classrooms and just commented on so many aspects of the day."

Some of the students were texting and taking pictures during the sessions to converse with the Airmen and Hicks has already received emails from students' parents expressing how inspired their children were after talking with real service members serving in Afghanistan.

"I think there will be some great conversations around dinner tables tonight in Mason thanks to all of you," Hicks said. "As wives and husbands and parents it just makes us all the more thankful and appreciative of the time we have with our families. As Americans it makes us proud and helps us feel secure to know we are protected by a first-class military with such talented, smart people."

A common theme during the sessions was how time had little presence while deployed. Once Airmen



U.S. Air Force Airmen, from left, Lt. Col. Terry Thiem, 361st Expeditionary Reconnaissance Squadron; Senior Master Sgt. Jeffrey Taylor, 361st ERS superintendent; 1st Lt. Scott Ball, 361st ERS; Master Sgt. Jody Kouma, 451st Expeditionary Operations Group first sergeant; Capt. Pedro Esquivel, 361st ERS; (back from left) Capt. Otto Gerdeman, 361st ERS; and Capt. David Hidalgo, 361st ERS taking a video teleconference using Skype with students at Mason High School in Mason, Ohio. Nov. 12, 2012. (U.S. Air Force photo/Master Sgt. Russell Martin)

establish a routine, each day seems the same as the day before, according to 1st Lt. Scott Ball, 361st Expeditionary Reconnaissance Squadron MC-12 pilot.

"It's kind of like Groundhog Day," said Ball to the students. "You wake up, get your shower or gym time in, go and get a cup of

coffee before meeting the challenges of the day and then before you know it, it's dinner time. Then you go back to your room, read a book, watch whatever movies you have on your tablet or laptop until it's time to go to bed, and the next day you start all over."

However, Taylor admit-

ted the time spent talking to the students will stick out in his memory as not just another day while deployed.

"I think we got as much out of the day as they did. It was a fun day," Taylor said. "It definitely wasn't just another 'Groundhog Day.' It's a day that I will member for a long time!"

Arnold Police encourages everyone to shop safely

With more people in the stores at dark hours, there are more opportunities for the criminal element to strike. And criminals are, by nature, opportunists. Be aware of this and act accordingly:

- Don't flash your cash. Take care when making cash purchases or withdrawing money from an ATM. Casual bystanders or shoppers may be thieves – or worse. Victims have been followed to their homes and attacked after withdrawing large sums from ATMs.

- Secure your wallet or purse, and watch for pickpockets and purse snatchers. A standard approach is for one person to "bump" into you while another lifts your wallet. Be leery of anyone who distracts your attention, it may be the prelude to a robbery.

- Never leave packages in your car. If you must store your purchases, place them in the trunk where they will not be visible to anyone, then move your vehicle to another location.

- Don't leave purses, cell phones, notebooks, or other items of value in your parked car where they can be seen.

- Avoid leaving purchases unattended in the store. Anyone can pick them up while you're shopping.

- Protect your identity. Keep your eye on all credit and debit card transactions, and look closely at all cash register receipts.

- If you bring children with you, keep them close by (always in sight). Young children should always be within arm's reach. Teach them what to do if you are separated.

- With older children, establish a place to meet, in the event you become separated, since it is very easy for a child to become overwhelmed by the displays and crowds.

- If shopping late in the day or after dark, park in a well lighted area. If shopping at a mall, note the closing time for the store from which you enter the mall. You may have to walk unnecessary distances to your car if the store closes earlier than others.

AFOSI helps those traveling abroad via AF Portal

By Special Agent Michael White
Air Force Office of Special Investigations

LANGLEY AIR FORCE BASE, Va. (AFNS)—Air Force Office of Special Investigations has streamlined the foreign travel briefing program to better serve active-duty Air Force members and Department of the Air Force civilian employees before, during and after their trips abroad.

Improvements have been made to the foreign travel pre-brief and de-brief surveys, the process of reporting foreign travel and obtaining an AFOSI foreign travel briefing. Personnel who travel overseas should receive foreign intelligence threat briefings and anti-terrorism briefings from AFOSI prior to departure.

"Previously, organizations at individual installations would monitor, report and produce internal guidance on foreign travel and complete briefings for those personnel traveling abroad," said Special Agent Peter Van Damme. "As we communicated with those units, it was apparent the process was not designed to deal with the amount of foreign travel conducted by base personnel. Since AFOSI is chartered to provide foreign travel pre-

de-brief services to protect service members, Air Force technology and DOD assets, we decided to develop a better process."

AFOSI collaborated with Headquarters Air Force to develop a web-based interface accessible through the Air Force Portal. Joint efforts resulted in an unclassified foreign travel pre-brief slide presentation; unclassified pre-brief survey; unclassified de-brief survey and the AFOSI Foreign Travel Guide accessible through the Air Force Portal. It also provides access to important websites to support travelers.

Members are required to complete a foreign travel pre-brief survey before they travel abroad and identify each country they intend to visit. Threats to USAF personnel are ever-changing and the pre-brief and debrief survey allows AFOSI to review the data and determine the most appropriate forum for a briefing given current threat postures regarding specific travel destinations.

"The surveys are vital in protecting Air Force personnel and resources and it is extremely im-

portant that these surveys are completed each time you travel abroad," Van Damme said. "Exceptions may apply. An example would be if you have multiple overseas travels in a short time frame, then you could include all locations into one pre- and debrief survey."

The program was developed with the safety of Air Force members in mind, military and civilian, and to protect Air Force technology and resources. The first step in successfully defending against a threat is to understand the threat. These surveys are a first step to enable AFOSI to effectively and efficiently ensure personnel are briefed based upon current threat postures.

Foreign travel increases the risk of foreign intelligence targeting on Air Force personnel and it's important to understand the foreign environment before, during and after a visit to another country.

Contact your local AFOSI office with any questions/concerns you may have concerning the foreign travel briefing program. The new foreign travel program can be found on the Air Force Portal by searching for "foreign travel."

Anonymous crime tips now possible with mobile app

QUANTICO, Va. (AFNS)—Suspicious or illegal activity can now be anonymously reported directly to the Air Force Office of Special Investigations using a mobile phone application or by texting 'AFOSI' and the tip to 274637 (CRIMES) in an SMS text message.

AFOSI launched these methods to capitalize on cyberspace capabilities and engage the Air Force community more effectively to prevent crime.

"This tool allows anyone to provide OSI with completely anonymous tips on everything from illegal drugs, theft and terrorist activities to potential insider threats," said Special Agent Daron Hartvigsen, OSI Cyber Investigations and Operations. "Even better, the online and app version allow individuals to send in photos."

