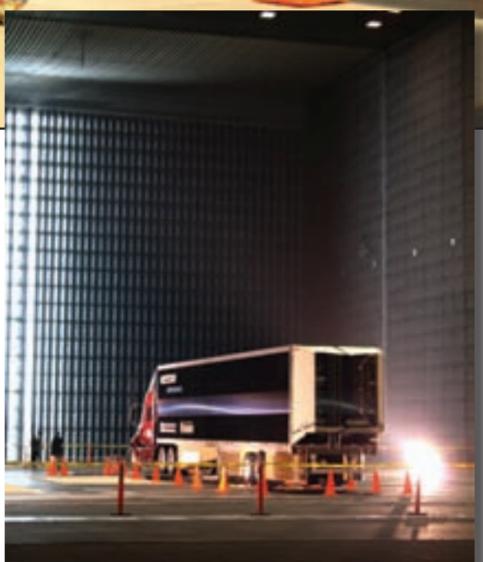




“Big wheels keep on turnin’”

Above, AEDC Commander Col. Michael Panarisi speaks at a media event Feb. 16 at the AEDC-operated National Full-Scale Aerodynamics Complex at NASA Ames in California. The media event was held to inform the public about the Department of Energy sponsored truck test at NFAC. The truck's trailer has been outfitted with special aerodynamic attachments, which is the focus of the test program.

Right, This Navistar truck is outfitted with special aerodynamic attachments produced by Lawrence Livermore Laboratory and is being tested in the 80-by-120 foot wind tunnel. (Photos by Joel Fortner)



NFAC aerodynamic truck test to set industry standards for DOE

By Philip Lorenz III
Technical Writer

Industry experts say Class 8 tractor-trailers are responsible for around 12 percent of the total U.S. consumption of petroleum, but to truck drivers, it's the high cost of fuel that has their attention.

William “Billy” Brain, a regional truck driver from middle Tennessee, knows it's mainly the high cost of fuel that eats into his paycheck.

Mike Elliot, his boss and the owner of a small trucking business based in Belvidere, Tenn., said, “It [diesel fuel] comes to about one third of my overall [annual] cost.”

Data from an aerodynamic test being conducted on tractor trailers in the world's largest wind tunnel facility in northern California will help address truck drivers' concerns about increased fuel costs on the road.

“The primary goal of this test is to [acquire] baseline [data] on market and near-to-market aerodynamic improvement devices [for tractor trailers],” said Chris Hartley, the Jacobs Technology engineer involved with the project at Arnold Engineering Development Center's National Full-Scale Aerodynamics Complex in Moffett Field, Calif.

The devices he is referring to are drag-reduction components that can be attached to truck beds and trailers to improve the aerodynamics of the vehicle, making for a more fuel efficient ride.

Industry experts say that even a 1 percent fuel efficiency rate would reduce the number of diesel fuel gallons by 245 million annually for the nation. A 1 percent fuel efficiency rate also translates to roughly 3 million tons of CO2 (from emissions) that would not be released into the atmosphere.

The truck test's primary customer, the Department of Energy, has been working on drag-reduction devices for the past seven years.

Prior to this current test, those in the trucking industry had to rely on reports and ‘white papers’ written by companies on their claims for drag reduction products that would translate to fuel savings, according to Dr. Kambiz Salari, the lead engineer with the Department of Energy's Lawrence Livermore National Lab on the truck test. Dr. Salari said the companies trying to sell these products had no way to back up their claims with independent research.

Dr. Salari said the truck aerodynamic test at NFAC will provide that authoritative assurance by satisfying three objectives.

“The first one is in support of DOE's mission, to provide guidance to industry to improve the fuel economy of Class 8 tractor trailers through the use of

aerodynamic drag reduction devices,” he said. “Then, the second objective is on behalf of DOE to expand and coordinate industry participation, which leads to significant on-the-road fuel economy and the third is to join with industry, getting devices on the road. And then demonstrate new drag reduction techniques and concepts through the use of virtual modeling and testing environments.”

Hartley said the Navistar Company has teamed up with the DOE on the current test to establish a baseline on the effectiveness of these drag reduction products.

“In addition to these fairings, which they're designing to test on the trailers themselves, they want to bring in a host of off-the-shelf aero-improvement devices like skirts, which will go down along the wheels or various fairings which cover the gap between the

See Truck, page 6

Coworkers, base first responders mobilize to save a life

By Philip Lorenz III
Technical Writer

Feb. 11 started off uneventfully for Michael Bunch at AEDC's Precision Measurement Equipment Laboratory (PMEL). Around 2 p.m., the 49-year-old ATA instrument technician was working at a calibration bench when he suddenly felt lightheaded and stood up briefly before sitting down again.

“[After that] I don't remember anything else until I came to in the emergency room at Harton Hospital [Harton Regional Medical Center in Tulsa],” he recalled. “The next thing I knew I was on a gurney in the hospital getting ready for a helicopter ride.”

Fortunately for Bunch, a coworker, Gary Fergus, was nearby in the lab that day.

“I was just sitting at my computer and I happened to look up at him,” he recalled Fergus, a PMEL foreman and instrumentation technician. “I thought at first he was dozing off. His arms were out in front of him and [then] he just kind of rolled out onto the floor.”

It was at this point that training and teamwork fell into place to save a man's life.

Fergus, who had been certified in cardiopulmo-

nary resuscitation (CPR) by ATA last fall and had updated his basic life-saving skills as a Boy Scout leader more recently, knew exactly what to do.

Once the heart stops, CPR must be initiated and done properly as soon as possible. Irreversible brain damage and multiple organ failure results after four to seven minutes without oxygenated blood flow.

Brad Pearson, another IT, called 911 and answered the dispatcher's questions while Fergus and Dale West wasted no time in assessing Bunch and providing two-man CPR to him.

“We tried to determine whether he was conscious or not at first,” Fergus said. “He didn't have a pulse and wasn't breathing, so we just rolled him over and went to work on him.”

West, who had worked part-time as an emergency medical technician during his time in the Air Force, said, “We were focused on the victim on the floor – he was already in Cheyne-Stokes respirations and that's where your breathing is very irregular and shallow. When I saw that his face was turning blue, I knew that we had to act at that point.”

“Probably within 30 seconds of him hitting the floor we [had] started CPR,” West continued.

See Save, page 9

New capability to make customer testing run smoother

By Janaé Daniels
High Mach Editor

AEDC engineers are always looking for ways to improve or upgrade the center's capabilities and services. One focus has been on serving the center's customers in the best and most efficient way during testing.

