



# HIGH MACH

Serving the World's Premier Flight Simulation Test Center



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## Full capability restored to C-Plant

# Scale-tipping 44,000 hp motor returns to center

By Philip Lorenz III and Shawn Jacobs  
ATA Public Affairs

Crane operators and riggers recently off-loaded a 44,000 horsepower, 80-ton exhaust plant drive motor at AEDC's C-Plant exhaust.

C-Plant consists of an airside and an exhaust side complex. Collectively, the plant is a pressure, temperature and humidity conditioning facility that supplies air to turbine engines and replicates the conditions they experience in flight at desired Mach numbers and altitudes in all the jet engine test cells at AEDC.

Located at the Aeropropulsion Systems Test Facility (ASTF), the air supply compressors can provide up to 1,500 pounds of air per second into the test cell to simulate airspeeds up to 1,800 miles per hour. ASTF provides the U.S. with the unique test capability of simulating flight conditions at altitudes up to 75,000 feet, at speeds up to Mach 2.3 for engines rated up to 100,000 pounds of thrust, according to Tim Layton, ATA's Aeropropulsion Plant Operations branch manager.

The E311 exhaust compressor system is the third stage of the ATSF exhaust plant. It can be operated to support single, two or three stage operations of the exhaust plant.

The E311 drive motor was damaged in an electrical overload event that occurred in September 2008. A contract to repair the motor was awarded to the original motor manufacturer, Electric Machinery Company, in early fiscal year 2009. The motor was removed and shipped in February 2009.

EM completely rebuilt the motor to comply with current motor standards and performed various inspections and tests to validate the motor's repair. The motor was returned to AEDC June 25. It is currently being reconnected and is tentatively scheduled to be returned to service next month, Layton said.

Even though the motor/compressor unit has been out of service for almost two years, ASTF has been able to support all required testing.

"We have a test scheduled to begin in December that will require this unit to be in service, so it is good to see it back in time to get the drive back in operation," Layton said. "With this drive back in service, it will give us more flexibility in supporting all C-1 and C-2 testing. We are restoring full exhaust plant capability."

ATA had to overcome a number of challenges to off-load the motor before installing it and completing the repair.

The building's floor would not support the motor's weight using conventional means of a tractor trailer. Initially, an attempt was made to find outside vendors who could complete this requirement.

"None of the machinery movers contacted outside of AEDC had a system that would transport the motor inside the building and meet the floor-loading criteria," explained Dave Simmons, ATA's manager of the Model Shop. "That's where AEDC ingenuity kicked in. Lester Cunningham, ATA's crane and rigging supervisor, met with Brian Monroe, ATA design engineer, on the design of a custom-built transport cart, to be fabricated in-house to roll the motor inside the building. The rigging crew used AEDC's 140-ton mobile Manitowoc crane to off-load the motor from the 13-axle outside hauler and transport it to the cart."

Dan Warren, ATA mechanical systems engineer, said there was an additional hurdle to overcome even before the motor could be moved into the building.

"A gravel pad had to be constructed in advance of the motor's arrival," he said. "The gravel pad was topped with two parallel rows of steel plates that were used to interface with a custom cart and distribute



ATA employees use the mobile crane to lower the E311 motor onto the custom-built AEDC trailer. In the foreground are Rigger Jack Murdock, Rigging and Crane Supervisor Windy Cunningham, Truck Driver Jeff Youngblood, Rigger Stacey Parker and Rigger Wayne Brown. (Photo by Rick Goodfriend)

See **MOTOR**, page 3

## AEDC implements night ops for fourth year to lower costs

By Philip Lorenz III  
ATA Public Affairs

AEDC has significantly lowered the cost to the customer since the organization's leadership first implemented a night operations testing schedule for the summer months in 2007.

"Five weeks into it [this year] we've saved our customers slightly more than \$1 million in energy costs," said Gary Bryant, manager of ATA's Integrated Scheduling branch. "The cyclic nature of power usage in our larger facilities works to drive a rate structure with TVA that makes it financially beneficial for both AEDC and our test customers to operate those facilities during off-peak periods. Off peak are those weekday clock hours during the summer when the energy demand across the Tennessee valley is lowest, which translates to lower energy costs."

Bryant said it helps to understand how the process works.

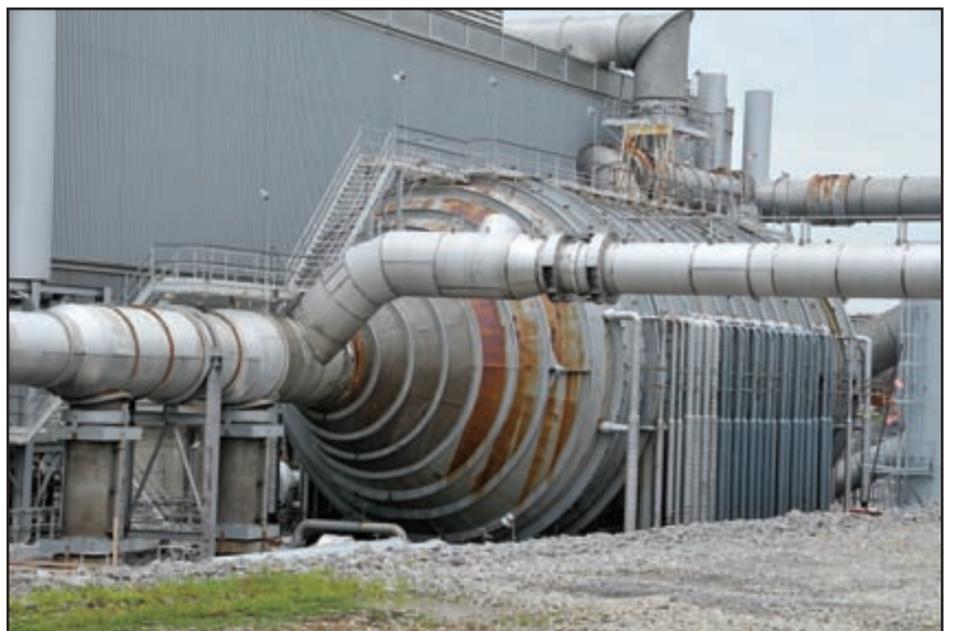
"Night ops is a scheduling methodology we've put in place during the summer months, June through September, which shifts the operation of our plant supported wind tunnels and altitude test cells away from periods of peak power demand across the area served by TVA," he explained. "By moving this operation out of the peak demand hours, we are able to pass significant energy costs savings on to our test customers."

2010 marks the fourth year AEDC has used this scheduling option.

"Test cells normally operating 24 hours per day don't see a great deal of change, but things are different for those with a typical two-shift schedule," Bryant said.

See **COSTS**, page 3

## Another major TEDAC milestone met



A \$49.67M contract was awarded to Walbridge Aldinger for Phases II-IV of Turbine Engine Dry Air Capability (TEDAC) program Tuesday through the U.S. Army Corps of Engineers, Mobile District. This project repairs the RC-1 Cooler in the Aeropropulsion Systems Test Facility complex which was built in the early 1980s. It provides conditioned, dry air for turbine altitude testing. The project is the culmination of a four phase effort to eliminate 45,000 gallons of trichloroethylene, 48,000 lbs of R12 refrigerant and their significant environmental hazards. AEDC will no longer require trichloroethylene or R12 refrigerant for plant operations with the completion of TEDAC. The project replaces the RC-13 and RC-14 refrigeration systems, brine piping and pumps, RC-3 switchgear, 252 coils in the RC-1 Cooler and two glycol concentrators. The project will significantly improve plant reliability while reducing environmental risks. Additionally, the project constructs a 54-inch duct to bypass the RC-1 cooler that allows plant configuration to better match test requirements. The RC-1 Cooler (150-by-42 foot steel vessel) is a multi-staged refrigeration system that is currently the primary source of conditioned air for turbine testing. Phase II-IV construction is planned to begin September 2011 and conclude in September 2013. Phase I of the program is successfully progressing with construction of the desiccant dryer facility and is scheduled for a September 2010 completion. The desiccant dryer facility provides the only altitude test capability while the RC-1 Cooler is out of service in 2012 and provides additional altitude test capability after construction is complete. (Photo by Rick Goodfriend)



By implementing a night ops schedule five weeks ago, AEDC has saved customers more than \$1 million in testing costs. The center has been using a summer night ops schedule since 2007. (Photo by David Housch)

### In This Issue....

There will be a three-week break before the next issue of High Mach

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## HIGH MACH

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An Air Force Materiel Command Test Center

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The center's vision: AEDC as the test center of choice, the workplace of choice for our people and a model of environmental excellence.



### 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



### Core Values

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

# It is not the fall; it is the recovery that is important

By Lt. Col. Karen Rolirad  
315th Training Squadron Commander

**Goodfellow AFB, Texas (AFNS)** - As commanders, we must contend with hard decisions when it comes to determining and delivering punishment to our subordinates.

Some of the tough questions we have to answer are: Does the punishment fit the crime? Should it be judicial or non-judicial punishment? What impact will the punishment have on the offending Airman or the squadron? Will the Airman rehabilitate or will the Airman continue to make the same mistakes? All of these factors must be taken into consideration before a final decision can be made and that final decision is never easy.

Discipline serves many purposes.

First, it provides the Airman with a wakeup call and lets him know that inappropriate actions are contrary to good order and discipline, as well as the core values of the Air Force.

Second, it gives the individual time to reflect on his actions. When receiving an Article 15, Airmen have three days to reflect and respond before accepting their punishment.

It's during this time that commanders hope the greatest learning occurs.

Third, the punishment of one can serve as a warning to others. Those who may be in danger of making the same or similar mistakes see the consequences they may face if they don't adequately correct their course.

Finally, punishment serves as a tool for rehabilitation because a new bar will be set.

Punishment, such as loss of pay, loss of rank or additional duties, are often recoverable, but the next step is truly in the hands of the Airman.

Are mistakes recoverable? Can Airmen rehabilitate into responsible Air Force professionals? Can they strive to be generals, commanders, command chiefs, chiefs, supervisors and great NCOs?

The best answer to this question is: it depends.

In my opinion, attitude impacts success.

Everyone falters at some point in their life. The real testament to character though isn't how many times someone falls, but how they recover.

Punishment can go one of two ways.

The Airman can be truly penitent by accepting the responsibility and consequences for his actions. He can use the experience as a learning point and strive for future success in the Air Force, or the Airman can continue down a negative

road until he is finally court-martialed, serves prison time, or is dismissed.

In my time as a commander, I have witnessed both.

The most rewarding outcome is watching an Airman succeed.

I have had the pleasure of commanding several Airmen of character. I have seen Airmen with outstanding records falter or lose stripes, but they accepted responsibility for their actions and grew from their experience. I have witnessed Airmen with habitual failures pick themselves up and become student leaders, community ambassadors, successful officers, NCOs, military training leaders and commanders.

When asked what made them transform, the answer was simple: an outstanding supervisor, mentor, spouse or leader who believed in them and cared enough to help them recover.

The Air Force has a standard of conduct we should all strive to uphold. Our

core values - integrity first, service before self and excellence in all we do - serve as the foundation for our actions.

Sometimes the judgment of our Airmen prevents them from achieving the values we hold dear.

I believe it's at this time they need us most, the com-

manders, supervisors and peers. We must hold them responsible for their actions and help them recover from their failures.

In the words of retired Gen. Colin Powell, "There are no secrets to success. It is the result of preparation, hard work and learning from failure."

## The 1.0 rule

### Your Air Force role is valuable

By Brig. Gen. Darryl Burke  
82nd Training Wing

Alexander the Great is one of the best-known figures in history.

His conquests shaped the modern world, and his military genius is legendary.

Cleitus, on the other hand, is not so well known - but Alexander would not have become "the Great" without him.

It is 334 B.C., and the 22-year-old Macedonian king and his small force of cavalry are surrounded by Persian forces at the Battle of the Granicus River. The Persian noble Spithridates smashes his battle-axe into Alexander's helmet, momentarily stunning the young king.

As Spithridates readies a killing blow, the world as we know it hangs in the balance. If Alexander dies, Greek civilization never spreads across the known world to influence the Roman Empire; the seeds of the European Enlightenment are never sown; and our country, with its Greek-rooted ideals of freedom and democracy, is never born.

But before Spithridates can swing his axe, he is speared to death by the soldier, Cleitus, and Alexander survives his brush with death.

The story of Cleitus illustrates something I call "The 1.0 rule."

The 1.0 rule says that every member of the organization has a full measure of value: 1.0. There are no "1.1 Airmen" and no ".99 Airmen" - no one is a little more important or a little less important. We're all 1.0 Airmen.

We have different roles and responsibilities, but we are each equally valuable in our sphere.

As king, Alexander's role was to lead his force to victory. As a soldier, Cleitus' role was to defend his king. Alexander lived up to his full measure of value only because Cleitus first lived up to his.

None of us - regardless of rank, position, duty title or rating - can succeed without every other member of the team. No matter how smart or how talented, no one person can get the mission done alone.

The 1.0 rule applies to groups, too.

However special or elite we may think we are, the fact remains that no clique, special interest group or informal "insider" network can accomplish the training mission on its own.

Commanders depend on chiefs, first sergeants and civilian leaders, who depend on instructors, first-line supervisors and military training leaders. They, in turn, depend on security forces, personnelists, civil engineers and medics. Our interdependence holds true in any direction, up the chain or down - we rely on each other.

And we all depend on the Airmen, Soldiers, Sailors and Marines we train, because without their willingness to learn and determination to succeed, we all fail.

The 1.0 rule is a reminder that none of us is worth more than any other. Colonel or Airman, officer or enlisted, T-rated instructor or first-day student, we each carry a full measure of value and we are each vital to the mission. There is no place for elitism, favoritism or snobbery in our Air Force.

The young Macedonian king led his forces to victory at the Granicus River and went on to conquer much of the world. But if not for the value of a simple soldier named Cleitus, Alexander would never have become "the Great," and the world as we know it would not exist.