"We want to give Air-

men a convenient, and most importantly, anonymous means to report activity detrimental to fellow Airmen. With this system they can get involved without fear of exposure or retribution from others," said Christian Oliver, superintendent of AFOSI Detachment 116. "Airmen really want to do the right thing, but are often hesitant because of perceived social repercussions," added Oliver.

Of special concern to Air Force officials are violent crimes against Air Force members, sexual assaults, and drug use.

The application uses industry standard Secure Socket Layers connection, which encrypts information exchange to ensure anonymity. When accessing the app to submit a tip, a file number is created for retrieval. Later, the tipster can check back and see comments by an OSI agent and

provide more information.

"With SSL, the agent can only review the posted information, which is only accessible by the tipster and the OSI," says Oliver, "Air Force members and the OSI agent can continue to converse anonymously through the secure system."

Once downloaded, a video describes the app's features to emphasize its secure use and value to the Air Force and other community law enforcement agencies.

The direct link to the anonymous Internet tip line is <https://www.tip-submit.com/WebTips.aspx?AgencyID=1111>.

Individuals can find the app in both the Android and Apple store as "TipSubmit Mobile" or use the WR code and select AFOSI as the agency when reporting a tip. Tips can also be sent in a SMS text message by texting 'AFOSI' and their tip to 274637 (CRIMES).



The Air Force Office of Special Investigations (AFOSI) has streamlined the foreign travel briefing program to better serve active-duty Air Force members and Department of the Air Force civilian employees within ACC. Members are required to complete a foreign travel pre-brief survey any time they travel abroad.

Transcom strives to protect networks against cyberthreats

By Donna Miles
American Forces Press Service

SCOTT AIR FORCE BASE, Ill. (AFNS)—The new Joint Cyber Center here at U.S. Transportation Command is helping protect against persistent cyber-attacks while ensuring secure, uninterrupted access to the networks that underpin the command's global mission.

TRANSCOM gets more cyber-attacks than nearly every other U.S. combatant command, and experienced 44,551 "computer network events" during 2011 alone, and intrusion attempts are increasing, Gen. William M. Fraser III, TRANSCOM's commander, told Congress earlier this year.

Those breaches, if not detected and defeated, could bring the military's global transportation and distribution enterprises to their knees.

Unlike most combatant commands that interface primarily with other secure military and government networks, TRANSCOM relies heavily on commercial partners that deliver 70 percent of its supplies and passengers around the world, Fraser told legislators.

Ninety percent of the command's distribution and deployment transactions are conducted in cyberspace, he said, much of it using unclassified and commercial systems lacking the safeguards provided on dot-mil and dot-gov networks.

"We are very cognizant of the fact that U.S. TRANSCOM movements represent an Achilles' heel for U.S. power projection en route," said Lt. Col. Robert Hume, the Joint Cyber Center's intelligence

branch chief. "If that is where you want to disrupt what the U.S. military does, that is where you go."

Recognizing this vulnerability, Fraser identified unfettered access to secure information networks as one of four major focus areas in the command's recently released five-year plan.

"Every day, U.S. TRANSCOM operates in a cyber domain that is increasingly at risk," he noted in the plan. "Cyber defense is a command imperative. We must be much more proactive in protecting our information technology infrastructure and the credibility of the information we exchange with our allies and national partners."

The new Joint Cyber Center, established last spring, is taking the lead in this endeavor.

As part of the Defense Department's new cyber security strategy, Defense Secretary Leon E. Panetta last May directed every combatant command to stand up such a center, said Col. David Johnson, chief of TRANSCOM's Joint Cyber Center.

"Secure cyber networks are vital to every combatant command, whether it is a geographic combatant command fighting the war or a functional combatant command moving materials around the world," Johnson said. "Information is how you provide the direction to your sub-units."

Panetta gave the combatant commands free rein to organize their centers based on their own requirements, spelling out 65 specific tasks to accomplish. He designated a transitional

evaluation period to determine which structure proved most effective.

TRANSCOM already had a running start when Panetta's mandate came down. About 10 years ago, far-sighted leaders at the command established an informal joint cyber center to protect their networks. That framework brought together the command's plans and operations, communications and intelligence capabilities to confront the cyber challenge.

"So when we stood up our (Joint Cyber Center,) all we really did was take the three entities that already existed and were working together and put them into the same office," Johnson said. "The relationships were already there."

The new JCC operates as a 24/7 command-and-control center, focusing on three basic functions, he said. Working with other elements of TRANSCOM's Command, Control, Communications and Cyber Systems directorate, its members help secure the command's information networks and help its partners secure theirs. The JCC also directs defensive operations to protect these networks and offensive operations to stop cyber-attacks in progress.

Johnson emphasized that unlike other combatant commands that could use offensive cyberspace operations to create a battlefield effect, TRANSCOM concentrates primarily on defensive operations. Offensive cyberspace operations, if required, would be conducted by U.S. Cyber Command, and only to defend against an attack, he said.

"We are aware what is

See **CYBER**, page 10

SEE SOMETHING? SAY SOMETHING!
REPORT SUSPICIOUS ACTIVITY!




ANONYMOUS



AFOSI



24/7 ANONYMOUS TIP SUBMISSION
TEXT - WEB - SMARTPHONE APP

Text 'AFOSI' and your tip to
274637 (CRIMES)

If it is suspicious or wrong, report it!

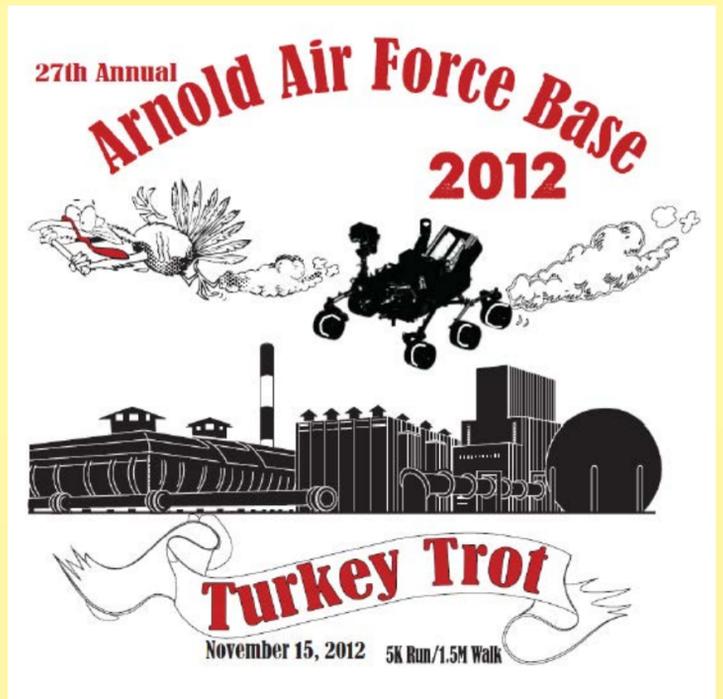
Do your part – Please recycle this paper after reading!