“This new capability primarily would improve customer service and ultimately customer satisfaction,” Rusty Zarecor, PDPAS [Propulsion Data Processing and Analysis System] system manager, said. “This would, in turn, hopefully give AEDC return test customers.”

The idea of having a remote monitoring capability has been just that until a small group of engineers pulled together to make it a reality.

“The real reason for customers wanting a remote monitoring capability is there may be a limited number of experts on any given test article and there are multiple testing facilities all over the nation,” Cameron Liner, system engineer in the Engine Test Facility (ETF), said. “The customer may have something at AEDC, some

See Remote, page 10

Even though he is retiring, Bowling is not hanging up his running shoes

By Janaé Daniels
High Mach Editor

As many before him can attest – when it's time, it's time.

After more than 40 years of service to his country, Temple Bowling is retiring at the end of this month.

“I decided to retire because I think it's time,” he said. “Everyone who approaches retirement has some trepidation about making this big decision – not about what will they do in retirement, but what happens to all the relationships and friendships we've developed.”

Bowling said the thing he will miss the most is the people.

“I've enjoyed coming to work at the

center for the past 37 years because of the people,” Bowling said. “No matter the times, good or bad, no matter the problems that face us, what's enjoyable is working with people of integrity to address and solve whatever is confronting us at the time.”

Bowling has learned over the years that life is about relationships and attitudes.

“The point to remember, whether in work or retirement, developing healthy relationships is key to having a meaningful and fulfilling life,” he said. “The relationships that I've been privileged to develop have made AEDC my work place of choice.”

“My hope is that everyone who works at

See Bowling, page 3



For those that know Temple Bowling and his rusty 1972 Olds, it was one of his pride and joys. Here, he poses with it for one of his last times before selling it a couple of years ago for just \$300. The car had more than 374,000 miles accumulated on it. (Photo by David Housch)

HIGH MACH

Arnold Engineering Development Center
An Air Force Materiel Command Test Center

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Commander

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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

There's no such thing as a typical day at the office

By Col. Michael Panarisi
AEDC Commander

On countless occasions, I've been asked "What's the best thing about being the Commander at AEDC?"

I don't have to think for a second...the answer is easy... "It's the people."

Now, usually I'm thinking about the amazing work we do here, how we always find a way to get the job done, or how we've innovated our way out of a tough problem. But on this day, it was an act of heroism that occurred at our PMEL shop that made me incredibly proud to be on Team AEDC.

The day may have started out like any other, but the ending was a story of clockwork execution, perseverance and a dedication to a colleague that we'll all remember for a lifetime.

It's not every day you come to work thinking, "I'm going to save someone's life today."

This day it happened. And we'll all be forever grateful to those who had a hand in taking their friend, their colleague and, most importantly, someone's husband and father, back from the brink.

Michael didn't ask for help. He didn't have time. One minute, he's working the bench; the next he's on the floor with an erratic heart and no pulse. His colleagues leapt to his aid. Another called 911. Others headed for the door to guide the EMTs that they knew would be there in minutes. Gary and Dale (one a former EMT) teamed up for two-man CPR and kept it going until help arrived. Our very own were on the scene in minutes and took over.

Still no pulse. While they worked their magic, others coordinated with the dispensary, started communication



Panarisi

with Harton hospital and did all the little things to ensure NOTHING slowed this train down.

Before long, what started as the beginning of a tragedy had the makings of a miracle. Michael was on his way to the ER with a pulse and our finest at his side.

The team in Tullahoma was cocked and ready. Families were notified and en route. Everyone did their job to perfection.

This story has a happy ending.

Check that. This story has a PHENOMENAL ending, all made possible by selfless acts, ice-cold composure under pressure, and a relentless "not on my watch" effort to pull their teammate through.

It's hard to describe the pit you get in your stomach when you're pulled out of a meeting, and all you hear is "man down in PMEL, co-workers performing CPR... no pulse."

I can't thank all those involved enough. I was in a funk when I got the initial call. But there's a comfort about it all, too.

I know who's on the way to help. I know the dedication of all those around him. And I know that if there is a chance our guy is going to pull through, it's because he's here...with us...with this team.

This is what makes AEDC special.

Yeah, this same story

could probably be recounted at other bases. Sure, lots of us have had CPR training, and everyone who's ever watched "ER" knows EMTs and paramedics are supposed to pull this off.

But I for one wouldn't want to be anywhere else if this happened to me. Nowhere have I ever felt so much caring for each other, backed up with the actions that prove it. This day put any doubts to rest.

There are a million lessons to learn and highlight from this story, but there's one I don't want anyone to miss.

Our Boy Scouts think it's so important, it's their national motto. "Be Prepared."

CPR saved a life that day. Hours of training was put to the test. Endless exercises and drills became real. When your chance comes, will you be ready?

I've taken countless hours of CPR training, as far back as I can remember when I earned my first merit badge (first aid).

Now I'm going back for a refresher, and I'm going to keep going back until I'm dreaming this stuff.

You can, too. Stay tuned...I'm opening the floodgates and soon you'll see more classes on CPR than Col. Mittuch has miles logged and marathons run. Take one. Take two. Whatever it takes.

You'll never know when the guy across the bench, bicycle or table will be counting on you.

I've seen posters that declare "Success happens when opportunity meets preparation."

I'm preparing myself to be ready if the opportunity arises. Please, join me.

Every little bit helps

Seymour Johnson AFB, N.C. (AFNS) – Soon after the earthquake rocked Haiti and changed the country forever, the reaction among many Airmen was the same: "How can I volunteer to go?"

Like them, I wanted my chance to be a part of the relief effort. Thinking I probably would not be tasked because of my rank and an upcoming deployment, I thought all I could do was donate money to a charity and pray for the survivors.

Quicker than I thought, people, including those in my office, began getting tasked for temporary duties and I thought they were lucky to be the ones on the ground in Haiti because they would really get to help. Throughout the next week, I learned that in situations like this, helping the relief effort goes much deeper than being on the front lines.

On Sunday afternoon following the quake, I got a call to pack my things. I was going to Pope AFB, N.C., and on to Haiti. I was excited that I would actually get a chance to see the place that had been all across news stations and that I could do my part to help. Then when I found out I would "only" be going on air delivery missions where the supplies were dropped out of the back of the plane while in the air, I did not feel like I would be helping the citizens of Haiti as much.

I later learned that what I was a part of was an invaluable, tireless effort by thousands of people to provide relief to a country that had been devastated by a natural disaster.