## Are you ready to meet the board?

By CMSgt. Eric Jaren  
Command Chief, AFMC

**Wright-Patterson AFB, Ohio (AFNS)** - Beginning September 2010, Airmen assigned to the Headquarters Air Force Materiel Command who are selected to compete for quarterly awards will be required to physically appear before a military selection board.

Twelve Outstanding Airmen of the Year finalists will be required to physically appear before a board as well.

In addition to evaluat-

ing the member's military image, the board will consider military bearing, communication skills and knowledge of issues impacting the Air Force. Airmen will even be expected to recite the Airman's Creed.

Placing emphasis back on the individual is the primary reason for restoring face-to-face boards. A recognition program should be an opportunity for Airmen to stand out from their peers.

See BOARD, page 7

## What one convenience can you not live without? Why?



**Brenda Bush**  
"A vehicle is essential in this fast-paced world."



**Maurice May**  
"Cell phone. It allows me to stay in contact with friends at any time, day or night."



**Fred Rojas**  
"Computers and e-mail. Without it we'd all have writer's cramp."



**Scott Waltermire**  
"Air conditioning. It is too dang hot."



**Chris Robinson**  
"AC. It's hot outside."

## 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. Michael Panarisi  
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://lpapro.arnold.af.mil/PORTALimages/Smoking area map. pdf](https://lpapro.arnold.af.mil/PORTALimages/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.

- Supervisors at every level will ensure this policy is followed. Disciplinary action is appropriate for repeated violations.
- Updates to this policy will be made in the future to further align with Air Force guidelines.
- This letter supersedes previous letter dated 28 October 2006, subject as above.

# Facility upgrade project to save \$162,000 annually

By Philip Lorenz III  
ATA Public Affairs

An Energy Conservation Investment Program-funded modernization project at the von Kármán Gas Dynamics Facility at AEDC will save energy and money in the long run, according to John McInturff, ATA program manager on the project.

"The savings are estimated to be around \$162,000 and [the upgrade will reduce energy demand by] 6,841 MMBTU [one million British Thermal Units] annually," he said.

The design phase of the project is funded and it will begin between late this fiscal year or in fiscal 2011 and be ready for execution by mid-year of FY11.

"This project is funded

with Energy Conservation Improvement Program funds; ECIP is part of the MILCON [Military Construction] program," said Vickie Davis, Air Force energy manager at Arnold. "Getting these funds is highly competitive and had to be approved by Congress."

McInturff said it is important to understand the scope of the project.

"A part of this effort is to redo the purge air heater for the high pressure air dryer system and, instead of using high pressure air as part of that process, we are looking at adding a dedicated 300-psi system for that and the seal air," he said. "We are also replacing multiple heating, ventilation and air conditioning [HVAC] units in Building

876, the engine test facility shop building."

VKF's high pressure system brings ambient pressure air up to 3,800 to 4,000 pounds-per-square inch (psi), which is required for running testing in the facility and supplying air to high-pressure tanks on base. However, if air is needed at lower pressures for seal air, the time and expense involved negatively impacts testing and other operations.

Seal air is used primarily to inflate valve seats.

"The high pressure system is around 3,800 to 4,000 psi," McInturff said. "If they pump the compressed air through a PRV (pressure reducing valve) to reduce that pressure back down around 300 psi, we're wasting all of that

energy to pump it up to around 4,000 psi and drop it back down."

The air is also cooled by this process and must be heated to return it to a usable temperature, all of which, in turn, takes more energy and time.

Adam Fanning, an ATA high pressure air mechanical systems engineer, said the high pressure air generated at VKF "is the main process air used for testing at APTU, and also T-3 testing. Other facilities such as the J cells and C-Plant use reduced pressure high pressure air for seal air and PWT uses it for heated high pressure makeup air to achieve certain test conditions. Then it's used in all the A, B and C Tunnels at VKF for model injection systems and also for some

process air."

The term process refers to what is done to make the air suitable for testing and other applications. This includes the pressure, temperature and amount of moisture in the air.

Fanning said excessive moisture in the air can cause damage to the test article due to the friction of water vapor going across the surface of the article. High humidity also provides a less realistic environment for testing.

"[When we're done with the project] we'll have a compressor system that will provide air at around 400 to 500 psi, depending on what compressor we choose and what's right for our application," he said. "Three hundred is the pressure needed for seal air

and 400 psi is the pressure needed for reactivation air. So, the system will have to be at least a 400 psi system, unless a design effort proves otherwise. This [system] will provide the reactivation air and the seal air. We're going to make this reactivation system a standalone system, which will also provide seal air for VKF."

Steve Pearson, deputy general manager for ATA, said a lot has changed since energy was seemingly abundant and inexpensive.

"There is no escaping the fact that we consume a tremendous amount of energy at AEDC," he said. "But that does not mean we don't have a responsibility to make all our processes as energy efficient as possible when it is practical."

## Employee's hair grown, cut for a good cause

By Shawn Jacobs  
ATA Public Affairs

When ATA Information Technologist and Manchester resident Larry Cunningham heard the organization Locks of Love was especially in need of red or blond hair, he knew his natural red locks might help a child in need.

The not-for-profit organization provides custom hairpieces to financially disadvantaged children with medical hair loss.

The normally short-haired Cunningham had 11 inches of hair cut off July 2 by base barber Terri Rutledge after growing his hair out for more than two and a half years.

He said he hopes to keep donating his locks.

"I'm going to try and continue to do this as long as I can; I figure I'll be able to donate every year to year and a half."

Cunningham said he actually first became interested in Locks of Love when his father planned to donate but discovered that the organization does not accept hair that is more than 5 percent gray.

In addition, he said his mother is a cancer survivor, which added impetus to his efforts.

"I'm not medically inclined, so I figured, if nothing else, that was what I could do to help," he said.

Cunningham said he is amazed at the number of people who have participated in Locks of Love.

"When I end up telling people about it, most of them have said they either know somebody who has done it or they, themselves, have done it," he said. "There's



Base barber Terri Rutledge laughs as she prepares to cut 11 inches of Larry Cunningham's hair. The ponytail was donated to Locks of Love.

plenty of people out there that have."

Cunningham encouraged anyone who is eligible to participate in the program because the need always exceeds the supply.

According to the Locks of Love website, custom-fitted hair prosthetics are provided free of charge or on a sliding scale to children whose families meet the organization's guidelines. It says the prostheses help to restore children's self-esteem and confidence, enabling them to face the world and their peers.

Donated hair must be at least 10 inches (preferably 12) in length. It must be bundled in a ponytail or braid before being cut.

## OSI reminds you when to call investigators

Air Force Office of Special Investigations Detachment 106 reminds base members about operations security and explains the conditions of reportable situations.

Air Force Instruction 71-101, Volume 4, requires all active-duty Air Force, Air Force Reserve and Air National Guard personnel (when federalized), as well as Air Force civilian employees to report the following situations:

- Personal contact with an individual (regardless of nationality) who suggests that a foreign intelligence or any terrorist organization may have targeted them or others for possible intelligence exploitation.
- A request by anyone (regardless of nationality) for illegal or unauthorized access to classified or unclassified controlled information.
- Contact with a known or suspected intelligence officer to include attaches' from any country.
- Contact for any rea-

son, other than official duties, with a foreign diplomatic establishment, whether in the United States or abroad. Note: Certain Air Force members and civilian employees in positions designated as "sensitive" by their Air Force component may be required to notify their commanders or supervisors in advance of the nature and reason for conducting a foreign diplomatic establishment.

- Activities related to planned, attempted, actual, or suspected espionage, terrorism, unauthorized technology transfer, sabotage, sedition, subversion, spying, treason or other unlawful intelligence activities targeted against the Department of the Air Force, other U.S. facilities, organizations or U.S. citizens.
- Information indicating military members, civilian employees or Department of Defense contractors have contemplated, at-

tempted, or effected the deliberate compromise or unauthorized release of classified or unclassified controlled information.

- Unauthorized intrusion into U.S. automated information systems, whether classified or unclassified; unauthorized transmissions of classified or unclassified controlled information without regard to medium, destination or origin.
- Unauthorized attempts to bypass automated information systems security devices or functions, unauthorized requests for passwords, or unauthorized installation of modems or other devices into automated information systems (including telephone systems) whether classified or unclassified.

If you have any questions, contact Special Agent Matt Bryant, Special Agent Matt Page or Special Agent Jennifer Olmstead at 454-7820.

## SL-2/3 holds ribbon cutting



Tim Campbell, deputy branch manager, Project Management; Dr. Saeed Zadeh, chief, Test Investments; AEDC Vice Commander Col. Eugene Mittuch; Lt. Col. James Peavy, chief, Turbine Engine Ground Test Complex and Rosemary Matty, investments program manager, Investments Branch, cut the ribbon July 12 to the upgraded SL-2/3 corrosion blower. The project cost about \$15 Million and occurred between September 2007 and January 2010. AEDC now has corrosion air blowers that meet all performance and operational requirements. (Photo by Rick Goodfriend)

## Costs from page 1

"In particular, operations folks begin to feel the effects of a different sleep pattern within the first few days of night ops. Circadian rhythms are altered, and we all need to pay particular attention to that from a fatigue risk management standpoint. Safe operation remains the primary goal."

Garry Blaisdell, the Pratt & Whitney site manager at AEDC, described a typical ground testing cycle on an aircraft engine during the summer.

"During night ops, the altitude and RAM tests are [conducted] from 8 p.m. to 10 a.m. the next day, a 14-hour test period," he said.

"When we are off summer rates, as of Oct. 1, we'll go back to our normal 8 a.m. to midnight, a 16-hour test window."

RAM is a term describing test conditions in which inlet pressures are above ambient or atmospheric conditions.

"There are some other positive impacts for the facility to meet cooler flight conditions with the cooler night air, than processing the hotter daytime air to meet some flight conditions that approach minus 50 degrees Fahrenheit," he added. "The cost savings is in the combination of testing facility and plant operations, benefiting both

the customer and AEDC."

Tim Layton, ATA's Aeropropulsion Plant Operations branch manager, said night ops provide another cost benefit to AEDC.

"Night operations allows the workers at the Engine Test Facility to more efficiently meet process air conditions for C, J, and T cell testing due to lower air temperatures at night," he said. "Plant coolers and refrigeration systems require less energy to condition the air from an initial ambient temperature of 80 degrees rather than the normal 95 degree day time temperature."

## Motor from page 1



ATA Riggers Wayne Brown and Stacey Parker and ATA Truck Driver Jeff Youngblood attach a guideline to the sling assembly in preparation to lift the giant motor off the Electric Machinery Company 13-axle trailer. (Photo by Rick Goodfriend)

the motor weight and to smooth the motor's transition from the parking lot, past the threshold and into the building.

"Once the motor was secured to the cart, a tug

motor was rigged to the cart that pulled the motor through the building entrance," he continued. "After being moved into the building, the motor was rigged to the build-

ing's 100-ton overhead bridge crane and then lifted and carried across the building where it was set on the easternmost pedestal where it was removed from in February 2009."

# Come to AEDC and tour the world's largest and most advanced complex of flight simulation facilities

By Shawn Jacobs  
ATA Public Affairs

With the start of school just around the corner, AEDC officials are encouraging people around the community and across the country to visit Arnold Air Force Base.

As the world's most advanced and largest complex of flight simulation test facilities, AEDC has hosted distinguished visitors from all over the world, but this opportunity is also available to the general public and students in at least third grade.

The visit includes a center briefing followed by a tour of various facilities, such as the 16-foot supersonic wind tunnel, the world's largest jet turbine engine test facility or the large rocket motor test facility.

"Tours here at AEDC are a great opportunity for the local community to experience a part of our nation's flight history as well as keeping informed about the latest technology in defense systems," said Raquel March, ATA senior public affairs specialist who is in charge of tours. "Many teachers utilize the technical aspects of the tour to enforce mathematical applications from their calculus, algebra, computer or CAD classes."

AEDC has developed two initiatives designed to expose students to science, technology, engineering and mathematics and get them excited and thinking about a future in this critical field. Spark is designed for third, fourth and fifth grades, while Minds in Motion is for eighth grade students. Both programs involve a tour of AEDC's facilities and interaction with the scientists and engineers who work in those facilities.

"Our Spark program brings students to the center for a hands-on demonstration and teaches them an aspect of flight tied directly to the work done at AEDC," said Darbie Sizemore, ATA senior public affairs specialist. "Then the students tour a couple

of the facilities to see the size and magnitude of the infrastructure, all on a level that they easily understand. For eighth graders, we have teamed with the University of Tennessee Space Institute (UTSI) to give students a taste of the kind of work accomplished at both locations."

Public and educational tours are free and available Monday through Friday at 9 a.m. or 1 p.m., except holidays. Tours are available for small groups of 12 to 35 or for individuals who will be combined with other tour groups. Larger groups will be considered, and all tours are scheduled on a first-come, first-serve basis. Reservations should be made at least two weeks in advance.

In the event of a conflict with Air Force operations, registrants will be informed in advance if a tour will be canceled.

Visitors should arrive at least 15 minutes before the tour is scheduled to begin and must enter through the main gate located closest to Interstate 24.

As a large industrial complex, most of the facilities are not equipped for mobility-impaired persons, but special arrangements may be made with advanced notice.

Tours involve walking, some on steel grating and up stairs, so comfortable shoes should be worn. Do not wear open-toed shoes or shoes with high or narrow heels. AEDC welcomes young children if they are under strict adult supervision.

Video, still and motion picture cameras or cell phones are not permitted. Tours last approximately two hours.

Those interested in touring AEDC should contact March at (931) 454-3396. Educators who are interested in participating in Spark or Minds in Motion should contact Sizemore at (931) 454-5942.

AEDC is the world's most diverse complex of aerospace test facilities. Since it opened in 1951, its engineers, technicians, craftsmen and support per-



Above, students from Manchester's Westwood Junior High look at a force and balance model used in wind tunnel testing. At right, students from South Middle School prepare their model airplane to "fly" in the 16-foot supersonic wind tunnel. These eighth graders were taking part in AEDC's Minds in Motion program. (Photos by Rick Goodfriend)

sonnel have been involved in the development of nearly all U.S. military and NASA high-performance jets, missiles and space systems. The center's propulsion test cells, aerodynamic and propulsion wind tunnels, space chambers and ballistic missile ranger

can simulate virtually every aspect of flight from ground level to deep space.

