AFMC vice commander visits AEDC
Lt. Gen. Janet C. Wolfenbarger, AFMC vice commander, made her first visit to AEDC June 11.
At left, AFMC Commander Col. Michael Panarisi shows off samples of custom-fabricated work done in the Model and Machine Shop to General Wolfenbarger. Below, 1st Lt. Tony Brunson explains AEDC’s engine test capabilities.

The general has held several positions in the F-22 System Program Office at Wright-Patterson AFB, served as the F-22 Lead Program Element Monitor at the Pentagon and was the B-2 Systems Program Director for the Aeronautical Systems Center, Wright-Patterson AFB. She has also commanded the ASC’s C-17 System Group, Mobility System Wing and was Director of the Air Force Acquisition Center of Excellence.

Prior to her current assignment, General Wolfenbarger was the Director of the Headquarters AFMC intelligence and Requirements Directorate, Wright-Patterson AFB, where she enabled AFMC to deliver war-winning capabilities through life-cycle capability planning, technology development and transition, intelligence integration and acquisition support.

NFAC UH-60 air loads test sets precedents
By Karen Jenny

“Smooth” and “quiet” are two words not usually associated with a helicopter ride, but NASA is working to change that.
A full-size UH-60A Blackhawk helicopter rotor was the subject of tests at the agency’s Subsonic Rotary Wing Project Center in Moffett Field, Calif.
Personnel check out the Large Rotor Test Apparatus in the 80-by-120-foot wind tunnel at AEDC.

The test included routine flight conditions for the rotor but also explored what happens if the rotor system is operated above and beyond its normal flight conditions. This included testing at very high speed and at conditions designed to simulate a much-heavier helicopter, and validated data that will help NASA design helicopters that can fly faster speeds and carry more payload.
To obtain the data, NASA designed measurement techniques for the rotor.

The test was made at the National Full-Scale Aerodynamics Facility at NASA’s Ames Research Center in Moffett Field, Calif. (Photo by Eduardo Solis)

The purpose of the decal program is to facilitate vehicle entry to sister-service installations, said Dan Hawkins, AFA installation security supervisor. “For active duty and DoD civilians, the expiration date of the decals will coincide with the expiration date of their Common Access Card (CAC),” Hawkins said. “For contractors, the decals will expire one year after the date the decal was issued.”

Barring any last-minute changes, decal issue will begin July 1. Decals will be issued at the visitor center only on Tuesdays and Thursdays; appointments are not necessary. Anyone wishing to register a vehicle should bring a valid driver’s license and vehicle registration.

There have been some cosmetic changes to the decals since they were last used during the Air Force-wide.
The base-specific decals have been replaced with “U.S. Air Force” decals. The previous airmen (red) and NCO (gold) decals have been replaced with a single red decal to depict all enlisted ranks. Also required will now be issued a black “U” decal (regardless of rank) to depict a decal that never expires.

“The sole purpose is to facilitate vehicle entry to sister-service installations that still require their use,” Hawkins said. “Please keep in mind that anything you add to your vehicle that highlights your affiliation with DoD could make you a potential target. It is still very important to remove decals on vehicles before selling or transferring them.”

The test included routine flight conditions for the rotor but also explored what happens if the rotor system is operated above and beyond its normal flight conditions. This included testing at very high speed and at conditions designed to simulate a much-heavier helicopter, and validated data that will help NASA design helicopters that can fly faster speeds and carry more payload.

To obtain the data, NASA designed measurement techniques for the rotor.

The test included routine flight conditions for the rotor but also explored what happens if the rotor system is operated above and beyond its normal flight conditions. This included testing at very high speed and at conditions designed to simulate a much-heavier helicopter, and validated data that will help NASA design helicopters that can fly faster speeds and carry more payload.

To obtain the data, NASA designed measurement techniques for the rotor.

The test included routine flight conditions for the rotor but also explored what happens if the rotor system is operated above and beyond its normal flight conditions. This included testing at very high speed and at conditions designed to simulate a much-heavier helicopter, and validated data that will help NASA design helicopters that can fly faster speeds and carry more payload.

To obtain the data, NASA designed measurement techniques for the rotor.
Feeding camels is tiresome, yet an important task

By Tech. Sgt. Kevin Walsh
MEETING PROVINCIAL GOVERNMENT SPECIFICATIONS

When my 3-year-old daughter asked me why I was going to desert in 2004, I immediately started thinking about how I could help feed the camels, and that was enough to sustain his interest for a minute. My 7- and 8-year-old daughters, who were present, also expressed interest in feeding the camels. Despite their doubt and their nagging, I told them that I would try my best to help by supporting ground and air force operations and find out how often a departmental mentor in the field could satisfy their need to feed the camels, and that was enough to sustain their interest for a minute. Overall, after a 100 days in the desert, my daughter wasmission in Okinawa, Japan, so a change was made. My 3-year-old daughter, who had been told that she would have to feed the camels, was now told that she would have to feed the Afghans. A few weeks after my deployment, when I called my daughter to explain to her what had happened, she said, “Daddy, I’m off to feed the camels.”

After a few years and after my return to the states, I was able to go on an expeditionary mission in Afghanistan, and that was enough to sustain her interest for a minute. Of course, after my deployment, she was able to see the camels in the desert, and that was enough to sustain her interest for a minute. Nonetheless, I’m coming to the conclusion that the call when and where I have shown up has been my daughter’s response to the call when and where I have shown up. I have criticized her for that same call, and she has given up for the same reason.

Still, this past weekend, she showed me that she could do a job if I was willing to answer the call when and where she has shown up. My 7- and 8-year-olds were willing to answer the call when and where they have shown up, and in the future, I will have to answer the call when and where they have shown up. Will you tell me they are getting tired, no matter what you say to them? I have explained this to my daughter, and she has given up for the same reason. The main idea is to feed the future of a child who has just been used as a human shield, or to feed the camels that will be used as a human shield. I can’t say that I’m not going to feed the camels. Nonetheless, I’m coming to the conclusion that I have to do something to help people who can do what I can to help. Naysayers will tell you that this is not the way to go for more than a few years. Those from Afghanistan are different, and that is why I have to answer the call when and where they have shown up.

Action Line
Team AEDC

Staff are free and open communications with our Team AEDC representatives, and that’s why we have the Action Line available. People can use the Action Line to communicate with Team AEDC, giving them an opportunity to correct complaints or get other issues off their chests. They can access the Action Line by calling 540-672-3000, and leaving the Action Line at the base cafeterias and by calling 454-8660. When you call, they will ask you about the best and fastest way to get things resolved is by using your chain of command or by contacting the team by phone, email, or physically. Should I simply say that we’re going to do what we can to help them? They’ll tell you they’re getting tired. Regardless of whether or not they should be involved in a war that would be enough for them personally to start shipping in. The bottom line is that these people need us. I don’t know if my children will ever understand the choices I love to, or those who don’t. I don’t know whether or not they will ever understand the sacrifices I continue to make in trying to help the people who are the most in need. I wonder if they’ve ever thought about the people who are the most in need. I wonder if they’ve ever thought about the people who are the most in need. What do I do in a situation like this? Do I simply say that they’re getting tired? They don’t do it. I’ve heard them say that they’re getting excited. I told them that they’re going to get excited. They didn’t talk to me. Nonetheless, I’m coming to the conclusion that the call when and where I have shown up has been my daughter’s response to the call when and where I have shown up. I have criticized her for that same call, and she has given up for the same reason. Nonetheless, I’m coming to the conclusion that I must, once again, answer the call when and where she has shown up. If they had maybe, they could have forced them to live in a foreign land, or they could have forced them to personally start shipping in. But they had maybe, they could have forced them to personally start shipping in. If they had maybe, they could have forced them to personally start shipping in. Nonetheless, I’m coming to the conclusion that the call when and where I have shown up has been my daughter’s response to the call when and where I have shown up. I have criticized her for that same call, and she has given up for the same reason.