AEDC's Turkey Trot Day

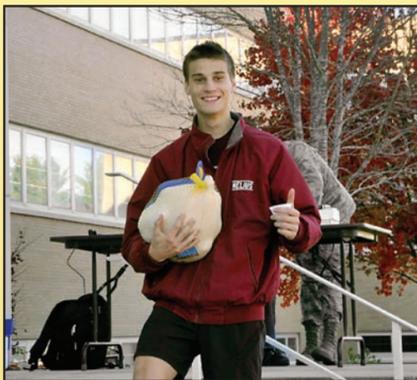
Approximately 100 Arnold Engineering Development Complex (AEDC) team members recently participated in the 27th annual Turkey Trot benefiting Operation Stand Down of Nashville serving local veterans. The event was sponsored by the AEDC's Company Grade Officer Council.

Winners

1. Eric Nelius - 17:52:00
2. 2nd Lt. Matt Karczewski - 19:49:00
3. Stephen Arnold - 20:16:00



Ready . . . Set . . .



TROT!



Through Airmen's Eyes: Airman returns 'home' to recover MIAs

By Senior Airman Susan L. Davis
319th Air Base Wing Public Affairs

GRAND FORKS AIR FORCE BASE, N.D. (AFNS) – An officer stationed at Grand Forks Air Force Base traveled thousands of miles earlier this year to return to his birth country of Vietnam for the first time in eight years.

But Capt. Huy Tran wasn't there to reunite with his own family or friends. His mission was to help search for and recover missing Vietnam War personnel, a rewarding experience Tran says he won't soon forget.

In cooperation with the Joint Prisoners of War/Missing in Action Accounting Command (JPAC), and the Language Enabled Airman Program (LEAP), Tran played a vital role as a Vietnamese linguist on a recovery mission to bring home service members missing from the Vietnam War Era.

LEAP is operated by the Air Force Culture and Language Center at Maxwell Air Force Base, Ala. It is designed for those who have some existing language capability, and targets early-career Airmen most likely to take full advantage of language learning, maintenance and assignments.

Tran, who speaks and writes Vietnamese fluently, said he wanted to participate in LEAP because he was looking for a way to contribute his language skills to the military.

"LEAP has taken my language skills to another

level and allowed me to utilize them to serve the Air Force," he said. "Programs like LEAP are what make the U.S. military second to none."

JPAC, on the other hand, conducts global search, recovery and laboratory operations to identify unaccounted-for Americans from past conflicts in order to support the Department of Defense's personnel accounting efforts. According to their website, JPAC continues to search for more than 83,000 Americans still missing from past conflicts.

This mission had a deeper meaning for Tran, who was born and raised in Vietnam until he was 11.

"As a son and grandson of South Vietnamese veterans, this recovery mission is dear to my heart," Tran said. "My father and grandfather were camp prisoners during the war. My grandfather served five years, and my dad served four years and 11 months in the prison camps."

Following his father's release from the prison camps, Tran and his family were offered an opportunity to relocate to the United States. They left Vietnam to pursue a new life in Rock Hill, S.C.

"After I graduated from high school, I knew I wanted to be in the military," he said. "I never thought that being in the military would one day bring me back to Vietnam as a service member. It's completely changed from the time I

left; Americans are more welcome now and the attitudes and hatred are no longer there."

Tran said he was excited when he found out he would be going on a recovery mission to search for missing Americans.

"I was thrilled that I was finally able to use my special language skills to contribute and serve," he said. "Being there gave me insight into what happened that day. It let me imagine what it would've been like to be in their situation. It makes you realize the importance of the mission."

The first leg of Tran's journey with his team took him from Hawaii, to Thailand, and finally to a rural area of Vietnam, where the objective was to locate a crew of American sailors who had gone missing during a flying mission in the conflict.

The opportunities offered through LEAP, coupled with those offered by JPAC, allowed Tran to put his language skills to special use by translating between his team members and Vietnamese government officials and other locals.

"I would translate everything for them, including negotiating the areas where we would be working, what materials and how many workers we would need," Tran explained. "They also needed me for everyday things, like buying equipment to do our work, or ordering food."

One of the most vital aspects of Tran's job as a

team linguist, however, was interviewing witnesses to help narrow down the location and the circumstances where the service members first went missing.

Tran and his team negotiated with government officials to set up an area to camp, and an area to clear out some of the dense vegetation at the top of the mountain where the missing sailors were thought to be.

"By going through the rice fields, dense jungles, and up the mountain, it helped me relate to the time during which the crew got shot down," he said. "When we arrived at the crash site, we found aircraft parts lying everywhere. That moment was so surreal. It sent chills down my spine seeing so many aircraft pieces scattered on the ground. We

knew then that we were in the right place."

Once those remains were uncovered and collected, they were sent to JPAC's Central Identification Laboratory, the largest and most diverse forensic skeletal laboratory in the world. Scientists from JPAC use circumstantial evidence, and forensic identification tools including dental comparisons and radiograph comparisons to analyze and identify remains.

Upon completion of the recovery mission, Tran and his team retraced their steps back home, first to Thailand, then to Hawaii, and finally to their respective destinations.

Tran said he looks forward to participating in more recovery missions like the one he completed earlier this year.

According to the Defense Prisoner of War and

Missing Personnel Office, since 1973, the remains of more than 900 Americans killed in the Vietnam War have been identified and returned to their families for burial with full military honors. Today, more than 1,600 Americans remain unaccounted for from the Vietnam War. The U.S. government continues to work closely with the governments of Vietnam, Laos, and Cambodia to recover its missing warriors.

"This JPAC mission was one of the most emotionally rewarding missions that I've had the honor to take part in," Tran said. "Most importantly, I was given a chance to bring heroes home to their families, and their final resting place. There is no greater satisfaction than knowing that those families can finally have answers and closure."

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available to us, and have the capability to use it," Johnson said. "But we don't see ourselves using it the same way that geographic combatant commands do. We look at the capabilities on the offensive side primarily to beef up our defense."

Johnson called TRANSCOM's decision to maintain an embedded intelligence cell within the JCC one of its strengths.

"It gives us incredible insight into enemy capabilities and intent," he said.