My job was to augment the Pope AFB public affairs office by escorting media on air deliveries. While we facilitated the media getting their stories, I noticed there were people who always seemed to be working to help, whether it was creating flight plans or guarding the entry points. Even volun-

teers, including those with the Red Cross and the USO, worked every day until there were no more people to feed.

More than 500 soldiers from the 82nd Airborne Division at Fort Bragg, N.C., slept in the terminals for two days before leaving for Haiti.

I learned they were given a very short amount of time to prepare for the trip and they did not know when they were coming back. Even people who deploy to the desert know when they are coming back, I thought to myself. They were definitely stepping into an unknown situation and I thought about the families. I thought how the families probably helped the Soldiers pack their bags, running out to the stores to get things they forgot or how they take care of the things at home, so the servicemembers can focus on the mission.

Out on the flightline, there were aircraft from many different bases waiting to load supplies and people to take to Haiti. Pope's aircraft maintainers and other flightline personnel worked around the clock to support the missions with more than 70 aircraft from other bases arriving and leaving daily. No, they never went to Haiti, but neither the supplies nor the personnel could have made it there without them.

The many family members, many Department of Defense civilians, the USO, the Red Cross, and even a pizza man who bravely maneuvered his way through the base to provide pizzas for the Soldiers, all took part in the Haiti relief efforts.

As the saying goes, Airmen are the heart of the Air Force because we are the worker bees. Although we may not always see or understand how our job is helping, our actions span further than we know.

By Airman 1st Class Marissa Tucker, 4th Fighter Wing Public Affairs.

Recognizing a heritage of perseverance

By Senior Airman Wes Carter
332nd Air Expeditionary Wing Public Affairs

Joint Base Balad, Iraq (AFNS) – "But, in a larger sense, we cannot dedicate, we cannot consecrate, we cannot hallow this ground," President Abraham Lincoln said. "The brave men, living and dead, who struggled here, have consecrated it, far above our poor power to add or detract. The world will little note, nor long remember, what we say here, but it can never forget what they did here."

President Abraham Lincoln said this Nov. 19, 1863, on a battlefield near Gettysburg, Pa. Although they were meant to recognize the battlefield where brave men fought to end the stain of slavery in America, the words provide equal significance to a field in southern Alabama that became the birthplace of African-American pilots in the Air Force.

As we celebrate Black History Month in February, it's only fitting to reflect upon the accomplishments of those aviation pioneers of whom we are direct descendents in unit lineage.

In January 1941, War Department officials announced plans to create a "Negro pursuit squadron" whose pilots would be trained at the Tuskegee Institute, Ala.

Three months later, a trustee to the Rosenwald Fund, a fund that helped secure financing for one of the Tuskegee airfields, visited the institute and flew with Chief C. Alfred Anderson, the Tuskegee Institute's chief pilot instructor. The trustee's name was Eleanor Roosevelt, wife to President Franklin D. Roosevelt.

Mrs. Roosevelt was so impressed with the ability of

the African-American pilots she went back to her husband and insisted that African-Americans were just as capable to fly as anyone else in the sky.

In July of that same year, 13 cadets walked onto Tuskegee Army Air Field to become the first class of African-American combat pilots. Eight of the pilots didn't succeed in the rigorous training, but five did.

These men were not treated as equals, yet they fought for a chance to fight in a war that was based on equality for others. They knew they could contribute and set out to prove so.

Legend has it that the first people to realize that African-Americans were just as competent as anyone flying in combat missions were the bomber planes that the Tuskegee's escorted through hostile enemy fire. The only color that a pilot was concerned with was red. The Tuskegee fighter pilots, marked by their aircraft's red tail, had a reputation of never leaving the side of an aircraft until it was safe.

Today their legend lives at Joint Base Balad; in the roar of the afterburners of an F-16 Fighting Falcon barreling down our runway; in the sweat of the maintainers, refuelers and crew chiefs prepping that fighter for its patrol; in the determination of the security patrols keeping the base safe to execute that flying mission. In me and in you.

After completing their training, the original Tuskegee Airmen became part of the 332nd Bomber Group, which is now the 332nd Air Expeditionary Wing at Joint Base Balad. I am not an African-American, but as part of the 332nd AEW, I take pride that I am part of a heritage that represents honor, sacrifice and perseverance.

Action Line

Team AEDC

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

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

Col. Michael Panarisi
AEDC Commander

Smoking Policy

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

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

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.

Eligibility for use of Services facilities has changed; take heed

By Ken Jacobsen
AEDC Chief of Staff

Greetings. In this column, I will address the oft-asked question, "As a member of Team Arnold, what Services facilities am I authorized to use, and what about my family members?"

I suspect that question has been asked countless times during recent years with varied responses.

To re-examine and clarify existing policy, AEDC's senior leaders recently gathered to review criteria relevant to this issue. The accompanying chart illustrates the product of their efforts. Please take a minute to review it; then, continue reading below for additional information.

As you might expect, Department of Defense (DoD) facilities/programs are in-

tended for the primary use of DoD employees: i.e., those who are issued military identification cards. This population includes active duty members and retirees, reservists and national guardsmen who are in an active duty status, and their dependents. With a few exceptions such as the commissary and BX, it also includes DoD civilians and their immediate family members.

In addition, regulations identify that certain facilities such as the Fitness Center exist for the primary mission of keeping active duty personnel fit for military service. However, other patrons may be authorized use on a space-available basis.

Recognizing the close relationship between AEDC and some non-government groups that directly sup-

port our mission, the AEDC Center Commander has exercised his authority to grant certain privileges to current and retired ATA employees, the Arnold Community Council, the AEDC Woman's Group, UTSI staff and students, and AEDC Ascend Credit Union employees.

Of those groups, only currently employed ATA contractors and UTSI staff and students who are Members First Plus members may use the Fitness Center. Use of the fitness center is not extended to their spouses and dependents. However, immediate family members can enjoy most other Services facilities when accompanied by their sponsor.

It is important to note that non-government sponsors may not escort other guests such as extended family or friends to any facility/

program.

While not optimal for all, the current policy attempts to balance desire for access against regulations, facility capacity, and other considerations. As AEDC maintains dozens of facilities that are unique to our nation and the world, security also plays into the equation. Our critical facilities and their approaches must be safeguarded from unauthorized access.

I hope you'll note that the chart identifies numerous facilities/programs that authorized sponsors and their dependents may enjoy together and I sincerely hope you'll take advantage of your privilege to do so. Questions or suggestions regarding this policy may be directed to the Director of Services for the 704th Mission Support Group, Mr. Rick Ferrebee, at 454-7426.