I wonder if they’re ever going to start shipping in. I wonder if they’re ever going to start shipping in. I wonder if they’re ever going to start shipping in. What do I do in a situation like this? I wonder how do I muster a proper explanation to them? Should I simply say that they’re going to get excited? They don’t do it. I’ve heard them say that they’re going to get excited. I told them that they’re going to get excited. They didn’t talk to me. Nonetheless, I’m coming to the conclusion that the call when and where I have shown up has been my daughter’s response to the call when and where I have shown up. I have criticized her for that same call, and she has given up for the same reason.

The highlight of the call when and where I have shown up has been my daughter’s response to the call when and where I have shown up. I have criticized her for that same call, and she has given up for the same reason.
New committee involves crafts in safety initiative

By Shawn Jacobs

OSHR Public Affairs

Worker safety has taken a step forward at AEDC with the recent formation of the Organizational Safety and Health Representative (OSHR) Committee. The panel of 30 craftspeople comes from all areas of AEDC’s plant facilities.

Catherine Plankett, director of AEDC’s Safety and Health Group, said the intent of the new committee is to facilitate safety communication in the craft areas, help frontline supervisors and management with the “programmatic element implanting the craft safety program” and assist in the identification and remediation of unsafe conditions in the workplace.

“They’re the ones day in, day out who see the hazards; they see the things people are tripping over,” Plankett said. “It’s an extra set of eyes for us to see those existing things, as well as a focal point for the other craft membership to bring those things to us and get them resolved.”

She said she is excited about getting the committee set up because it provides a conduit between the Safety and Health Group and the craft membership.

In addition to workers from across the geographical campus and facilities, it also has representatives from all of the various crafts. The committee was formed after craft workers identified more involvement in the safety program as a way to help improve their workplace.

“They were feeling disconnected from the safety program, and that was the last thing that we had,” said Catherine Plankett. “So we asked for it, then we’ll do everything that we can to get their participation and their engagement in the safety program, so that they’re the ones who make it (safety) happen.”

According to Russ Roosa, the Safety and Health Group’s interim safety manager, craft employees will help drive the implementation of some of the facility programs and help with hazard abatement by identifying unsafe conditions, communicating back if the conditions developed.

The group also has input into the hazard abatement log to assist in the prioritization of items.

“Our position in the safety department is that we’re a group and we simply facilitate the group,” he said. “We’re not in charge of it, we want to really empower them to bring safety concerns not only to our own group.”

Plankett said, prior to the committee’s formation, because the items were not being communicated as well as they should, or really weren’t getting to the floor.

“We see this as one avenue to help bridge that communication gap and get the hazards that are causing people to get hurt,” she said. Participation by the crafts in the new committee has been overwhelming according to Roosa.

There were people who were calling saying, “Hey, I’d really like to be on this committee,” she said. “They really like to join in on this ‘cause really, really, really.”

They feel like they’ve got an active voice in the safety program.

Roosa, the Safety and Health Group’s interim safety manager, craft employees will help drive the implementation of some of the facility programs and help with hazard abatement by identifying unsafe conditions, communicating back if the conditions developed.

“The various crafts at AEDC are well represented on the committee and that will give a great deal of input to management and the safety department on our individual needs and concerns to make our jobs and the workplace safer overall,” Roosa said. “It is great to have a database of people where we can actually track the progress of our suggestions and safety concerns.”

Plankett said the goal for the committee is to meet quarterly.

She said a subcommittee of the committee has already identified and resolved at least one safety issue.

Chief Trull graduates from police academy

By Shawn Jacobs

Chief Richard Trull of the Arnold Air Force Base Police Department (APD) graduated from the Tennessee Law Enforcement Training Academy May 21.

Trull received state- required basic training in the academy and is now certified as a Police Officers Standards and Training Commission (TTPS) Commissioned Officer.

Trull’s previous training was through the Air Force Security Forces, but the POST certification is required training for police across the state and will make it easier for him to present cases in court.

“With this certification, we gain instant credibility and recognition in the court systems without having to establish and ask for approval as a military/le’gislative training,” Trull said. “It saves time and money for our officers as well as the court system.”

He said the course covered all aspects of law, practical firearm skills, emergency vehicle skills, drug vehicle alcohol identification and testing techniques, management and many other topics.

“The most enjoyable part of the training for you is a huge milestone in the modernization of APD. Changes in our security programs such as integrated defense and joint anti-terrorism

New bio-fuel delivered to AEDC

Above, Sam McKinlay, AFA fuel farm lead machinist, offloads more than 20,000 gallons of camelina bio-fuel for this year’s schedule of aircraft engine testing to evaluate the performance with the aviation fuel for eventual field certification. Below, Sam Gilbert, an AFA fuel farm machinist with the utilities branch, prepares a fuel-water mixture for the fuel system icing inhibitor (FSII) analysis. He also checks the concentration of FSII, this case Diethylamine (Glycol Monomethyl Ether) either before checking the footprint and combusti- tion level of the camelina bio-fuel. (Photos by Rick Goodfriend)

New bio-fuel delivered to AEDC

From left to right, Russ Roosa, ATA Safety and Health Group’s interim safety manager, Catherine Plankett, director of ATA’s Safety and Health Group, Mitch Kendrick, OSHR committee chairman, and Brad Carroll, co-chairman, gathered recently to make plans for the next meeting of the newly formed OSHR committee. (Photo by Rick Goodfriend)
Arnold ramps up UXO response on former Camp Forrest land

By Shewn Jacobs

The Air Force has prioritized MRSs according to environmental, health and safety considerations, as well as current and future planned resource use and site attributes and is dedicated to protecting human health and the environment by making these sites safe for reuse, according to Timmons.

The mission of the Air Force MMRP is to take actions to address unexploded ordnances discarded military munitions (MMMs), and munitions constituents (MC) on munitions response sites (MRSs). The MMRP includes former ranges and other sites used for military training, weapons systems testing and munitions treatment.

The Air Force has prioritized MRSs according to environmental, health and safety considerations, as well as current and future planned resource use and site attributes and is dedicated to protecting human health and the environment by making these sites safe for reuse, according to Timmons.

The mission of the Air Force MMRP is to take actions to address unexploded ordnances discarded military munitions (MMMs), and munitions constituents (MC) on munitions response sites (MRSs). The MMRP includes former ranges and other sites used for military training, weapons systems testing and munitions treatment.

The Air Force has prioritized MRSs according to environmental, health and safety considerations, as well as current and future planned resource use and site attributes and is dedicated to protecting human health and the environment by making these sites safe for reuse, according to Timmons.

“Additionally, we had Artillery Impact Area North, near Sinking Pond, and we had Old Impact Area South, east of UTSTR and south of Wattenberg Highway, where we’re currently performing the surface clearance,” Timmons said. “The Camp Forrest Maneuver Area encompassed these ranges.”

For the current surface clearance in the Old Impact Area South, a 518-acre area was divided into one-acre grids.

More than 160 grids have been cleared to date, with 25 MEC (munitions and explosives of concern) items found and more than 2,800 pounds of munition debris collected.

A controlled burn prior to the survey aided search teams by clearing the layer of leaves and other natural debris from the ground.

The final step in the current project will be to investigate craters at this MRS, as well as the Artillery Impact Area North, which were identified from the WAA aerial survey.

The team documents every UXO it finds in a similar manner before blowing it in place.

This 2.35 inch rocket was discovered a few years ago in Camp Forrest near a Hunting Check-In Station. (Photo provided)

This 2.36 inch rocket was fired from a bazooka rocket launcher. The UXO surface clearance has been finished in gold until Dec. 24. This rider at the bottom of the board illustrates its size. The team documents every UXO it finds in a similar manner before blowing it in place. (Photo provided)

The F-16 on display at Gate 2 will be dedicated to Maj. Gen. Winfield Scott Harpe June 26. General Harpe is the highest ranking Airman ever to die in an F-16 crash.

