



ATA project manager Tom Schmidt, left, and turbine engine test project manager Capt. Scott Rinella pose in front of an F100-PW-229 engine in the Engine Test Facility's SL-3 test cell. The engine, which is used in the F-15 Eagle and F-16 Fighting Falcon, underwent an 11-month Component Improvement Performance test to increase the lifetime of the engine. (Photo by Rick Goodfriend)

After 60 years, the mission remains the same at AEDC

Technological gains and decades of experience keep base at the forefront of engine testing

By Patrick Ary
Aerospace Testing Alliance

Ask Don Jones what the biggest change has been at AEDC over the last 40 years, and it won't take him long to answer.

Computers. "We didn't have all the bells and whistles," said Jones, 68. "We still had manometer boards when I first hired in, and we used slide rules."

Jones, who works as a project engineer at the Engine Test Facility's C-1 test cell, doesn't miss those days. Corrections couldn't be made once a test started, so workers had to be diligent in setting conditions.

"The early control rooms had a balcony where the analysis personnel were stationed," Jones said. "Technicians would read the gauges and write the data down on clipboards, and you would bring the clipboards up to the balcony and use slide rules to do the hand calculations to determine test point conditions."

Once testing was complete, there was more labor-intensive work to process the test data.

"To get the pressure data back after the test, pictures of the manometer boards used to record test pressures had to be read," Jones said. "Each fluid level of the

individual manometer tubes was recorded into a Dictaphone, and then you had math data aides transcribe them into paper tape and you loaded those into the computer. So it was two or three days before you got final data back from a test run. Everything was by gauges and hand calculations in the control room."

Today computers handle all the data processing, and they store all the data when turbine engines are tested in one of the eight ETF test cells online today. In a matter of decades, the technology has leaped from the equivalent of knuckle-dragging to the ability, in real time, to test all aspects of turbine engine operation.

"It seems almost caveman to you now," he said. "It wasn't that long ago. It was the 60s."

But even though Jones keeps his slide rule at home now instead of at work, he says the essentials of the job aren't any different.

"The basics of testing a turbine engine at altitude in a ground test facility have not changed, but we do so much more now," Jones said. "It used to be just basically measuring performance. But now we do all spectrums of engine testing, and the analysis can be performed in almost real-time."

Since May 3, 1954 – when the first turbojet engine test operation began in ETF's T-1 test cell – a host of other big-name fighter jet engines have come through AEDC: the A-10 Thunderbolt II's TF34-GE-100 made by General Electric, the Pratt & Whitney F119 engine for the F-22A Rap-

See PROPULSION, page 5

Arnold celebrates 60th in June

By Shawn Jacobs
Aerospace Testing Alliance

AEDC turns 60 years old June 25, and *High Mach* is planning a series of features to help the center celebrate its years of critical contributions to the defense capability of the United States military as well as commercial aerospace ventures.

President Harry Truman dedicated Arnold June 25, 1951, in honor of General of the Air Force Henry "Hap" Arnold, visionary leader of the Army Air Forces in World War II and the only Airman to hold 5-Star rank.

Virtually every high performance flight system in use by the Department of Defense today and all NASA manned spacecraft have been tested in AEDC's facilities. Today AEDC is testing the next generation of aircraft and space systems.

Beginning with this issue, *High Mach*



will feature special articles spotlighting AEDC's various test and business areas, veteran employees, how life on base may have changed over the years, AEDC's remote operations at Tunnel 9 and NFAC and much more.

In addition, the new *High Mach* feature "Since You Know" gives readers a chance to show off what they know about the past six decades of the base's history. Three winners will be drawn at random from the correct entries and will

feature special articles spotlighting AEDC's various test and business areas, veteran employees, how life on base may have changed over the years, AEDC's remote operations at Tunnel 9 and NFAC and much more.

See 60TH, page 3

New commander coming in July

Arnold AFB will have a new commander in July 2011.

Col. Michael T. Brewer, commander of the 46th Test Wing, Air Armament Center, Eglin AFB, Fla., is scheduled to report to Arnold in July to take over from current commander Col. Michael Panarisi, who is heading to Eglin AFB to serve as the base's director of safety.

Colonel Brewer received his commission in 1986 after graduating from North Carolina State University with a Bachelor of Science in electrical engineering.

After pilot training, he flew the F-111F and F-15E before attending USAF Test Pilot School in 1996. He was assigned to the 445th Flight Test Squadron as an F-15 experimental test pilot. He also served at the F-22 system program office as a test program manager.

Colonel Brewer is a command pilot with more than 3,200 hours flying the F-111, F-15E, and F-16 and has combat experience in both the F-111 and F-15E.



Brewer

Colonel Panarisi has overseen AEDC's aerospace testing facilities since July 13, 2009, when he took over duties from Col. Art Huber.

AEDC pursuing different ways to conserve energy

By Patrick Ary
Aerospace Testing Alliance

It's an unavoidable cost of doing business: in order to fulfill AEDC's mission, the base has to consume power – at times, a massive amount of it.

That's why AEDC workers are actively working to lessen the energy use and ultimately the cost of the rigorous testing that goes on in base facilities.

Engineers in AEDC's technology branch, tasked with finding projects for small businesses to invest in, recently got in touch with the Tennessee Valley Authority in an effort to find ways to decrease AEDC's energy footprint.

The AEDC group looking into new technology for Small Business Innovation Research (SBIR) topics reached out

to TVA because the company has people who are always looking for new ways to save energy.

"We recognize that we're not energy experts ourselves," said SBIR committee member Will Mallory. "So we looked to TVA and got in touch with them, and they were really happy to come down here and talk with us."

Their initiative is just one of many fueled by AEDC Chief Technologist Dr. Edward Kraft's desire to find ways of saving energy on base.

"I started an exercise not quite a year ago and said 'OK, what are all the things we can possibly do to offset our energy

costs or conserve energy?'" Dr. Kraft said. "In the initial discussions, nothing's off the table. The SBIR policy is one small subset of that."

It's a small subset that is generating a lot of ideas. SBIR assistant program manager Capt. Ashton Hainge says TVA officials are using their expertise to do more than find ways to save energy; they're trying to find energy-efficient projects that can actually be done.

The technology division's immediate focus was on what he calls the "low-hanging fruit" – ideas that give a high return on investment.

"We need more visible successes to

inspire us to keep AEDC highly efficient and competitive and show what can be done when we work together," Captain Hainge said.

In the last two months, TVA officials have met several times with base workers to look at ways to save energy and money at AEDC. The big question that emerged from those meetings: How can the base harness some of the energy it expends during tests?

TVA has many industrial customers that use massive amounts of power, but AEDC is different from most because the power usage spikes to high levels during testing.

"We hang at about 20 megawatts base

See ENERGY, page 4

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HIGH MACH

Arnold Engineering Development Center
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

Arnold joins in reshaping future, honoring past for victims

April 10 marks the beginning of National Crime Victims' Rights Week, a time to honor victims and the advocates of victims' rights. This year's theme – Reshaping the Future, Honoring the Past – evokes victims' past struggles and our nation's duty to help them rebuild stronger lives.

For victims, reshaping the future means confronting many challenges. After a crime, victims need to know what rights and resources they can count on. They may need funds to bury a loved one or pay medical bills. They may want information on the criminal justice process, their rights to be present or heard in court, and to be notified about court

proceedings and offenders' whereabouts. Yet many victims do not find the help they need.

For victim advocates, reshaping the future—particularly in these financially stressed times—means finding ways to do more with less.

It means locating resources for victims who want them and helping new victims – such as the millions harmed by financial fraud – to restore their credit and financial security. Reshaping the future requires meeting present and emerging challenges.

It also requires understanding how crime has marred the past. As we approach the tenth anniversary of the Sept. 11, 2001 terrorist attacks, we

honor the memory of the victims and their families' struggles to rebuild a future despite their grief.

We also remember the thousands of homicide victims in our nation in recent years, and the millions who live each day in fear of violence.

Honoring the past also means recalling a time, not too many years ago, when victims had no voice in the criminal justice system – when murder victims' families were excluded from courtrooms and assault victims paid all their own medical bills.

National Crime Victims' Rights Week honors the victims and advocates who confronted such injustices and helped produce a nationwide system of

victim compensation and victims' rights. It also reminds us that failures to enforce these laws or to fund programs for victims jeopardize the success of these reforms.

"Reshaping the Future, Honoring the Past captures the spirit and mission of National Crime Victims' Rights Week," said Joye E. Frost, acting director of the Office for Victims of Crime, Office of Justice Programs, U.S. Department of Justice. "The past that we honor points to a future when all victims are respected, the laws to protect them are enforced, and the resources they need are in place and accessible to them. Justice demands no less."

National Crime Victims'

Rights Week will begin in Washington, DC, at the Department of Justice's annual national Candlelight Observance Ceremony on April 7 and the Office for Victims of Crime's Service Awards ceremony on April 8 to honor outstanding individuals and programs that serve victims of crime.

Each community can encourage its members to participate in the week's events and find ways to help victims of crime. For additional information about National Crime Victims' Rights Week and how to help victims in your community, please contact Leslie Tuttle at the legal office at (931) 454-7814.

(Information provided by the Arnold AFB legal office.)

The mentoring challenge

By Col. Greg Urtso
Directorate of Force Development Diversity Operations

WASHINGTON (AFNS) – Our U.S. Air Force has changed dramatically over time. Consider that 30 years ago the Air Force had more than 565,000 officer and enlisted members. By the end of fiscal year 2010, we had fewer than 330,000.

Couple this nearly 42 percent reduction in manpower with military budget cuts and the need to prepare for more complex, varied operations in the future and you have an environment we are all very used to: change. Imagine what our Airmen entering the Air Force today will see over the next 20 to 30 years.

To be effective, formal mentoring programs should adapt to this ever-changing environment. In times of stability, traditional coaching, counseling and facilitating skills are sufficient, but the dynamic environment we live in today requires mentors to become more than experts; they also need to be co-learners.

Senior mentors should take the opportunity to learn about the younger more diverse generation instead

of following the more conventional role as the authority and the protégé as the learner.

Adapting to the changing environment, Air Force officials have implemented fresh changes. Improvements to My Development Plan -- MyDP -- on the Air Force Portal are a great start but meaningful mentoring comes from the interaction between individuals. Mentors ought to be willing to listen, ask questions and be candid about what they don't know.

Successful mentoring of our Airmen is a strategic imperative. Ensuring the Air Force remains adept at solving the increasingly complicated problems in a complex world, we must continue efforts to be leading competitors in the search for talent.

Once these talented individuals join our all-volunteer force, developing them becomes a top priority.