Services Usage Eligibility	Active Duty/Guard/Reserve	Retired Military	DoD Civilians	Retired DoD Civilians	Prime Operating Contractors	Arnold Community Council membership	UTSI Staff & Students w/ Membership	AEDC Woman's Club w/ Membership	Ascend CU on Installation w/ Membership	Retired Prime Contractors	General Public
Member First Plus Membership	●	●	●	●	●	●	●	●	●	②	
Arnold Lakeside Center (ALC) Facility Use	●	●	●	●	●	●	●	●	●	②	④
ALC Beach	●	●	●	●	●	●	●	●	●		
Gossick Leadership Center (GLC)	●	●	●	●	●	●	●	●	●		
GLC Beach	●	●	●	●	●	●	●	●	●		
Golf Course	●	●	●	●	●	●	●	●	●		
Fitness Center	●	●	●	●	①	③					
Fitness Intramural Sports	●	●	●	●							
Marina	●	●	●	●	●	●	●	●	●		
FamCamp	●	●	●	●	●	●	●	●	●		
Crockett Cove	●	●	●	●	●	●	●	●	●		
Equipment Rental	●	●	●	●	●	●	●	●	●		
Auto Shop	●	●	●	●	●	●	●	●	●		
Arts & Crafts	●	●	●	●	●	●	●	●	●		
Information, Tickets and Tours	●	●	●	●	●	●	●	●	●		
Wingo Inn (Lodging)	●	●	●	●	④						
Storage Yard	●	●	●	●	●						
Pre-Owned Vehicle Sales Lot	●	●	●	●	●						
Pavilion Rental											
GLC Beach 1	●	●	●	●	●	●	●	●	●		
GLC Beach 2	●	●	●	●	●	●	●	●	●		
ALC Beach	●	●	●	●	●	●	●	●	●		
Crockett Cove 1	●	●	●	●	●	●	●	●	●		
Crockett Cove 2	●	●	●	●	●	●	●	●	●		
Family Member Programs											
Camp Adventure	●	●	●	●	●	●	●	●	●		
Youth Open Recreation	●	●	●	●	●	●	●	●	●		
Youth Events	●	●	●	●	●	●	●	●	●		
Special Events											
AF Birthday Bash	●	●	●	●	●	●	●	●	●		
Children's Christmas	●	●	●	●	●	●	●	●	●		

AEDC Fellows nominations due no later than March 26

By Janaé Daniels
High Mach Editor

AEDC is currently accepting nominations for the 2010 AEDC Fellows Program. Submissions are due no later than March 26.

Nominations for selection as an AEDC Fellow are considered annually and is limited to three each year. All current or retired military, civilian and operating contractor and subcontractor personnel assigned or previously assigned to AEDC can be considered candidates for selection as an AEDC Fellow.

The AEDC Lifetime Achievement Fellows category recognizes individuals who have made notable and valuable lifetime contributions to AEDC in any area relevant to the mission.

The AEDC Honorary Fellow are reserved for exceptional candidates and are not necessarily selected each year. Candidates qualified for consideration as an AEDC Honorary Fellow must have made sustained, notable, valuable and significant contributions to AEDC. These eminent individuals need not have worked at Arnold AFB.

For more information including the format for AEDC Fellows nomination submissions, contact AEDC Historian, David Hiebert at (931) 454-4203.

Nominations must be submitted in written form with supporting materials (refer to the AEDC OI 36-28) to: AEDC/CZ, 100 Kindel Drive, Suite A327, Arnold AFB, TN 37389-1327.



Pick up a copy through March 5

Andrea Stephens, with ATA Public Affairs, hands a copy of "Beyond the Speed of Sound" to Dwayne Taylor, an ATA electrician. Kathleen Shirilla, an ATA information technologist and system administrator on PWT/VKF test support systems, signs a ledger to pick up six copies of the book, one for her and five coworkers. About half of AEDC's employees have picked up a copy of "Beyond the Speed of Sound" since it was released Feb. 5. Employees have until March 5 to pick up their free copy. To receive a copy of the book, current employees (military, DoD and contractor) should come to the ATA PA office, (Building 100, B212). No books will be mailed to an employee's mail stop or to his home address. Employees may pick up copies for coworkers as long as they provide a list of employees and badge numbers to ATA PA. Although ATA PA has given away all of the books reserved for AEDC retirees and the general public, there is a waiting list and any copies remaining after March 5 will be made available to those on the list. (Photo by Philip Lorenz III)

Bowling from page 1

AEDC understands the importance of relationships in getting the center's mission done, but more importantly, in living our lives."

Work-wise, Bowling says his favorite memory over the years was working with AEDC Lifetime Achievement Award Fellow Dave Pickering in the early competitions of the AEDC contract. Bowling references the AEDC outsourcing model – meaning there are military, civil service and contractor employees.

"That's the most gratifying thing is that we've kept that model and have a contract form that allows AEDC to function as if there's not a contract," Bowling said.

Col. Robert Bender, 704th Mission Support Group (MSG) commander, thought it would be fitting for Bowling to leave AEDC like it was a normal day. A 5K run and fun walk is scheduled for his last day, Feb. 26, honoring Bowling's last official run at AEDC.

"Temple, no doubt, is a balanced human being – professionally, spiritually and physically – he is simply a role model for a lot of us," Colonel Bender said. "Temple

has worked hard to balance those three aspects of his life. His peers, Ron Polce and John Sutton, have run regularly with him at lunch time throughout the years. I thought a final run with Temple and his friends leading the pack out would be an appropriate way to send him off."

The colonel jokingly refers to Bowling as the Arnold AFB yellow pages and will miss his wealth of knowledge, not only of the people but of the interworking of the center as a whole.

"When we so often say the expression 'built in his image.' We sort of mean it. When it comes to AEDC," Colonel Bender said. "However, Temple has been a guiding force for the last 30 years. The AEDC of today was truly built in his image."

Ron Polce has been running at lunch with Bowling since the early 1980s and has had the opportunity to know Bowling in a different light.

"I've known and worked with Temple for 37 years and when asked what do I remember most, I could respond with a long list of his distinguished accomplishments which have helped make AEDC the

premier testing installation in the world," Polce said. "Or I could comment and chuckle about his rusty old Oldsmobile. However, what I remember and know most about Temple is that he truly cares about people. Yes, a genuine caring and interest in people and building relationships that has helped build a strong Team AEDC."

John Sutton, AEDC contracting director will miss Bowling's enthusiasm and continuous support for the government-contractor business model.

"Throughout his career at AEDC, Temple was always the first to speak out about how successful the government-contractor business model has been for nearly 60 years," Sutton said "He's met with countless visitors to AEDC over the years and each of them left with a better understanding that it's the dedicated people – both contractor and government employees – who work here that's made AEDC successful."