The F-16 on display at Gate 2 will be dedicated to Maj. Gen. Winfield Scott Harpe June 26. General Harpe is the highest ranking Airman ever to die in an F-16 crash.

November 1998, while on a routine training mission.

Remember and donations from the Air Force Sergeant’s Association (AFSA), Top III, Mike Niedermayer’s Gifts and Brother’s Inremember a fallen hero and honor her family,” Lieutenant Lackey said. “It is important to keep what freedom costs in perspective from time to time and dedications are a perfect way to do that.”

Capt. Thomas Finley will serve as the master of ceremonies, with Col. Emmit McGinley the presiding officer.

May. Gen. Harpe was commander of the 10th Air Force, U.S. Air Forces in Europe, with headquarters at Torrejón Air Base, Spain. He died Dec. 5, 1988, when the F-16 he was piloting crashed in Madrid, Spain, while on a routine training mission.

Recycle.
AEDC’s new communication trailer to be a part of national demonstration at Old Stone Fort

AEDC's new communication trailer to be at the Field Radio Society at Old Stone Fort June 26-27. (Photo by Rick Goodfriend)

AEDC’s communication trailer will get its first chance to prove its operability as a part of next weekend’s field day sponsored by members of the Middle Tennessee Amateur Radio Society. The communication trailer will base emergency management communications from the incident location to the base Emergency Operation Center.

The communications trailer will support on-scene fire and police, as well as the on-scene commanders. Using Wi-Fi access via satellite connection provides a Virtual Private Network (VPN) connection back to the base which provides the capability to extend the base network access to the first responders.

In the event a mutual aid request is required outside AEDC, the communication trailer is equipped with contingency repeaters allowing fire and police to communicate beyond the normal range of AEDC repeater coverage.

Likewise, local area ham radio operators will be showing off their emergency capabilities and demonstrating how amateur radio works. Activities start at 8 a.m. June 26 and continue through 1 p.m. June 27.

The public is invited to come and see ham radio’s new capabilities and learn how they get their own Federal Communications Commission (FCC) radio license before the next disaster strikes.

This annual event called “field day” is the climax of the “Amateur Radio Week” sponsored by the Amateur Radio Relay League, the national association for amateur radio.

“Over the past year, the news has been full of reports of ham radio operators providing critical communications during unexpected emergencies in towns across America including the California wildfires, winter storms, tornados, floods and other events worldwide,” said Michael Glinton, director of the 704th Communications Squadron. “During Hurricane Katrina, amateur radio – often called ‘ham radio’ – was the only way people could communicate, and hundreds of volunteer ‘hams’ traveled south to save lives and property. Amateur radio’s people are often the first to provide rescuers with critical information and communications.”

During the weekend events, the public will have a chance to meet and talk with local hams, Tulahoma and Winchester ham radio operators and see for themselves what the Amateur Radio Service is about. Showing the newest digital and satellite capabilities, voice communications and even historical Morse code, hams from across the United States will be holding public demonstrations of emergency communications abilities.

Using only emergency power, ham operators will construct emergency stations in parks, shopping malls, schools and backyards around the country. The slogan, “When all else fails, ham radio works!” is more than just words as they prove they can send messages in many forms without the use of phone systems, Internet or any other infrastructure that can be compromised in a crisis,” Glinton said.

“More than 30,000 amateur radio operators across the country participated in last year’s event.” “We hope that people will come and see for themselves, this is not your grandfather’s radio anymore,” said Allen Potts, W1AGP, of the ARRL. “The communications that ham radio people can quickly create have saved many lives when other systems failed or were overloaded. And besides that – it’s fun.”

There are more than 650,000 amateur radio licensees in the United States, and more than 2.5 million around the world. Through the ARRL’s Amateur Radio Emergency Services program, ham volunteers provide emergency communications for thousands of state and local emergency response agencies, all for free.

To learn more about the Middle Tennessee Amateur Radio Society, go to www.arrl.org/qsl.net/mtars. For more about amateur radio, go to www.arrl.org. Recycle.

Receive certifications

AEDC and the Middle Tennessee chapter of the Society for Maintenance and Reliability Professionals (SMRP) held a special luncheon meeting to recognize 10 new Certified Maintenance and Reliability Professionals (CRMP). AEDC has the largest number of CRMP at one location. Retired Army Major Ricky Smith, one of the industry’s recognized reliability professionals, was the keynote speaker. Receiving their certification are front row, from left to right, Taylor McCamy, Raleigh Hatfield, Marcheta Darnell, guest speaker Ricky Smith and Louis Vancore; second row David Robin, Frank Wonder, Alexander Pack, John Jenkins and Jeff Henderson. Not pictured: Mike Maraes. (Photo by Rick Goodfriend)
**It's a stretch: Simple technique prevents a major injury**

By Col. Michael Panarisi

If you've been following along over the last year, you are well on your way toward getting the most out of your workouts, so it's time to look at a little maintenance action to make sure you can sustain your efforts over the long haul. One of the most beneficial and unfortunately, often overlooked fitness components is flexibility, and flexibility is all about stretching. I'm not talking about a few bounces before a run. I'm talking about a regimen as disciplined as the time you put into your workout.

Skip this and you'll put sooner or later, erasing all the gains you worked hard for. I know the temptation all too well … you focus all your time on workouts, so it's time to look at a little maintenance work. The workouts actually reduce your flexibility over time. As you challenge your muscles, tendons and ligaments, you'll likely lose it from time to time, and the healed tissue will be "tight." A stretching regimen is the only cure, and the only safe way to prevent a minor misstep from becoming a major surgery.

Stretching requires just as much planning and attention as your workout and, in fact, can't be a separate part. Your routine will be much more effective if you integrate stretches as an element of your workout, rather than seeing it as a "necessary evil" before and after. And you need both … before and after. Here's why. Stretching serves two primary purposes … injury prevention and range of motion.

The workouts actually reduce your flexibility over time. As you challenge your muscles, tendons and ligaments, you'll likely lose it from time to time, and the healed tissue will be "tight." A stretching regimen is the only cure, and the only safe way to prevent a minor misstep from becoming a major surgery. Stretching requires just as much planning and attention as your workout and, in fact, can't be a separate part. Your routine will be much more effective if you integrate stretches as an element of your workout, rather than seeing it as a "necessary evil" before and after. And you need both … before and after. Here's why. Stretching serves two primary purposes … injury prevention and range of motion.

But the techniques and prevention and range of motion have to stretch a "tired muscle," making the post-workout effort real money maker. I've seen some pretty spooky routines over the years, and all I can say is this is one area where you absolutely need the advice of a trainer. You can truly waste your time if you don't perfect your technique. So many "basic stretches" violate "rule 41." … don't force your body to fight the stretch. The classic example of a "bad stretch" is the classic "bend over and touch your toes." This move targets your hamstrings, and most actually feel a stretch with it. It's easy to convince yourself that you are making progress too … you can measure how close you get to the ground or for the real gumbies out there, how much of your hair hits the ground. But think about it this way. As you bend over, what muscle group engages to prevent you from "face planting"? That's right, your hamstrings!

But you just can't stretch an engaged group. Effective stretches work on a relaxed muscle. For our hamstring example, the hamstrings are relaxed if you lie on your back and put your leg up towards a vertical position. This "passive" technique is exactly how the pros do it. Rule 63 … never stretch a "cold muscle." That's where injuries happen, and these are the easiest to prevent. That's why I really like warming up on an elliptical trainer. Just 10 minutes (five forward, five in reverse) works almost all your body parts with minimal impact. Then you are ready for a stretch to assess your condition and recovery prior to a workout.