Ground testing reduces risks and saves lives, equipment and money in operational testing. For more information on AEDC, visit the website at [www.arnold.af.mil](http://www.arnold.af.mil).



Raquel March, senior public affairs specialist, left, explains how the center's 16-foot supersonic wind tunnel works to a tour group. Anyone interested in touring AEDC can call March at (931) 454-3396. (Photo by Rick Goodfriend)



Darbie Sizemore, senior public affairs specialist, right, helps students from Tullahoma's Bel-Aire School with an activity designed to show the students the basic concepts of flight. (Photo by Andrea Stephens)

## 'Mission-to-Mission exhibit and excursion July 22

From July 22 - 29, the AEDC Junior Force Council will present an exhibit provided by the Marshall Space Flight Center (MSFC) that showcases the collaborative efforts between AEDC, MSFC and NASA.

The exhibit will be available for viewing from 7:30 a.m. to 4 p.m., Monday through Friday at AEDC's Mark I high bay.

Also during the exhibit, there will be an opportunity for DoD personnel to sign up for the "Constellation" excursion to the U.S.

Space and Rocket Center in Huntsville, Ala. As part of their adult-specific activities, participants will receive a guided tour of the museum, rocket park, shuttle park and have time to interact with the hands-on exhibits and simulators. The cost of

this excursion is \$25 per person, which includes lunch and is limited to the first 50 people who sign up for it.

For additional information on the exhibit and excursion, contact Capt. Joseph Byker at 454-5802.

# It's time to do a little leg work



**Get horizontal! Lie down on your stomach, keep your knees together, reach back and gently pull your heel towards your glutes.** (Photo provided.)

**By Col. Michael Panarisi**  
AEDC Commander

Now that we've fixed our tight hamstrings, let's take on the rest of the legs.

Fortunately, the quads, shins, and calves don't seem to tighten up like the hams, so these areas usually represent more of a maintenance challenge than a campaign to restore lost flexibility. A few easy moves and you can keep the rest of your legs from becoming a problem.

The quads offer the easiest lever for stretching (everything below your knee!) but I've seen some scary attempts at quad stretches.

Nearly all involve "pulling" on your ankle, but injury risks abound if you get the angles wrong or if you are standing up (like nearly all quad poses require) a tumble can cause quite a setback.

So the fix here is simple...get horizontal! Lie down on your stomach, keep your knees together, reach back and gently pull your heel towards your glutes.

No more bouncing around on the other foot, no hip issues, and an easy gauge on your progress.

If you can get your heel to touch your glutes, there's likely no tightness in the quads to worry about. The problem with the standing, one-footed approach is a big tendency to pull your knees apart, negating the stretch motion and wrenching your hip flexors.

If you just can't get on the ground, then focus on keeping your knees together and use opposing arms (pull up on your left ankle with your right hand) to help keep everything lined up.

And standing next to a wall, a pole, or a partner for stability will eliminate the wobbles.

Calves are easy too, with lots of options.

My favorite is the "over the stair" heel drop.

Start off "two footed" until you get the hang of this one.

Start with a "calf raise" and then gently lower your heels until you feel the stretch.

As you relax, the load will tug on your calf, and it's an easy wait. As you gain confidence, switch to "one-footers" and soon you'll have the calves as loose as ever.

Shins are a little tougher, and often overlooked.

Again, getting horizontal is the key.

First, a little "loosening up." Start by lying on your back, and lift your leg to near vertical. Then rotate your foot around a circle, at full range of motion, clockwise and counter clockwise.

About 20 cycles in each direction should do it.

Then, the tricky part.

To stretch your shins, you have to "point your toes," and for most of us, our calves do that work.

But typically the calves aren't strong enough to re-

ally get a good stretch in, so we need some leverage. For this move, you'll need a mat, or at least a softer surface (grass etc).

Then kneel down, and "sit on your heels" keeping your feet straight (they'll tend to rotate outward).

A gentle rocking motion left and right will add

a little leverage, and you should feel your shins as you lean back a little.

These easy moves really work, and can keep the "achies" at bay when you really amp up the workouts.

Remember the "rules" and you'll have noodle legs in no time.

## CSAF releases 'Vector'

**San Antonio (AFNS)** - The Air Force's senior military leader released his vision for the future in a recent CSAF Vector 2010 that outlined five priorities and the "way ahead" for Airmen to maintain these priorities.

"Our Airmen are responding to the nation's call with agility, innovation and expeditionary presence; today, nearly 40,000 American Airmen are deployed to 263 locations across the globe," Air Force Chief of Staff Gen. Norton Schwartz said. "We've also demonstrated that modern warfighting isn't just about how many are 'over there.'"

"Our deployed-in-place Airmen are indispensable to the day-to-day defense of our nation, whether they are tracking and dispatching bad actors at intercontinental range, maintaining constant vigilance from space, sustaining credible strategic deterrence, protecting networks, or patrolling the

skies over the homeland," General Schwartz said.

In his "Vector," General Schwartz discusses continuing to strengthen the Air Force nuclear enterprise, partnering with the joint and coalition team for today's fight, developing and caring for Airmen, modernizing inventories and training, and recapturing acquisition excellence.

"Since I became your chief we have had to make some tough decisions, primarily focused on three challenges: restoring credibility to our nuclear enterprise, enhancing our contribution to today's fight, and recapturing acquisition excellence," he said. "As demanding as we will continue to be in those areas, I am pleased with the progress we've made to date; but also believe we must seize this moment and look ahead."

To read this Vector go to the information section on AF.mil.

## Quarterly awards luncheon set

The second quarter award luncheon will be held from 11 a. m. - 1 p. m. July 27 at the ALC.

The awards ceremony begins at 11:45 a.m. The menu is pizza buffet and garden salad.

The cost of lunch is \$7.95 for club member and \$8.95 for nonmembers.

Online reservations may be made at <https://ata.arnold.af.mil/rsyp/signups.php?event=9>.

To pay with cash, see 2nd Lt. Will Parker (454-5493) or 2nd Lt. CharMeeka Scroggins (454-5623).

Reservations must be made no later than Thursday.

## CALT briefing offered

A "Civilian Acculturation Leadership Training (CALT) Briefing" will be given by Dr. Richard Roberts from 1-2 p.m. Aug. 2 in the PWT conference rooms at Building 740.

CALT is open to civilians in pay bands one and two (equivalent) with 2-5 years continuous federal service, with no prior military service, and hold a bachelor's degree.

Since seating may be limited respond no later

than July 30 by calling Carrie Reinholtz at 454-6639.

Dr. Roberts is a test project manager for PWT. He manages wind tunnel testing in multiple facilities across the subsonic to hypersonic flight envelopes.

He is also a technical point of contact for multiple Small Business Innovative Research projects and the Flight Systems Technology department.

## Obituaries

Wallace "Wally" Alan Miller, 90, of Tahlequah, Okla., passed away June 23.

Miller was born in Spring, Wis., April 2, 1920, to Walter and Alma (Yonker) Miller.

After completing school, he enlisted in the U.S. Army. He served from Oct. 1, 1940, to May 25, 1945. He received the Purple Heart after being wounded in combat July 17, 1944, in Italy.

In 1949, he married Rosella Guess in Russellville, Ark.

He was a member of the American Legion, V.F.W., and a life member of DAV.

He worked at AEDC

for 35 years.

He had been preceded in death by his parents; four brothers, Orval, Ralph, Lyle and Melvin Miller.

He is survived by his wife of 60 years, Rose; a sister, Margaret Miller; several nieces and nephews, Penny Sue Scamehorn and husband Wayne of Naples, Fla., Mary and Richard Pinto, of Calif.; Roger Miller, of Austin, Texas, Michelle Gerstner and husband Steve, of Missouri; Nickey Meikle and husband Roger of Tahlequah, Annette Webster and husband Scott of Stilwell; great niece, Brittiney Webster; and a special friend, Phil Ryals.

## F-22 Raptor rolls out, replaces F-15 in Hawaii

By Tech. Sgt. Cohen A. Young  
*Defense Media Activity - Hawaii News Bureau*

Top military and local community leaders gathered here July 9 for a dedication service for the F-22 Raptor.

Hundreds of onlookers gathered with members of the 199th Fighter Squadron, 154th Wing, Hawaii Air National Guard and people from Joint Base Pearl Harbor-Hickam to welcome the F-22, a fifth generation fighter, which replaces the F-15 Eagle that the squadron has flown since 1987. The 199th FS is the first guard unit to receive the F-22.

“The 199th (FS members prove) that National Guard forces are capable of maintaining a strategic presence with its active duty association and providing a great value to our nation and the state of Hawaii,” said Gen. Craig R. McKinley, the chief of the National Guard Bureau.

The F-22, a single-seat, twin engine aircraft that utilizes stealth technology, was originally designed primarily as an air superiority fighter.

“These F-22 Raptors are the state-of-the-art air superiority fighter and couldn’t be located at a better place,” General McKinley said.

Many of the guard members will serve as the lead in a “total force” concept that is already in use at JB Hickam. The 199th FS, 15th Air Wing will fly and help maintain the F-22s that bring a new capability to the HIANG, as well as the Air Force.

“The Air Force is a seamless total force. Along with our Air Force Reserve and civilians, the National Guard and our active duty component form a very severe fighting force that can get the job done,” General McKinley said.



**A pilot taxis in an F-22 on the flightline July 9, at Joint Base Pearl Harbor-Hickam, Hawaii. The Hawaii Air National Guard's 199th Fighter Squadron is transitioning from the F-16 and will serve as the only ANG-led joint guard and active-duty squadron in the Pacific.** (Photo by Tech Sgt. Jerome S. Tayborn)



**An F-22 Raptor is put through a demonstration display July 9 above the water surrounding the island of Oahu in Kapolei, Hawaii, as part of the dedication celebration of the F-22 becoming the new aircraft belonging to Joint Base Pearl Harbor-Hickam.** (Photo by Tech Sgt. Cohen A. Young)

## President Obama announces return of the SAVE award

Washington (AFNS) - President Barack Obama wants federal employees to submit their ideas for eliminating government waste and saving American taxpayers’ money as part of the 2010 SAVE, or securing Americans’ value and efficiency, award program.

President Obama made the announcement in a video on the White House website July 8.

“If you see a way that the government can do its job better or do the same job for less money, I want to know about it,” he said.

The program began last year and was an instant success.

“In just three weeks, federal employees submitted more than 38,000 ideas identifying opportunities to save money and improve performance,” said Peter Orszag, the director of the Office of Management and Budget.

Nancy Fichtner, a fiscal program support clerk at the Colorado Veterans Affairs Hospital in Grand Junction, Colo., received the 2009 SAVE award for her proposal that saved approximately \$2 million. She suggested that the Veterans Affairs Department find a way to reuse medicines that are prescribed by physicians, but not used by patients.

The deadline for submissions is July 22, with the winners being announced in September.

“In a change from last year, we also are asking federal employees to help rate the submissions from their fellow workers,” Orszag said. “This new feature will allow employees to apply their insight to the evaluation process, making sure the best ideas make it into the fiscal 2012 budget.”

Civil servants interested in submitting their ideas should go to <http://saveaward.gov>.

**Board from page 2**

Unfortunately, this distinction cannot always be captured by merely reading bullet statements crafted by the most gifted writer in the organization, as the current 'records only' system restricts us to. Once again, it's time to "hold the line."

Fifth Chief Master Sgt. of the Air Force Robert Gaylor talks about the importance of balancing 'High Tech' and 'High Touch.' Chief Gaylor says, "There's nothing better than face-to-face communication to get your message across."

This was an important element of recognition boards early in my career.

The process fostered interaction between supervisors and subordinates. Often times the entire section would be involved preparing its representative to meet the board.

We need that back!

Another benefit of meeting a face-to-face board is

the opportunity for personal growth to occur. An early supervisor of mine used to say, "If you are not uncomfortable, then you are not growing."

We witnessed the transformation of an Airman during a succession of boards. At his first board, he was so nervous that he actually had difficulty responding to questions.

However, his incredible achievements during the award period propelled him to win that board.

To better prepare him for the next level, his supervisor organized several mock boards. I was shocked at the change when he met the next board a couple of weeks later.

He introduced himself to the board and articulately responded to their questions. It was immediately apparent how comfortable he was - a different person.

A supervisor's involve-

ment in the development of his or her junior Airmen transcends a military face-to-face board. Scottish novelist, poet and politician John Buchan said, "The task of leadership is not to put greatness into humanity, but to elicit it, for the greatness is there already." During the process, a junior member grows, and sometimes the senior member grows too!

A common concern associated with this initiative has been whether or not deployed Airmen would receive a fair chance. Many installations implemented records only boards following 9/11 because too many Airmen were unable to physically appear before the board due to high deployment tempos.

We will have procedures in place so that deployed Airmen are not adversely affected by their absence. Also, while our Airmen will predominately face the

board in person, the board president will retain authority to conduct a records only board when situations dictate the need.

My main concern is having an Airman appear before the board unprepared. We as senior leaders have distinct responsibilities regarding the preparation and development of our juniors.

Airmen, it is the job of your supervisors to give you the tools to succeed. If you don't have a military supervisor in your unit, you need to seek assistance from another unit.

Supervisors, your personal involvement in preparing your Airmen is critical to their success.

Senior leaders, we must be active in our span of influence to ensure Airmen are engaged.

Addressing that, we have revised the headquarters operating instruction for enlisted and company grade

officer quarterly and annual awards. And, of course, any Airman is free to request assistance from any senior NCO to prepare for the board.

Face-to-face boards will offer the advantage of meet-

ing, interviewing and hearing the perspective of our best and brightest before selecting a winner. This is a much more valid measure than just reading bullet statements.

I can't wait to get started.