Bowling moved to the 704th Mission Support Group as the deputy director of MSG a short time before former AEDC Commander Col. Art Huber came onboard

at AEDC as the new commander.

"All of the previous deputies had been engineers by training, so many of us were a bit curious about how a non-engineer and a former PK [Contracting] yardstick would fit in with the 'just git 'er dun' world of Mission Support," Deputy Director of Base Civil Engineering Al Simmons said. "His rust-bucket of a car fit right in with most of us so he got off to a good start. And, he knew when and how to intervene in technical issues without alienating the engineering staff. We were pleasantly surprised with his people skills, and he has made our work enjoyable, proving that PKers can adapt to new worlds."

If he were to give advice to the younger working generation, Bowling said they should be willing to put their hearts into their work.

"I would tell young people they need to be accountable and responsible for their actions," he said. "If they would come to work on time, be diligent in working, and do what their bosses ask them to do, they will never lack for a job or lack opportunities to move up."

One man's experience can lend a teaching moment for others

By **Janaé Daniels**
High Mach Editor

In observance of African-American Heritage month, Lewis Curtis, guest speaker for the luncheon held Feb. 12, shared his experiences growing up in a segregated Delrose, Tenn., and as a Buffalo Soldier during World War II.

"I certainly appreciate the opportunity to come and stand before you to say a few words about some of my experiences through the struggle of segregation," Curtis said.

Curtis was a part of the 24th Infantry during World War II, which was an all black regiment known as the Buffalo Soldiers.

They were called Buffalo Soldiers because of their fighting spirit like the buffalo [according to Native American culture] and because of the curliness in their hair, much like that of the buffalo's mane.

"[Mr. Curtis] is absolutely a true American hero," AEDC Commander Col. Michael Panarisi said as he introduced Curtis to the luncheon crowd. "We couldn't have found a better representative and we will never

be able to repay what he's done for our country. Not only did he serve our country in our nation's wars but he turned those talents toward inspiring and forging the minds of both our youth and adults as a career educator. So we have benefited twice from his public service."

Talking about his experiences as a child growing up in Delrose, Curtis remembers when children only went through the eighth grade and little country schools had to have at least 15 students to hold class.

"My mother only finished second, maybe third grade, and my father finished the fourth so my parents didn't have a real desire to see us learn," Curtis said.

By 16, Curtis was working for the railroad in St. Louis.

"Back then if you were big and young they recruited you to work for the railroad," he said. "At that time they only just had one track across to the Mississippi River and they wanted to lay another set of rails so they needed the young ones to help."

While working on the railroad, Curtis was drafted to join the Army to help fight



Lewis Curtis, a World War II Buffalo Soldier, was the guest speaker at the African-American luncheon Feb. 12. (Photo by Rick Goodfriend)

against the Japanese during World War II.

"We all knew we were going to be Buffalo Soldiers and train down in Camp Shelby and we knew we were replacing the 93rd Infantry," Curtis said. "While we were out on detail, riding in the back of a truck, we ran into a group of German prisoners. One of the prisoners said 'You black boys can't go into the theater, but I can.'"

"I knew something was wrong then. We were fixing to go over and fight and

these prisoners had better privileges than I had.

"That began to resonate in my mind that I needed to take some kind of civil rights stand when there was an opportunity for me to do that. So from then on, every chance that I got to try to say something against being mistreated, I did and I am still that way today."

Once they arrived in the Philippines working their way to Japan, they were engaged in quite a bit of combat right out of the chute.

"The main forces would take some of the big islands and bypass the smaller ones. They wanted us to clean up the small islands but some of those small islands were worse than the big islands – they weren't little skirmishes – they were full of guerillas who didn't let you on there."

Curtis remembers his unit as like a small functioning, independent army.

"We had to be whole to take those islands and to be able to teach democracy there," he said. "We had our own MPs [military police], we had our medical detachment, we had our own band and supply depot. In other words, as a regimental combat unit we had everything we needed to survive."

Second Lt. Antonio Brunson with the 717th Test Squadron is new to the Air Force and can appreciate the service of someone like Curtis.

"I'm grateful to have had a chance to meet Mr. Curtis," Lieutenant Brunson said. "I owe a great deal of thanks to individuals like him that have paved the way

for me to be able to wear the uniform today."

Although he couldn't make the luncheon, Col. Raytheon Scott, 704th Maintenance Group commander, gave Curtis a piece of his own military memorabilia collection as a token of his appreciation for coming to speak at Arnold.

"It was a great opportunity for AEDC because he is local and part of the community," the colonel said. "I wanted him to come and speak about his experiences and to keep his and the other Buffalo Soldiers' story alive."

J.T. Northcutt, ATA Quality manager, was interested in hearing of the accomplishments and contributions of Curtis' and other black regiments during World War II.

"It was informative and important to be reminded of the struggles and bias black U.S. soldiers encountered serving their country and gratifying to remember how far that we as a country have come to establish equal rights for all American citizens, regardless of race or gender."

Camp Forrest oral history project debuts at Arnold

By **Philip Lorenz III**
Technical Writer

The former occupants of a small, inconspicuous tract of land on Arnold AFB are now a center of attention.

The land bears remnants of concrete foundations almost hidden by dense brush. The concrete foundations are the physical record of the African-American barracks on Camp Forrest, one of the Army's largest training bases during World War II.

AEDC's cultural resources staff is overseeing an investigation of the former occupants and their descendants on that portion of Camp Forrest to determine its historic significance, as required by federal regulation and Air Force instructions.

Shawn Chapman said the Tennessee Army National Guard has plans to build barracks in that location and the historical investigation is only in the early stages.

"The African-American barracks portion of Camp Forrest is being investigated through archival research which will be followed by informant interviews," he said. "AMEC Earth and En-

vironmental, Inc., the same company that is doing the archaeological work on Native American sites, is doing this as well."

Hillori Schenker is an architectural historian with AMEC.

"I am helping to lead the archival portion of the project," she said. "It will involve looking at a number of primary and secondary resources; primary resources being records in the local libraries and archives, whether they're marriage certificates, newspaper articles or other things from the contemporary period of World War II." She will also be looking for secondary sources, including journal articles and other professional papers that have been published about the subject in the years following World War II.

"We have completed the preparations for the archival work," Schenker said. "We have another archival researcher, Amanda Kincaid, who will be heading to Atlanta to the National Archives to look at their information and papers."

Schenker acknowledged that acquiring oral histories will prove more challenging.