Intelligence experts are "quite literally analyzing, in near-real time, the activity on our networks, and they are able to see enemy activity and react to it," Johnson said. "We understand the adversary, and we understand what he is doing faster than most of the networks in the Department of Defense."

The command's efforts recently garnered TRANSCOM the National Security Agency's Frank Byron Rowlett Award for excellence in information

systems security. TRANSCOM has been a finalist in the competition for the last three years and won first place in 2003.

But despite a strong track record, Hume recognized that "your networks and your data are only as strong as your weakest link."

To reinforce those weakest links, TRANSCOM established a chiefs of information forum to help contractors improve their information assurance practices. The command's acquisition directorate stood up a commercial executive advisory board to educate commercial vendors about the cyber threat, and changed language in TRANSCOM contracts to specific standards in protecting their data systems.

TRANSCOM also is considering creating a secure network for non-DOD contractors to use for communications concerning command missions.

Contractors, recognizing their own vulnerability,

are anxious to strengthen their cyber defenses, Hume said.

"This is a two-way street in that adversaries attempting to leverage access to (contractors') networks, to gain access to U.S. government data also enables them to gain access to their own corporate data and theoretically, undermine their business models," he said.

Johnson emphasized the fine line between espionage and a cyber-attack.

"If I break into your system and see what you are doing, it is only one more keystroke to disrupt what you are doing, because I am already into your network," he said. "People don't understand that once they are in there spying, it is exceptionally easy to change what they are doing and attack. It is just a matter of intent."

"And that is something we are cognizant of every day here at TRANSCOM," Johnson continued. "It's a recognition that guides everything the JCC does."



Intern at-a-glance



Chris LaGrange

University: University of Tennessee

Major: Aerospace Engineering

Minor: Business Administration

ATA Organization: Air Breathing Engine Test Division

Hometown: Nashville, Tenn.

Outlook: "Really enjoying working here at AEDC with cutting edge aerospace industry technology and getting to see the applications I've learned in the classroom. It's awesome to drive in every morning and see the jet technology developed here and used."



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(931) 581-7494

Preventing Sexual Assault is part of our duty

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EXTREME COLD

Help Kira complete this Sudoku puzzle. The goal is to fill in every box with one of the nine letters below. Each letter can appear only once in each horizontal row, as well as in every vertical column, and within each of the 3x3 grids. The finished puzzle will reveal a mystery word. Use the clue below to help figure out and spell the mystery word.

A E H L O S T U V

T	S		U		H			
E	A	L	S		O			
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V					E	A	S	
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L			T		A	S		
A	S		U		O			
O			H	S			T	L

You will need this to dig yourself out of a major snow storm!






AEDC Information Line

454-3600

The AEDC Information Line is available for ATA employees to get the latest information on a wide variety of emergency circumstances that could impact base operations or driving conditions.

Through Airmen's Eyes: Brother, sister in arms, blood

By Master Sgt. Russell Martin
451st Air Expeditionary Wing Public Affairs

KANDAHAR Airfield, Afghanistan (AFNS) – Growing up with a brother or sister can be tough if they're bigger than you and they bully, tease or steal the last cupcake. You know, the cupcake with your name on it. Then when challenging your older sibling who is clearly the wanton culprit, they blame it on the dog and dismiss you.

But two Airmen have found as they grow older, their common bond through Air Force service helps them grow stronger – and more likely to share that sacred cupcake.

Master Sgt. Tracy Bennett, 451st Expeditionary Force Support Flight and Staff Sgt. Alan Scobel, 62nd Expeditionary Reconnaissance Squadron, have deployed downrange here together for more than two months and they still tease each other just like they did when they were growing up.

"Our dad served in the Air Force for a few years, but voluntarily separated before us kids were born," Bennett said. "Life growing up was great for me, but not so much for my poor little brother. I was the mean big sister that used to beat him up every chance I got. Five

years older and much bigger, I would even trip him while he was learning how to walk. It wasn't until I had joined the military when we actually started to get along."

Being the younger sibling has its challenges, but Scobel said it was how Bennett changed when she went in the Air Force that really caught his attention.

"During my senior year, I didn't quite know what I wanted to do with my life after high school," Scobel said. "After Tracy came home on leave one week, I saw how much she was enjoying it and I started considering the Air Force."

At that point, the two Columbus East High School graduates from Columbus, Ind., began planning to spend time together at Bennett's duty station while she was stationed at Eglin Air Force Base, Fla.

"She and I talked about it, and she invited me to Eglin to spend time with her, shadow her and see how the Air Force was day in and day out," Scobel said. "It seemed like a pretty nice gig and I was impressed with how much she was accomplishing and how the Air Force gave her a more

focused sense of direction. That was something I sorely needed. So, (soon after), I went to the military entrance processing station and I signed up."

But as always, his older sister offered words of advice for her brother's career.

"Before talking to the recruiter, I told him, 'Sign up for six years; you'll thank me later,'" said Bennett. "At his basic training graduation, I could not have been more proud. Since then, we have grown extremely close and he has even come to me for career advice."

Their common bond as Airmen has helped to grow and mature their relationship as well.

"Life growing up with her was tough, not going to lie, she was mean," Scobel said and laughed. "She was always picking on me. Of course I was the typical little brother though, all I could do for revenge was annoy her as much as I could. When I was maybe six years old she painted my nails pink, knowing we didn't have any nail polish remover. I had to go to school with pink nails. Our parents were sure I would grow up not wanting to have anything to do with her."

Joining the Air Force seemed to mature his sister, said Scobel. The siblings are



Master Sgt. Tracy Bennett, left, and her brother Staff Sgt. Alan Scobel, were reunited while deployed to Kandahar Airfield, Afghanistan. Their common bond as Airmen has helped them grow closure as siblings during the course of their careers. Bennett is with the 451st Expeditionary Force Support Flight and Scobel is with the 62nd Expeditionary Reconnaissance Squadron. (U.S. Air Force photo/Master Sgt. Russell Martin)

now closer than ever before.

"We started to get along, especially after I joined," he said. "If I have any career-related questions or advice, many times I will go to her. I'm trying to catch up to her in rank, but she's kind of a fast burner."

In trying to catch up to his sister, Scobel realized after being slated for a deployment to Africa that his functional manager offered some flexibility in the deployment and he sought to change the location to be there for Bennett.