Mentors provide the tools to allow individuals to achieve their professional and personal goals. After all, it takes 10 years to replace an Airman who

separates after serving for 10 years.

The challenge: your rank determines the number of mentoring relationships you have. For example, a Master Sergeant, E-7, should mentor seven Airmen. A major, O-4, should mentor four Airmen. General Schedule civilians should follow the officer structure.

Understanding that the Air Force model is to have supervisors as primary mentors, I encourage Airmen to seek other mentorship opportunities outside the chain of command. Additionally, mentors should expand their opportunities as co-learners by seeking out those who are different than themselves.

The second part of the challenge is to have supervisors ask subordinates to name those they are mentoring and share their experiences during feedback sessions. This will facilitate discussion, enhance mentoring at all levels, and ensure accountability.

Of course, this challenge is voluntary and not Air Force policy, but if done correctly, will ensure the U.S. Air Force remains the number one air force in the world.

A good wingman is always 'with'

By Maj. Jason Whittle
65th Contracting Squadron

LAJES FIELD, Azores (AFNS) – I have three small kids and I still haven't been issued a parenting manual. I've changed a lot of diapers and still struggle.

You'll frequently see my children in mismatched clothes. That's because it was daddy's turn to dress them. When I cook dinner, it looks more like a college kid's menu -- a peanut butter and jelly sandwich, a banana, a cheese stick and some gummy bears. When I'm tasked to clean the peanut butter and jelly from my kids' hands, face, ears and hair, you can bet I'll miss most of it (incidentally, PB&J makes great hair gel).

Momma spends a lot of time fixing what I've goofed up. But all I have to do is lay on the floor and the kids come swarming, excited to jump on daddy.

Fortunately, their love isn't based on my skill -- whew! They just love to be with me.

Sometimes I'm the punching bag, or trampoline, or even the tackling dummy. Sometimes I get to be their pillow too. My kids just want to be with me.

We're social creatures, hard-wired to spend time with one another, help each other, talk, listen and enjoy the company of our friends and family.

Social networking sites help us stay in touch with friends, no matter the distance between us.

Our cities and towns are full of people and we spend our days surrounded by others.

Yet many people still

feel alone, unconnected and dissatisfied. We send e-mails to our family members, who may be in the same house.

Even phone calls have been replaced by easier and less personal communication methods. Instead of visiting our friends, we text them. We exchange conversation and company for a few typed words sent from phone to phone.

There are countless books on leadership, parenthood and even friendship. We're taught to be good wingmen.

I'm going to save you some time. There is a foundational truth that runs through all of these books and classes: "with."

A good leader is "with" his people, talking, listening, observing, and simply being there -- management by walking around. Good parents are "with" their children, playing, running, wrestling, and simply being there (even if I often fail to completely clean the peanut butter out of my kids' hair).

During dark times in my life, through the pain of loss or rejection, my friends have comforted me by being "with" me. I don't remember anything they said, but I remember their presence when I needed them.

And your wingmen, they're by your side; they've got your back no matter the situation.

Put down the laptop, turn off the TV, and go be with people. Talk, listen and care.

"Half the battle is showing up."

Sometimes it's the whole battle.



Next issue's question:

What was the first rocket engine tested at AEDC?

Read this issue of *High Mach* to find the answer if you don't know it! E-mail your answers to Arnold.HighMachAnswers@arnold.af.mil no later than next Friday, April 8. Three winners will receive a 60th anniversary *High Mach* hat. The winners' names will be drawn at random from all correct entries. Only current AEDC employees are eligible to win.

Last issue's winners:



Vanda Arnold



Gary Knox

Last issue's answer:

Huntsville, Ala., the site where the Army's Redstone Arsenal is located, was the original preferred location for AEDC. At the time, the Army was deactivating Redstone. However, once the Army learned of the Air Force's interest in the site, they had second thoughts about shutting it down. The Army's Camp Forrest was selected for AEDC in 1948.

On the front page ...

You may have noticed the header on the front page of this edition looks a little dated. It is a reproduction of the very first *High Mach* that was published in April 1954. Leading up to the 60th anniversary of AEDC, we will feature different *High Mach* headers from the 1950s into the 21st century.

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.

Armed Services Committee members tour AEDC



AEDC Commander Col. Michael Panarisi shows the von Kármán Gas Dynamics Facility's Wind Tunnel A to Dr. Robie Roy, a professional staff member for science and technology on the Senate Armed Services Committee. Representatives of the committee toured base facilities and were briefed on AEDC's mission March 23. (Photo by Rick Goodfriend)

Edward R. Greer to speak at 2011 Fellows Banquet

By Patrick Ary
Aerospace Testing Alliance

Edward R. Greer, Deputy Assistant Secretary of Defense for Developmental Test and Evaluation (DT&E), will deliver the keynote address at the 2011 AEDC Fellows Banquet.

The banquet will take place June 24 at the Arnold Lakeside Center.

Greer was sworn in as the Deputy Assistant Secretary of Defense for DT&E in March 2010. He is re-

sponsible for developing and revising DT&E policy in support of the acquisition of major Department of Defense weapon systems.

Prior to serving in his current position, Greer was the deputy assistant commander for Test and Evaluation, Naval Air Systems Command and executive director, Naval Air Warfare Center Aircraft Division (NAWCAD), Patuxent River, Md.

As the senior civilian for Naval Aviation Test



Greer

and Evaluation, Greer was responsible for planning, executing, analyzing and

reporting of all Naval Aviation test and evaluation.

As executive director of NAWCAD, his responsibilities included ensuring NAWCAD technical, business and financial objectives were met across a work force of 14,400 and a total operating budget of more than \$4 billion.

Established in 1989, the Fellows Program recognizes AEDC individuals who have made substantial and exceptionally distinguished technical contributions to

the nation's aerospace ground testing capability at AEDC.

Since the inception of the program, AEDC has bestowed the center's highest honor to a grand total of 67 individuals as Fellows, Lifetime Achievement Fellows and Honorary Fellows.

Newly selected AEDC Fellows are honored annually on or about June 25, the birthday of General of the Air Force Gen. Henry "Hap" Arnold.

AEDC supports more than 50 years of testing for T-38 Talon

By Shawn Jacobs
Aerospace Testing Alliance

Air Education and Training Command celebrated the 50th anniversary of the first operational T-38 Talons' arrival at Randolph AFB, Texas March 17.

AEDC tested the T-38 before it flew and has supported upgrades to the aircraft throughout the years.

The T-38 is a twin-engine, high altitude, supersonic jet trainer used in a variety of roles because of its design, economy of operations, ease of maintenance, high performance and exceptional safety record.

The Talon first flew in 1959.

More than 1,100 were delivered to the Air Force between 1961 and 1972 when production ended.

In 1958, prior to its first flight, the T-38 Talon underwent aerodynamic tests, including drag studies in AEDC's 16T wind tunnel facility.

In the 1960s, AEDC tested the Talon's propulsion system, the J85 turbojet engine manufactured by General Electric, to verify performance and operability.

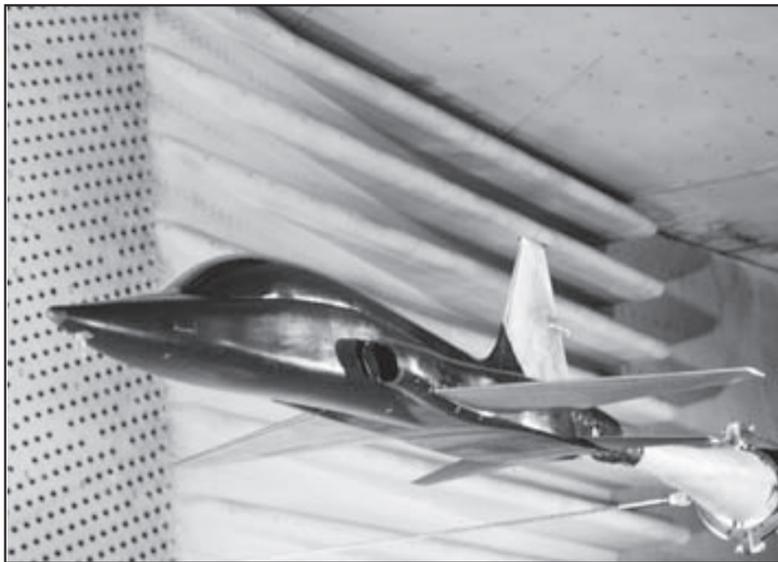
In the late 1970s, as part of a comprehensive Aero-propulsion Laboratory program to gain more knowledge of jet engine emissions on the environment, a J85 engine was tested using a mobile pollution detector

also developed by AEDC. More recently, a J85 engine has been used to aid in the development of exhaust gas measurements systems and is housed at the University of Tennessee Space Institute.

Since 1972, bird impact testing has been performed at AEDC on a number of Air Force aircraft components, including structures from the T-38 trainers.

During the last decade, collaborative support was provided by technical experts at the Air Force Flight Test Center (AFFTC) at Edwards AFB and AEDC to quantify performance improvements to the most recent version of the T-38 and address some problems that cropped up in the field, according to Dr. Don Malloy, U.S. Air Force lead aerodynamics analysis engineer at AEDC. At the time of the testing, Dr. Malloy was the ATA technical lead on the test program that included the flight testing at Edwards AFB.

"The AFFTC and AEDC team used historical reports from AEDC and Edwards along with state-of-the-art modeling and simulation and test and evaluation capabilities to support test and evaluation efforts at Edwards Flight Test Center," Dr. Malloy said. "Results from flight testing were also used by AEDC analysts to support ground testing of the modernized T-38 turbojet engine at General Elec-



Air Education and Training Command recently celebrated the 50th anniversary of the first operational T-38 Talons' arrival at Randolph AFB. The T-38 Northrop Talon supersonic jet trainer was tested in AEDC's 16T in 1958. AEDC has supported testing of the T-38 throughout its history, including a recent collaboration with Edwards AFB to help quantify performance improvements. (Top photo from AEDC files; Air Force file photo below by Chad Bellay)



tric's engine test facility. In order to support a very aggressive flight test schedule, AEDC also prototyped some of the hardware that was installed on the flight test aircraft."

Dr. Malloy described the overall result of the AEDC-AFFTC collaboration.

"The AFFTC and AEDC

provided the test data and knowledge the program office needed to select the final configuration to go forward with for the remaining life of the weapons system," he said. "AEDC continues to support the Talon through the Air Force Smart Operations for the 21st Century program, AFSO21. Our re-

cent support to the AFSO21 team that improved a critical engine control component and our new way of thinking are as important as our support for the recent modernization program."