"We're also pursuing [those] leads at the same time, as to who we can talk to, the different people that may be willing to speak with us. Thus far, we've found a couple of groups that are mostly children of the soldiers. We haven't yet found any soldier to speak with, but we are hopeful after a trip down to the Tullahoma area that we may have some more leads on the soldiers and where to find them."

Lt. Col. Milton Thompson, the Battalion Commander of the 301st Troop Command and Environmental Branch Chief for the military department of Tennessee, is an African-American with more than 20 years in the Tennessee National Guard. It will be members of Tennessee Guard units who may use the new barracks slated for construction at Volunteer Training Site –Tullahoma on Arnold AFB when funds become available.

Colonel Thompson acknowledges that today's generation, both black and white, have forgotten much of their country's history.

See **Project**, page 7



AEDC celebrates 100 years of Boy Scouts

(Photos provided by troop leaders and volunteers)



From left to right, Paul Jalbert, Mark Grantham, Michael Glennon, Bob Forde and Jerry Noe help Stephen Jalbert with his Eagle Scout project. Stephen Jalbert led the adults from Troop 402 in building a bridge over a small creek in Tims Ford State Park.



Scouts Kaleb Strite and Drew Stallings display teamwork during the Jousting event at the Spring Camporee.



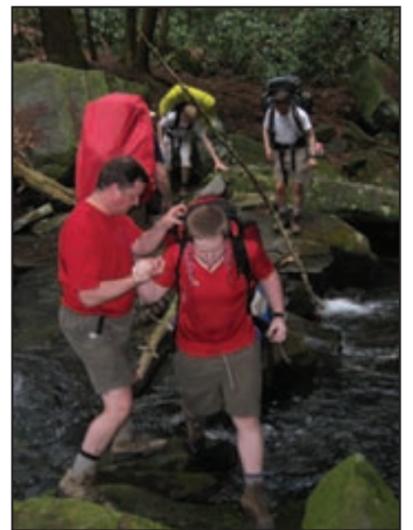
Stephen Farrington helps a scout with the construction of benches for a fellow scout's Eagle project.



First Class Scout Drew Stallings carries a flag with respect and reverence for its final journey on the way to be burned in a flag retirement ceremony.



Eagle Scout Rob Forde teaches Peter Hills the proper way to use an ax safely during a campout at Camp Arrowhead.



Bob Forde of Troop 402 assists a scout at a stream crossing while backpacking on the Collins Gulf trail in the Savage Gulf State Natural Area.



These scouts of Troop 142 completed their aviation merit badge. Front Row (left to right): Dryden Young, Conner Naffziger, Ian Kaferle, Noah Beale, Adam Daniel, Brandon Knack. Back Row (left to right): Tom Frederick, John McAmis, Dave Beale, assistant Scoutmaster and Aviation merit badge counselor, Terry Skiles, retired ATA and Troop Committee chair, Jim Reed, ATA and Scoutmaster, Dillon Young, Steve McAmis, Grant Pruitt and Alex Kaferle.



Above, Scouts learn from visiting Native Americans at Camp Arrowhead.

Left, Scouts Burt Ruyten, Phillip Campbell and Todd Farrington discuss the finer points of angling at the lake while working together on the Fishing Merit Badge.



Scouts participate in a flag retirement ceremony.



Above, Scouts from Troop 402 take a break while building their latest lashing project at Camp Arrowhead.

Left, Scouts from Troop 402 at a flag raising ceremony as part of an event commemorating the first anniversary of the Sept. 11 terrorist attacks.

Joe Sacco is still on a journey of learning and flight

By Philip Lorenz III
Technical Writer

As a child, Joe Sacco enjoyed creative, hands on projects.

"I was interested in trying to understand the different forces at work in nature," he said. "I have always been interested in anything that flies; birds, airplanes or rockets. So, I started building model airplanes at an early age."

Money or the lack of it was never an obstacle according to Sacco, who is the chief engineer at the world's largest wind tunnel, AEDC's National Full-Scale Aerodynamics Complex (NFAC) at Moffett Field, Calif.

"If I couldn't get my hands on enough money to buy a model kit, I would build it from scratch," he said.

"I began by going to the library to read books about flight and building model airplanes so I could make mine fly better.

"I also enjoyed science fiction because it got me thinking about what the future might hold," he continued. "This helped me to visualize goals to work toward."

Armed with a bachelor's degree in aeronautical engineering from California Polytechnic State University, San Luis Obispo, Calif., Sacco first worked for Rockwell Corp., and Lockheed.

Sacco, who first worked at the NFAC in 1991, has built a career on helping to ensure that everything from novel aircraft, cutting-edge helicopter rotors to space payload parachutes will



From right to left, Joe Sacco poses for a group photo with sons, Michael, Benjamin and Aidan and wife, Mary, during a recent trip to the Grand Canyon. Joe, the chief engineer at the NFAC, said he is awed by the sight of a Condor catching a thermal at the Grand Canyon or a Nurse shark swimming nearby while he dives off the Florida coast. (Photo provided)

"fly" safely in an environment simulating flight.

In 2002, after learning that his wife was pregnant with triplet boys, Sacco transitioned to a research position with the satellite systems branch of NASA. He learned "another aspect of systems engineering and met some great people there who were doing work on projects like Kepler and the SOFIA aircraft."

In 2006, AEDC's Mark Betzina and Col. Vince Albert asked Sacco to come back on board at the NFAC to help with the re-

activation of the unique ground testing complex.

Currently as chief engineer, he is primarily responsible for helping with the oversight and review of test preparation and operations there. He also trains test directors and wind tunnel operators.

"I am involved mostly with operations and technical aspects of work," he said. "I'm not an expert in any one field, but I provide systems engineering support for all the different aspects of testing. The tests can be simple ones where wind blows over models, or

more complex tests that involve helicopter rotors and jet engines."

Looking back on his life, Sacco said from childhood to the present day, many mentors, including his parents, instructors and coworkers, have helped inspire him along the way. He is now in a position to pass along some of those lessons and his love of learning to his own children and other young people.

"NASA has a program where student interns are brought in for three to six months," Sacco said. "I have had the opportunity to work with them and I enjoy it

quite a bit. I also volunteer time at my kids' grade school; they're in second grade now. Last year I did science demonstrations where I used tinker toys to help the younger kids visualize solid, liquid and gas molecules. They definitely enjoyed the dry ice demonstrations."

Speaking of his wife and children, Sacco said, "Mary will come down with the boys so they can see some of the tests that we do. They've been in to see the Mars Science Laboratory parachute test as well as the UH-60 rotor test at the NFAC."

Sacco said learning should be a life-long process.