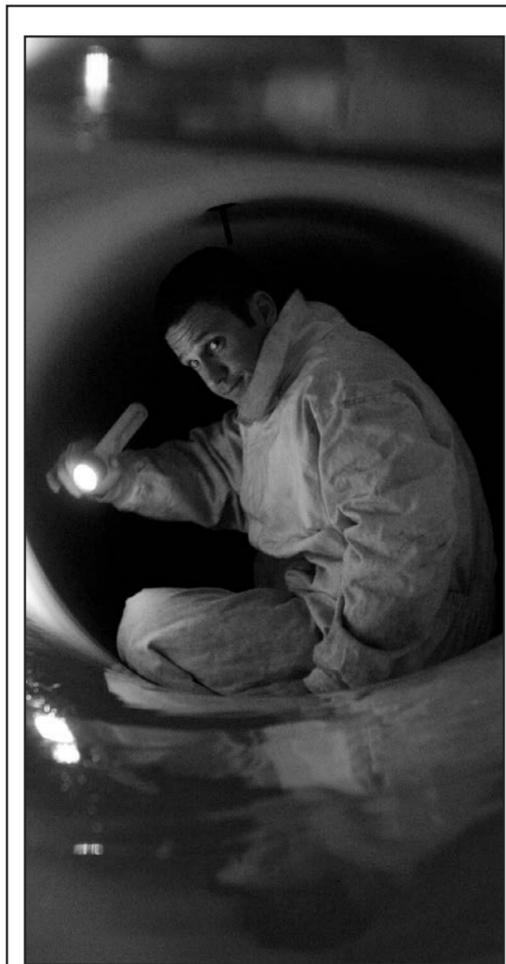
"I was slotted for a nice cushy Africa deployment, but when I found out she was coming here, I immediately wanted to switch," Scobel said. "These past 16 years, we've only had a handful of times to spend together; usually just every other year for the holidays. I figured she misses her husband and kids back at home, so why not try to cheer her up?"

The gesture was well received and Bennett and Scobel tried to make the most of the time they have

here together, though their mission has them working opposite shifts.

"Our parents were stoked and couldn't be happier that we would get to be together here at Kandahar," Bennett said. "For those fortunate enough to be deployed or stationed with family, it truly makes you appreciative. Although on opposite shifts, we try to see each other whenever possible, and although he's bigger than me now, I can probably still beat him up."

Cupcake? What cupcake!



All clear

Tech. Sgt. Chris Pickett inspects the engine intake of an F-16 Fighting Falcon during exercise Green Flag-West 13-02 at Nellis Air Force Base, Nev. Pickett is a crew chief assigned to the 187th Fighter Wing, Alabama Air National Guard. (U.S. Air Force photo/Val Gempis)

Reduce, Reuse
... Recycle



Security forces work with troubled teens

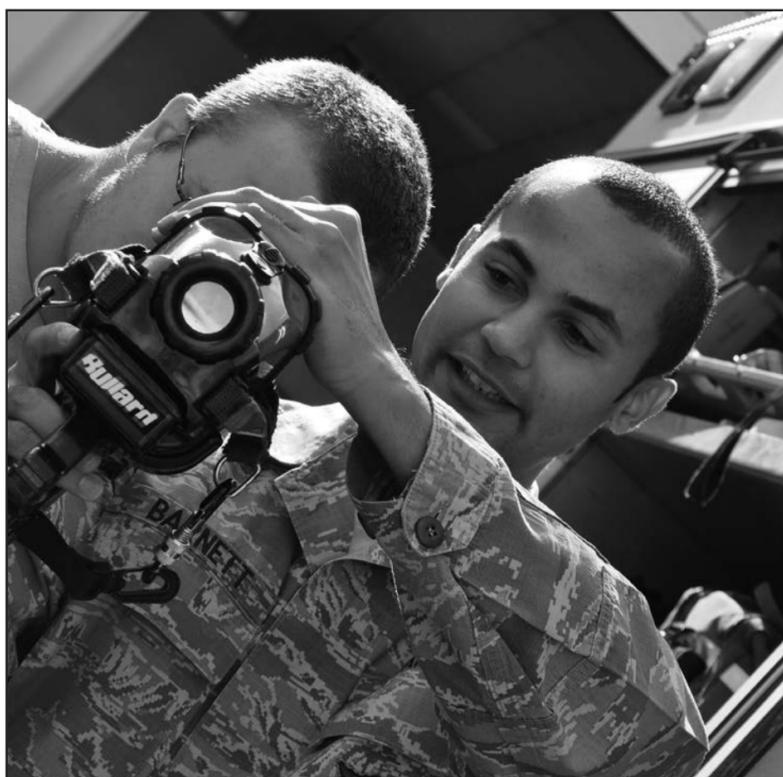
TYNDALL AIR FORCE BASE, Fla. (AFNS) – The 325th Security Forces Squadron continued its mission to mentor teenagers that are trying to make a positive pivot in their lives.

"Cops, at this point to them, have been the enemy, but we are not judging them, we are here to help and mentor," said Staff Sgt. Hannah Havenar, 325th SFS Resource Protection NCO in charge who runs the program.

Twelve members of the Twin Oaks Juvenile Education Program recently toured Tyndall. The Twin Oaks program provides troubled youth the chance to change their lives from the path of a habitual offender to that of a successful, productive, law-abiding citizen. The squadron has spent the past five years working with Twin Oaks.

"It is a great experience to interact with security forces," said Tracy Warner, Twin Oaks activities coordinator. "I think [security forces] do a great job of supporting us. It gives the kids a role model."

During the bus ride to the tour stops and during lunch, security forces members talked with the teenagers about their future and about how to turn their lives around. The tour in-



Staff Sgt. Carl Barnett, 325th Civil Engineer Squadron fire fighter, demonstrates a thermal imaging camera to a Twin Oaks Juvenile Education Program member as part of a base tour Nov. 20. Members of the program receive mentoring from the 325th Security Force Squadron. The Twin Oaks program provides troubled youth the chance to change their lives from the path of a habitual offender to that of a successful, productive, law-abiding citizen. (U.S. Air Force Photo by Ashley M. Wright)

cluded visiting the security forces building, the fire station, the altitude chamber, 325th Operations Support Squadron aircrew flight equipment and watching a military working dog demonstration.

"The kids really enjoyed and really liked the

dogs," Mr. Warner said.

Security forces squadron members also visit the Twin Oaks facility, which is more than an hour away from the base throughout the year and finds other avenues such as beach runs and picnics to remain a positive force in their

lives, said Havenar.

"The best part is getting to know their story and letting them know that they have done bad stuff, but don't have to continue down that path," Havenar said. "It is a really rewarding program to be a part of."

Deployed structural maintainers 'do it all'

SOUTHWEST ASIA (AFNS) – When homeowner needs to redo a wall, repair the roof, and re-key a lock, several calls must be made.

The Air Force only has to make one.