So, for the next few editions, |I’ll offer some moves targeting individual groups and techniques to avoid injury along the way. But in the meantime, go see our experts at the fitness center and get some hands on help. The minutes you spend there will literally add years to your body’s ability to keep you moving!
The Air Force has embraced energy efficiency and reduced costs by funding numerous projects at its bases throughout the world. Vickie Davis, Air Force energy manager at AEDC, said an ongoing steam insulation project is an excellent example of how the Air Force and AEDC have made energy savings a top priority and an ongoing effort. She added that the project was paid for with Air Force Smart Operations for the 21st Century (AFSO21) funds.

AFSO21 is an Air Force initiative that challenges people to look at ways to accomplish the Air Force mission more effectively and efficiently while maintaining quality and safety standards.

"Some people in the past have said, 'What's the big deal about saving a few thousand dollars here or there when you compare it to the millions spent on energy at AEDC,'" but it does make a difference and reduction is always a good thing, for the economy, the environment, our customers and the country," said Steve Pearson, deputy general manager for ATA. "Even turning the lights off when you leave your office or other work area is an important step in the right direction." Pearson said on a larger scale, inefficiencies with steam generation, transport and use on base are a costly challenge that must be addressed.

AEDC, contacted the Air Force Civil Engineering Support Agency in Tyndall AFB, Fla., and coordinated with them to develop a project to repair or replace the existing steam line insulation. AFA is providing the technical oversight of the project as part of its contract with AEDC, but it is working independently of SEI Group Inc., the company contracted to do the work.

"Because of the extensive testing conducted at the Arnold Engineering Development Center and the large quantity of power needed to conduct that testing, there are several opportunities at AEDC to support the Air Force's energy savings initiatives," said Brian Osterndorf, SEI Group Inc., program manager for the project. "One of our current projects is the repair or replacement of insulation on the lines that deliver steam to the testing facilities. Steam temperatures reach close to 400 degrees Fahrenheit, and missing or damaged insulation along the miles of steam lines results in significant energy, and dollar, loss."

Osterndorf said the contractors performed an initial survey of the entire above ground steam line system and the lines that run inside the dozens of steam pits throughout the base. "In addition to noting damaged or missing insulation, they measured the amount of heat lost in the system," he said. "Almost $400,000 had been 'leaking' from the steam lines each year, so the cost to repair about a mile of the damaged or missing insulation are recovered in less than three years."

The steam lines will be covered with foam glass insulation, encased in an aluminum jacket.

"At points where maintenance personnel need to access gauges, valves, and other devices, the contractor will apply a fitted insulation jacket, fastened by Velcro, for easy removal and replacement," Osterndorf explained. The project is tentatively scheduled to finish by the end of the year.

"Some people in the past have said, 'What's the big deal about saving a few thousand dollars here or there when you leave your office or other work area is an important step in the right direction.'" Pearson said. "Even turning the lights off when you leave your office or other work area is an important step in the right direction." Pearson said on a larger scale, inefficiencies with steam generation, transport and use on base are a costly challenge that must be addressed.
led to both cost and schedule growth. Bates’ leadership Construction Program (MCP) at the time of its construc
dependably almost 30 years later. The
control valve and electrical systems that make up ASTF.
key spokesman with all major equipment suppliers in
with the most senior Pentagon officials. He was also the
In addition to his technical lead
"signed to the Test Operations Division where he assessed
from architect engineer source
as technical director from day one
"became a baseline from which numerous cost reduction
and baselined the cost of operating all AEDC wind tun
cluding Titan II, Minuteman,
served as a test engineer for the
testing at AEDC.
the new wind tunnels could
be the third Lifetime Achieve
ment Fellow recognizes individu
Dr. Ronald Sega, former as
military technology development
Engr. Dr. William Bates is a
"was provided and the facility was
of gas turbine engine modeling and
ing technical and project manage
and safety of the equipment.
In 1964, Bates expanded his
American Institute of Aeronautics and
was assigned to the Foreign
put into place. The
of gas turbine engine modeling and
of gas turbine engine modeling and
under his leadership, the task was
commander asked Bates to delay his retirement and lead

"was the Woodward Professor of
the nation’s solid rocket altitude
"the Ballistic Missile Office.
Dr. Milt Davis Jr.
with adaptation and application of increasingly complex
mental, temperature and unsteady flow
"Shell Rock rocket engine system
ded the Turbine Engine Analysis Compressor Code
"American Rocket Test cell was
developed and is the Woodward Professor of
Dr. Milt Davis Jr.
AEDC will induc two new AEDC Fellows and one
Lifetime Achievement Fellow at June 23 as the annu
the new AEDC Fellows are Dr. Milt Davis Jr. and Dr.
field. They are both engineers and leaders who have
since the program began in 1989. AEDC’s Lifetime Achieve
| 1989 | 1991 | 1992 |
| Bates, Davis and Powell join ranks of AEDC Fellows |

Dr. Davis has provided outstanding technical project management contributions to development of gas-turbine model-based system simulation capabilities at AEDC applied via Integrated Test and Evaluation (IT&E) concepts to both base and flight test programs of the Air Force.

His work demonstrated the key elements of effective IT&E methodology for resolving inlet flow and propulsion system integration issues on new or upgraded weapons systems. This capability was added to the existing total pressure, temperature and unsteady flow measurement technologies currently in place.

Dr. Davis and his team tackled both the architectural and elementational experimental and numerical tool development and integration and was assigned to the Foreign

In order to understand and accept the national importance of these programs’ acquisition.

Dr. Davis’ latest technical effort has been the development of a 3-D compression system numerical simulation, the U.S. Air Force JSF Joint Program Office at Wright-

They both have developed a strong interest in the future of gas turbine engine test capability and the role AEDC will play in advancing this field.

Bates’ leadership and the technological capability of the facility in support of the Air Force’s strategic test program.

This program was developed in 1989 and is the Woodward Professor of

In 1964, Bates expanded his
After his Foreign Technology assignment, he was assigned to the Foreign Technology Division. He was
and the department of

of AEDC. His 33 years of AEDC service was built upon his outstanding career.

their unique turbine engine test capa
of AEDC. Its 33 years of AEDC service was built upon
his outstanding career.

AEDC's lifetime achievement Fellow recognizes individu
Dr. Davis has devoted his entire 43-year career to the advancement of aerospace ground testing and sustainment. His service at AEDC was built upon 30 years of pioneering wind tunnel testing at National Advisory Committee for Aeronautics at Langley Field. Bates led the testing for any key concepts of vertical take-off and hovering flight.

In 1984, Bates was named the van Kármán Gas Dynamics facility technical director. His work validated that the new wind tunnels could be the third Lifetime Achievement Fellow recognizes individual contributions to the technical advancement of aerospace ground testing and sustainment. The Lifetime Achievement Fellow program was established in 1989, and is the Woodward Professor of
bled into the primary gas stream. Dr. Powell's pioneering technology that allowed cooling through micro slots that rocket motor was cooled by a stacked, etched-platelet sure liquid rocket engine serving as a gas generator. This known as APTU/SAM, was essentially a very high pres thermophysical developments and modeling capabilities effects on test data with respect to simulation fidelity. His properties of test media and the assessment of combustion processes, modeling of thermodynamic and transport contributions include original modeling of combustion and operation of hypersonic test facilities. Dr. Powell's he has accomplished extensive original research and ground test facilities that simulate those flight conditions. Dr. Powell is one of the world’s foremost experts in the field of thermophysics. During his career at AEDC, he has accomplished extensive original research and engineering development leading to the modeling, design and operation of hypersonic test facilities. Dr. Powell's contributions include original modeling of combustion processes, modeling of thermodynamic and transport properties of test media and the assessment of combustion effects on test data with respect to simulation fidelity. His thermophysical developments and modeling capabilities are critical components of AEDC's hypersonic, atmosphere, and aerodynamic test processes.