"I am continually learning," he said. "There is much to explore, a lot of different areas interest me, aeronautical engineering, space travel, computer engineering, life underwater..."

His advice to young people interested in aeronautics is uncompromising.

"Explore and let your imagination go wild," he said. "Study everything that flies. You can learn a lot from observing nature, so keep your eye on insects, birds, and fish. Hunt down the answers to whatever you don't understand. If you don't understand what you read, don't get frustrated, just keep reading more and eventually you'll figure it out. Try to understand how things work, and how you would make them work better. As my father told me, 'Nothing you learn is ever wasted.'"

Truck from page 1

tractor and the trailer," he continued. "[The goal is to] baseline those performances and see what kind of device has the most potential and how [far] off the numbers are for these devices that are [currently being] sold."

Hartley said the current test, the first of its kind at NFAC's 80-foot-by-120-foot wind tunnel since 1994, subjected the tractor trailer and drag-reduction components to drag, side load and yaw [forces].

NFAC is a unique facility

primarily used for determining aerodynamic characteristics of large-scale and full-scale rotorcraft and powered-lift vertical/short take off and landing aircraft, as well as testing of wind turbines, parachutes, trucks, and other non-traditional types of testing.

In 2006, the Air Force signed a lease with NASA to reopen NFAC after the facility closed in 2003 due to budget pressures. Full operational capability occurred in early 2008.

The facility is composed of two large test sections and

a common, six-fan drive system. The 40-by-80-foot wind tunnel circuit, which was built in 1944, is capable of providing test velocities up to 300 knots. The 80-by-120-foot test section is the world's largest wind tunnel and is capable of testing a full size Boeing 737

at velocities up to 100 knots.

A system of moveable vanes can be positioned so that air either drawn through the 80-by-120-foot test section and exhausted into the atmosphere, or driven around the closed circuit through the 40-by-80 foot test section.

Arnold Golf Course 454-7076

Rec. League begins April 19. Get your teams together now and call for information on how to sign up. Teams consist of four people with play at 4:30 p.m. on Mondays and Tuesdays for 19 weeks. Cost is \$30 per person.

Check out the **Pro Shop merchandise specials**. New merchandise is arriving for spring to include Ping men's and women's shirts, men's and women's rain suits and new Tres Bien windshirts with zip-off sleeves.

Mulligan's Grill is open seven days a week from 7 a.m.-2 p.m. Try the "Good Morning Breakfast" special Monday through Friday. This includes two eggs, choice of bacon or sausage, hash browns and one biscuit and gravy for \$4.50. Breakfast is served until 10:30 a.m. Lunch specials are: **Monday:** hot ham and cheese sub, fries and fountain drink for \$6; **Tuesday:** cranberry walnut chicken salad croissant, fries and fountain drink for \$6; **Wednesday:** turkey club panini, fries and fountain drink for \$6; **Thursday:** chili cheese dog, fries and fountain drink for \$6; **Friday:** club sandwich, fries and fountain drink for \$6. Try the soup of the day with a sandwich. Mulligan's Grill meals are a great value and include unlimited drink refills. Call ahead for advance or to go orders at 454-7076. Remember to show your Members First Plus membership card for a 10 percent discount on purchases of \$4 or more.

Arnold Lakeside Center 454-3350

Pizza Wednesdays continues in March. Call ahead to 454-5555 to order takeout pizza for your office luncheon or group gathering. Pizza is available for pick up on Wednesdays from 11 a.m.-1 p.m. No delivery available. For better service, you may call on any day and preorder. Pizzas are available in 12 or 16 inch and range in price starting from \$7. House favorites include the Falcon (cheese), Eagle (pepperoni and cheese), Stratofortress (pepperoni and bacon Stromboli with mozzarella and ricotta), Mustang (ham, bacon, pineapple and cheese), Spirit (veggie - mushrooms, green pepper, onion, tomato, black olives, basil, olive oil and feta cheese) and Galaxy (pepperoni, sausage, ham, green pepper, onion, mushrooms, black olives, bacon and extra cheese). Gourmet specialties include the Warthog (ground beef, cheddar, red onion, tomato, spinach and sesame seeds), Phantom (spinach, basil, sun-dried tomatoes, garlic, olive oil, pesto, mozzarella and parmesan), Blackbird (chicken, spinach, jack cheese, alfredo sauce, parmesan, gouda and mozzarella) and Raptor (pepperoni, ham, sausage, bacon, ground beef, olive oil and cheese). Fly solo and build your own (\$1 for individual toppings). The pizza menu is also available for dinner on Thursday, Friday and Saturday from 5-9 p.m.

Movie nights are every Thursday at 6:30 p.m. with dinner available from the Express or Pizza menus from 5-9 p.m. The schedule for March is: **March 4** - "The Blind Side," rated PG starring Sandra Bullock, Tim McGraw and Quinton Aaron. This is the story of Michael Oher, a homeless and traumatized boy who became an All American football player and first round NFL draft pick with the help of a caring woman and her family. **March 11** - "Old Dogs," rated PG starring John Travolta and Robin Williams. Two best friends - one unlucky in love divorcee and the other a fun-loving bachelor - have their lives turned upside down when they're unexpectedly charged with the care of seven-year-old twins while on the verge of the biggest business deal of their lives. **March 17** - Special Presentation for St. Patrick's Day Bash/Membership Night (see article for menu and event details): "The Princess and the Frog," G starring voices of Anika Noni Rose and Bruno Campos. A modern twist to a classic tale, a beautiful girl named Tiana, a frog prince who desperately wants to be human again and a fateful kiss that leads them both on a hilarious adventure through the mystical bayous of Louisiana. **March 18** - (in the Landing) "Amelia," rated PG-13 starring Hilary Swank and Richard Gere. Amelia Earhart was an inspiration to people everywhere and in the summer of

See Briefs, page H3

St. Patrick's Day Bash and Membership Night coming March 17

Celebrate St. Patrick's Day at the Arnold Lakeside Center March 17 from 5-9 p.m. An Irish Buffet will be served to include corned beef and cabbage, beef and



Irish stout stew, beer-baked Irish beef, boxty, colcannon, potato asparagus bake sesame green bean salad, Irish bread and more.

Because this event is also a Membership Night there is no cost to Members First Plus members and their spouse. Non-member price is \$8.95 per person. A children's buffet of hot dogs, chicken nuggets, pizza and macaroni and cheese will also be provided. Cost for children age 12 and under is \$4.95. Reservations are required for this event and may be made by calling 454-3350.