Structural maintainers are "like the carpenters, welders, roofers and handymen, kind of all rolled up into one," said Tech. Sgt. Howard Jones, 380th Expeditionary Civil Engineer Squadron structures NCO in charge.

"Our core training includes learning how to do cylinder locks, metal work, sheetrock, carpentry, welding and more," he said.

The 380th ECES structures shop is responsible for maintaining the operability and security of 380th AEW facilities, as well as performing renovations and construction projects within some of the facilities.

Without these structural technicians to maintain the facilities that house

the wing's aircraft and its people, there would be "a domino effect," Jones said.

"For instance, we maintain the hangars," said Jones, a Vacaville, Calif., native deployed from Travis Air Force Base, Calif. "If we're not working on the hangars, the hangar door closes and they can't get it open. The plane is stuck inside and the mission doesn't take off."

"We also help maintain the quarters that people sleep in. If their quarters

aren't maintained and they're not getting sleep, then they're coming to work all groggy. They're not able to do their job either."

Senior Airman Jose Remigio said the maintainers are also locksmiths.

"If they want a building re-keyed or (for us) to install new cypher locks, we do that too," said Remigio, a Long Island, N.Y., native, also deployed from Travis AFB. "So we help with security as well."

Arnold Golf Course 454-GOLF, 454-FOOD

Check us out on Facebook! Arnold AFB Services Golf Course

Arnold Golf Course merchandise sale will be held the month of December. Do your Christmas shopping with special discounts ranging from 5 to 30 percent off. Pick out your merchandise then come to the counter and roll a die to determine your discount. You must pay for the merchandise immediately after rolling. Roll a 1 for 5 percent off, 2 for 10 percent off, 3 for 15, 4 for 20, 5 for 25 or 6 for 30 percent off. No double discounts and Members First Plus discount does not apply in conjunction with this offer.

Tuesday/ Thursday Special: \$10 green fee for unlimited golf. Cart fee not included.

Mulligan's Coffee Bar & Grill is open 10:30 a.m. to 2 p.m., Monday through Friday and 8 a.m. to 2 p.m., Saturday and Sunday. Call ahead orders for dine in or carry out, 454-FOOD (3663).

Sausage and biscuits available in the Pro Shop Monday through Friday. If you have an early golf outing during the week grab a quick breakfast before you start. These sausage and biscuits are from the Mulligan's Coffee Bar & Grill menu prepared in advance and placed in the warmer in the Pro Shop for your convenience. The biscuits are \$2 each and coffee is also available. The grill opens at 10:30 a.m. during the week and serves a full breakfast on Saturday and Sunday starting at 8 a.m. The Pro Shop will have the sausage and biscuits available starting at 7 a.m., Monday through Friday but limited quantities will be available so get them while they last.

Arnold Lakeside Center 454-3350

Check us out on Facebook! Arnold AFB Services Arnold Lakeside Center and Arnold AFB Services Information, Tickets and Travel

Books Are Fun returns to Café 100 for a **book fair** from 9:30 a.m. – 3 p.m., Dec. 4. Discounted selections include paperbacks, best sellers, educational, reference, cookbooks, children's items, gift selections and more. Save up to 70 percent off retail prices.

Arnold Lakeside Center welcomes back Pretty Discoveries for a **jewelry fair** Dec. 14 in the A&E building, Café 100, from 8 a.m. to 2 p.m. All jewelry prices are below \$20 and they also carry belts and handbags.

Café 100 new menu additions:

- Barbecue special is now every Wednesday. Get pulled pork barbecue sandwich, slaw, choice of potato salad or chips and drink (soda/tea) for \$6. Quantities are limited.

- Baked Potato has been added to the menu for \$5 and comes with butter, sour cream, green onions, cheddar cheese plus one topping of your choice. Additional

toppings are .50 cents each. Choose from any topping on the line.

- Pumpkin Spice Latte is available, for a limited time, \$2.50 tall, \$2.75 grande and \$3.00 venti.

First Friday Jam will be Dec. 7 beginning at 6 p.m. Come to play, listen, dance and enjoy. Join in with the band to play an instrument or sing. Or take over and do your own performance.

Friday dining room specials, 5-9 p.m.:

Nov. 30: spaghetti & meatballs, \$7.95 member, \$9.95 non.

Dec. 7: chicken cordon bleu, \$10.95 member, \$12.95 non.

Dec. 14: prime rib for two, \$29.95 member, \$31.95 non.

Dec. 21: shrimp alfredo, \$9.95 member, \$11.95 non.

Dec. 28: Closed
Specials are subject to change so please call ahead for reservations and to ensure availability.

Last Friday Trivia Contest is Nov. 30 but will not be held in December, due to the ALC being closed. Trivia Night will return in January. Trivia starts at 6:30 p.m. with questions in random categories. Teams may have up to four people. No cell phones are permitted during the event. Anyone using a phone while a question is underway will be disqualified. There are eight rounds with three questions per round. Each round teams have two, four and six points to wager before the question. Only one point value may be used per question. For example, if you wager four points on the first question then you must choose either two or six points for the next question. Whichever value is left must be used for the final question in that round. After the eighth round, teams may wager up to their total points earned for the final question. Prizes are awarded for top finishers.

Arnold Lakeside Center will ring in the New Year with a free **Casino Night on New Year's Eve**, Dec. 31. This event is for ages 18 and older and gets underway at 6 p.m. Gaming will be from 7-10 p.m. and includes craps, roulette, blackjack and wheel of fortune. Participants are given play money to try their hand at these games to increase their dollars which will then be used at a prize auction beginning at 10:15 p.m. An auctioneer will take bids on items to include a one night stay at the Renaissance in Nashville, a one night stay at the Courtyard by Marriott in Nashville, two nights stay at the Rocky Waters Motor Inn in Gatlinburg, two nights stay at the Hampton Inn in Gatlinburg, two person four wheeling expedition, floral arrangement, candle holders, lamp, knives, gift certificates for Western Sirloin, Clayton's Shoes, The Cooks Market, Stan McNabb plus many more items. There will be a wide variety of items to bid on with your winnings. Then, as midnight nears, watch the New York City ball drop countdown on the big screen and raise a champagne toast. The dining room will be open from 6 p.m. – 1 a.m. with full menu available.

* **Barber Shop** is located in the A&E Building in room A107 and is open

Monday, Tuesday, Thursday and Friday from 8 a.m. to 4 p.m. Haircuts are \$8 and are by appointment. Call 454-6987.