Based on the recent propulsion modernization the T-38's service life should extend to at least 2020.

60TH from page 1

receive a limited edition 60th Anniversary *High Mach* hat.

"Since You Know" will continue after the June 3rd issue of *High Mach*, but the limited edition hat will only be awarded through the months of April, May and June, and only current AEDC employees are eligible.

The June 17 issue of *High Mach* will be replaced with a special publication that is a pictorial celebration of AEDC's facilities, the programs that were tested and, most important, the people who, for the past 60 years, have used their knowledge, skills and talents to ensure that U.S. airpower is the best it can be.

Public Affairs will also roll out a new Web page dedicated to the 60th anniversary.

AEDC history, film clips, photos, stories and base trivia are a few of the items to be featured.

Public service announcements with historical and useful information about the base will also be provided to area radio and television stations.

BRIEFS

Sunrise service set

AEDC Chaplain Services is sponsoring the 23rd annual Easter Sunrise service at the Arnold Lakeside Center beach area on Easter Sunday at 6:30 a.m. Dress is casual. Please bring lawn chairs. In case of inclement weather, the service will be held on the patio (tented) area behind the ALC.

Tech meeting May 4

Tennessee Technological University (TTU) will host an alumni luncheon May 4th at the Arnold Lakeside Center from 11:30 a.m.-12:30 pm. Lunch will be provided by the university. The event will include a presentation by TTU President Bob Bell on "What's Happening at TTU."

During the last event held May 14, 2009, nearly 175 people attended, which is a record for the largest alumni gathering outside the university campus. The previous record was 125. Alumni hope to break the record this year.

The ALC will be serving a deli bar accompanied by potato salad, chips and fruit, with a choice of tea, coffee or water, and cookies for dessert. Alumni are encouraged to wear Tech colors.

Please RSVP to Sharon Carter at 454-4955 or by e-mail at sharon.carter@arnold.af.mil. The club is limited to 200 people.

Correction

In the March 18 issue of *High Mach*, the phone number for people interested in taking the Tennessee Wildlife Resources Agency boating safety class on May 14 was incorrect. The correct number is (615) 837-6013.

'Design of experiments' approach pushed for base ground testing

By Philip Lorenz III
Aerospace Testing Alliance

A recent lunch and learn Technical Excellence seminar on the concept behind "design of experiments" (DOE) represented the latest salvo generated by AEDC's leadership to encourage integrating that approach to ground testing at the world's largest ground testing complex.

For approximately three years, an effort has been underway at AEDC to formally bring DOE into the picture – an effort that has included seminars, classes and case-by-case applications of the approach to

testing and test planning and processes contributing to testing.

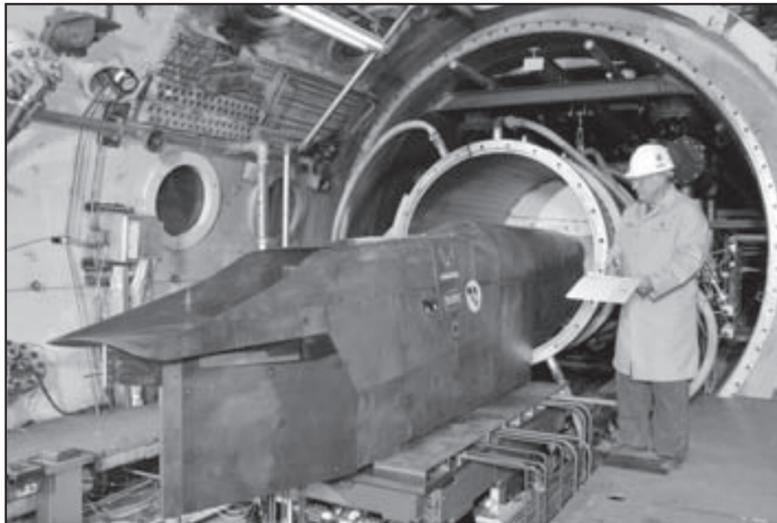
Jerry Kitchen, AEDC's deputy director of engineering and technical management, is in charge of navigating the way for the introduction and incorporation of DOE into ground testing at the base.

According to Kitchen and other advocates of the approach, DOE can be applied to ground testing at AEDC and will enable engineers to determine simultaneously the individual and interactive effects of many factors which could affect the results in a given test and the effect those fac-

tors will have on the system being tested.

Glen Lazalier, an aerospace engineer whose AEDC career has spanned 46 years, explained how DOE works.

"DOE is the application of a rigorous process to the selection of the test points used to produce optimal information from a given set of test resources," he said. "DOE includes ways to investigate both the direct and interactive effects of multiple input variables on desired output variables by simultaneously varying the inputs in a disciplined and mathematically appropriate manner."



In 2009, the Defense Advanced Research Project Agency's Falcon Combined Cycle Engine was successfully ground tested for the first time in AEDC's Aerodynamic and Propulsion Test Unit. (Photo by Rick Goodfriend)

In 1976, Lazalier was one of the first engineers at Arnold to apply DOE to a test.

While working on enhanced efficiencies for testing and evaluation of gas turbine aircraft engines,

he found that DOE was the best approach for the proj-

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ENERGY from page 1

load here, no matter what we're doing," Captain Hainge said. "Then we have these sporadic tests in between that shoot our usage up to 300 megawatts, but they're spikes. They said when you have a spiky system like we have, you need ways of storing energy for those times that you're going to spike, like a battery."

The problem is finding a way to store that energy until the next time it's needed for an energy spike, and it's not an easy one to solve according to Daryl Williams, TVA's senior manager for clean and renewable energy. But just because it's a complex problem doesn't mean it can't be conquered.

"We don't think it's impossible," Williams said.

In fact, TVA and a third party have been working with another industrial customer in the Tennessee Valley that has large amounts of waste heat to try and find some energy harvesting solutions, Williams said. The

key is finding a way to store the heat energy.

"We already know how to capture the heat and use it in a power cycle," Williams said. "The problem is what material, what mechanism, what type of ceramic, how big does it have to be to capture that waste heat through duct work, retain it in some type of material – ceramics, metals, whatever – and make it available at a lower temperature for a longer period of time. That's the trick."

There are other ways for saving energy and money that are also on the table.

Biomass energy is generated by burning biological materials. Oak Ridge National Laboratory (ORNL) is in the process of bringing online a new biomass steam plant consisting of a gasification boiler that will use wood chips as fuel.

AEDC and TVA representatives recently paid a visit to ORNL to learn more about it and say the

technology could be applied at AEDC because of the vast amount of land.

"You could grow various energy crops that are dedicated for energy production; things like switchgrass or miscanthus," Williams said. "You can grow these dedicated crops for base heating or small power generation."

Solar power is another option, Williams said, because many base roofs are flat and could have panels easily installed to generate power. He said the cost of solar power is going down and is projected to be comparable or equal to coal in the next 10 to 15 years.

But again, the research the SBIR committee is putting in is just one part of Dr. Kraft's strategy for finding ways to rein in AEDC's energy costs.

"They're looking at new technologies no one's thought about, and that's pretty exciting on their end," Dr. Kraft said. "I like to have those great ideas,

but just good solid no-kidding engineering would be helpful too."

To that end, Dr. Kraft says ATA engineers are analyzing potential business cases right now to see if there are some that warrant further exploration. And he says the company has already done a good job coming up with ways to save energy in AEDC's day-to-day operations.

"The ATA engineers are very creative guys, and they've figured out how to do things already that don't even cost us anything," Dr. Kraft said. "They just do it. Just looking at our day-to-day processes, they've come up with ways to save energy."

ATA Deputy General Manager Steve Pearson says every design that is produced for an investment project on base is geared toward using less energy and being less expensive to operate. Old air compressors in the base's Engine Test Facility and von Kármán Gas Dynamics Facility were replaced with a more energy-efficient system.

Another example is the Turbine Engine Dry Air Capability (TEDAC) project that will provide dry air for altitude testing in AEDC's Aeropropulsion Systems Test Facility (ASTF). It is

scheduled to enter its second phase of construction later this year, and when completed it could provide up to \$1 million in energy savings depending on the amount of testing conducted in ASTF.

ATA has also saved energy through process changes and making sure employees are aware of how they can save energy, Pearson said. Those initiatives have saved money and energy without significant investments.

Looking to the future, Pearson says everyone involved realizes saving energy is important and will only become more so, thanks to oil-producing countries with potentially unstable governments and developing nations like India and China that will continue to consume more energy.

"The thing that puts us out of business is probably not going to be budgets," Pearson said. "It's more likely to be the cost of energy. We use a lot of it and if we don't purchase at a reasonable price, the cost to our customers may exceed a threshold they are willing to pay."

In addition to Dr. Kraft and his team's work looking for new initiatives, Pearson said ATA is planning an energy conference in the

summer that would bring together TVA, the Department of Energy, ORNL, UTSI and UT-Knoxville to start a dialogue on energy conservation.

"It's pretty exciting, because we have great opportunities," Pearson said. "Keeping our center strong and serving our customers is important to us. We're going to be successful."

The brainstorming collaboration between AEDC, TVA and other possible partners is in the early stages, but everyone involved agrees that there is potential for savings and increased energy efficiency at AEDC.

"It hasn't really materialized, but we definitely are further than we were a month ago," Mallory said. "We're evolving these relationships and everyone seems very receptive."

As for Dr. Kraft, he's ready to hit the road to pitch an idea, hopefully by mid-summer.

"I'm hoping in the next three or four months we have one of those tigers by the tail that we can actually chase some resources with," he said. "We have a lot of work ahead of us, but I'm enthused by the enthusiasm people have out there. And people are thinking, so we're starting to come up with good ideas."

PROPULSION from page 1

tor and most recently, Pratt & Whitney's F135 engine for the F-35 Joint Strike Fighter.

Construction on ETF began in 1950, when the Air Force began reconditioning and installing Bavarian Motor Works equipment that was dismantled and shipped to the U.S. from Germany's test plant after World War II. Some of that equipment still exists on the base, although a lot of it is inactive.

"I find it fascinating personally, that our legacy goes back that far," said Lt. Col. James Peavy, the director of the Engine Altitude Ground Test Complex.

Colonel Peavy has years of experience in many different areas of flight testing, including working and flying at the test pilot school at Edwards AFB. As a lieutenant, he spent a week at AEDC for a ground test course in the mid-90s and said he had it in his mind to come back someday, which he did about a year and a half ago.

"We have a capability that is very much unique in the world in terms of the altitudes, air speeds and mass flows that we can achieve here," he said.