# Air Force wounded warrior rides from coast to coast

By Maj. Belinda Petersen  
Air Force Personnel Center  
Public Affairs

A combat controller, who last year was laying in a hospital fighting for his life, is now riding his bicycle across America as part of his rehabilitation and to inspire other wounded warriors.

Along with 19 of his teammates, Staff Sgt. Marc Esposito from the 21st Special Tactics Squadron at Pope AFB, N.C., is participating in the Sea to Shining Sea ride. The bike trek across America started at the Golden Gate Bridge in San Francisco, and will end in Virginia Beach, Va., July 24.

"The goal of the ride is to honor the courage of (servicemembers), recognize the strength of the American spirit and challenge perceptions of how we view athletes," said Melissa McKinley, a public relations specialist for the event.

But before Sergeant Esposito could even get back on his bike, he spent almost a year in hospitals where he underwent several surgeries and extensive rehabilitation.

"In May 2009, I was operating in Afghanistan as a combat controller in support of an Army special operations team," Sergeant Esposito said. "We were going after the bad guys when we hit an (improvised explosive device). Everyone in the vehicle was thrown out. I was in the rear of the vehicle, where the concentrated blast came from. I was instantly left unconscious and catapulted from the vehicle."

"When the special operations medical technician



found me, he said I was on fire, had no heartbeat and wasn't breathing," he said. "My legs and back were broken, and a lot of my teeth were smashed. I also suffered a traumatic brain injury."

And now, thanks to the tremendous care and support he received from the medical community and his squadron, Sergeant Esposito is riding his bicycle 4,000 miles through deserts, mountain passes, big cities and small towns.

"It is so inspirational to see Marc and his teammates helping each other all along the way," McKinley said. "After conquering a hill, Marc will ride back down so he can ride along with someone who needs the encouragement to make it up the hill. That's how Marc is; he always wants to help others."

"I want to help others understand that there is life after an injury or illness," Sergeant Esposito said. "When something traumatic happens, you feel like

your life has been turned upside down. Everything is at a standstill. But you have to get back into life by doing what you love and loving what you do."

That's the message he and his teammates are inspiring in others as they ride across America, meeting people at water stops, restaurants, historical landmarks and military bases.

"They are changing people's lives as they go through small towns," McKinley said

When the team reaches Washington, D.C., Sergeant Esposito wants to visit servicemembers at the Walter Reed Army Medical Center, the same place he spent several months enduring painful surgeries and not knowing what his future held.

Sergeant Esposito remembers how wonderful it was to have visitors when he was a patient at WRAMC.

"I want to give back by talking to the young troops

and letting them know to never give up," Sergeant Esposito said. "I want to (instill) in them that they can do it as long as they put their minds to it."

"And an inspiration he is," said Senior Airman Brian Petras who is also participating in the Sea to Shining Sea ride. "We met at the Center for the Intrepid while we were both going through rehabilitation, and we have inspired each other."

"By doing the Sea to Shining Sea ride, we want to prove that we are still an asset to our great country, that we are still very capable and can continue to serve," Airman Petras said.

Along with Sergeant Esposito and Airman Petras, other Air Force riders include Christopher Frost, Kevin Sullivan and Scott Bilyeu.

The team rides anywhere from 30 miles to 120 miles in one day, averaging 77 miles a day. In two months, team members will only rest 11 days.



Staff Sgt. Marc Esposito bikes through the Sierra Nevadas. Sergeant Esposito is participating in Sea to Shining Sea, a 4,000-mile bike ride which started at the Golden Gate Bridge and will end July 24, in Virginia Beach, Va. The goal of the ride is to honor the courage of our service men and women, recognize the strength of the American spirit and challenge perceptions of how we view athletes. Sergeant Esposito is from the 21st Special Tactics Squadron at Pope AFB, N.C. (Photo by Austin Smithard) Inset, Staff Sgt. Marc Esposito, right, and actor/comedian Robin Williams May 22, in San Francisco. (Photo by Van Brinson)

## Every drop counts

# New technology saves base dollars



Rich Paquette explains the newly installed weather system tied directly to a central irrigation system. When there is an eighth of an inch of rain, the weather system tells the irrigation system to shut down. The new system is expected to reduce water used for irrigation at Peterson AFB, Colo., by 50 percent. Paquette is from Embassy Lawn and Landscape, the head of irrigation at Peterson AFB. (Photo by Monica Mendoza)

By Monica Mendoza  
21st Space Wing PA staff writer

By this time next year, Peterson AFB will have a high tech irrigation system that will sense when it's about to rain.

Members of the 21st Space Wing Civil Engineer Squadron are installing an intelligent irrigation system that will shut down when its built-in weather system shows an eighth of an inch of rain.

With the cost of water on Peterson AFB expected to increase by 12 percent each year for the next six years, nobody wants the sprinklers running in the rain, said Jim Jacobsen, the 21st CES energy manager.

"Now, the sprinklers are on a timer," Jacobsen said. "With the new system, if rain is forecasted, the system operators can tell the entire system not to water."

Water conservation is a key program for Air Force officials and calls for installations to reduce water consumption by 2 percent a year through 2020. Since 2007, Peterson AFB has reduced its water consumption by 2 percent a year, meeting the federal goals.

Two percent equals 5.5 million gallons of water, said Randy Pieper, the 21st CES resource efficiency manager. "The first thing we started addressing was irrigation," Pieper said.

The new irrigation system will be automated from a central location and grounds managers will no longer have to manually turn off the 100 existing sprinkler controllers throughout the base.

"I set the parameters," said Rich Paquette, from Embassy Lawn and Landscape, the head of irrigation for the base. "When we get an eighth of inch of rain, it is automatically going to send a signal to the 100 (remote controllers) and shut them off."

About half of the 100 satellite controllers are installed and already working, telling the control center when to shut down and when to power up, Paquette said.

The system will also alert Paquette's team if there is a leak or broken pipe and automatically shut down the broken sprinkler.

## ESC radar program reaches significant milestone

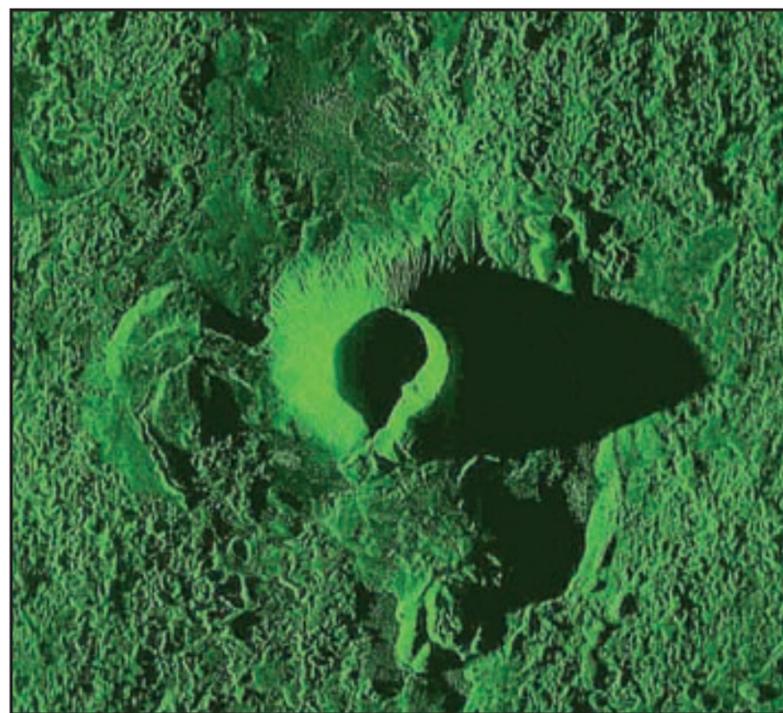
By Patty Welsh  
66th Air Base Group PA

The Electronic Systems Center's Multi-Platform Radar Technology Insertion Program recently reached a significant milestone when the sensor and first software baseline were delivered to Edwards AFB, Calif., for the next step - integration on a Global Hawk aircraft.

MP-RTIP increases warfighters' situational awareness through improved radar imagery. Flight testing up to this point has been performed in Mojave, Calif., on a scaled composites test bed aircraft, known as "Proteus." A total of 259 test flights were completed, with 1,062 hours of radar "on" time.

"We have made significant progress in the development of the sensor and are pleased with its performance," said Col. Jim Shaw, the MP-RTIP program director. "The ground moving target indicator and synthetic aperture radar dedicated modes are working, and we are ready to move into the next phase of system test."

"Dedicated modes" refers to GMTI and SAR functioning independently and serially. "Concurrent modes" refers to GMTI and SAR running simultaneously. The software delivered to the Global Hawk program includes concurrent mode functionality. Nine additional contractor development tests and evaluation flights on Proteus are planned to continue to improve the



This image of an extinct volcano crater in southern California was taken during system level verification test flights of the Block 40 Global Hawk Multi-Platform Radar Technology Insertion Program sensor on the Proteus surrogate aircraft. It shows the radar's ability to show terrain features in high detail. (U.S. Air Force image)

performance of concurrent radar modes.

It has been "technically challenging" to get the concurrent modes up and running, Colonel Shaw said. Concurrent modes ensure that warfighters can collect SAR data without interrupting GMTI tracks.

"We are giving the warfighter improved capabilities," he said.

MP-RTIP capability was operationally demonstrated for the Army during a recent ground exercise at the National Training Center in Fort Irwin, Calif. The MP-RTIP sensor was flown to demonstrate its unique capabilities in an operationally

relevant environment.

"Several members of the Operations Group at the NTC were pretty happy with what they saw," Colonel Shaw said.

After the concurrent mode testing is completed, the MP-RTIP team at ESC will move into a support role, and the Global Hawk Program Office at Wright Patterson AFB, Ohio, will have the lead. The ESC team was responsible for system design and development, and MP-RTIP is now moving to integration and test on a Global Hawk aircraft.

"We have done a lot of work to lessen any risks associated with the inte-

gration to Global Hawk," the colonel said. "It's designed to be a seamless transition."

As the ground integration and flight testing on Global Hawk is scheduled to occur in the near future, the ESC government and contractor teams will be engaged throughout the entire process, providing detailed insight into radar operations and performance.

"A lot of great people have put a lot of great work into this program to get us to this point," Colonel Shaw said. "We wouldn't have been able to get here without their dedication."

# Egress Airmen ensure 'last chance for life'

By Airman 1st Class  
Jason J. Brown  
633d Air Base Wing PA

Langley AFB, Va. (AFNS) - If something goes wrong in a fighter jet flying at 30,000 feet, the pilot needs a reliable way to escape danger, and fast.

When all else fails, the pilot relies on the ejection system to exit the jet and return safely to earth. Some say this system is the pilots' "last chance for life."

The 1st Component Maintenance Squadron egress technicians apply their expertise, attention to detail and dedication to the maintenance and proper employment of the Advanced Concept Ejection Seat II ejection systems in F-15 Eagles and F-22 Raptors.

The system includes the seat, fitted with gas and explosive lines in the F-15 and electrical circuitry in the F-22, which in the case of an ejection, will trigger the ejection process. A telescoping rocket catapult is affixed to the back of the seat, which propels the seat from the cockpit.

The team maintains

the ACES II systems, worth more than \$1 million per unit, on the 1st Fighter Wing's fleet of fighters, servicing seats, deployment mechanisms and ejection propulsion systems on a strict schedule. Egress technicians also service the cockpit canopy on the F-22 Raptor due to its integration into the ejection system.

"Each component of the system is dated, meaning it's only slated to be in working order for a prescribed amount of time," said Tech. Sgt. William Gamble Jr., the 1st CMS egress noncommissioned officer in charge. "These systems need to work 100 percent of the time, so we are constantly servicing them."

Each system undergoes an egress final inspection every 30 days, in which technicians physically inspect every component of the system they can touch. Every 36 months, each seat is disassembled and given comprehensive functional tests to ensure it operates if necessary.

The checklists are long, but critically important. The F-15 systems require a 55-step check prior to



Staff Sgt. Ronald Kavanaugh and Airman 1st Class William Stanton inspect an ejection seat from an F-22 Raptor at Langley AFB, Va. Each ejection system undergoes a final inspection every 30 days, where technicians physically inspect every component of the system they can touch. Sergeant Kavanaugh is an egress technician with the Virginia Air National Guard's 192nd Fighter Wing. Airman Stanton is an egress apprentice with the 1st Component Maintenance Squadron. (Photo by Airman 1st Class Jason J. Brown)

flight, and F-22s undergo a 103-step inspection, said Tech. Sgt. Michael Phillips, 1st CMS egress assistant NCOIC.

The team uses a two-man labor concept, called demand-response, to maintain safety and effectiveness due to the use of explosives and the importance of properly servicing the systems.

"There are eyes on the system the entire time," Sergeant Gamble said. "One technician will dictate the instruction, and the other will verbally confirm before

accomplishing it. Afterwards, a five-level tech inspects the work, followed by a final approval by a seven-level supervisor."

Unlike other maintenance shops that include a flightline crew and a "backshop" team, the egress team works from workbench to fighter, serving as the only team that can work on the ejection system. In addition, because proper maintenance is so vital and complex, only egress technicians can "red x," or sign off for the ejection systems during egress main-

tenance.

The technicians, including members of the Virginia Air National Guard's 192nd Fighter Wing, devote one morning a week to hands-on and video training sessions and also instruct an annual refresher course.

"The work is challenging," said Airman 1st Class William Stanton, a 1st CMS egress apprentice. "There's so much attention to detail with the systems. We can't afford to make mistakes; we are responsible for saving pilots' lives."

While ejections are rare, pilots appreciate the egress teams' dedication in making sure they get back to earth safely in a worst-case scenario.

"We don't get to see the reward of the work often, and that's a good thing," said Staff Sgt. Michael Oswald, a 1st CMS egress technician.

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Drop from page 9

"It's a slick unit; it works really well," he said. "The water savings are going to be substantial."

Paquette predicts the system will reduce water used for irrigation by 50 percent a year.

Water conservation is especially important as 21st CES officials try to balance the water reduction goals with keeping the grass green, Pieper said.