Fitness Center 454-6440

Check us out on Facebook! Arnold AFB Services Fitness Center

The Fitness Center will hold a single elimination **Dodgeball Tournament** Dec. 11-13 from 4:30-6:30 p.m. each day. Teams will be made up of 6-10 players with six players competing on a side and the others available as substitutes. Play will follow National Amateur Dodgeball Association rules and may be found at dodgeballusa.com or requested from the Fitness Center. The object of the game is to eliminate all opposing players by getting them "out." This may be done by hitting an opposing player with a "live" thrown ball below the shoulders or catching a "live" ball thrown by your opponent before it touches the ground. A "live" ball is one that has been thrown and has not touched anything, including the floor, another ball, another player, official or other item outside of the playing field.

Bench Press Competition will be held Dec. 12 between 8 a.m. and 4 p.m. Each participant will get three attempts to lift their maximum weight setting their own weight as they go. A judge will determine a clean lift. There will be separate categories for men and women. Winners will be the man and woman who press the highest percentage of their bodyweight. Call to sign up.

The Cool 100 Walk/Run Incentive Program concludes in December. Be sure to turn in your miles. Participants had from Oct. through the end of Dec. to log their miles using the track located behind the A&E building, the trail behind the Fitness Center, a treadmill in the Fitness Center facilities or at home to reach 100 miles. All who complete the program will receive a t-shirt.

Single Round Robin Basketball is coming in January. Get your teams together and sign up by Dec. 17. Games will be played at 5:30 and 6:30 p.m., Tuesdays and Thursdays. Ages 18 and older are eligible to sign up. Rosters are due Dec. 17, but players may be added to the roster mid way through the session. A limited number of off-base players may be added in order to provide a more competitive experience. The team with the most wins will be named champion and team members will receive a t-shirt. Complete rules and by-laws are available from the Fitness Center.

Outdoor Rec (ODR) 454-6084

Check us out on Facebook! Arnold AFB Services Outdoor Recreation

Outdoor Rec Gatlinburg Ski Trip sign up deadline Nov. 30. Come with Outdoor Rec as we hit the slopes in beautiful Gatlinburg Dec. 14-16. Enjoy a relaxing weekend in the winter snow as we head to Ober Gatlinburg for two days of skiing. We will leave

Hours of operation

Arnold Lakeside Center: Catering/Management offices by appointment. Cashier – Monday through Friday, 9 a.m.-4 p.m. Dinner: full menu available Thursday, 5-8 p.m.; Friday and Saturday, 5-9 p.m. Main Bar: Thursday, 5-8 p.m.; Friday, 4-10 p.m. and Saturday, 5-10 p.m. Social Hour: Friday, 4-6 p.m. Movie Night: Thursday, 6:30 p.m. **Closed Dec. 22-30**

Information, Tickets & Travel (ITT): Tuesday through Friday, 10 a.m.-3 p.m. **Closed Dec. 22-30**

Café 100: Monday through Friday, 6:30 a.m.-1:30 p.m. **Closed Dec. 24, 25, 31 and Jan. 1**

Barber Shop: by appointment – Monday, Tuesday, Thursday & Friday, 8 a.m.-4 p.m. **Closed Dec. 24-Jan. 2**

GLC (office located at Arnold Lakeside Center): Monday through Friday, 7 a.m.-3:30 p.m. May vary depending on bookings. **Closed Dec. 25 and Jan. 1**

Outdoor Rec: Tuesday through Saturday, 10 a.m.-5 p.m. **Closed Dec. 25 and Jan. 1**
Fitness Center: Monday-Friday, 5 a.m.-7:30 p.m.; Saturday, 8 a.m.-1 p.m.; Sunday Closed. Dec. 24, 8 a.m.-1 p.m. no class; Dec. 25 **Closed**; Dec. 26-29, 31 and Jan. 1, 8 a.m.-1 p.m. no classes

Arnold Golf Course: Pro Shop & Driving Range – 8 a.m.-dusk. Driving Range open 24 hours with pre-purchased key card. Mulligan's Coffee Bar & Grill – Monday through Friday, 10:30 a.m.-2 p.m.; Saturday and Sunday, 8 a.m.-2 p.m. **Closed Dec 24, 25, 31 and Jan. 1**

Recycling: Monday through Friday, 7 a.m.-4 p.m. **Closed Dec. 25 and Jan. 1**

Wingo Inn: Monday through Friday, 7 a.m.-6 p.m., Saturday and Sunday, 8 a.m.-4 p.m. **Closed Dec. 25**

Nonappropriated Funds Human Resources: Monday through Friday, 7:30 a.m.-4 p.m. **Closed Dec. 25 and Jan. 1**

Friday at 8 a.m. and once everyone is settled into their rooms we will hit the slopes. Ski times on Friday are 3-10 p.m. and 8 a.m. – 5 p.m. on Saturday. We will depart on Sunday at 8 a.m. The cost is \$300 per person and is for all ages. Cancellations are nonrefundable starting Dec. 1. There must be a minimum of 7 to take the trip and no more than 14. Call 454-6084 to sign up.

Paintball continues with regular play every Saturday except third Saturday which is tournament day. Paintball is for ages 10 and older and ages 10-17 must have a parent permission form. Remember to wear appropriate clothing – long pants, a long-sleeved shirt and closed toe shoes.

Regular Saturday play is every weekend from 9:30 a.m. to 2:30 p.m. except third Saturday due to monthly tournaments. Those interested need to call and sign up at least a day ahead of time to ensure equipment availability. When the day arrives, simply meet at the paintball field and get play underway with the direction of an Outdoor Rec (ODR) staff member. Cost is \$35 per person with equipment provided and includes 500 paintballs and a tank of air. It is \$20 per person for those with their own equipment and that also comes with 500 paintballs. All paintballs used must be purchased from ODR for \$13 per bag of 500 or \$45 for a box of 2000.

Monthly tournaments are on the third Saturday beginning at 10 a.m. Teams of four play double elimination to test your skills until the best team arises. Prior to the tournament there will be a 25-minute warm up field time with team on team play. There must be at least one team member above age eighteen and there must be at least eight teams to hold the tournament. ODR has 20 paintball guns available on a first come first served basis. Indicate at time of registration if you will be using your own equipment or need to reserve equipment. Cost to enter the tournament is \$55 per team and includes a bag of 500 balls and air for the day for each team member. The winning team will receive a free day of paintball (regular Saturday play) for all four team members valid for one year and includes equipment, field fee, air for the day and bag of 500 balls. Sign up deadline for the tournament will be the Tuesday prior and late registration/cancellation fees will be applied the Wednesday prior.

Call 454-6084 for more information about the paintball program or to sign up for these events.

Extended Stays available at FamCamp.