Today, work at ETF is focused on a couple of different areas. Propulsion system development and qualification for the F-35 propulsion systems continues and is a major area of concentration according to Rob McAmis, the manager of turbine engine analysis.

"With the Air Force and Navy depending heavily on the F-35, it's very important that this propulsion system be well-groomed and properly assessed and ultimately qualified per the design to meet the aircraft needs," McAmis said.

Another source of test workload is the Component Improvement Performance (CIP) program. The CIP program is responsible for improving engines that are already qualified and deployed in fielded aircraft. ETF conducts sea level and altitude testing on engines that are undergoing modifications to address minor deficiencies.

Late last year, AEDC finished its longest-running test ever: an 11-month CIP test on the F100-PW-229 engine used in the F-15 Eagle and F-16 Fighting Falcon.

The CIP test was designed to enhance durability and save money, and has the potential to save tens of



The first jet engine test at AEDC in 1953 required design and construction of a thrust stand for the J47 turbojet engine used in calibrating the T-1 high-altitude test cell. The J47 engine powered the B-47 bomber. (File photo)

millions of dollars in maintenance.

"The test was to extend the life of the engine by about 40 percent, and to do that they had to upgrade or redesign some of the hardware and prove that it could withstand the longer service life interval," said turbine engine test project manager Capt. Scott Rinella.

ETF also performs performance and qualification testing of commercial engines for companies from around the world. Rolls-Royce has a commercial engine preparing to undergo icing tests on base.

Recently, a significant source of test workload is the demonstration of alternate fuels as a replacement for the existing JP-8 fuels.

2nd Lt. Drew Miller, another project manager at ETF, has been involved with testing that mixes conventional JP-8 jet fuel with different types of alternative fuels. Testing has mixed JP-8 with fuels derived from animal tallow, the camelina plant and coal (known as Fischer-Tropsch). Some fuel blends tested at AEDC have powered test flights at Eglin AFB.

"The mission right now is to reduce foreign oil dependency," Lieutenant Miller said. "We're just trying to find something that would be viable for the future."

If the amount of work going on in ETF's facilities sounds like a lot, that's because it is.

"Meeting our sponsor's test schedules is always very challenging because these schedules are somewhat success-oriented and change with unexpected findings

that so often occur in the experimental process," McAmis said. "It's just the nature of the test business where unanticipated findings occur in the experiment and adjustments in the test plan need to be made. So the direction in the experiment can change a little or a lot due to those unanticipated findings within these really complicated experiments. Our test engineers are some of the best 'maestros' in the world, orchestrating the facility and a large test team to achieve planned objectives."

The challenges of complex turbine engine experimentation are offset in part by the many advances in mechanical and electrical test support equipment, instrumentation, data acquisition systems, facility controls, data analysis tools and advanced measurement diagnostics. McAmis, who has worked in various divisions at AEDC, has seen the change in his 27 years on base. Changing test conditions occurs rapidly and acquisition of data can now occur in real time; analysts can produce trends and tabulated assessments in real time as well. This enables near real-time assessments of the quality and intent of the experiment.

Thanks to the implementation of powerful computers, flexible digital engine control (DEC) systems and advanced instrumentation and data acquisition systems that no one could have imagined three decades ago, McAmis says the amount of information generated on a given turbine engine test is staggering.

"It's like having three channels on your TV in 1970 compared to a thousand channels now," he said. "We have so much more access to the engine to direct specific systems functions. This has really enabled a higher level of experimentation and made it quite complicated in one respect, but additionally it's produced all this information about the system under test."

And that information is necessary to validate performance, operability and durability of turbine engines. Full verification often requires a suite of testing which includes rig testing, simulated ground testing at AEDC and flight testing.

ETF's test cells are capable of simulating a variety of conditions: different altitudes, temperatures and—in some cases—corrosion. The capabilities mean an engine can go through accelerated mission testing without actually flying in an aircraft.

While flight testing ultimately provides true experimental conditions including engine aircraft integration effects, the advantages of ground testing are numerous.

Ground testing allows for detailed characterization of component performance, operability and durability because extensive in-

strumentation can be used and recorded at high data acquisition rates necessary to resolve physics-driven phenomena.

Ground testing also allows for extensive parametric variations to define almost all influence factors. Augmentor testing, for example, requires sustained engine operation at high fuel consumption operating conditions, which is easily completed using AEDC ground test facilities with associated fuel storage and delivery systems.

"Because of our facility, our fuel supply system is continuous," McAmis said. "We can perform continuous testing. We can be much more efficient than a flight test and again, it's always connected with the opportunity to have a lot of instrumentation."

In addition to engine characterization testing, accelerated mission tests (AMT) are conducted in SL-2 and SL-3 by executing only the damage-producing flight maneuvers of every mission for the aircraft for which the engine under test supports. This enables engine hardware life limits to be validated and defined prior to these same limits being discovered in engines installed in fielded aircraft.

One of the other big fac-

tors propulsion testing at AEDC has in its favor is 60 years of experience in the industry.

"The people part of the equation is incredibly significant," McAmis said. "Many of the team members have been over here for years, and they have met challenge after challenge and made such a significant contribution to so many engine systems over the years. And we continue to do that."

The facilities on base are unique, but the real value is in the people who run them, Colonel Peavy said. He wants to see the expertise of AEDC applied even more outside the center, to other Air Force bases and even to developers in the private sector.

"The human capital is the most important thing we have here," Colonel Peavy said. "The facilities give us the ability to develop that knowledge and to do unique things that can't be done anywhere else, but the place for Arnold to excel over the next five or 10 years is in making that capital available and applying it to problems that are outside of Arnold but support the Air Force and the joint mission to develop and test new systems."

It's an advantage Don Jones refers to as the "gray beard factor," and he puts it right up there with the advances of technology in terms of importance.

"A machine doesn't care, but an individual does care about how the test progresses," he said. "A machine is just garbage in, garbage out. But if you have a human in the loop, sometimes when garbage comes in they say 'Wait a minute. That's garbage.'"

Jones says he and his co-workers care about what they do, which is something a computer isn't capable of. And if their computers went away tomorrow, they would still be able to get the job done the old-fashioned way.

"Sometimes you can rely too much on technology," Jones said. "I don't want to go back to the slide rule, but I could."

Civilian employees receive AEDC annual awards

| | | | | |
|---|--|---|---|---|
| <p>Air Force Civilian – Civilian Scientist/Engineer</p>  <p>Kristopher Hughes TEDAC Program Manager</p> | <p>Air Force Civilian – Civilian Scientist/Engineer</p>  <p>Michael L. Dent Test Project Manager</p> | <p>Air Force Civilian – Clerical/ Technical Support</p>  <p>Tracy K. Carter Office Automation Assistant</p> | <p>Air Force Civilian – Clerical/ Technical Support</p>  <p>Shawn Wolfe Secretary</p> | <p>Air Force Civilian – Clerical/ Technical Support</p>  <p>Andrea R. McElroy Administrative Support Assistant</p> |
| <p>Air Force Civilian – Clerical/ Technical Support</p>  <p>Stacy A. Jones Education and Training Technician</p> | <p>Air Force Civilian – Administrative</p>  <p>Emily G. Bedford Accountant</p> | <p>Air Force Civilian – Administrative</p>  <p>Richard D. Fraley IT Specialist</p> | <p>Air Force Civilian – Administrative</p>  <p>Sara A. Rozell Financial Management Specialist</p> | <p>Air Force Civilian – Administrative</p>  <p>G. Autumn Stanley Casualty Assistant/Family Support</p> |
| <p>Air Force Civilian – Non-Appropriated Fund Category I</p>  <p>Jacky W. Payne Tractor Operator</p> | <p>Air Force Civilian – Non-Appropriated Fund Category II</p>  <p>Darrell L. Eshelman Golf Course Manager</p> |  | | |

DOE from page 4

ect. Already familiar with DOE through his undergraduate studies, an ongoing J57 engine evaluation project was an ideal opportunity for developing the test plan and execution of the test using DOE.

“The results of the application of DOE showed a significant increase in information produced from a specified set of test resources,” Lazalier said. “However, in subsequent years proposed uses of DOE were often met with reluctance by the user community who were more comfortable with a one-at-a-time test parameter variation methodology.

“While many DOE methodologies are limited by an inability to address significant discontinuities in parametric variations, their use for situations in which there is a ‘smooth’ variation will provide a marked multiplier on information returned for a given resource use.”

More recently, an effort has been underway at AEDC to formally incorporate DOE in ground testing whenever it is appropriate and applicable.

“We’ve been applying DOE on everything we can at APTU (Aerodynamic and Propulsion Test Unit),” said Dusty Vaughn, an APTU project engineer.

Vaughn’s team initially tried to incorporate DOE into work on the facility’s combustion air heater (CAH). This effort proved to be unsuccessful, but appropriate uses for DOE were subsequently found and explored.

“At the conclusion of the CAH activation project, we completed projects scoped to characterize three of the APTU fixed area ratio nozzles in preparation for the FaCET (Falcon Combined Cycle Engine Test) test,” he said. “With help from Dr. (Doug) Garrard we were able to develop and apply DOE to characterize the FaCET inlet capture area of the nozzle exit flow.

“We were then able to use that correlation to set FaCET desired conditions with 100 percent success. The approach was verified during the FaCET runs where the data they collected agreed well within the required specifications they requested of the de-

sired set point.”

The most recent application of DOE into a ground test at AEDC and subsequent flight test series, centered upon the development and validation of a Towed Airborne Plume Simulator (TAPS) for the DoD Center for Countermeasures, based in White Sands, N.M.

When AEDC’s Dr. Robert Hiers was helping his team with the design and characterization of the device that evolved into TAPS, he became aware of DOE through a directive written by Dr. J. Michael Gilmore, the director of operational test and evaluation for the Office of the Secretary of Defense.

Dr. Hiers said, “That directive filtered down [to us] at the same time we were designing our flight tests series and we had been struggling with what approach to take to characterize TAPS.”

Kitchen points out that DOE is not always the appropriate approach to a given ground test at AEDC.

“Design of experiments is a planned approach for determining real relation-

ships between inputs and outputs of any process or system that is measurable,” he said. “[However], DOE is just another tool in our toolbox.”

Dr. Hiers, who agrees with Kitchen’s assessment, said, “You have to ask the right questions to determine whether DOE is going to be a valid [and] appropriate tool.”

Gregg Hutto, Wing Operations Analyst with the 46th Test Wing at Eglin AFB, Fla., has been one of the leading advocates for the Air Force’s use of DOE in both ground and flight testing.