The 21st CES has tackled the water reduction goal from a number of fronts including installing low-flow water toilets, urinals and showerheads throughout the base.

Landscapers have planted native grasses, which use less water than the bluegrass previously planted on base. They've also incorporated xeriscape landscape designs, which use low water plants and colored stones instead of grass, in the areas close to buildings or on side streets. And rain sensors on sprinkler heads have been used to turn off the water once it starts raining.

"We've done pretty well with water reduction," Pieper said. "We've met our goal for 2009."

For Peterson AFB, the installation of the new high tech irrigation system couldn't be more urgent. Colorado Springs Utilities is building a \$1.1 billion pipeline from the Pueblo Reservoir to Colorado Springs, which will necessitate an increase in water rates.

"CSU has notified us that we will see a 12 percent increase in the water bill each year through 2016 - that effectively doubles our bill," Jacobson said.

Now, Peterson AFB pays about \$100,000 a month in water bills. The good news is that once the pipeline is built, Peterson AFB hopes to tap into it for non-potable water, which could be used to water the grass and would be less expensive, Pieper said.

# Behind the scenes with an A-10 student pilot

By Capt. Stacie N. Shafran  
355th Fighter Wing PA

It was a little after 8 p.m. on June 8 when I finally left the 358th Fighter Squadron.

That afternoon I'd been shadowing 1st Lt. Dan Griffin, a student in the squadron's A-10C Pilot Initial Qualification Course, as he prepared for his sortie, or flight, called "SAT-5." This was the fifth of 15 sorties in the course's surface attack tactical phase.

Over the past few months, as I've immersed myself in the squadron's mission, I've gained a behind-the-scenes perspective about the 12 students endeavoring to become fully trained A-10C pilots. To say the least, the course is full of a lot of demands and requirements.

What most of us will see of their training is the jets soaring overhead.

I have a feeling, though, that most of us don't realize the amount of background work that goes into a typical two-hour sortie.

Behind the scenes I've learned that there really is more, a lot more, to flying the A-10C than zipping into the life support gear, stepping to the jet, taxiing down the runway and flying off into the horizon.

Everything the pilots do leading up to the flight, such as attending academic sessions, and while flying is designed to make them more mission ready, more capable of going to war and most importantly, better prepared to assist their wingman in case of an emergency.

Before flying, each pilot will spend at least four to six hours preparing to fly by attending briefings, including a mass briefing where they receive intelligence and weather updates, and mission planning, where they discuss training objectives and review targets.

During this afternoon, I had the opportunity to attend Lieutenant Griffin's nearly hour-long pre-flight brief with his IP, or instructor pilot, for the flight, Capt. Keith Bonser. The two met in a small room, bare except for a table and chairs, a large "old fashioned" white board, dry erase markers, and a very cool, "SMART board" - an interactive, electronic whiteboard the pilots use to enhance instruction and learning.

The meeting began with the pilots synchronizing

their watches. With the time hack complete, they moved quickly through the standard pre-flight briefing checklist. The IP controlled the pace of the briefing. He balanced the amount of time he explained something with questions for his student.

Without hesitation, Lieutenant Griffin was expected to recount the mission objective, flight overview, emergency procedures, describe what to do during various environmental conditions with emphasis placed on the physiological concerns brought on by the intense Arizona heat, maneuvers they'd perform in the air, as well as ground, take off and landing procedures. During each brief, the IPs also will question the students about various real-world foreign threats.

The brief was intense. Both pilots were extremely focused on what they were about to go do.

The Air Force prides itself on safety; it's our number one priority. Whether on the ground or in the air, ensuring the safety of our people and equipment, as well as the public's safety, is critical.

The mission for the SAT-5 sortie: introduce Lieutenant Griffin to a heavyweight combat load. This means his A-10C would be configured with four BDU-50 "High Drag" bombs, two training AGM-65 Maverick missiles, a pod of white phosphorus "Willie Pete" rockets and 575 rounds loaded into his GAU-8/A 30 mm cannon.

He also needed to demonstrate proficiency in low altitude tactics, weapons delivery, flying as a two-ship - flying with a second jet nearby - to the tactics range, and close-air support. He'd also accomplish another course first, dropping the four 500-pound practice bombs, known as BDU 50s, at the range. These training ordnances are representative in size and weight of an explosive-filled bomb, and simulate the 500-pound MK 82 general purpose bomb.

Following the brief, the pilots suited up in all of their gear and stepped to their jets.

Once at his jet, Lieutenant Griffin met his crew chief, Airman 1st Class John Guzman, returned his salute and inspected the aircraft before climbing

into the cockpit to begin a pre-flight checklist.

The relationship between a pilot and crew chief is special and is initiated during the first salute presented to the pilot as they accept their jet. A goodwill gesture, I've seen pilots from the 358th also bring a cold bottle of water out to their jets for their crew chiefs. With temperatures well over 100 degrees on the flight line, it's the little things like this that go a long way.

Once everything was in order, a process that took approximately half an hour, Lieutenant Griffin was ready to taxi from his parking spot to the runway and take off.

A little more than two hours later, the lieutenant and his IP returned to base, having flown west to a tactical range at the Barry M. Goldwater Range.

After parking their jets, they returned to the squadron to debrief the mission.

As we headed to one of briefing rooms, I could tell Lieutenant Griffin was in a post-flight good mood and I was curious to know how the flight went.

For the next hour, I listened and learned.

A debrief can take anywhere from 30 minutes to several hours to complete. Most pilots will agree this is the most vital part of the entire sortie because this is where they learn from what they just executed.

During this time they'll review the tapes from their cockpits that record the sortie, listen to what each other talked about on the radios, discuss execution actions and plan for what they can do better the next time they fly.

Toward the end, Captain Bonser brought the focus back to the real-world importance of this training.

"Providing close-air support is about remaining masked, hidden from the enemy and having minimal exposure time," he explained.

The captain, who has more than 400 combat hours from sorties flown in Afghanistan, also talked to the lieutenant about TICs, or troops in contact, and the importance of knowing how to employ the aircraft and its weapons in such a way the enemy is defeated and the friendly forces are protected.

Following his debrief, I asked Lieutenant Grif-

fin how he felt about this flight and what he had learned.

"This was a big flight to me," he explained. "It was pretty much our last low-altitude attack flight. We'll have one more refresher just before graduation in late August."

He was also excited about having had the chance to incorporate the different attacks and geometry that he's been learning into this mission.

And what was it like to release 2,000 pounds of BDU 50s from the jet?

"The coolest thing about that was feeling them leave the jet. It was like a car dropping off of the jet," he said. "More importantly, my IP showed me how imperative it is to get the bombs on target the first pass, not only for our guys on the ground, but for our survival too. We don't want to pass through, make a mistake and not drop the intended bombs ... this will anger the bad guys and then we'll be flying around low, slow, heavy and out of energy. It makes us a really easy target and has done

nothing for our guys on the ground."

As I left the squadron that night, I reflected on the afternoon's countless acronyms, the time hacks, the numerous checklists, by-the-book following of procedures and amount of dedication our A-10C pilots devote to becoming the best attack pilots in the world.

Although it was late, and he'd already been at the squadron since 7 a.m., Lieutenant Griffin still had to close the squadron down for the night, head home, eat a late dinner and prepare for the next day and upcoming flights.

Failure, and performing at anything less than max potential, is never an option, especially since our pilots are representing the hard work of every Airman on this base. What I took away from this afternoon was seeing the importance the pilots place on fulfilling the mission and proudly representing the men and women of the 355th Fighter Wing. I witnessed this first hand, right down to the final salute executed by the crew chief before sending Lieutenant Griffin on to the sortie.



1st Lt. Dan Griffin, a pilot from the 358th Fighter Squadron at Davis-Monthan AFB, Ariz., records the ordnance serial number as part of his pre-flight weapons inspection. Lieutenant Griffin is a student in the A-10C Pilot Initial Qualification course and upon completion of this course will be a fully qualified A-10C pilot. (Photo by Capt. Stacie N. Shafran)

## New ejection seat added to T-38

By Robert Goetz  
355th Fighter Wing PA

The T-38 Talon is receiving an upgrade that officials said will improve aircrews' safety and comfort.

Representatives from Martin-Baker Aircraft Co. Inc. are in the early stages of installing their new escape systems in all T-38Cs at Randolph AFB after completing the same project at Laughlin AFB, Texas, the first of five Air Education and Training Command installations scheduled for the upgrade.

One of the greatest advantages of the new seat, called the Mk US16T, is that it functions well in the situation that accounts for most ejections, said Rick French, an AETC T-38 program manager.

"The old ejection seat has the least capability in the flight regime where the most ejections occurred, the low-altitude, low-air-speed range, because it takes a few seconds for the parachute to open when you leave the aircraft," French said.

"The best part of the new seat is that it's a zero-zero seat," said Rey Gutierrez, a 12th Operations Support Squadron Aircrew Flight Equipment instructor. "It will eject at zero altitude and zero airspeed, so the aircrew can bail out on the ground."

The new seat provides rapid deployment of the parachute following ejection, French said.

"When the seat clears the aircraft, explosives deploy the parachute," he said. "It's almost instantaneous."

A bonus for aircrew members is that they no longer have to carry their 45-pound parachutes to the aircraft, because each one is part of the ejection seat, enclosed in a container called the head box. Their only requirement is to wear a 5-pound harness that attaches to the ejection seat. The parachute itself, an aeroconical design, incorporates multiple safety features.

Another feature, the inter-seat sequencing system, which has a selector box with three options, decreases the possibility of aircrew collision during ejection and potential aircrew burn, because the rear seat will always eject first, no matter which crew member pulls the seat firing handle located on the front of the seat.



Rey Gutierrez goes over procedures for connecting the parachute harness to the new T-38 ejection seat while Maj. Bryan France connects his harness shoulder straps to the seat. The new seat has a host of features that will make ejecting from the aircraft, should the need arise, much safer for the pilots. Gutierrez is an aircrew flight equipment instructor in the 12th Operational Support Squadron at Randolph AFB, Texas. Major France is a pilot in the 435th Flying Training Squadron. (Photo by Steve Thurow)

Another advantage of sequencing "is that the rear seat ejects up and to the right, and the front seat ejects up and to the left, so a collision is unlikely," Gutierrez said.

In addition, the seat decreases the potential of injury to aircrew members, especially at high airspeed, because its thigh and ankle restraints keep them more secure. It also expands the population who can fly the T-38 to anyone from 103 to 245 pounds, because the seat has two positions, including one that moves it one inch forward.

"Now the seat can better accommodate smaller pilots," French said. "The old seat accommodates 58 percent of female pilots; the new seat brings that percentage up to 87 percent."

The seat's other features include a survival kit with a radio, flares, a mirror, a first aid kit, water, a flashlight and other items as well as fittings that allow for a faster release of the parachute canopy, Gutierrez said.

The T-38 has been a part of the Air Force's fleet for nearly 50 years.

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## Backbone of independence

# Accounts of four decorated U.S. war heroes

By Tech. Sgt. Kevin Wallace  
100th Air Refueling Wing PA

Independence Day was a day of celebration for all Airmen, civilians and family members here, which is ironic as the date marks 234 years since America declared its independence from England and engaged in war to secure that independence.

Since that day, America and the United Kingdom have forged an alliance key to worldly security.

Looking back over the past two and a half centuries, it's clear that heroes have defined both the nations' paths to greatness. But the Fourth of July is one thing that, even here in the U.K., is a true testament to what it means to be American.

This Independence Day, it's important to remember that America's security has always rested on the backs of the men and women willing to sacrifice whatever is necessary to defend it.

Following in the footsteps of our Soldier, Sailor and Marine brethren, Airmen stepped up to serve at the tip of the spear more than 60 years ago.

Airmen have answered their nation's call, and continue to serve with tradition and honor.

In every battle the U.S. has seen, heroes have shone as a beacon for others to follow.

Heroes come from every branch of service, rank, race, gender and walk of life.

For America's warriors in uniform, it is vital to learn from our fallen heroes, and equally vital to remember their contributions.

Below are the stories of four American heroes. Chief Master Sgt. Duane Hackney, Lt. Gen. Lewis Puller, Boatswain's Mate First Class James Williams and Maj. Audie Murphy are beacons of leadership for their fellow servicemembers to follow.

Each man is the most combat-decorated member of his service. All are heroes, and were faithful to their country regardless of the cost.

### Chief Master Sgt. Duane Hackney

While in basic training at Lackland AFB, Texas, during the Vietnam-conflict era, Chief Master Sgt. Duane Hackney chose to pursue a career in pararescue, a choice that continually put him in harm's way and earned him more than 70 individual awards, including the Air Force Cross.

Chief Hackney graduated from pararescue training as an honor graduate in every phase of the course. For this, he earned the right to pick his first assignment.

Instead of choosing a lush assignment stateside or in Europe, far away from the sweltering jungle, he volunteered for Det. 7, 38th Aerospace Rescue and Recovery Squadron Da Nang, Vietnam.

Three days after reporting for duty, he flew his first combat mission.

During the mission, he was struck in the leg by a .30-caliber slug.

To avoid being grounded, he had a fellow pararescueman remove the bullet on the spot. This selfless act set the tone for his career, and he participated in more than 200 combat missions in three and a half years of Vietnam duty.

On his 10th mission, while pulling a wounded Marine pilot aboard his HH-3E 'Jolly Green Giant,' helicopter, Chief Hackney was hit by enemy fire.

His helicopter was shot down five times over the following months, during which he earned four Distinguished Flying Crosses and 18 Air Medals for single acts of heroism.

He received his Air Force Cross while on a mission Feb.

6, 1967. He was the first living enlisted Airman to receive the second highest award for heroism given by the Air Force.

The dawn of the Feb. 6 mission started like any other.

Chief Hackney descended from his Jolly Green Giant to look for a downed pilot near Mu Gia pass, North Vietnam. He searched for two hours, but inclement weather set in and he was forced to return to base.

A few hours later, radio contact with the pilot was re-established, and the chief went out again to attempt another rescue. This time, he found the severely wounded pilot.