Dr. Powell has been instrumental in the development of new hypersonic test capabilities, including a trans run-cooled combustion test facility for the nationally important area of missile defense testing. This facility, known as AFAM-SAM, was essentially a high-pres sure liquid rocket engine serving as a gas generator. This rocket motor was cooled by a stacked, etched-platelet technology that allowed cooling through micro slots that bleed into the primary gas stream. Dr. Powell's pioneering work was directly responsible for a decision to pursue development of this original idea into a proof-of-concept. Dr. Powell performed an engineering analysis that provided the basis for the successful advocacy for funding to develop the Mach 7.0 True Temperature test facility that the VKF Tunnel. At an AIAA conference he recognized that a relatively new and exotic-semiconductor material could serve as an electric heater element in a wind tunnel and that it would perform at useful temperature significantly above the more conventional electric heating elements currently used in wind tunnels. He accomplished the initial feasibility analysis and directed others in developing the heat-transfer and facility performance models that produced a confirmation of feasibility. These accomplishments led to the establishment of a project to investigate the concept both experimentally and computationally. During the first two years of the project, Dr. Powell provided critical reviews of project progress, which envisioned that the project would go forward with achievable goals and direction. Dr. Powell has worked with the AEDC AFC heater test personnel to establish thermodynamic conditions in the arc section. He recently developed a heat-transfer model with appropriate thermodynamics that will allow better determination of arc pilot conditions from heat-transfer probes. As part of his work, he has developed possibly the world's first complete equation of state for air, which covers a range of conditions from flight to tunnel expansion, to beyond saturation conditions. With this work, he has advanced the state-of-the-art by developing a thermodynamics model for equilibrium air that covers conditions ranging from deep-space-to-atmosphere entry to the most expanded conditions of the VKF tunnels. This model, when published, is likely to stand for generations as the definitive thermodynamics model for equilibrium air, replacing the famous AEDC Brahinsky-Neel tabular model.

As part of this capability, he contributed to upgrading the widely used WIND-US CFD code for air thermody namics properties. Dr. Powell's model, with its associ ated code, has been used at AEDC in a Tunnel C cooling water study (completed fiscal year 2009), a review of data reduction procedures for arc probe (in progress), and numerous applications where a test project engineer needed some quick but accurate numbers for test planning. Prior to this work, it was not possible to adequately model the full range of flight and test conditions with a single thermodynamics model. Dr. Powell teamed with the late Dr. Mike Varner in the development of a now-classic test database for turbulence modeling in high-speed flow. The purpose of the effort was to provide "building block" data in a useful format and to develop an analysis technique to extract turbulent flow characteristics. The results enabled calibration of fundamental CFD turbulence model parameters for hypersonic re-entry conditions. The work further enabled astonishingly accurate predictions of reentry vehicle control surface loading that was verified by later flight tests. He also ventured into the area of heat-transfer model ing to develop the HEATPACK program, a collection of heat-transfer calculation methods on unit problems of importance to test and analysis at AEDC such as aerospace vehicle and facility flows.

Dr. Powell developed the combustion process for the Virtual Air Heater (VAH) in APTU, and was thus intimately familiar with test operations and techniques in that facility. In 2003 he began work that integrates a test article performance model with the facility control system. Using data from the in-progress test, this model predicts the future facility conditions and transmits those to the facility control system, creating a fly-the-mission capability for the APTU facility, thus moving beyond static data-point collection to an increased scope of testing within the blowdown capability of the APTU tunnel. This work is devised to be included in the test control functionality of the upgraded APTU facility, where it should significantly advance the state-of-the-art of hypersonic propulsion testing, thus streamlining the acquisition process for hypersonic vehicles.

Dr. Powell was the 2009 recipient of the AIAA Ground Test Award, specifically for his numerous and outstanding contributions to the art and science of ground testing while employed at AEDC.

Fellows Program
The Fellows program was established in 1989 and rec eives AEDC engineers who have made exceptionally distinguished and substantial contributions to the nation’s aerospace ground testing capability at the center. Candidates considered for selection for an AEDC Fellow or an AEDC Lifetime Achievement Fellow are current or retired military, civilian and operating contractor and subcontractor personnel assigned or previously assigned to AEDC. The initial only banquet will be held at the Arnold Lakeside Center.
Employees find PALACE Acquire program worth time and effort to build a successful career in civilian workforce

By Philip Lerenz III

Technical Writer

When 23-year-old Stephen Macarino reports to AEDC this spring, he will represent only one generation of PALACE Acquire program participants who will work in the 650th Test Evaluation System Squadron at the same time.

The PALACE Acquire program, which has been in existence since the late 1980s, was established as an avenue to reposition the civilian workforce with entry-level college graduates for future civilian careers with the Air Force.

“I actually found out about the PALACE Acquire program from Robins AFB in Georgia,” said Macarino, a Tennessee Technological University graduate who will be AEDC’s newest investment program manager. “I had tried to get on with AEDC several times. I interviewed for the program in April. I also interviewed with the AEDC facilities group. Finally in May, I interviewed with [Stiles] and Mr. [Tom] Best who found the job for me,” Stiles, who is the deputy director for the 650th Test Evaluation Systems Squadron at AEDC, said about the position.

Stiles is a new PALACE Acquire in 2001 and then grew up, went through my ‘journeyman years,’ got an opportunity to leave AEDC for broadening and then accepted this leadership position to return to AEDC,” said Stiles who is a University of Tennessee at Knoxville graduate. “We oversee all of the major facility upgrades. The TEDAC (Turbine Engine Dry Air Capability) project is a good example of the type of projects that we manage.”

Stiles did an Internet search after learning many about AEDC from 760th Test System Group civil engineer Leon Petee’s son Greg. That search revealed details about the PALACE Acquire program and after applying for the program, Stiles was contacted by Tom Best about coming on board at AEDC as a PALACE Acquire (PAQ) intern.

“I have been the AEDC scientist and engineer PALACE Acquire intern-student authority now for about 10 years,” Best said. “I go to career fairs at Tennessee Tech, the University of Tennessee at Knoxville, Vanderbilt University and Tennessee State University to get students to apply for PAQ jobs at all over the U.S. at different Air Force bases.

“Then I do the hiring for the positions at AEDC,” he said. “When we hire PAQs, we hire students all over the U.S. who have been recruited by other force members.”

Best said the PALACE Acquire program provides great career opportunities for the most highly qualified students.

“This program only attracts the best and brightest graduating students. It offers several perks to encourage the students to come to work for the AEDC over the many other options they have, including, a signing bonus, school loan pay-back, paid graduate degrees, etc. With the aging work force in the Air Force’s science and engineering corps, it is essential that we hire these types of students to learn the work quickly and be able to take leadership roles when a large part of the work force starts reaching retirement age,” the PAQs (PALACE Acquire interns) at AEDC are outstanding. They have great leadership and technical skills and will take AEDC into the future with the same type of passion for excellence.”

Melissa Strange, the Force Renewal Branch Intern Management Section Chief at Randolph AFB, Texas, has been working with the PALACE Acquire and the Copper Cap program, another avenue to bring qualified college graduates into Air Force careers since 2002. She said there are hand numbers to back up the success of these programs.

“Our data shows that 9,500 candidates have come through the programs with 6,600 completing the programs,” she said. “The interns programs have proven to be successful and continue to be sought out by management as a way to replenish their work force.”

Christopher Abbott, a program manager with the 650th Test System Squadron, decided to take part in the PALACE Acquire program a year after he had been a student intern with the 716th Test Squadron in 2003.

“I first found out about the Palace Acquire program after I had a chance to be a part of the PAQ program at AEDC’s mission and testing environment,” he said. “It was also helpful to meet people and develop friendships before graduating from college and beginning the PAQ program,” he added.

For several years now, I have benefited from having been a PAQ in the office (Brandon Stiles an Brandon Lucey to gain wisdom and guidance with regards to management, career development and leadership opportunities,” he continued. “Now, I have finished the PAQ program and look forward to a successful career with the AEDC, knowing that I have the right opportunities to succeed throughout my career.”