In an American Institute of Aeronautics and Astronautics published report (titled Application of Design of Experiments to Flight Test: A Case Study), Hutto wrote, “In times of enormously expensive flight test programs, the efficiencies realized through the application of designed experiments to flight test could mean the difference between the timely delivery of a needed capability to the warfighter; an over cost, late, under-performing system; or outright cancella-

tion of the system. Design of experiments has the capability to make flight test safer and more efficient.”

Hutto said his advocacy for a DOE approach to testing is based on practical considerations.

“Our passion for experimental design is easily explained,” he said. “With a test constructed according to the principles of DOE; we are assured that we will rarely fail to discover deficiencies wherever they

exist. That is, our tests are effective in uncovering flaws.

“At the same time, we can ‘right-size’ the experimental effort – calling for no more, or no fewer trials than are required to learn the truth. A designed experiment is efficient – the least cost for what we must know. We experiment well so our warriors do not have to. The ultimate cost of poor testing is failure in combat.”

Prescribed burn

Workers at AEDC cleared portions of the base south of Wattendorf Highway with a prescribed burn March 21. The purpose of the burn in the Camp Forrest Old Impact Area South historical range was to clear away the layer of leaves and weeds possibly concealing unexploded ordnance (UXO) that has been the subject of a continued clearance project on the base. Smoke from the burn caused AEDC police to reroute traffic on Wattendorf Highway for short periods of time on March 21 and 22, but the fire remained within the boundaries set for the prescribed burn. (Photos provided)



Milestones

35 YEARS

Dennis Barnes, ATA

30 YEARS

Barbara Casey, ATA
S.M. Northcutt, ATA
Paul Girata Jr., ATA
Candace Woodall, ATA
Stephen Swann, ATA
Robert Bailey, ATA

25 YEARS

Anthony Barnett, ATA
David Bond, ATA
Thomas Bailey, ATA
Jackie Wiseman, ATA

20 YEARS

William Lynch III, ATA
Max Andolsek, ATA
Terry Hayes, ATA
John Wright, ATA
Randy Hartman, ATA

15 YEARS

Thomas Bowlen, ATA
Marcella Frix, ATA

10 YEARS

Joan Slater, ATA
James Moore, ATA
John McInturff, ATA
Gary Frost, ATA
Donald Brandt, ATA
Peter Cento, ATA

5 YEARS

Jerry Washington, ATA

Brian Jones, ATA
Phyllis Lafferty, ATA
William Vodra II, ATA
Vivian Seals, ATA
Klaus Schug, ATA
Chad Bloom, ATA
David Ehrhardt, ATA

INBOUND MILITARY

Lt. William Edge, AF

Lt. Carl Tegtmeier, AF

RETIREMENTS

Lt. Col. Thomas Faulconer, AF
Charles Evans, AF
John Jones, ATA
Thomas Daugherty, ATA
Philip Clark, ATA
Willie Brown, ATA

NEW HIRES

William Garner, ATA
Terri Rigney, ATA
Richard Bratcher Jr., ATA
James Wenger Jr., ATA

PROMOTIONS

Ricky Bush, ATA
Karl Smartt, ATA



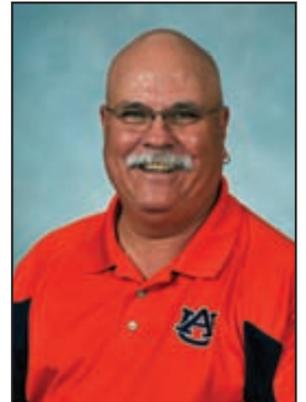
David Beavers
ATA, 35 years



Cecil Davidson
ATA, 35 years



Tommy Gray
ATA, 35 years



Grady Rutledge
ATA, 35 years

Area police meet at AEDC to discuss common issues

By Philip Lorenz III
Aerospace Testing Alliance

AEDC's Police Department held an annual "working luncheon" that brought law enforcement agency representatives from throughout middle Tennessee together at the Arnold Lakeside Center Feb. 25.

AEDC Police Chief Rick Trull said there were approximately 50 officers from 12 departments who attended the event.

"This is an opportunity for the local agencies surrounding Arnold to get together and discuss enforcement issues that impact all of us," he said. "As I stated at the luncheon, if Arnold is ever adversely affected by a terroristic act or anything similar, it will pass through one of the local communities before it gets to us. If we can detect it out there, we have a much better chance of intercepting it before it impacts the base. Additionally, we often respond to incidents out in our wooded and wildlife management areas either as a secondary response or as a mutual aid response. These meetings allow us to talk through responses and mutual support."

For Charlie Sewell, chief of the McMinnville Police Department, the visit to Arnold AFB was his first.

"I had no idea the event was going to be comprised of that many members of law enforcement," Sewell said. "I was pleasantly surprised to see representatives from so many agencies, and especially those agencies that I rarely get to have interactions [with]."

"When law enforcement officers know each other they are much more likely to reach out for assistance. We share crime trends and investigate similar types of crime. Information sharing

can be a great investigative tool in solving crime."

According to Steve Luttrell, AEDC Police Force investigator, who did all the coordinating for the event, it serves as an opportunity to become better acquainted and share information on issues all agencies have in common.

"It's more of a working luncheon where local police departments, sheriff's departments and law enforcement get together to talk about general topics of mutual concern," Luttrell said. "[We discuss] criminal activity in the area or processes where we might be able to help each other and the budget problems we have now.

"We will be talking with the sheriff's departments about multi-jurisdictional SWAT teams or response teams and things like that."

Sewell added, "Networking is a very valuable part of law enforcement. Every incident that we deal with is different from the next. It has been my experience after nearly four decades in the profession that when I face an unusual or difficult situation, someone from another law enforcement agency has already addressed that situation.

"This is more particularly true in regards to issues with personnel. An event like this is also a good time to share information about best practices, training topics and pros and cons of certain equipment."

Luttrell's son Heath, who is assigned to the Drug Enforcement Agency (DEA) in Chattanooga, also attended the event at AEDC.

"I am assigned to a DEA task force in Chattanooga as a task force officer," he said. "Any time we can get together and share information and just see what's

going on in the community, it's always a good thing. I'm in the reserves, the Air Guard, so I come out here all the time."

Sgt. Steve Moore, with the Tennessee Highway Patrol (THP), was among other THP officers who attended the luncheon.

Moore, an Air Force retiree, had been at AEDC a year earlier to attend the first Police Officer Standards and Training (POST) certification for a large number of Arnold's Police Force officers. He said last week's luncheon provided a good opportunity for law enforcement agency representatives to find common ground and get better acquainted.

"I've always been involved out here," he said.

Chief Trull said, "The THP are some of our closest neighbors, being just a few miles down the road at the state weigh station on I-24 and they provide us with great information and support in the area of large vehicle movements and violations as well as HAZMAT awareness and vehicle inspection information for tractor/trailers."

AEDC Staff Judge Advocate Maj. Mitzi Weems also attended the luncheon.

"It is important for the base legal office to build relationships with local law enforcement so we can partner with them in supporting military victims and witnesses of crimes, or in our prosecution of a military member who has committed a crime off base," she said.

Tennessee State Rep. Judd Matheny, who has a background in law enforcement, spoke to those attending the event about current law enforcement-related bills that are pending in the Tennessee House of Representatives.



AEDC Police Chief Rick Trull confers with Franklin County Sheriff Tim Fuller about issues affecting all local law enforcement agencies during the recent annual "working luncheon" held at the Arnold Lakeside Center. (Photo by Rick Goodfriend)

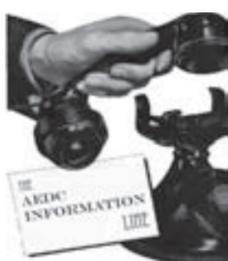
Live fire drill



AEDC Fire Department Assistant Chief for Operations George DeShields directs some of the base's mutual aid firefighter partners from Murfreesboro and Manchester as they fight a simulated heater fire with "rollover" onto the ceiling in the mobile trainer from the Alabama Fire College. The trainer was on base March 25-27 so all three shifts of the AEDC Fire Department could experience the live fire training. About 40 firefighters from other area fire departments also participated. (Photo by Rick Goodfriend)

454-3600

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





Employee assistance program resources there for AEDC's military work force and retirees

By Philip Lorenz III
Aerospace Testing Alliance

AEDC's active duty population of approximately 50 individuals has access to similar employee assistance program benefits that are available to their contractor and DoD civilian counterparts.

"This is a tremendous benefit at no cost to active duty and their family members and low cost to retirees and their family members," said Alan Jones, one of two beneficiary counseling assistance coordinators at AEDC's Medical Aid Station.

TRICARE behavioral health care services are available to active-duty military members through a primary care manager referral to Value Options. AEDC employees who are military retirees also have access to these benefits through TRICARE's Value Options. Services include outpatient psychotherapy for adults and children as well as family or group sessions. Substance abuse treatment services include inpatient detoxification, inpatient rehabilitation, outpatient care and family therapy.

These services are also

available to eligible family members.

Acute inpatient psychiatric care is also available for these individuals. For non-emergency care, eligible members should contact their primary care provider who can provide an initial assessment and refer them to an appropriate behavioral health care provider.

Members should contact Value Options (Behavioral Health) at 1-800-700-8646 prior to receiving treatment from a mental health provider.

Military One Source is

an Internet-based family assistance program that offers personalized advice and support on many kinds of issues, including financial issues, relationship problems, spouse employment and other mental health issues. Military One Source is available 24 hours a day, seven days a week for active duty service members and their families at 1-800-342-9647, or visit the website, <http://www.militaryonesource.com>.

For more information, Jones can be reached at 931-454-3994, or contact Tech. Sgt. Danielle Morris at 931-454-3829.

Preventive health care available to government civilians

By Philip Lorenz III
Aerospace Testing Alliance

Like their ATA counterparts, AEDC's Department of Defense employees also have a program available to resolve personal problems before these issues interfere with their work.

Sherri Lamas, a personnel management specialist for AEDC's personnel directorate, said the Employee Assistance Program (EAP) provided by Federal Occupational Health (FOH) is a comprehensive program that helps AFMC-service appropriated, non-appropriated fund civilians and Navy government employees to resolve personal problems that may adversely impact their work performance, conduct, health and well-being.

"Basic EAP services include free, voluntary, confidential, short-term counseling and referral for up to six sessions for various issues affecting employee mental and emotional well-being, such as alcohol and other substance abuse, stress, grief, family problems and psychological disorders," she explained. "EAP counselors will work with you to help resolve a wide variety of problems including alcohol and drug abuse, work and family pressures, legal and financial problems, job stress and other concerns which can affect your work performance and personal health."