Chief Hackney safely carried the pilot back to the helicopter to egress the jungle. However, before they could clear enemy air space, the chopper was struck by anti-aircraft artillery, and the compartment filled with smoke and fire. The chief strapped his parachute on the pilot's back and shuffled the pilot out the door.

He then searched the craft for a spare parachute, finding one just prior to a second anti-aircraft shell ripping into the helicopter. Before he could finish buckling the chute, the Jolly Green Giant's fuel line exploded, blasting him out the door without the chute on his back. With the parachute clenched in his arms, he managed to pull the cord before plummeting into the jungle 250 feet below. Though the chute slowed his fall, he still plunged more than 80 feet into a rocky ledge below.

Despite being severely burned and wounded by shrapnel, Chief Hackney managed to evade the enemy and thwarted capture. The heroic rescuer was rescued by a fellow pararescueman and was returned to Da Nang Air Base.

When he got back, he learned that he was the only survivor from the mission. Four other crew members and the pilot he rescued were lost in the operation.



**Airman 1st Class Duane Hackney receives an Air Force Cross. He was the first living recipient of the medal.** (Courtesy photo)



**Retired Lt. Gen. Lewis Puller is accounted as the most decorated Marine in history.** (Courtesy photo)



**Boatswain's Mate First Class James Williams stands aboard River Patrol Boat 105 in Vietnam.** (Courtesy photo)



**Retired Maj. Gen. John W. O'Daniel presents 1st Lt. Audie Murphy with a Distinguished Service Cross.** (Courtesy photo)

For giving up his parachute and risking his own life, he received the Air Force Cross.

He was the youngest Airman and the second enlisted member to receive the medal. The first was posthumously awarded to Airman 1st Class William Pitzenbarger, also a pararescueman.

After Vietnam, the chief continued his distinguished Air Force career, and retired in 1991.

Two years later he died, in his Pennsylvania home, of a heart attack. He was 46 years old.

### Lt. Gen. Lewis Puller

Lt. Gen. Lewis Puller, the most decorated Marine in U.S. history, is one of only two people to receive a Navy Cross, the Navy's

second highest decoration, five times.

General Puller earned 52 separate, subsequent and foreign awards in his 37-year career with the Marine Corps.

With five Navy Crosses and a Distinguished Service Cross, the Army's second highest decoration, General Puller received the nation's second highest military decoration six times.

Prior to his involvement in World War I, General Puller, then an Army sergeant, was accepted into the Virginia Military Institute, Lexington, Va., to pursue a commissioned career in the Army.

See **HEROES**, page 15

**Heroes from page 13**

As America's involvement in World War I intensified, the sergeant resigned from the college and enlisted as a private in the Marine Corps.

His reasons were summed up in his quote, "I want to go where the guns are."

After his 1919 re-enlistment, he saw action in Haiti. There, he participated in more than 40 combat engagements over the course of five years.

In 1924, he returned to the U.S. and was commissioned as a second lieutenant. He spent four years at various state-side assignments before returning overseas in 1928, where he earned his first Navy Cross in Nicaragua.

He spent a second tour in Nicaragua in 1933, where he earned a second Navy Cross for leading five successive actions against superior numbers of outlaw forces.

General Puller earned three Navy Crosses in World War II. He received one in Guam, Guadalcanal and finally Japan.

On Guadalcanal, for action that is now known as the "Battle for Henderson Field," General Puller's battalion was the only American unit defending an airfield against a regiment-strength Japanese force. In a three-hour firefight that night, his unit sustained 70 casualties while the Japanese lost more than 1,400 and he held the airfield.

General Puller was quoted as saying, "All right, they're on our left, they're on our right, they're in front of us, they're behind us ... they can't get away this time," about the battle.

General Puller earned his fifth Navy Cross in November 1950 during the intense "Battle of Chosin Reservoir." During the firefight, then Colonel Puller was quoted as saying, "We've been looking for the enemy for some time now. We've finally found him. We're surrounded. That simplifies things."

In 1966, the general requested to be reinstated in the Marine Corps in order to see action in the Vietnam War, but the request was denied on the basis of his age. He died October 11, 1971.

**Boatswain's Mate First Class James Williams**

Born and raised in South Carolina, Boatswain's Mate First Class James Williams was the most-decorated enlisted man in Navy history.

Petty Officer Williams received a Medal of Honor, Navy Cross, Silver Star, Navy and Marine Corps Medal, Bronze Star, Purple Heart and a Navy Commendation Medal with combat distinguishing device.

The petty officer received the Medal of Honor for his service on the Mekong River in Vietnam on Oct. 31, 1966, while serving as a boat captain and patrol officer.

His vessel and another river-patrol boat were searching for contraband when crewmembers spotted two speed-boats. Petty Officer Williams pursued and sunk one of the boats, then turned and went after the second, which was hiding in an eight foot-wide canal in front of a rice paddy.

He knew his boat wouldn't fit in the canal, but after checking a map, he realized he could pass through a wider canal and intercept the enemy's vessel.

He proceeded with his plan. However, after exiting the canal, he found himself and his crew in a hostile staging area where they came under heavy fire from more enemy boats and North Vietnamese troops on the shore.

U.S. helicopter support eventually arrived, so Petty Officer Williams moved his vessel to another enemy boat staging area downriver, where another fierce battle

was under way.

After more than three hours of fighting, his patrol had accounted for the destruction or loss of 65 enemy boats and more than 1,000 enemy troops.

"You gotta stop and think about your shipmates," he said during a 1998 interview with the Navy's All Hands Magazine. "That's what makes you a great person and a great leader - taking care of each other."

Boatswain's Mate First Class James Williams passed away in 1999.

**Maj. Audie Murphy**

Immediately following the Japanese attack on Pearl Harbor on December 7, 1941, Audie Murphy, a 17 year-old son of poor, rural sharecroppers, tried to enlist in the military, but the services rejected him because he had not yet reached the required age of 18.

Shortly after his eighteenth birthday, Major Murphy tried to enlist in the Marine Corps but was turned down for being too short. Finally, the five-foot-five-inch man was accepted into the Army and was sent to Camp Wolters, Texas, for basic training.

During a close-order drill session, he passed out. Fearing his apparent weaknesses, his company commander tried to have him transferred to a cook and bakers' school, but the private insisted on becoming a combat soldier.

His initial thirst for combat was finally quenched when he was ordered to help liberate Sicily on July 10, 1943.

Shortly after arriving, he experienced his first combat encounter and defeated two enemy officers. For this action, his captain promoted him to corporal.

Major Murphy distinguished himself in combat on many occasions while in Italy, earning several promotions and decorations.

Following the Italian campaign, Sergeant Murphy's unit was ordered to invade southern France. Shortly thereafter, Sergeant Murphy's best friend was killed while approaching a German soldier feigning surrender.

His friend's death sent him into a rage, and he single-handedly wiped out the German machine gun crew responsible. He then used the German machine gun and grenades to destroy several nearby enemy positions. For this act, he received a Distinguished Service Cross.

He was awarded a battlefield commission and given a platoon. Twelve days after the promotion, he was shot by a sniper and spent 10 weeks recuperating.

When he returned to his unit, Lieutenant Murphy became the company commander and was wounded by mortar rounds that killed two Soldiers near him.

The next day, despite the bitter-cold temperature and more than 24 inches of snow on the ground, his unit entered the battle at Holtzwihr, France.

With only 19 of his 128 soldiers engaged, his men seemed doomed. Subsequently, he sent all of his men to the rear while he continued to engage the Germans until he ran out of ammunition.

Without the means to return fire, Lieutenant Murphy looked to an abandoned, burning tank nearby.

He secured its .50 caliber machine gun and used it to saw down German infantry at a distance.

During the engagement, he destroyed a full squad of German infantry that had crawled into a ditch to within 100 feet of his position.

Lieutenant Murphy suffered several leg wounds, yet released his fury on the enemy for almost an hour.

Eventually, his telephone line to the artillery fire-direction center was cut by enemy fire. Without the ability to call on artillery, he summoned his remaining men and organized them to conduct a counter attack, which ultimately drove the enemy away from Holtzwihr.

These actions earned Lieutenant Murphy the Medal of Honor.

During World War II, Major Murphy was credited with destroying six tanks, killing more than 240 German soldiers, and wounding and capturing many others.

By the end of World War II, he was a legend within the 3rd Infantry Division as a result of his heroism and battlefield leadership.

During his career, Major Murphy received 33 U.S. medals, five French medals and one from Belgium.

Despite suffering from insomnia, bouts of depression and nightmares as a result of post-traumatic stress disorder, he raised his hand and volunteered for duty when the Korean conflict broke out in 1950. However, he was never called up for combat duty.

By the time he retired in 1966, he had attained the rank of major. He died May 28, 1971.

While these heroes have all passed away, each and every day current servicemembers distinguish themselves honorably in battles far from home.

While celebrating Independence Day with British friends, surely many U.S. Airmen here will remember those who have served and continue to serve.

**Memorial gets restored**

Retired Army Brig. Gen. George Price (from left); John Piltzecker, National Mall and Memorial Parks superintendent; Lindy Hart, widow of sculptor Frederick Hart; and Jan Scruggs, Vietnam Veterans Memorial Fund founder and president, unveil the Three Servicemen Statue during a rededication ceremony at the National Mall in Washington, D.C. The statue, which originally was unveiled in 1984, underwent six weeks of restoration to repair damage and restore the original patina. (Photo by Army Sgt. 1st Class Michael J. Carden)

**Arnold Golf Course**  
454-7076

**Mulligan's Grill at Arnold Golf Course undergoing major renovation.** This project includes new counters that will extend across the room and include an order station and pick-up station, the bulk-head will be removed, a digital menu board with LCD monitors will be added, a grab and go cooler will be built into the counter for easy access to salads, cold sandwiches, desserts and more. A highlight of this endeavor will be the addition of Starbucks coffee. Mulligan's Grill will now be a "Proud to Serve" member of the Starbucks brand. Mulligan's Grill will remain open during these improvements; however, due to the magnitude of the renovation, menu selections will be limited. Dining will be available inside and on the patio during this 60-90 day project. A grand reopening with ribbon cutting will be scheduled upon completion of this improvement project.

**Tullahoma City Medal Play Championship July 24-25**

Arnold Golf Course will host the annual Tullahoma City Medal Play Championship with an 8 a.m. shotgun start both days, July 24 and 25. The field will be flighted depending on the number of participants. Second round play will be flighted based on first round scores. Second round score improvement limit will be 7-15 percent as determined by the Tournament Director. Percentage of improvement limit to be drawn at the completion of the second round. Prizes will be awarded in each flight. This tournament is open to the first 72 players to sign up. Priority for riding carts is given as applications are received. Payment is required at time of registration. Entry fee is \$50 for advanced green fee players and \$70 for others. Price includes one free practice round during the week of July 19-23. Cart fee is extra at \$12 each day per round. Registration in person is recommended. Deadline for sign up is close of business July 21. For more information call 454-7076.

**Range Rat Program** continues through July 31. During this time, the first 25 customers making a minimum \$25.50 e-key purchase of range balls will receive a Range Rat T-shirt and their name entered into the grand prize drawings. Anyone who finds a green money ball in your range basket instantly wins two free range tokens for 24 balls each and your name is entered into the grand prize drawings. Compete in the skills test competitions and win cash prizes. Long Drive Contest – July 23, 12:30 p.m.; Big Break Contest – July 30, 12:30 p.m. Customers who purchase a range key, money ball winners and winners in the skills challenges are eligible for the grand prize drawings: 7th place - \$25 gift certificate; 6th place \$25 gift certificate; 5th place \$50 gift certificate; 4th place \$50 gift certificate; 3rd place \$75 gift certificate; 2nd place \$125 gift certificate and Grand Prize \$250 gift certificate.

**Unlimited golf** every Tuesday and Thursday for \$10 per person. Normal cart fees apply.

**Club Championship** set for Aug. 21-22 begins with an 8 a.m. shotgun. Cost is \$40 and includes lunch. Deadline to sign up is Aug. 18.

**Arnold Lakeside Center**  
454-3350

A **dinner dance event** will be held July 28 from 6-9 p.m. Cost is \$18 for members and \$20 for non members. Call for reservations.

**Trivia Contest** will be held beginning at 6 p.m. July 30. Teams can 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. A tutorial will be given promptly at 6 p.m. to all participants prior to the start of the game. The game will begin immediately following the tutorial. Six rounds of questions will be administered consisting of three questions in each round. Each round is worth ten points. The team with the most points at the end will be the winner. Prizes will be given for first and second place. Ties will be broken by a trivia play-off.

## New parent and tot workout area at Fitness Center open



Four pieces of child-sized fitness equipment, a picnic table and several other items to keep children entertained are available in the Fitness Center's new parent and tot workout area.

The Fitness Center has a new tot workout and play area designed for ages 9 months to 7 years for use while their parent is working out in this section.

There is a 150-pound weight limit on the kid's workout equipment.

The area was created to accommodate parents with small children who wish to stay in shape despite their busy schedules.

Due to the nature of what the Fitness Center does, the main workout area is unsafe for children.

The tot area is located upstairs and for safety reasons is only available for use when classes are not being conducted.

Classes are held Monday, Tuesday and Thursday for cycling from 11 a.m. – 12 p.m. and Tuesday and Thursday for Zumba from 4:15-5:15 p.m.

During these times the tot area is off limits.

The tot area is available during any

other regular operating hours but is not monitored by Fitness Center staff.

It is the parent's responsibility to remain in direct supervision of their children at all times.

Workout equipment for parents to use while supervising their children includes a recumbent bike, elliptical, elastic bands and more.

There are four pieces of child-sized fitness equipment, a picnic table and several other items to keep children entertained.

A television, VCR and DVD player are in the area so you can bring your child's favorites to watch.

The same eligibility requirements apply to this area as the main fitness center.

The Fitness Center is open Monday-Friday 5 a.m.-9 p.m., Saturday 8 a.m.-4 p.m. and Sunday 12-5 p.m. Holidays vary.