The FamCamp is a wooded area off of Northshore Road on the banks of Woods Reservoir with tent and RV camping. Amenities include bathroom with shower, barbecue grills, fire rings, lantern hangers, boat launch pad, picnic and beach area, covered pavilion as well as washer/dryer service and boat docking service. There are 18 tent sites and 36 RV sites, 15 of which are pull-through. All RV sites are equipped with 30 and 50 amp 115V service. Daily rates for RV camping are \$20 during the summer and \$15 during the winter (Nov.-Apr.). Did you know that you can stay for up to three months at FamCamp? Monthly rates are \$450 during the summer and \$400 during the winter. Sites 27-36 are designated for extended stays. Extended stays are only allowed in three month increments and there must be a one month gap between stays. Reservations may be made up to 45 days in advance for active duty, National Guard and Reserve military. Up to 40 days in advance for military retirees and up to 30 days for DoD employees. All others may make reservations up to 20 days in advance. Tent camping is available at \$7 daily. Washer/Dryer service is \$2 and boat docking is \$5. A convenience store is open 12-4 p.m. Friday through Sunday May through October and open Mondays if in conjunction with a holiday weekend. Other camping is available at Crockett Cove and Dogwood Ridge. Crockett Cove offers five rustic cabins with heat and air, mini fridge, microwave, front porch swing, grill and picnic table. There is no running water but a bathhouse is on site. The one or two room cabins rent for \$40/\$50 per day during the summer and \$30/\$40 during the winter. Dogwood Ridge consists of six travel trailers with water, sewer, electric and propane complete with deck, picnic table and chairs. The trailers rent for \$40 daily, \$75 for two days or \$200 per week. Extended three month stays are also available at these areas. Call Outdoor Recreation at 454-6084 for more details or to make reservations.

RV and Covered Boat Storage slots available.

Outdoor Rec has eight open slots available in the RV storage yard. Each slot is 30 feet long and 10 feet wide and rents for \$25 per month or \$250 per year. The covered boat storage has 9 slots open. The boat storage slots are 40 feet long and 12 feet wide and rents for \$45 per month or \$450 per year. Both storage yards require proof of registration and insurance of item placing in

storage along with a signed contract based on length of stay. Access to the storage yard will be granted at the time the contract is signed. Call for more details or to reserve your slot.

Outdoor Rec inflatables. There is an assortment of inflatables for almost everyone's needs. We have a huge backyard obstacle challenge measuring 40 feet long by 10 feet wide by 13 feet high, and a double lane jump slide for only \$150 per day. We also have a giant basketball hoop for \$30 per day and a Rocket Bounce House for \$75 per day. If you need a water slide then our 18' Double Drop Wet/Dry slide will be great for any event and is only \$150 per day. Please contact Outdoor Recreation at 454-6084 to make your reservation today!

Wingo Inn 454-3051

Check us out on Facebook! Wingo Inn

Reservations for Wingo Inn can be made 120 days in advance. Room rates start at \$53.25 per night. Please call 454-3051 for reservations.

Gossick Leadership Center 454-4003

Check us out on Facebook! Arnold AFB Services Gossick Leadership Center

The **Gossick Leadership Center (GLC)** may be used for events such as meetings, conferences, luncheons, dinners, etc. and is booked through the Services Conference Center Manager (CCM) up to one year in advance. Requests must be made in writing by email to arnold.glc@arnold.af.mil. All event coordinators are required to sign an agreement. Official unit functions are authorized at no charge and are defined as bona fide official meetings or training held as part of the normal duty day. Unofficial and private functions may be held for authorized users at a fee. Community members may host events with the approval of the Services Director for a fee. Outside food and beverages are not allowed. First consideration must be given to Arnold Lakeside Center. In the event they cannot accommodate, an outside source may be utilized with CCM approval. For more information contact the CCM at 931-454-4003.

F-35 begins integration phase of weapons testing

By Laura Mowry and Jess Lozano

412th Test Wing Public Affairs and 461st Flight Test Squadron

EDWARDS AIR FORCE BASE, Calif. (AFNS) – The F-35 Lightning II, Joint Strike Fighter began the integration phase of weapons testing recently, when the F-35A Conventional Takeoff and Landing aircraft successfully completed the first in-flight test with an AIM-120 Advanced Medium Range Air-to-Air Missile.

It was the first time a weapon communicated with the aircraft during flight using a data link.

The program's milestone rounded out a successful month of flight test for the program, which also included inert weapons separation tests of both the AMRAAM and Joint Direct Attack Munition.

"In October, we were able to begin weapons separation testing with the JDAM and AMRAAM," said Col. Roderick L. Cregier, 412th

Test Wing, F-35 program manager. "We proved we can carry them safely and that the shapes, which matched the exact mass properties of the real weapons, could separate from the aircraft safely. Now, with the integration testing, we've initially proved the aircraft can talk to the weapon and that the weapon can talk to the aircraft."

Previously, mass models with no internal electronics were used during all F-35 weapons testing. The AIM-120 AMRAAM used during the integration test contained the same electronics as a full-up missile, but without the rocket motor.

"The program is doing very well in meeting its goals after it was rebaselined in 2010," said Cregier. "I'm very proud of the team, even though testing was incredibly complex and difficult, the hard work of the team enabled it to happen rela-

tively smoothly without any serious glitches that would delay the program. We just pressed right on through with great success and we're ready for the next phase."

Successful integration testing, along with the safe separation releases in October, means that the F-35 Integrated Test Force can continue progressing towards the weapon delivery accuracy test phase and live fire testing scheduled to begin in early 2013.

"This was a very important milestone to get us over that hump, to move on to the next phase of the program, which is going to start very soon," said Cregier. "This success was critical, now what we're doing is putting the teeth into the F-35. It's important that the jet can meet all the corners of its envelope, but what we're really designing it to do is employ weapons.



The F-35 Joint Strike Fighter began the integration phase of weapons testing Oct. 26 when the F-35A Conventional Takeoff and Landing aircraft successfully completed the first in-flight test with an AIM-120 Advanced Medium Range Air-to-Air Missile. It was the first time a weapon communicated with the aircraft during flight using a data link. (Lockheed Martin courtesy photo/Matthew Short)

Starting in February and continuing through the end of April, the team is anticipating releasing roughly two weapons per week, said Cregier.

"This is going to be just the beginning of what I

would characterize as the most ambitious weapons integration program in the history of tactical aircraft," he said.

The F-35A is designed to carry a payload of up to 18,000 pounds using 10

weapon stations. The F-35A features four internal weapon stations located in two weapon bays to maximum stealth capability. The CTOL aircraft can also utilize an additional three weapon stations per wing if required.