Lamas said the benefit "empowers employees to resolve personal problems that impact or may impact

on employee conduct and work performance in the quickest, least restrictive, most convenient and least costly manner possible."

If counseling treatment is required beyond the session limit, the EAP counselor will refer the client to an appropriate treatment or community resource.

The EAP benefit available to eligible employees includes access to 24/7 crisis management services. Other services include legal consultation with a licensed attorney, followed by reduced-fee services if required. Beneficiaries needing legal guidance may choose to have a 60-minute phone or in-person consultation with a local attorney. After-hour services are available for emergencies.

Another EAP benefit includes financial consultation services.

Several avenues are available, including consultation with certified public accountants and certified financial planners who have experience in accounting, banking and insurance issues.

There is also an identification (ID) theft program that provides comprehensive legal, financial, and ID theft resolution services. These services can save an employee thousands of dollars in legal expenses and considerable time.

For information on these and other EAP services, resources, and tools, visit the EAP website: <http://www.foh4you.com> or call the toll-free number 1-800-222-0364 or 1-888-262-7848 for hearing-impaired employees.

VA officials work to break disability backlog

By Donna Miles
American Forces Press

SNOWMASS VILLAGE, Colo. (AFNS) – Former Navy Petty Officer 1st Class Tyrone Allen is part of a growing legion within the Veterans Affairs Department striving to make good on VA Secretary Eric K. Shinseki's pledge to "break the back of the claims backlog."

Allen understands firsthand the frustrations many veterans feel as they wait for VA officials to adjudicate their disability benefits claims.

An electrician's mate aboard USS Wasp as it operated off the Djibouti coast in 2004, he suffered a cracked skull, traumatic brain injury and compressed spine when a hatch came crashing down on his head.

The VA claims process took far too long, Allen said, noting that he's still awaiting adjustments as his back condition worsens.

But today, Allen is part of VA's fix. He's a VA claims assistant working at the Huntington VA Medical Center in West Virginia. He's among a legion of more than 3,500 new employees VA has hired to expedite claims processing as it introduces other systemic improvements.

"It is really unacceptable that the backlog is as big as it is and it takes as long as it does for veterans to receive their claims," said W. Scott Gould, the deputy VA secretary.

VA's goal by 2015, he said, is for veterans to wait

no more than 125 days for a decision on a claim, with a 98 percent accuracy rate.

Gould spoke about the claims process while participating in the 25th National Disabled Veterans Winter Sports Clinic, an annual event that this year brought together more than 350 disabled veterans, including Allen.

VA officials completed 977,000 claims in 2009, but took in, for the first time, more than a million new ones. In 2010, VA officials completed 1 million claims, but received 1.2 million new ones.

By the end of 2011, officials expect to receive 1.45 million claims, a double-digit increase over the number of claims received in 2000.

Gould attributed many of the new claims to the new wave of combat veterans with complex medical issues just entering the VA system.

However, he acknowledged, 65 percent were re-submissions from veterans already in it.

"We have been experiencing a growth in new claims, even as our overall production has been increasing," he said.

So to reach their goal, VA officials have attacked the challenge on three fronts, Gould explained.

The first involves people: hiring new claims processors and improving the way the VA trains them.

But "merely hiring more people to handle claims won't let us get ahead of the incoming surge, let alone cleave the size of

the backlog," Shinseki has often said.

So VA officials are working to improve systems and automate as quickly as possible, Gould said.

Their second major focus in reducing the backlog involves "reinvesting and re-engineering the business process we use to complete the claims," Gould said. This includes accepting online applications for initial disability benefits, initiating an innovation competition and launching more than 30 pilot programs and initiatives to identify best practices.

Finally, VA officials are investing in new technology to support these efforts.

Gould said he's particularly excited about one recent accomplishment, the result of a pilot program for the paperless Veterans Benefits Management System that VA officials plan to deploy in fiscal 2012.

"We completed our first

all-electronic claim in just 47 days," Gould said of the pilot that's being conducted in Rhode Island.

And although the claim involved was relatively simple and straightforward, Gould called the entirely automated processing capability a major step toward VA's goals.

VA's fiscal 2012 budget request includes \$2 billion to support these claims-processing initiatives, up 19.5 percent over fiscal 2010.

"So we are very optimistic that we can achieve our goal of no claim taking longer than 125 days with 98 percent quality," he said. "And right now, we are just not meeting either of those standards."

Gould said he's confident VA is on the right track in reaching Shinseki's goals to end the claims backlog by 2014.

"We think we can get there," he said. "It is something we have got to fix together."

Biden: Disabled veterans inspire us all



Vice President Joe Biden greets volunteers during registration for the 25th annual National Disabled Veterans Winter Sports Clinic March 27 in Snowmass Village, Colo. The program brings together nearly 400 veterans with disabilities through adaptive winter sports. (White House photo)

AFMC commander refines support priorities

By **Monica D. Morales**
AFMC Public Affairs

WRIGHT-PATTERSON AIR FORCE BASE, Ohio – When asked if he returned home with a to-do list after visiting select Pacific Air Forces bases and Afghanistan, Gen. Donald Hoffman thumbed through a quarter-inch stack of papers before citing several examples during a March 25 interview.

“The purpose of this trip was not to solve tactical-level issues, but to see how we can make improvements at a strategic level,” the commander of Air Force Materiel Command said.

From his office within the AFMC headquarters building, General Hoffman recounted the warfighter insights and lessons learned that he and a team of AFMC senior leaders noted during a 13-day trip in early March that took them to four countries and eight locations. It included stops in Alaska, Korea, Japan, Guam and Afghanistan.

“The team I took with me was primarily logisticians, my supply-chain management team and my Air, Space and Information Ops team, because they are the ones most closely engaged in sustaining forward forces,” the general said.

While designed to acquire feedback directly from warfighters to determine how the command can better accomplish its supply and sustainment operations, the general said the trip also provided an opportunity to observe innovative solutions in the field.

“We witnessed a wealth of great ingenuity going

on at all levels,” General Hoffman said.

This trip differed from others in years past, in that it included a view through the lens of General Hoffman’s role as the Air Force’s new lead integrator for agile combat support. As such, he bears responsibility for an extended portfolio that includes base operations support and training, in addition to the sustainment acquisition activities across all Air Force installations.

General Hoffman emphasized the importance of the command’s role in keeping warfighters equipped with the parts and engineering support to continue their operations, including the personal dedication to work warfighters’ problems first before tackling routine matters.

Excerpts from the interview follow:

Q: What feedback did you receive from AFMC’s warfighter customers at the bases you visited and in the AOR?

A: I got universally positive feedback from all quarters. They get it -- they know there are budget pressures and there are challenges in the parts-supply system and so forth. Whether they are in the AOR or in Korea, Okinawa or Alaska, they know they are at the far end of the transportation line. But especially those who are engaged warfighters, they also know they are our highest priority. They are not waiting for a part that exists somewhere in the system; it’s usually already on its way.

They also very much appreciate the quick turns – I got this unsolicited

[feedback] everywhere. If they’ve taken an airplane apart and found a crack or found a hole that’s elongated and they need an engineer’s disposition – that turnaround is usually within 24 hours. Overall, they are very appreciative of what the enterprise is doing for their sustainment.

Q: What messages did you deliver to those who rely on AFMC?

A: For deployed members, I wanted to ensure they understood how much we appreciate them. Our job back home is to make them successful.

I also talked about the fiscal realities that are descending upon us in the Air Force, the Department of Defense, and as a nation. Our fiscal habits have driven us to create our number-one national security challenge, and that is long-term economic health ... fiscal solvency, if you will. As a nation, we spend a lot more than incoming revenue and that path is not sustainable over the long term. I wanted to set the tone for how we all need to be good stewards of every dollar we get because the flow of dollars is not assured. We need to make sure that we spend each one wisely.

Q: What is AFMC doing well right now to support the warfighter?

A: Engineering quick-turns and visibility on warfighters’ requirements for when they need a part. That quick visibility allows us to energize a process that finds the part and gets it moving to where it is needed, using the fastest mode of transportation possible.

Q: What are your reasons for making this trip, and what type of insight did

you gain from it?

A: Let me set the scene, first of all. I try to go to the theater once a year to see how warfighters, and those in theater who support them, are operating and what we might be able to do better as the home team. Usually, because it’s a long trip over there, we also stop and do other things along the way.

We have an AFMC unit at Kadena in Okinawa – the Pacific Support Center – and it does repairs that normally would be considered depot repairs, but they do them locally to avoid added transportation time and expense. The center doesn’t provide unlimited capability but it performs repairs like generator re-wire and handles component repair for our aircraft stationed in Korea and Japan.

Also on this trip, I wore a second hat I hadn’t worn in previous years, and that’s the hat as the lead integrator for Agile Combat Support (ACS), one of the Air Force’s 12 core functions. ACS is the most expansive portfolio, ranging from base operations support to training and education, and all the sustainment acquisition activities within the Air Force.

I stopped at places that are off my normal path, and even at locations not within AFMC, to view activities through the lens of the ACS Lead Integrator. We stopped at Elmendorf, Osan and Guam to appreciate challenges such as joint basing. It was a very useful trip from that perspective.

We also rely on contract depot support at Korean Airlines in Korea. Rather than bringing an F-15 or an A-10 all the way back

to our depots and doing the work, we contract out with them and they do the same work – very well, by the way – right there in Korea. They are doing major depot work for us, and I wanted to lay eyes on that process and talk to the leadership there, see what issues and challenges they have and be assured that they would deliver the same quality product that we would if the plane had come back to our depots.

So with that preamble, numerous things appeared that might require attention. The purpose of the trip was not to solve tactical-level issues, but to see examples of how, at a strategic level, we’re still not fully engaged – or maybe it’s a matter of organizations just not knowing the right way to get our support. It’s through numerous anecdotal examples that we learn what’s working, what previously unidentified needs we can meet, and where improvements are called for.

Q: What are some examples of items on your to-do list?

A: One example we saw was at the Pacific Support Center, where the person-

nel there are fixing a lot of things. There’s one avionics box, and there’s one switch on it that always goes bad. They are replacing the switch – rather than sending the box all the way back and putting it out of commission for a couple of weeks until a replacement shows up. That’s noble and that’s good; it saves transportation costs. But my question was, “Do we document that the switch was failing or do we just fix it?” Maybe it’s a bad design where we need to replace all switches before they fail so they don’t come off the aircraft at all. That’s kind of a wholesale-level “lessons learned” that would be lost if we just solved problems at the tactical level all the time.