Christopher Abbott, program manager with the 650th Test Evaluation Systems Squadron, examines the data setup for the new Target Monitoring System (TMS) that is shown in the 7V Space Chamber’s clean room. He managed the renovation of 7V’s clean room approximately four years earlier. (Photo by Rick Goodfriend)
Minowa Air Base, Japan (AFNS) - An F-16 Fighting Falcon engine testing facility, called the “hush house,” is anything but what its name implies.

Outside the soundproof structure, the decibels from roaring engines are hardly detectable. Inside, however, jet engines run at ear-splitting, full-volume afterburner, results in a setting that runs from having to bear with unbearable noises.

Airmen at the 35th Maintenance Squadron aerospace propulsion test cell technicians work to certify engines to the floor, aligning its equipment to meet the reliability of maintenance.

Following engine maintenance, Airmen in the hush house can quickly power up standalone engine units. Additionally, they can also test engines fully installed in a re-strand F-16.

Engines at Minowa AB are tested around the clock to support the 35th Fighter Wing’s constant flying mission.

“A aircraft is often sent to the hush house during evening quiet hours, when the base adheres to local noise laws,” Sergeant Shaw said. “This prevents our base from having to bear with unbearable noises.”

Airmen also test engines that need significant or complex maintenance and must wait for the engine units to be returned. As the testing equipment can detect if these parts (need) further maintenance,” Sergeant Shaw said. “It gives us time to correct a problem before further maintenance is needed."

The testing equipment can detect if these parts (need) further maintenance,” Sergeant Shaw said. “It gives us time to correct a problem before further maintenance is needed.”

Hush house testing is the last line of defense before further maintenance,” Sergeant Shaw said. “It gives us time to correct a problem before further maintenance is needed.”

For major problems, we will shut down testing.”

Engine tests typically take from a couple days, depending on the amount of work done on the engine, he added. For the test, the engineers use a three-part component system that runs through two separate rooms of the base. The test stand supports the engine in place and a junction box connects electrical circuits from the engine to a sound-proof test cell in the next room, where Airmen perform function tests on the engine. Sergeant Shaw said.

From the testing cab, Airmen power-up an engine and monitor the unit, both via dash board indicators and observing through a window into the main room. Although it is quiet in the testing cab, Sergeant Shaw said Airmen near the running engine are not as lucky due to the blaring engine.

"Out on the testing floor, the noise will jar your teeth, he added, referring to ground inspectors who circle the running engine.

The ground inspectors check for leaks and physical discrepancies and listen to engine pitch.

"If something minor, such as a leak, we can shut the engine down and fix it on the spot, Sergeant Shaw said. "For major problems, we will shut down testing.”

Airmen look for anything inside and outside the engine that may malfunction.

The “hush house” testing equipment can detect if these parts (need) further maintenance,” Sergeant Shaw said. "It gives us time to correct a problem before further maintenance is needed.”

The testing equipment can detect if these parts (need) further maintenance,” Sergeant Shaw said. "It gives us time to correct a problem before further maintenance is needed.”

Airmen are able to run more than one engine at a time. A second hush house facility next door is currently being refurbished during a $4.7 million project that will encompass both buildings.

“Most other bases have hush houses in hilltops on the sides of the building,” Airman Backers said. “Most other bases have hush houses in hilltops on the sides of the building,” Airman Backers said. "This uniquely Japanese designed hush house found here has an air intake on its ceiling that provides cool airflow to the engine," Airman Backers said. “This uniquely Japanese designed hush house found here has an air intake on its ceiling that provides cool airflow to the engine,” Airman Backers said.

"This was the most complex engine testing facility, a person can stand right next to the engine in full force."

Soon, test cell Airmen will be able to run more than one engine at a time. A second hush house facility next door is currently being refurbished during a $4.7 million project that will encompass both buildings.

"No other engine house in Japan has storefronts on the sides of the building,” Airman Backers said. “No other engine house in Japan has storefronts on the sides of the building,” Airman Backers said.

Though Airmen work in close proximity as the ground inspector – without the dangers associated with other hush houses across the Air Force.

“From the testing floor, the noise will jar your teeth, he added, referring to ground inspectors who circle the running engine.

The ground inspectors check for leaks and physical discrepancies and listen to engine pitch.

"If something minor, such as a leak, we can shut the engine down and fix it on the spot, Sergeant Shaw said. "For major problems, we will shut down testing.”

Airmen look for anything inside and outside the engine that may malfunction.

The “hush house” testing equipment can detect if these parts (need) further maintenance,” Sergeant Shaw said. "It gives us time to correct a problem before further maintenance is needed.”

The testing equipment can detect if these parts (need) further maintenance,” Sergeant Shaw said. "It gives us time to correct a problem before further maintenance is needed.”

Airmen are able to run more than one engine at a time. A second hush house facility next door is currently being refurbished during a $4.7 million project that will encompass both buildings.

"This uniquely Japanese designed hush house found here has an air intake on its ceiling that provides cool airflow to the engine," Airman Backers said. “Most other bases have hush houses in hilltops on the sides of the building,” Airman Backers said.

"This was the most complex engine testing facility, a person can stand right next to the engine in full force."

Soon, test cell Airmen will be able to run more than one engine at a time. A second hush house facility next door is currently being refurbished during a $4.7 million project that will encompass both buildings.

By Senior Airman Jessica Lockoski

35th Fighter Wing Public Affairs

June 18, 2010 • 13
The Air Force’s Wingman Stand Down 2010 was in May, but that doesn’t mean Airmen’s focus should shift away from safety and well-being.

“As the Air Force enters into this year’s 101 Critical Days of Summer, I would like to reinforce the importance of the Wingman concept,” said Gen. Donald Hoffman, Air Force Materiel Command commander, in a June 9 memo to headquarters staff and AFMC center and installation commanders. “Part of being good Wingmen is to know what resources are available in our Wingman ‘toolbox.’”

That toolbox is larger than many might think.

“I know that many of you are aware of immediate personal survival resources such as your local chaplain services or health and wellness centers,” General Hoffman said. “However, there are many other agencies and services available to you.”

General Hoffman directed that each AFMC installation make readily available a list of those agencies and services, ranging from health and wellness, to finances, to family relationships.

The list for Arnold AFB is provided at right.

“Personal survival is not just important during the 101 Critical Days of Summer; it is critical every day. We cannot afford to lose a single Airman in the world’s greatest Air Force,” General Hoffman said. “Stay safe, and be vigilant!”

---

Personal survival resources available to all Airmen

<table>
<thead>
<tr>
<th>Service</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arm and Family Readiness Center</td>
<td>454-4674</td>
</tr>
<tr>
<td>Alcohol and Drug Prevention and Treatment</td>
<td>454-5635</td>
</tr>
<tr>
<td>Family Advocacy Coordination</td>
<td>454-5635</td>
</tr>
<tr>
<td>IMA Chaplain</td>
<td>454-7970</td>
</tr>
<tr>
<td>Youth Programs</td>
<td>454-3277</td>
</tr>
<tr>
<td>Employee Assistance Program</td>
<td>1-800-222-0384</td>
</tr>
<tr>
<td>Sexual Response Coordinator</td>
<td>931-581-7494</td>
</tr>
<tr>
<td>Victim Witness Assistance Program</td>
<td>454-4657</td>
</tr>
<tr>
<td>Military and Family Life Consultant Program</td>
<td>615-574-3933</td>
</tr>
<tr>
<td>Military One Source</td>
<td>1-800-342-9647</td>
</tr>
</tbody>
</table>
Mulligan’s Grill remodel begins July 6

Mulligan’s Grill at Arnold Golf Course will undergo a major renovation beginning July 6. This project includes new counters that will extend across the room and include an order station and pick-up station, the backyard will be removed, a digital menu board with LCD monitors will be added, a greatly increased cooler will be built into the counter for easy access to sauces, cold drinks and desserts. And 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 the renovation, but seating capacity will be reduced. The coffee shop will remain open, and Starbucks coffee will be available. Customers can expect some delays as the work is being done.