For inquiries, please contact the Fitness Center staff at 454-6440.

## Outdoor Rec plans climbing, rafting and skydiving trips



A trip to Urban Rocks is one of three trips the Outdoor Rec has planned for August.

Outdoor Rec has many exciting trips coming up – three of them in August.

The month starts with an Indoor Rock Climbing Adventure in Chattanooga at Urban Rocks Gym Aug. 7.

This gym is 10,000 square feet of climbing surface with heights up to 35 feet. There is also a dedicated kid's wall, training area and snack bar.

Urban Rocks provides a safe and fun climbing atmosphere welcoming all levels of climbers and non-climbers alike.

The trip begins at 8 a.m. at Outdoor Rec and will return at approximately 5 p.m.

Cost is \$38 and is for ages 14 and up. Remember to bring money for food and drinks and wear proper clothing for climbing. Deadline to sign up for this event is July 30.

There must be a minimum of eight to go and the maximum number is 14. A late registration fee of \$10 will be charged after July 30 and a cancellation fee of \$10 will be charged if cancelled after Aug. 3.

The next trip will be Aug. 14 to the Ocoee River for rafting down Class III and IV whitewater rapids on the middle Ocoee.

This section is a five-mile stretch that takes you through rapids such as Grumpy, Broken Nose, Diamond Splitter and Table Saw.

Ages 12 and older will meet at Outdoor Rec at 6:30 a.m. to begin this full-day adventure. Plan to return to Outdoor Rec by 6 p.m.

Cost is \$65 and deadline to sign up is Aug. 6. A late registration fee of \$5 will be applied after that date and a \$5 cancellation fee will be charged after Aug. 11.

There must be a minimum of 12 participants to go and maximum capacity is 24.

Remember to wear or bring swimsuits or appropriate clothing for water sports. Also bring dry clothes to change into after rafting and money for food and drinks.

Participants age 12-17 must have a parent sign a release form.

No experience is necessary to enjoy the adventure of Ocoee River rafting. The guides have the reputation of being some of the most experienced and best guides on the Ocoee River.

The final adventure of the month will take place Aug. 28.

Who is daring enough to jump out of a perfectly good airplane?

Tennessee Skydiving of Tullahoma is ready to make your dreams of flying a reality. This adventure will be a tandem jump from approximately 14,000 feet.

After just a few minutes of instruction you are ready for a 60-second freefall while attached securely to one of their certified tandem masters.

The cost is \$215 and is for ages 16 and older. Ages 16 and 17 must have written parental consent.

Meet at Outdoor Rec at 10 a.m. Finish time will depend on the number of participants.

There must be a minimum of three to go and no more than 13.

Sign up by Aug. 19. A late registration fee of \$15 will be applied after Aug. 20.

Cancellation after Aug. 26 will be non-refundable.

Call Outdoor Rec at 454-6084 for questions about any of these trips.

## Fishing Classic winners announced

Congratulations to the winners of the June 19 Fishing Classic.

Ages 4-8:

- 1st, Jolie Bise, 5, 60" total, daughter of Gary Bise, ATA
- 2nd, Triston Melton, 8, 58.5" total, son of James Melton, ATA
- 3rd, Brandon Gregory, 5, 17.5" total, nephew of Robbie Evans, Services

Ages 9-12:

- 1st, Drake Sizemore, 9, 72.25" total, son of Darbie and Bill Sizemore, ATA
- 2nd, Zack Sheeley, 9, 25" total, son of Joe Sheeley, ATA

Ages 18 and up:

- 1st, Robbie Evans, 66" total
- 2nd, Bob Stanze, 55" total
- 3rd, James Melton, 38" total

Biggest Fish  
Robbie Evans, 23"

Total Overall Length Winner  
Drake Sizemore, 72.25"



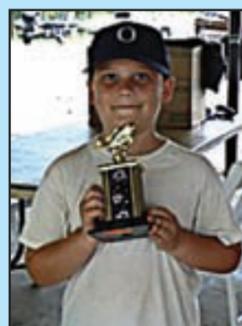
Sizemore



Evans



Bise



Melton



Gregory



Sheeley



Horizon is a Services Division publication designed to inform our customers of events and specials in Services Division activities. All program dates, times and prices are subject to change. Services Division mailing address is at 100 Kindel Drive, Suite C321, Arnold AFB, Tenn. 37389-3321

Services information written and provided by Tanya Heggard

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## Services Division Phone Numbers

**Area code 931 DSN 340**  
 Services Chief – 454-7779  
 Services Deputy – 454-5915  
 Community Services Flight Chief – 454-4062  
 Complex Manager – 454-3367  
 Arnold Lakeside Center (ALC) – 454-3350  
 Arnold Lakeside Center catering – 454-3350

Hap's Pizza – 454-5555  
 Membership Information – 454-3367  
 Information Tickets, Tours – 454-3303  
 Fitness Center (FC) – 454-6440  
 Outdoor Recreation (ODR) – 454-6084  
 FamCamp – 454-4520 or 454-6084  
 Marina – 454-6084 or 454-3838  
 Recycling – 454-6068

Family Child Care – 454-3277  
 Family Member/Youth Programs – 454-3277  
 Human Resources – 454-5481  
 Marketing & Sponsorship – 454-3128  
 Barber Shop – 454-6987  
 Wingo Inn – 454-3051  
 Golf Course (GC) – 455-5870 or 454-7076  
 Gossick Leadership Center – 454-3024

# August 2010

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
<b>1</b>	<b>2</b> FamY Camp Adventure Week 10: An Invitation to a World Celebration FC Cycle Pump Class – Zesty cycling 11 a.m. FC Yoga 11 a.m.	<b>3</b> GC Unlimited golf \$10 every Tuesday & Thursday FC Cycle Pump Class – Endurance Cycling 11 a.m. FC Karate 3 p.m. FC Zumba 4:15 p.m.	<b>4</b> ALC Hap's Pizza, 11 a.m. – 1 p.m., also available Chef Salad or Surprise Special, call ahead 454-5555 FC Pilates 11 a.m.	<b>5</b> GC Unlimited golf \$10 every Tuesday & Thursday FC Cycle Pump Class – Yellow shirt cycling 11 a.m. FC Karate 3 p.m. FC Zumba 4:15 p.m. ALC Dinner & Movie Night "Shrek: Forever After" PG dinner 5-8 p.m. movie 6 p.m.	<b>6</b> FC Piloga 11 a.m. ALC Angel Chicken Pasta, \$9.95 member, \$10.95 non member 4-9 p.m. ALC First Friday Jam Night, 6-10 p.m. FamY Movie Night, 6-9 p.m., age 9 and up, free popcorn and \$1 pizza by the slice, 454-3277	<b>7</b> ODR Indoor Rock Climbing Adventure, 8 a.m.-5p.m., \$38, age 14 and up, sign up by July 30, 454-6084 ALC Feta and Onion NY Strip, \$13.95 members, \$14.95 non members, 5-9 p.m. ALC UFC:117 Fight Night: SILVA vs. SONNEN, 25 cent wings and half priced pizzas 8:30 p.m. until fight is over
<b>8</b>	<b>9</b> FC Cycle Pump Class – Zesty cycling 11 a.m. FC Yoga 11 a.m.	<b>10</b> GC Unlimited golf \$10 every Tuesday & Thursday FC Cycle Pump Class – Endurance Cycling 11 a.m. FC Karate 3 p.m. FC Zumba 4:15 p.m.	<b>11</b> ALC Hap's Pizza, 11 a.m. – 1 p.m., also available Chef Salad or Surprise Special, call ahead 454-5555 FC Pilates 11 a.m. ALC Dance Class session begins, 6:30-8:30 p.m., \$58 member, \$60 non member, 7 weeks plus dinner dance event, 454-3350	<b>12</b> GC Unlimited golf \$10 every Tuesday & Thursday FC Cycle Pump Class – Yellow shirt cycling 11 a.m. FC Karate 3 p.m. FC Zumba 4:15 p.m. ALC Dinner & Movie Night "Furry Vengeance" PG dinner 5-8 p.m. movie 6 p.m.	<b>13</b> FC Piloga 11 a.m. ALC Cook Your Own Steak Night, \$13.95 members, \$14.95 non members, 4-9 p.m.	<b>14</b> ODR Ocoee Rafting Trip, 6:30 a.m., \$65, ages 12 and up, sign up by Aug. 6, 454-6084 ALC dining room closed; to go Express and Pizza menu only
<b>15</b>	<b>16</b> FC Cycle Pump Class – Zesty cycling 11 a.m. FC Yoga 11 a.m.	<b>17</b> GC Unlimited golf \$10 every Tuesday & Thursday FC Cycle Pump Class – Endurance Cycling 11 a.m. FC Karate 3 p.m. FC Zumba 4:15 p.m.	<b>18</b> FC Mountain Bike Challenge, anytime during regular hours, complete 10 mile trail for prize, 454-6440 ALC Hap's Pizza, 11 a.m. – 1 p.m., also available Chef Salad or Surprise Special, call ahead 454-5555 FC Pilates 11 a.m.	<b>19</b> GC Unlimited golf \$10 every Tuesday & Thursday FC Cycle Pump Class – Yellow shirt cycling 11 a.m. FC Karate 3 p.m. FC Zumba 4:15 p.m. ALC Dinner & Movie Night "Marmaduke" PG dinner 5-8 p.m. movie 6 p.m.	<b>20</b> FC Piloga 11 a.m. ALC Chicken Wellington, \$10.95 members, \$11.95 non members, 4-9 p.m.	<b>21</b> ALC dining room closed; to go Express and Pizza menu only
<b>22</b>	<b>23</b> FC Cycle Pump Class – Zesty cycling 11 a.m. FC Yoga 11 a.m. FC Intramural Bowling league begins, Tullahoma Lanes, 5 p.m., age 18 and over, \$12/\$13 per week, sign up 454-3735	<b>24</b> GC Unlimited golf \$10 every Tuesday & Thursday FC Cycle Pump Class – Endurance Cycling 11 a.m. FC Karate 3 p.m. FC Zumba 4:15 p.m.	<b>25</b> ALC Hap's Pizza, 11 a.m. – 1 p.m., also available Chef Salad or Surprise Special, call ahead 454-5555 FC Pilates 11 a.m.	<b>26</b> GC Unlimited golf \$10 every Tuesday & Thursday FC Cycle Pump Class – Yellow shirt cycling 11 a.m. FC Karate 3 p.m. FC Zumba 4:15 p.m. ALC Dinner & Movie Night "Prince of Persia: Sands of Time" PG-13 dinner 5-8 p.m. movie 6 p.m. FamY 4-H Meeting, 5-6 p.m.	<b>27</b> FC Piloga 11 a.m. ALC Prime Rib for Two, \$31.95 member, \$32.95 non members, 4-9 p.m.	<b>28</b> ODR Skydiving at Tullahoma Airport, 10 a.m., \$215, ages 16 and up, sign up by Aug. 19, 454-6084 ALC dining room closed; to go Express and Pizza menu only
<b>29</b>	<b>30</b> FC Cycle Pump Class – Zesty cycling 11 a.m. FC Yoga 11 a.m.	<b>31</b> GC Unlimited golf \$10 every Tuesday & Thursday FC Cycle Pump Class – Endurance Cycling 11 a.m. FC Karate 3 p.m. FC Zumba 4:15 p.m.	<b>New ALC hours</b> <b>Beginning Aug. 1:</b> <b>ITT: 10 a.m.- 3 p.m., Tuesday-Friday</b> <b>Thursday: dinner, 5-8 p.m.</b> <b>Friday: bar 3:30 -10 p.m., dinner 4-9 p.m.</b> <b>Saturday: bar 5-10 p.m., dinner 5-10 p.m.</b>			

## Hours of operation

**Arnold Lakeside Center** – Special function luncheons available. Call 454-3350 for arrangements. Catering/Management offices Tuesday-Friday 10 a.m.-3 p.m.; Lunch: limited menu Wednesdays, 11 a.m. – 1 p.m., call 454-5555 to place orders; Dinner: Arnold Express Menu or Hap's Pizza only Thursday 5-9 p.m., dinner or Arnold Express Menus and Hap's Pizza Friday and Saturday 5-9 p.m.; Main Bar Thursday 4:30-8:30 p.m., Friday and Saturday 4:30-9 p.m.; Social Hour Friday 4-6 p.m., Movie Night Thursday 6 p.m.  
**Family Member/Youth Programs** – Tuesday through Friday 10 a.m. – 6 p.m., Saturday 12-5 p.m., First Friday Movie Night 5-8 p.m.; Camp Adventure runs 1 June through 6 August 7:30 a.m. – 4:30 p.m. Monday through Friday, During Camp Adventure Open Rec is open Monday through Friday 4:30-6 p.m. only.  
**Outdoor Rec** – Main Office, Check In, Marina and Auto Shop Tuesday through Sunday 8 a.m. – 6 p.m., FamCamp Store Tuesday through Friday 3-5 p.m., Saturday and Sunday 8-11 a.m., 2-5 p.m, Lifeguards begin Memorial Day weekend GLC beach daily 10 a.m. – 6 p.m., **ALC** beach Saturday and Sunday 10 a.m. – 6 p.m.  
**Fitness Center** – Monday-Friday 5 a.m.-9 p.m.; Saturday 8 a.m.-4 p.m.; Sunday 12-5 p.m.  
**Arnold Golf Course** – Pro Shop and Driving Range daily 7 a.m.- dusk, Mulligan's Grill: daily 7 a.m. – 2 p.m.  
**Recycling** – Monday through Friday 7 a.m. – 4 p.m.  
**Wingo Inn** – Monday through Friday 7 a.m. – 6 p.m., Saturday and Sunday 8 a.m. – 4 p.m.  
**Barber Shop: by appointment** – Monday, Wednesday & Friday 8 a.m.-2p.m.; Thursday 8 a.m.-noon

## BX/Commissary customer eligibility

AEDC government civilian and AEDC contractor employees have access to the following limited items at the base exchange (BX): consumable items including toiletries and over-the-counter pharmaceuticals, food items such as candy, chips, little meal items, hot dogs and soft drinks. Alcohol and cigarettes are not included as consumable items. However, only active duty and retired uniformed services personnel and their dependents are eligible to use the base commissary next to the BX. The commissary hours of operation: Tuesday, Wednesday and Friday 9 a.m.-5:30 p.m., Thursday 9 a.m.-6:30 p.m. and Saturday 8 a.m.-4:30 p.m. The BX hours of operation: Tuesday through Friday 9 a.m.-5:30 p.m., and Saturday 8 a.m.-4:30 p.m. For more information contact Janie Warren, BX manager, at (931) 454-7153 or Jeff Lillard, Commissary manager, at (931) 454-3545.