I saw great examples of other ingenuity being tested in the field. Many examples were either initiated here at Wright-Patt at the Air Force Research Lab or at the depots. One is the hypoxia trainer. Rather than sending aircrews on temporary duty to an altitude chamber and evacuating the air out to

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simulate a rise in altitude, they have a very simple device. The aircrew puts on their own equipment—their own helmets and masks that they would normally fly with—and there's a way of metering the mixture of air going in that gives them the same effect, without sending them to an expensive TDY location or to a training chamber.

As another example, when we paint a C-17 we put on a primer coat and we put on a main coat. There's a product available right now that may lead to just painting planes once without a primer. It looks to be promising—we would save a lot of dollars not only on the paint, but also the labor it takes to paint C-17s.

Q: Was there any particular part of a base visit or specific moment that struck you during the trip?

A: When you get to Afghanistan itself, and we just went to the two large bases—Kandahar and Bagram—you see tens of thousands of people on each base. One is a NATO base, where all the NATO countries have their forces, and the other is more of an Army base. There are lots of Americans and partners out there working a common problem, figuring out command-and-control relationships, support re-

lationships and doing it to the best of their ability. These are large bases with lots of moving parts, some with seven busy dining facilities, which gives you an idea of the magnitude of the ongoing 24-hour operations.

A moving moment came at the hospital, where we saw the magnificent care that's available. If I ever need care—from a hangnail to heart surgery—I would want to be in one of these facilities. They have top-quality equipment, surgeons and technicians who can provide the initial care needed until patients are transported back home. The whole medevac system gets patients from the battle or from the point of injury to the hospitals quickly, usually by helicopter. The survival rate has significantly improved.

Not only does the hospital staff take care of Americans and coalition partners, but they take care of the enemy. The only difference that you'll see in that care is that there is an armed guard present when there is an enemy combatant being treated. Other than that, they get the same level of care... how many nations would do that?

Q: How many AFMC people were you able to talk to, and what were some



Gen. Donald Hoffman, Air Force Materiel Command commander, installs a nose fuse on a GBU-54 during his visit to the ammunition supply point at Bagram Airfield, Afghanistan, March 18. This stop at Bagram was part of a trip through select Pacific Air Forces bases and the U.S. Central Command's area of responsibility to acquire feedback directly from warfighters to determine how AFMC can better accomplish its supply and sustainment operations. (Photo by Senior Airman Sheila deVera)

of the job specialties they were doing?

A: We certainly saw them in Kadena because that is an AFMC unit at the Pacific Support Center. We saw AFMC people in the two deployed locations in the AOR, at Kandahar and at Bagram. They ranged from full colonels running

a maintenance operation to junior Airmen deployed in a variety of jobs, like security forces or aircraft maintenance. They are all highly motivated, very engaged in the fight they are in, and all well aware of the significance of their contributions.

Q: Do you have a mes-

sage for all of AFMC that stems from this trip?

A: To the whole command, whether you are in the research business, the acquisition business, the sustainment business or the test business, the fruits of our labor are benefitting those in harm's way. Every time

a deployed Airman has a requirement, he or she is waiting for a solution. My message to the entire command is to continue the great support we've been providing. Don't let anything sit in your inbox that could improve things for our fellow deployed military and civilian Airmen.

Arnold Golf Course 454-7076

Spring Into Golf Special! \$26 April 1-30 (good seven days a week) Price includes 18-hole green fee, 18-hole cart fee, a hot dog and fountain soda – a \$35 value!

The **2011 AEDC Intramural Golf League** will begin April 11. This year's league will be limited to 20 four-person teams that sign up. The format is four-person team match play and a maximum individual nine-hole handicap of 13 has been established. Each team will play either Monday or Tuesday for 19 weeks.

There will be no league play on Memorial Day and Tuesday of that week. To enter, provide your team name, names of members, phone numbers and identify the team captain. All entries must be submitted by March 25. If you are interested in participating please contact J.T. Northcutt, 454-4771, or Lyle Sissom, 454-5199.

The **Commander's Season Opener Four-Person Scramble** is set for April 16 with a 9 a.m. shotgun start. Cost is \$25 and includes lunch. Green fee and cart fee are extra. Sign up in the Pro Shop by April 14.

Customer Loyalty Program for golf advanced green fee players to start for 2011 season. Purchase an annual green fee at Arnold Golf Course for 2011 and receive:

- 10 percent discount on Pro Shop merchandise
- 10 percent discount on cart rental
- 10 percent discount on driving range tokens
- 10 percent discount on food and beverage purchases at Mulligan's Coffee Bar & Grill

These discounts will be good during the 2011 season which runs April 2011 through March 2012. This discount program is not to be used in conjunction with the Members First Plus discounts. Maximum discount allowed is 10 percent. Sale items and alcohol are not authorized for these discounts. Come by to purchase your annual green fee and get your card for a year of savings.

Arnold Lakeside Center 454-3350

Arnold Lakeside Center is going country April 22 with a **Cowboy Cookout and outdoor showing of "True Grit."** Dinner will begin at 6:30 p.m. with barbecue chicken leg quarters, potato salad, baked beans, chips, hot dogs, tea and lemonade served on the side patio. Cost is \$6.95 for members and \$7.95 for nonmembers. Enjoy the bluegrass acoustic sounds of The Loading Dock Boys during dinner and once darkness sets in the movie will begin (probably around 7:30 or 8 p.m.). "True Grit," rated PG-13, is the story of 14-year-old Mattie Ross seeking justice for the murder of her father. To aid her, she hires the toughest U.S. marshal she can find, a man with true grit, Reuben J. "Rooster" Cogburn, to track down the killer, Tom Chaney. Mattie insists on accompanying him, and his drinking, sloth and generally reprobate

character do not boost her faith in him. They are joined by Texas Ranger LaBoeuf who wants Chaney for his own purposes. The unlikely trio finds danger and surprises on the journey and each has his or her grit tested. In case of inclement weather, the event will be rescheduled for April 30.

Arnold Lakeside Center will host a special **Easter Fun in the Sun picnic and egg hunt** April 23. The picnic lunch will be from 10 a.m.-1 p.m. served buffet style on the patio and includes fried chicken, potato salad, baked beans, bag chips, cole slaw, mac-n-cheese, pecan pie and carrot cake. Cost is \$8.95 members, \$9.95 nonmembers and \$4.95 for ages 12 and under. This will be open seating, no reservations required. The egg hunt will begin at noon on the lawn with candy and prize slips inside the eggs, so don't forget your Easter basket. Prize slips will determine what prize is won. There will be three age brackets: 2-5 years old, 6-8 years old and 9-12 years old. The Easter bunny will be present from 11 a.m.-1 p.m. for photos with kids and families. This event will replace the traditional Easter Sunday brunch. The ALC will be closed Easter Sunday.

Arnold Lakeside Center has planned an evening getaway to **Chaffin's Barn Dinner Theater** in Nashville to see "The Foreigner," a comedy by Larry Shue. In a rural fishing lodge in Georgia, frequent visitor and British demolitions expert "Froggy" LeSeuer deposits a friend, a pathologically shy man named Charlie who is overcome with the thought of making conversation with strangers. (And the "strangers" couldn't be more strange: a sinister, two-faced minister and his redneck associate, the minister's debutante fiancée and her half-witted brother, and the feisty proprietress of the lodge.) Before leaving, "Froggy" tells everyone that Charlie is from an exotic foreign country and speaks no English. Once alone, the fun really begins as Charlie overhears more than he should. If you've never seen this perennial Barn favorite, you must. If you have, you'll want to see it again! Enjoy dinner before the show and then watch as the real magic begins, the lights dim and the stage descends from the ceiling. Cost is \$55 if signed up by April 15. Cost will increase to \$60 if signed up April 15-22. Depart from the ALC at 4:30 p.m. and return approximately midnight. This trip has all the elements for an outstanding night of fun located in one building and with transportation provided at a great price. Chaffin's Barn Dinner Theater is rated one of the top 25 tourist attractions in Nashville. Call Melissa at 454-3303 to sign up for the trip. There must be a minimum of five to go and maximum participants allowed is 20.

Wednesday lunch is available for dine in or carry out from 11 a.m.-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. Regular menu items available during lunch include specialty burgers, chicken tenders, salads and stuffed breadsticks. Call to see what other specials

are available each week or check Sharepoint.

Second Friday Karaoke will be April 8 from 6-10 p.m. All ages are welcome from 6-8 p.m. but 8-10 p.m. is reserved for adults only. Dining room special will be 50-cent buffalo wings for members only served 4-9 p.m.

Movie nights are every Thursday with movie start time of 6 p.m. and dinner available from the Express or Pizza menus from 5-8 p.m. The schedule for April is: **April 7** – "Chronicles of Narnia: Voyage of the Dawn Treader," rated PG starring Georgie Henley, Skandar Keynes and Ben Barnes. Lucy and Edmund Pevensie return to Narnia with their cousin Eustace where they meet up with Prince Caspian for a trip across the sea aboard the royal ship The Dawn Treader. **April 14** – "Gulliver's Travels," rated PG starring Jack Black and Jason Segel. Travel writer Lemuel Gulliver takes an assignment in Bermuda, but ends up on the island of Lilliput, where he towers over its tiny citizens. **April 21** – "Country Strong," rated PG-13 starring Gwyneth Paltrow and Tim McGraw. Soon after a rising young singer-songwriter gets involved with a fallen, emotionally unstable country star, the pair embarks on a career resurrection tour helmed by her husband/manager and featuring a beauty-queen-turned-singer. Between concerts, romantic entanglements and old demons threaten to derail them all. **April 22** – **special Friday presentation outdoor movie and cookout** – "True Grit," rated PG-13 starring Jeff Bridges and Matt Damon. A tough U.S. Marshal helps a stubborn young woman track down her father's murderer. **April 28** – No movie due to special function.

Friday night dining room specials available from 4-9 p.m. April 1: Buffalo shrimp and crawfish, \$11.95 member, \$12.95 nonmember. First Friday Jam is 6-10 p.m. **April 8:** 50-cent buffalo wings (members only). **Second Friday Karaoke** 6-10 p.m. **April 15:** Peel-and-eat shrimp, \$10.95 members, \$11.95 nonmembers. **April 22:** Outdoor Movie Night & Cookout: barbecue chicken leg quarters, potato salad, baked beans, chips, hot dogs, tea and lemonade \$6.95 members, \$7.95 nonmembers. Special movie presentation of "True Grit" beginning at dark (approximately 7:30-8 p.m.) **April 29:** Lynchburg ribeye \$15.95 member, \$16.95 nonmember. Last Friday Trivia 6 p.m. ALC Friday Lent special goes through April 22: Grilled red snapper or tilapia \$11.95 member, \$12.95 nonmember. All specials and times are subject to change without notice. Please call ahead to ensure availability and openings.