Tutwilla city medal play championship set for July 24-25

Arnold Golf Course will host the annual Tutwilla 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 will be flighted based on first round scores. Second round score improvement limit will be 7.5 percent or less, as decided 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 play for all players for either flight.

Price includes one free practice round during the tournament.

The field will be flighted based on the number of participants.

Registration in person is recommended. Deadline for sign up is close of business July 21.

More information call 454-7076.

Mulligans Children’s Theatre returns July 5-10

Mulligan’s Children’s Theatre presents their production of Treasure Island. Auditions will be held at 4 p.m. on July 5 at the Manchester Performing Arts Center (MPAC), for children who have completed first grade through fourth grade. All participants are encouraged to attend auditions to be considered. Auditions will consist of two hours in which every child must participate to be considered for a part in the play. Two additional hours may be required for some cast members.

Children’s Theatre is open to all AEDC personnel, active duty, retired military, National Guard, Reserve military, Civil Service employees within 50 miles of the base, AEDC alliance employees and their spouses. Auditions will be held during the week culminating with a performance to be held at 3 p.m. July 19 with $8 admission for adults and $5 for children.

Student admission tickets will include CD containing essay with participant’s name, date and word count, and an essay online at afclubs.net and current Ariadne Scholarship application or official transcripts.

Entry fee will be applied after July 19. All nominations will be advise of the amount of the award. Only one essay per eligible person.

Trip planned to Cumberland Caverns for spelunking and scenic adventure July 24

Come with Outdoor Rec and discover McCumber Caverns, Tennessee’s true show cave and a U.S. National Natural Landmark. The cave displays some of the largest underground rooms and most spectacular formations in America.

The trip will depart at 8 a.m. on July 24 and arrive for the 10 a.m. scenic tour followed by the spelunking tour at 1 p.m. Plans to return back at Outdoor Rec around 5:30 p.m.

Cost is $41 and is open to ages 10 and up. Deadline to sign up is July 9. After that date a $10 late registration fee will be assessed. A $10 cancellation fee will be applied after July 9.

This adventure trip through Rocky Top’s rocky bottom will give the first-time spelunker a taste of the natural underground and show the experienced caver unaspected sites and formations.

It is apparent this is not your usual cave tour as it begins “Devil’s Quary.” Who will make it through the infamous “Lemon Squeeze” and “Bubble Tom Alley?”

Tight squeezes, cave crawling and ladderless-in-the-caverns will make this an adventure trip to brag about.

Encounter unique formations, spectacular gypsum crystals and plenty of mural along the way. The friendly and informative guides will lead you through the passages and help you discover what Tennessee’s underground has to offer.

The cave temperature is cool, so please bring appropriate clothing. Any with claustrophobia, knee or back injuries are not recommended for this trip.

Remember to bring money for food and drinks along with a change of clothes because spelunking attire will be muddy.

Call 454-6084 to sign up and for more information.

**Editor’s Note:** The following information is a press release from the Tennessee Department of Agriculture and Consumer Services. No endorsement by the U.S. Government, the Department of Defense or the Department of the Army is intended or implied. The Tennessee Department of Agriculture and Consumer Services does not endorse or recommend any specific product, service or activity. Neither the United States Air Force nor the Department of the Army assume any liability arising out of the use of the information contained herein. This is a state-appropriated publication, distributed in accordance with the provisions of 7 U.S.C. 590a, to provide information on the Tennessee Military Department, USA, which includes the Tennessee National Guard, Tennessee National Guard Reserve, all reserve components of the Tennessee National Guard, and Tennessee Army National Guard Reserve.

**Supplement to Horeizon**

Missoula Children’s Theatre returns July 5-10

SCHOLARSHIP ESSAYS DUE JULY 1

Air Force Services is conducting the Annual Club Membership Scholarship Program.

All families First Plus individuals and their family members who have been active duty within the last 5 years and are attending an accredited college or university for entry during the fall of 2010 term are eligible to apply for scholarships. Grandchildren are eligible if they are a dependent of the club member.

Student enrollment status may be verified through the military education尾 narratives.

Applicant must provide a copy of their college or university acceptance letter.

Twenty-five $1,000 scholarships will be awarded.

To enter, write and submit a 500-word or less essay on the following topic: “What does it mean to be a part of the Air Force Family?”

Essays exceeding 500 words (ex- cluded) or not Submitted by July 1. Essays must be typed in MS Word (2-point Arial or Times New Roman, single-spaced, with double- spacing between paragraphs). One-inch margins will be used along the left and right margin submitted on CD.

This information must be included CD containing essay with participant’s name, date and word count, and an essay online at afclubs.net and current Ariadne Scholarship application or official transcripts.

Entry fee will be applied after July 19. All nominations will be advise of the amount of the award. Only one essay per eligible person.
**Hours of operation**

Arnold Lakeview Center – Special function luncheons available. Call 454-3350 for arrangements. Catering/Management offices – Monday-Friday 7 a.m.-6 p.m., Saturday and Sunday 8 a.m.-4 p.m. Recycling – Monday-Thursday 7 a.m.-7 p.m., Friday 7 a.m.-6 p.m. Wingo Inn – Monday-Thursday 8 a.m.-6:30 p.m., Friday 8 a.m.-7 p.m. and Saturday 8 a.m.-4:30 p.m. For more information, contact James Warren, 454-6345.

**Enjoy Woods Reservoir**

Enjoy Woods Reservoir due to the magnitude of the renovation, menu solutions will be limited. Breakfast menu will be grab and go breakfast sandwiches. Lunch menu items will include: charbroiled hamburgers, charbroiled chicken breast sandwiches, grab and go cold sandwiches, grab and go salads, and potato chips. Beverages will include bottled water, bottled soda, coffee and beer. Dining will be available inside and on the patio during this 60 day renovation project will give us a whole new look,” said Darrell Eshelman, Golf Course manager. Rick Ferreira, Chief of Services, stated they are looking forward to offering Starbucks to the Arnold community.”

A grand reopening with ribbon cutting will be scheduled upon completion of this improvement project.

**Mulitans from HJL**

**B/X Commissary customer eligibility**

ADSC government civilians and ASDC contractor employees have access to the following limited items at the base exchange (BX): consumable items including tobacco and over-the-counter pharmaceuticals, food items such as candy, chips, drinks, canned food, frozen food, alcoholic and liquor items are not included as well as private label items and name brand items (except healthy drinks and select personal and household items). The BX accepts cash, debit, and credit cards. BX hours of operation: Monday-Thursday 9 a.m.-6 p.m., Friday 9 a.m.-9 p.m. and Saturday 9 a.m.-5 p.m. Recycling – Monday-Thursday 7 a.m.-7 p.m., Friday 7 a.m.-6 p.m. Wingo Inn – Monday-Thursday 8 a.m.-6:30 p.m., Friday 8 a.m.-7 p.m. and Saturday 8 a.m.-4:30 p.m. For more information, contact James Warren, 454-6345.

**July 2010**

**O&D Paintball takes a summer break in July and August. Look for it to return in September.**

**ODR Skyliding Adventure coming Aug. 28! Call 454-6044 for details.**

**FC Hot 250 Bike event – log 250 miles during July and win prize!**

**Arnold community.” I’m looking forward to giving us a whole new project. “This is going to be a fantastic improvement project.” The BX accepts cash, debit, and credit cards. BX hours of operation: Monday-Thursday 9 a.m.-6 p.m., Friday 9 a.m.-9 p.m. and Saturday 9 a.m.-5 p.m. Recycling – Monday-Thursday 7 a.m.-7 p.m., Friday 7 a.m.-6 p.m. Wingo Inn – Monday-Thursday 8 a.m.-6:30 p.m., Friday 8 a.m.-7 p.m. and Saturday 8 a.m.-4:30 p.m. For more information, contact James Warren, 454-6345.