### AAFES Dividends

Dividends generated from the Army and Air Force Exchange Service (AAFES) overall earnings are a major contributor to Services nonappropriated fund (NAF) construction and renovation projects as well as equipment purchases. Services would like to thank all AAFES customers for their support. Dividends received for June 2010 totaled \$6,448.53.

# SNACK BAR



at the GLC deck  
**10 am - 4 pm Saturday & Sunday**

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## Briefs from H1

### Arnold Lakeside Center 454-3350

will be given for first and second place. Ties will be broken by a trivia play-off.

The **Ultimate Fighting Championship** returns August 7 and fight fans will be treated to a world championship showdown between middleweight title holder and pound for pound king Anderson "The Spider" Silva and number one challenger Chael Sonnen. Silva has dominated the 185-pound division since 2006, but in Sonnen, he may be meeting the one man with the style and determination to unseat him from the throne. The ALC dinner special will be Feta and Onion New York Strip, \$13.95 for members and \$14.95 for non members served from 5-9 p.m. Fight Night specials are 25 cent wings and half priced pizzas from 8:30 p.m. until the fight is over.

The next sessions of **Arnold Lakeside Center Dance Classes** will begin Aug. 11. The session includes seven weeks of instruction on Wednesday nights ending with a dinner dance event Sept. 29. Instruction is scheduled 6:30-7:30 p.m. with supervised practice 7:30-8:30 p.m. Cost for the all inclusive class (seven weeks of instruction and dinner dance event) is \$58 per person for members and \$60 for non members. Full payment is required in advance to participate in the class and refunds or prorated fees are not applicable for missed classes. The class is taught by Denny Lennon and/or Amanda Robinson with Chattanooga Dance Sport. Call to sign up and remember to wear comfortable clothing and shoes.

**Wednesday Lunch** is available for dine in or carry out from 11 a.m. to 1 p.m. Call ahead to 454-5555 to place orders. No delivery available. For better service, you may call on any day and preorder. In addition to the Hap's Pizza menu, chef salad is available for \$4.50 which comes with ham, turkey, cheese and boiled eggs. Add grilled or fried chicken for \$2 more. Call to see what the Surprise Wednesday Special will be. The special could include items such as homemade chicken salad or lasagna.

**Movie nights** are every Thursday with a movie start time of 6 p.m. and dinner available from the Express or Pizza menus from 5-9 p.m. (5-8 p.m. beginning Aug. 1). The schedule for August is: **Aug. 5** – "Shrek Forever After," rated PG starring voices of Mike Myers, Eddie Murphy and Cameron Diaz. Rumpelstiltskin tricks a mid-life crisis burdened Shrek into allowing himself to be erased from existence and cast in a dark alternate timeline where Rumpel rules supreme. **Aug. 12** – "Fury Vengeance," rated PG starring Brendan Fraser and Brooke Shields. In the Oregon wilderness, a real estate developer's new housing subdivision faces a unique group of protesters, local woodland creatures who don't want

their homes disturbed. **Aug. 19** – "Marmaduke," rated PG starring voices of Owen Wilson and Emma Stone. A suburban family moves to a new neighborhood with their large yet lovable Great Dane, who has a tendency to wreak havoc in his own oblivious way. **Aug. 26** – "Prince of Persia: Sands of Time," rated PG-13 starring Jake Gyllenhaal and Gemma Arterton. A young fugitive prince and princess must stop a villain who unknowingly threatens to destroy the world with a special dagger that enables the magic sand inside to reverse time.

**Friday night dining room specials available from 5-9 p.m. (4-9 p.m. as of Aug. 1)** **Aug. 6** : Angel Chicken Pasta, \$9.95 members, \$10.95 non members. First Friday Jam night will be held 6-9 p.m. **Aug. 13**: Cook Your Own Steak, \$13.95 for members, \$14.95 for non members. **Aug. 20**: Chicken Wellington, \$10.95 members, \$11.95 non members. **Aug. 27**: Prime Rib for Two \$31.95 members, \$32.95 non members. Please call for reservations to ensure special is available. All specials and times are subject to change without notice. Please call ahead to ensure availability and openings.

**Saturday availability and specials:** **Aug. 7**: Feta and Onion New York Strip, \$13.95 members, \$14.95 non members. UFC Fight Night specials: 25 cents wings and half priced pizzas 8:30 p.m. until fight is over. **Aug. 14, 21 and 28**: dining room closed; to go Express and Pizza menu only. The dining room is open on Saturdays from 5-9 p.m. unless otherwise specified. Please call for reservations to ensure these specials are available. All specials and times are subject to change without notice. Please call ahead to ensure availability and openings.

The ALC is available for **special functions**. Call 454-3350 for details or to book a function.

### Family Member/Youth Programs (FamY) 454-3277

**Camp Adventure to end Aug. 6.** Camp Adventure is a day camp for children who have completed kindergarten through age 12. The camp is sponsored by Services and run by skilled professionals through the University of Northern Iowa. Activities are held Monday through Friday at the Youth Center (building 3055, previously known as Community Activities Center) from 7:30 a.m. to 4:30 p.m. Each week is set to a theme and activities are planned to coincide with that theme including field trips to local attractions. Morning and afternoon snacks and beverages will be provided. Parents must supply their child with a daily sack lunch to include beverage (no carbonated beverage of any kind). Ensure that lunches are clearly marked with child's name. Cold items can be accommodated in the central refrigerator; however, meals will not be able to be heated. Outdoor and swimming activities are

planned throughout the week (weather permitting). Each child should bring daily to camp an extra pair of clothing, swimsuit, towel and sunscreen, if needed. Closed toe shoes must be worn at all time during camp. Fill out the Camp Adventure Application and return it, along with the other required documentation and weekly fees, to the Youth Center no later than two weeks prior to start date. For questions or more information call 454-3277.

The remaining weekly themes are listed below:  
**Week 8: July 19-23 Super Sports Spectacular**  
**Week 9: July 26-30 Amazon Jungle Rumble**  
**Week 10: August 2-6 An Invitation to a World Celebration**

**Youth Movie Night** will be August 6 from 6-9 p.m. Ages 9 and up are invited to the Open Rec Center to watch a movie. There will be free popcorn and pizza by the slice for \$1. Juice and water will also be provided free of charge.

Join the Youth Center for **4-H Club meeting** Aug. 26 from 5-6 p.m. 4-H Club is designed for youth in the 4th grade through 18 years of age.

### Fitness Center 454-6440

**Hot 250 cycling program** continues the entire month of July. Participants are challenged to log 250 miles along the road using their own bike or one checked out from the Fitness Center. Incentives will be given to those who complete the 250 miles.

**Mountain Bike Challenge** is coming Aug. 18. The first twenty to complete a 10-mile trail ride will receive a prize. This challenge may be completed anytime during regular hours.

**Intramural Bowling League** is set to begin Aug. 23 at Tullahoma Lanes. Games are played every Monday (except Sept. 6 and Dec. 27) from 5-7 p.m. This is a men's and women's handicap league and continues through March 28, 2011, for ages 18 and over. Teams must consist of three players and no more than six. Cost is \$12-\$13 per week. Prizes will be awarded at the end of the season. Call 454-3735 to sign up for the league.

**Random Fitness Initiative** continues. Twice a month the Fitness Center staff will roam the base during lunch and award people for showing self initiative for working out on base at a location other than the Fitness Center. Those selected will receive a prize.

**Complete Group Class Schedule is as follows:** Cycle Pump classes are Monday, Tuesday and Thursday from 11 a.m. to noon. Each day has a different focus: Monday – Zesty cycling – an easy paced tempo ideal for beginners; Tuesday – Endurance cycling – a bit harder class with mountain climbs, in and out of saddle work and at times completed to a simulated tour ride; Thurs-

day – Yellow shirt cycling – challenging and intense preparing for outdoor circuits with a combination of hill climbs, speed drills, in and out of saddle work and tempo rides. These are a super way to get a good cardio workout without excessive impact on your joints. Yoga is on Monday from 11 a.m. to noon and provides strength and flexibility enhancement. Zumba class is Tuesday and Thursday from 4:15-5:15 p.m. Zumba is a fusion of music-dance themes featuring aerobic/fitness interval training with a combination of fast and slow rhythms that tone and sculpt the body. Pilates is a strength building and core class on Wednesdays from 11 a.m. to noon. Piloga is on Fridays from 11 a.m. to noon and also a strength building and core class. Cycling and Zumba classes are held in the Eagles Nest room upstairs. All other classes are held on the gym floor.

**Karate class** is held 3-5 p.m. Tuesdays and Thursdays on the main gym floor. This class is taught by volunteer Don Gardner of ATA. For more information on these classes contact Don at 454-3497.

The Fitness Center staff welcomes any individual request for assistance in developing a specialized fitness plan to help complete your fitness and health objectives. Call for assessments, instruction and fitness/workout plans.

### Outdoor Rec (ODR) 454-6084

**Paintball** is suspended until September due to high heat.

**Upcoming Events:**  
Ocoee Rafting Trip, Sept. 18, 6:30 a.m.-6 p.m., age 12 and up, \$65  
Blue Man Group, Tennessee Performing Arts Center, Nov. 20, 5 p.m. – 12:30 a.m., age 10 and up, \$85

**Reservations for pavilion usage** by authorized personnel must be made through the Outdoor Recreation Program. This includes the two pavilions at Gossick Leadership Center Beach, the Arnold Lakeside Beach and

two in the Crockett Cove area. Rental fee is \$25 per day and a \$50 refundable cleaning deposit is required. Reservations may be made up to 30 days in advance at Outdoor Rec (building 3055, previously known as Community Activities Center) or by calling 454-6084.

**Reservation Policy:** FamCamp and Crockett Cove reservations may be made 45 days in advance for active duty military and reserve components and 30 days in advance for all other eligible patrons. Marina reservations may be made 15 days in advance for active duty and reserve components and 10 days for all other eligible patrons. Reservations are made through Outdoor Rec, 454-6084.

**The Armed Forces Vacation Club (AFVC)** is a "Space Available" program that offers Department of Defense affiliated personnel the opportunity to take affordable condominium vacations at resorts around the world for only \$329 per unit per week. All AEDC personnel are eligible to use this program. The AFVC makes this possible by utilizing "excess" inventory at condominium timeshare resorts. "Excess" inventory consists of condominium units that resort owners do not use, which generally means off-season or short-notice travel. If you enjoy off-season activities in popular locations without the hassle of high-season prices, crowds and lines or if you can travel on 10 days notice or less, the AFVC offers an incredible vacation value.

The current 7-day, Space-A, condo rental offer is a great value, but some people may like other vacation choices and support as well – those that can't travel off-season or on short notice. To help meet this need, they also offer a separate travel club that provides 24-hour service for discounted airline, rental cars and hotel reservation services, as well as discounted cruise and tour packages. Book airline tickets, rental cars and hotel reservations and getting a 5 percent cash

rebate after the trip.

To make a reservation, travelers need their AFVC Account Number (7033-xxxxx), the toll-free number (1-800-724-9988), a credit card number, an idea of when and where they want to go and the desire to get away, relax and have fun! If this is your first call, tell them you are a "first-time AFVC caller". The vacation guide will take your name, address, telephone number, AFVC Installation Number (Arnold is #327) and assist with making your reservation. At the end of the call, even if you do not complete a reservation, the guide will assign you an account number for future use. Your Installation Number is very important. 704th Services will receive a commission for your confirmed reservation to put back into programs offered for you locally.

**The Auto Shop** is a great place for do-it-yourself minor work and repairs. There is one stall available with a lift, air compressor, parts washer and a variety of tools. There is a fee of \$2 per hour. Staff can repair, mount, balance and rotate tires, by appointment. A repair using a plug is \$5 or a mushroom patch is \$10. The charge for mounting is \$3 per tire and for balancing is \$2 per tire. Tire rotation includes balancing for four tires and is \$16 for cars and vans and \$20 for trucks.

### Wingo Inn 454-3051

**Reservations for Wingo Inn** can be made 120 days in advance. Room rates start at \$39 per night. Please call 454-3051 for reservations.

### Gossick Leadership Center 454-3024

The GLC has a **snack bar** on the back deck open Saturday and Sunday from 10 a.m. to 4 p.m. Menu includes hot dogs, nachos, chips, crackers, candy bars, assorted ice cream treats, sodas, water and beer. Be prepared to show identification for beer purchases.

## Golden Baton celebrates 25th year



The 25th annual Golden Baton Relay was another success event. Congratulations to The Xtra-Ordinary Moon Pies as the fastest team consisting of Colonel Eugene Mittuch, Captain Alex Hausman, 1st Lieutenant Marc Honrath and Joel Fortner. The best costume went to We Got BPeed On who dressed as BP workers. The best team name went to The Fugazed Dingle-Dobbers. Even though the combined total age rule of 120 was reinstated this year, the first place team turned in a time that was 44 seconds quicker than last year's first place team who did not meet the age requirement. 2010 team times are as follows: Xtra-Ordinary Moon Pies – 35:02, Men Of Constant Sorrow – 38:42, OFs Never Die – 40:04, 718th – 43:10, Doing It Justice – 43:56, Medical Maintainers – 45:28, Team EDAPS – 47:29, Fugazed Dingle-Dobbers – 48:49, We Got BPeed On – 49:09, Auditor & Herb – 54:57.

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