Saturday availability and specials: April 2: New York strip with stuffed portobello mushrooms, \$20.95 member, \$22.95 nonmember. April 9: Garlic salmon, \$13.95 member, \$14.95 nonmember. April 16: Filet mignon (8 ounce) with strawberry spinach salad, \$21.95 member, \$23.95 nonmember. **April 23:** To-go orders only; closed for special

Mission Support Division 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 5-8 p.m., dinner or Arnold Express Menus and Hap's Pizza Friday 4-9 p.m. and Saturday 5-9 p.m.; Main Bar Thursday 5-8 p.m., Friday 3:30-10 p.m. and Saturday 5-10 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.-5 p.m., Saturday 12-5 p.m., First Friday Movie Night 5-7 p.m.

Outdoor Rec – Main Office, Check In and Auto Shop Tuesday through Saturday 10 a.m.-5 p.m., Marina by appointment only.

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 8 a.m.-5:30 p.m., Driving Range open 24 hours with pre-purchased key card. Mulligan's Grill: 6:30 a.m.-2 p.m. Monday through Friday, 7 a.m.-2 p.m. Saturday and Sunday.

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.

event. **April 30:** Prime rib for two, \$34.95 member, \$36.95 nonmember. The dining room is open on Saturdays from 5-9 p.m. unless otherwise specified. All specials and times are subject to change without notice. Please call ahead to ensure availability and openings.

Trivia Contest returns 6 p.m. April 29 with a food and drinks theme. 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 at 6 p.m. to all participants prior to the start of the game. Six rounds of questions will be administered consisting of three questions in each round. Each round is worth 10 points. The teams with the most points at the end will win prizes. Ties will be broken by a trivia play-off.

Family Member/Youth Programs (FamY) 454-3227

Youth Movie Night will be April 1 from 5-7 p.m. Ages 9 and up are invited to the Open Rec Center to watch a movie. There will be free popcorn, juice and water.

Air Force Teen Leadership Camp will be conducted July 11-15 at the University of Texas in San Antonio. Interested youth must complete the application and apply through Youth Programs. This is a five-day residential camp that will provide youth a glimpse of what university life is like while developing their leadership skills. Activities include team building, high/low ropes courses, conflict resolution, public speaking and more. This program is open to family members of active duty Air Force, other branches of the military assigned to or living on an Air Force base, Air Force retired military, Air Force civilian and contract employees and active Air National Guard or Air Force Reserve members. Transportation to the academy is the responsibility of the attendee if selected. Lodging, meals and activity costs are funded at no cost to the participant. All applications must be fully completed and returned to Youth Programs by April 13. Call for more information.

The **Air Force Space Camp** will be conducted July 25-30 at the U.S. Space and Rocket Center in Huntsville, Ala. Forty-eight scholarships are available for youth ages 12-18. Interested youth must complete the application

and apply through Youth Programs. Applicants may not have attended previous Space Camps. This program is open to family members of active duty Air Force, other branches of the military assigned to or living on an Air Force base, Air Force retired military, Air Force civilian or contract employees and active Air National Guard or Air Force Reserve members. Transportation to Huntsville is the responsibility of the attendee if selected. Lodging, meals and activity costs are funded at no cost to the participant. All applications must be fully completed and returned to Youth Programs April 13. Call for more information.

Drum Lessons will begin a new session April 16. Cost is \$50 for four 30-minute sessions and is open to ages 7 and up. Classes are held on Saturdays from 12-4 p.m. in 30-minute blocks for four week sessions. Call to set up your time preference.

Welcome back Pretty Discoveries for a **jewelry fair** April 19 in the A&E building, room A123, from 9 a.m.-3 p.m. Now is the time to get something special for your loved ones for Easter, Mother's Day, back to school, birthdays or any occasion. All jewelry prices are below \$20 and there will be door prize drawings for free jewelry. Pretty Discoveries also carries belts and handbags. The next jewelry fair is scheduled for Aug. 19.

Sideline Sports Camp scheduled for April 25-29 for ages 9-16 to be held Monday through Friday from 4:30-7:30 p.m. Cost is \$20 per child (second child receives 20 percent discount) and includes snacks and water. Deadline to sign up is April 20. Late registration fee will be \$25 and cancellation fee will be \$10. This camp is geared to teach youth the understanding of different sports and to have an appreciation for those sports as a lifelong skill. Youth will engage in ultimate Frisbee, badminton, lacrosse, team handball, obstacle course and lawn games such as bocce, croquet, horseshoes and disc golf, to name a few. In the event of inclement weather the program will move indoors for high- and low-impact games. There must be a minimum of 15 to sign up to hold the camp. Maximum participation is set at 45. Be sure your children wear comfortable clothing with closed toe shoes.

4-H meeting is set for April 28 from 4 to 5 p.m. The 4-H program is for youth in fourth grade through 18 years of age.

Coming Soon:

Lock-In, Max-Out

Take the AF Challenge for Teens May 13-14 for ages 13-18 years. Spend the night in the Fitness Center and get to know our neighbor teens from Robins AFB and Ft. Campbell Army base; special presentation by Chef David Owens along with fitness activities and information. Call to sign up for this free event.

Fitness Center 454-6440

The **Group Class Big 6** challenge may be completed anytime during April. Participate in at least one of all six types of classes offered – Cycle Pump, Yoga, Body Pump Boot Camp, Zumba, Pilates and Piloga – and earn an incentive prize.

Co-ed/Open League Intramural Softball to begin May 2. Sign up as teams or individuals by April 20. Games will be played on Mondays, Tuesdays, Wednesdays and Thursdays at 6 p.m., 7 p.m. and 8 p.m.

Some time ago the Fitness Center acquired the workout room in the A&E Building, Room C203, which was since referred to as the **Fitness Center Annex**. As with the main Fitness Center facility, access to this annex facility is reserved for eligible users which include Active Duty, Guard and Reserve, DOD Civilians (APF & NAF), Retired Military and dependents. Prime contractors that are "Members First Plus" members are also authorized access. A new cipher lock system has been installed and the door will remain closed at all times. Personnel wishing to use this facility will be issued a personal pin number not to be shared. To request a pin number, please email james.duncan2@arnold.af.mil. You may be required to visit the main Fitness Center to confirm eligibility. For more information, please contact the Fitness Center Staff at 454-6440.

Outdoor Rec (ODR) 454-6084

Crockett Cove now has permanent **travel trailers on Dogwood Ridge** for rent next to Crockett Cove. As you drive down the gravel road of Crockett Cove there will be a split in the road. If you take a left it will take you on top of Dogwood Ridge. Once on top of the ridge you will see

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the lodge, pavilion, trailers and parking lot. There are six travel trailers which are 30 feet in length and sleep up to six people. They have water, sewer, electric and propane accommodations. Each trailer has a deck, picnic table, four chairs and a lake view. The cost of renting each trailer is set up so the longer you stay the cheaper the cost. Pricing for one night is set at \$40, a two-night stay is \$75 and a six-night stay is \$185. The maximum stay is 14 days. If no one has the trailer reserved after your 14-day stay you can extend your reservation for a maximum of 14 more days. Anyone wanting to stay for extended amounts of time must have approval from Services upper management. Pets are welcome for an additional \$10 per night (three night minimum) and the renter is responsible for any damages. For every

reservation there will be a \$50 refundable cleaning deposit. A kitchen set is available free of charge and can be picked up at the Outdoor Rec building upon check-in. The set includes a variety of cooking and cleaning utensils, pots, pans, silverware, glasses, plates, bowls, Tupperware, toaster and coffee maker. Upon check-out the set will be returned, inventoried and inspected for cleanliness. For an after-hour check-in the kitchen set can be dropped off in the trailer with the inventory list attached, to be filled out and returned to the Outdoor Recreation building at time of check-out. Check-in for the trailers is 2 p.m. and check-out is 11 a.m. Call for more information or to make reservations.

Mobile Car Wash is coming to the GLC parking lot April 2 beginning at 9

a.m. Get a basic detail, which includes hand washing, wheel cleaning and dressing and inside vacuuming and dusting. Cost is \$25 to \$30 depending on the size of the vehicle. Anyone interested must sign up in advance, at which time you will be given a confirmation number to present to Dr. Detail to obtain your car detailing.

Paintball is set for April 9. Ages 10 and older are invited to play. Meet at Outdoor Rec. at 9:30 a.m. Cost is \$20 and includes lunch. Remember to wear long-sleeved shirts and long pants.

The Air Force Arts & Crafts Gallery Showcase entries are due April 9. Ages 6 to adult are invited to enter the Artist-Craftsman and Photography showcase. There are three age divisions within each category: youth

age 6-12, youth age 13-17 and adult age 18 and older. There is a limit of three entries per person per category, for a maximum of six. Digital photographs and digital images of artist-craftsman entries must be in JPEG format, size 5x7 inches and no larger than 450 pixels at the long end. Submissions should be titled specifically and appropriately. All photos must be titled. Email entries to phillip.n.buckner@arnold.af.mil. This gallery showcase is not a contest; all submissions selected at base level will be forwarded to headquarters who will then choose entries to forward to Air Force level for the gallery showcase website to be posted in the summer.

A Spring Time Flea Market has been scheduled for April 16 at the Fitness Center parking lot from 9

a.m.-4 p.m. Booth space is available to base personnel for \$15 per 8-foot space and includes one table. Additional tables may be available for rent while supplies last. Deadline to sign up for booth space is April 9. An extra \$10 late registration fee will be accepted through April 14. Cancellations after April 14 are nonrefundable. There must be a minimum of seven participants and maximum space allowed is 40 booths. Setup may begin at 7:30 a.m. and the area must be cleared no later than 6 p.m. This sale will be open to the public.

Coming soon:

Skydiving is back on June 18 at the Tullahoma airport at 10:15 a.m. Meet at ODR at 9:15 a.m. Cost is \$15 per person. This trip is for ages 16 and older. Sign up by May 23. If interested in video or pictures of your

jump you must request this at time of reservation. Additional charges will apply for this service.

Swimming Lessons have been scheduled for June 20-24 and July 11-15. Cost is \$15 per person and is for ages 6-months and older. The Parent-Tot Group (age 6-months to 4 years) will be held at 10 a.m. and ages 4 and up will meet at 11 a.m. Classes will be Monday through Friday for 50 minutes each at the ALC beach. Deadline to sign up is June 18 and July 9 respectively.

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.