**Enjoy Woods Reservoir**

Enjoy Woods Reservoir
**Goswick Leadership Center**

The Goswick Leadership Center (GLC) may have services involved such as meetings, conferences, lunches, dinners, and tours that are booked through the Center’s Conference Manager (CM) up to one year in advance. Pro-\textit{forma} bids are requested for the following: • Seating arrangements including tables and chairs for four tires and $15 for bars and vans to arrange and set up.

- **Community members** may have events with the approvals of the Services Director for a fee.

- **Official unit functions** are authorized at no charge and are defined as bona fide official meetings or training functions that directly benefit the unit.

- **Supportive and official functions** may be held for official purposes or unit activities.

- Community members may have events with the approvals of the Services Director for a fee.

- **Official unit functions** are authorized at no charge and are defined as bona fide official meetings or training functions that directly benefit the unit.

- **Supportive and official functions** may be held for official purposes or unit activities.

- Community members may have events with the approvals of the Services Director for a fee.

- **Official unit functions** are authorized at no charge and are defined as bona fide official meetings or training functions that directly benefit the unit.

- **Supportive and official functions** may be held for official purposes or unit activities.

- Community members may have events with the approvals of the Services Director for a fee.

- **Official unit functions** are authorized at no charge and are defined as bona fide official meetings or training functions that directly benefit the unit.

- **Supportive and official functions** may be held for official purposes or unit activities.

- Community members may have events with the approvals of the Services Director for a fee.

- **Official unit functions** are authorized at no charge and are defined as bona fide official meetings or training functions that directly benefit the unit.

- **Supportive and official functions** may be held for official purposes or unit activities.

- Community members may have events with the approvals of the Services Director for a fee.

- **Official unit functions** are authorized at no charge and are defined as bona fide official meetings or training functions that directly benefit the unit.

- **Supportive and official functions** may be held for official purposes or unit activities.

- Community members may have events with the approvals of the Services Director for a fee.

- **Official unit functions** are authorized at no charge and are defined as bona fide official meetings or training functions that directly benefit the unit.

- **Supportive and official functions** may be held for official purposes or unit activities.

- Community members may have events with the approvals of the Services Director for a fee.

- **Official unit functions** are authorized at no charge and are defined as bona fide official meetings or training functions that directly benefit the unit.

- **Supportive and official functions** may be held for official purposes or unit activities.

- Community members may have events with the approvals of the Services Director for a fee.

- **Official unit functions** are authorized at no charge and are defined as bona fide official meetings or training functions that directly benefit the unit.

- **Supportive and official functions** may be held for official purposes or unit activities.

- Community members may have events with the approvals of the Services Director for a fee.

- **Official unit functions** are authorized at no charge and are defined as bona fide official meetings or training functions that directly benefit the unit.

- **Supportive and official functions** may be held for official purposes or unit activities.

- Community members may have events with the approvals of the Services Director for a fee.

- **Official unit functions** are authorized at no charge and are defined as bona fide official meetings or training functions that directly benefit the unit.

- **Supportive and official functions** may be held for official purposes or unit activities.

- Community members may have events with the approvals of the Services Director for a fee.

- **Official unit functions** are authorized at no charge and are defined as bona fide official meetings or training functions that directly benefit the unit.

- **Supportive and official functions** may be held for official purposes or unit activities.

- Community members may have events with the approvals of the Services Director for a fee.

- **Official unit functions** are authorized at no charge and are defined as bona fide official meetings or training functions that directly benefit the unit.

- **Supportive and official functions** may be held for official purposes or unit activities.

- Community members may have events with the approvals of the Services Director for a fee.

- **Official unit functions** are authorized at no charge and are defined as bona fide official meetings or training functions that directly benefit the unit.

- **Supportive and official functions** may be held for official purposes or unit activities.

- Community members may have events with the approvals of the Services Director for a fee.

- **Official unit functions** are authorized at no charge and are defined as bona fide official meetings or training functions that directly benefit the unit.

- **Supportive and official functions** may be held for official purposes or unit activities.

- Community members may have events with the approvals of the Services Director for a fee.

- **Official unit functions** are authorized at no charge and are defined as bona fide official meetings or training functions that directly benefit the unit.

- **Supportive and official functions** may be held for official purposes or unit activities.

- Community members may have events with the approvals of the Services Director for a fee.

- **Official unit functions** are authorized at no charge and are defined as bona fide official meetings or training functions that directly benefit the unit.

- **Supportive and official functions** may be held for official purposes or unit activities.

- Community members may have events with the approvals of the Services Director for a fee.

- **Official unit functions** are authorized at no charge and are defined as bona fide official meetings or training functions that directly benefit the unit.

- **Supportive and official functions** may be held for official purposes or unit activities.

- Community members may have events with the approvals of the Services Director for a fee.

- **Official unit functions** are authorized at no charge and are defined as bona fide official meetings or training functions that directly benefit the unit.

- **Supportive and official functions** may be held for official purposes or unit activities.

- Community members may have events with the approvals of the Services Director for a fee.

- **Official unit functions** are authorized at no charge and are defined as bona fide official meetings or training functions that directly benefit the unit.

- **Supportive and official functions** may be held for official purposes or unit activities.

- Community members may have events with the approvals of the Services Director for a fee.

- **Official unit functions** are authorized at no charge and are defined as bona fide official meetings or training functions that directly benefit the unit.

- **Supportive and official functions** may be held for official purposes or unit activities.

- Community members may have events with the approvals of the Services Director for a fee.

- **Official unit functions** are authorized at no charge and are defined as bona fide official meetings or training functions that directly benefit the unit.

- **Supportive and official functions** may be held for official purposes or unit activities.

- Community members may have events with the approvals of the Services Director for a fee.

- **Official unit functions** are authorized at no charge and are defined as bona fide official meetings or training functions that directly benefit the unit.

- **Supportive and official functions** may be held for official purposes or unit activities.

- Community members may have events with the approvals of the Services Director for a fee.

- **Official unit functions** are authorized at no charge and are defined as bona fide official meetings or training functions that directly benefit the unit.

- **Supportive and official functions** may be held for official purposes or unit activities.

- Community members may have events with the approvals of the Services Director for a fee.

- **Official unit functions** are authorized at no charge and are defined as bona fide official meetings or training functions that directly benefit the unit.

- **Supportive and official functions** may be held for official purposes or unit activities.

- Community members may have events with the approvals of the Services Director for a fee.

- **Official unit functions** are authorized at no charge and are defined as bona fide official meetings or training functions that directly benefit the unit.

- **Supportive and official functions** may be held for official purposes or unit activities.

- Community members may have events with the approvals of the Services Director for a fee.

- **Official unit functions** are authorized at no charge and are defined as bona fide official meetings or training functions that directly benefit the unit.

- **Supportive and official functions** may be held for official purposes or unit activities.

- Community members may have events with the approvals of the Services Director for a fee.

- **Official unit functions** are authorized at no charge and are defined as bona fide official meetings or training functions that directly benefit the unit.

- **Supportive and official functions** may be held for official purposes or unit activities.

- Community members may have events with the approvals of the Services Director for a fee.

- **Official unit functions** are authorized at no charge and are defined as bona fide official meetings or training functions that directly benefit the unit.

- **Supportive and official functions** may be held for official purposes or unit activities.

- Community members may have events with the approvals of the Services Director for a fee.

- **Official unit functions** are authorized at no charge and are defined as bona fide official meetings or training functions that directly benefit the unit.

- **Supportive and official functions** may be held for official purposes or unit activities.

- Community members may have events with the approvals of the Services Director for a fee.

- **Official unit functions** are authorized at no charge and are defined as bona fide official meetings or training functions that directly benefit the unit.

- **Supportive and official functions** may be held for official purposes or unit activities.

- Community members may have events with the approvals of the Services Director for a fee.

- **Official unit functions** are authorized at no charge and are defined as bona fide official meetings or training functions that directly benefit the unit.

- **Supportive and official functions** may be held for official purposes or unit activities.

- Community members may have events with the approvals of the Services Director for a fee.