Deadline to sign up is March 12. Entertainment will be provided by the Jim Wood Trio from 6-9 p.m., playing traditional holiday music and other songs

for dancing.

A special presentation movie, "The Princess and the Frog," rated G, will be shown starring voices of Anika Noni Rose and Bruno Campos.

This modern twist to a classic tale is about a beautiful girl named Tiana, a frog prince who desperately wants to be human again and a fateful kiss that leads them both on a hilarious adventure through the mystical bayous of Louisiana. There will also be random drawings throughout the night for Members First Plus members present.



ALC to host first bridal fair March 13

Arnold Lakeside Center (ALC) will open to the public on March 13 to host the First Annual Bridal Fair. The event will be from 1 to 6 p.m. with multiple vendors expected to include cake decorators, photographers, make-up artists, dress designers and sales, wedding planning service providers, gift shops, floral shops and more. ALC staff will be available for menu planning and event booking. Eligible patrons of the ALC who book their event will receive a complimentary Air Force Catering Wedding Planner (while supplies last). A Salad Bar and Fruit Buffet will be served in the Four Seasons Room from 1 to 4 p.m. Cost is \$7.95 for Members First Plus members and \$8.95 for non members. Children age twelve and under will pay \$3.95. Canned sodas and bottled water will also be available throughout the day for \$1 each. Call 454-3350 for more information about the event and vendor booth space availability and registration. Vendor spaces are 10-by-10-feet and cost \$40. Additional space may be allowed by special request.

"You Got Talent" contest is March 20

"UGT" - You Got Talent contest March 20 to be held at Arnold Lakeside Center beginning at 6 p.m. Sign up acts by March 15 by calling 454-3277.

Contestants can enter various categories to include solo, group, instrumental and performance. Group performances are limited to eight people and if comprised of different ages the category is determined by the oldest performer. All acts should not exceed four minutes. There will be prizes for the top three performers in each category. Some winners may qualify to go forward (by DVD recording) to Air Force-level competition.

A performer meeting will be held at the Youth Programs building (3055) at 4:30 p.m. March 16.

Services eligibility article on page 3 of *High Mach*. Read for details.

Fight Night coming Feb. 20

Arnold Lakeside Center recently installed new televisions and purchased a satellite sports package which premiered with professional and college football games.

Now that the football season is over, the ALC is planning a fight night.

Come to The Landing bar Feb. 20 to see Nogueira vs. Velasquez at 9 p.m. Regular dinner service is available from 5-9 p.m. and the Pizza and Express menus will be available until 10 p.m.

The dinner special for this event is 1/2 pound peel-n-eat shrimp for \$9.95 for members and \$10.95 for nonmembers.

Casino night with Mardi Gras theme set for Feb. 27

Arnold Lakeside Center will transform into a casino Feb. 27 from 6-10 p.m. complete with black jack, roulette, craps and wheel of fortune.

The event is free and open to ages 18 and above. Participants will be issued toy money to play for approximately three hours. After gaming concludes there will be an auction for prizes using the toy money.

The night's theme is Mardi Gras and there will be party favors to include masks, beads and hats along with a "Most Mardi Gras Spirit" costume contest at the conclusion of gaming.

A Cajun buffet will be served from 6-9 p.m. to include crawfish, dirty rice, jambalaya, gumbo and more. Buffet cost is \$12.95 for members and \$14.95 for nonmembers. Please call 454-3350 for dinner reservations.

The ALC will be open from 5-11 p.m. for socializing before and after the casino portion of the event.



Hoops promotion hits the Air Force

Last year more than 22,000 entries were made in the Air Force's National Collegiate Athletic Association Division 1 Men's Basketball Championship online bracket tournament promotion.

This year promises to be even bigger. The Air Force Hoops promotion gives Air Force sports fans (eligible users of Services programs and facilities over the age of 18), the chance to win big prizes by selecting teams in the NCAA Division 1 Men's Basketball Championship Tournament.

"The beauty of it is you don't have to get the teams right to win prizes," said Fred McKenney, Chief, Air Force Food and Beverage Division. "You have a chance to win, just by registering and entering your bracket selections."

Pick up a game piece at Arnold Lakeside Center (no purchase required) and register online using the code on the game piece.

Then on March 14 fill in your tournament bracket selections. Up to 10 brackets may be played. Picks can be made and changed, but final picks for all rounds must be submitted by 5 a.m. March 18.

See Hoops, page H2



Services information written and provided by Tanya Haggard

704th Services Division is an exclusive area available to all AEDC personnel, active duty, retired military, National Guard, Reserve military, Civil Service employees within 50 miles of the base, AEDC alliance employees, and others as approved by the commander. 704th Services activities include Wingo Inn (lodging), Arnold Lakeside Center, Outdoor Recreation (Marina, FamCamp, Crockett Cove), Golf Course, Family Member/Youth Programs and Fitness Center. Those mentioned above are eligible to use any 704th Services activity during regular operating hours unless it is specified as a "members only" event. Membership remains a personal choice, however, only members are entitled to discounts and other benefits associated with membership.

Horizon is a 704th Services Division publication designed to inform our customers of events and specials in 704th Services Division activities. All program dates, times and prices are subject to change. 704th Services Division mailing address is at 100 Kindel Drive, Suite C321, Arnold AFB, Tenn. 37389-3321

704th Services Division Phone Numbers

Area code 931 DSN 340

Services Chief – 454-7779
 Services Deputy – 454-5915
 Community Services Flight Chief – 454-4062
 Complex Manager – 454-3367
 Arnold Lakeside Center (ALC) – 454-3350
 Arnold Lakeside Center catering – 454-3350
 Hap's Pizza – 454-5555
 Membership Information 454-3367
 Fitness Center (FC) – 454-6440
 Outdoor Recreation (ODR) – 454-6084

FamCamp – 454-4520 or 454-6084
 Marina – 454-6084 or 454-3838
 Recycling – 454-6068
 Family Child Care – 454-3277
 Family Member/Youth Programs – 454-3277
 Human Resources – 454-5481
 Marketing & Sponsorship – 454-3128
 Barber Shop – 454-6987
 Wingo Inn – 454-3051
 Golf Course (GC) – 455-5870 or 454-7076

March 2010

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1 FC Cycle Pump Class - Zesty cycling 11 a.m. FC Yoga 11 a.m. FC Bowling League, Tullahoma Lanes, 5 p.m.	2 ALC AEDC Woman's Club Luncheon, 9:30 a.m. FC Cycle Pump Class - Endurance cycling, 11 a.m. FC Karate 3 p.m. FC Zumba 4:15 p.m. FC Intramural Basketball, 5:30 p.m.	3 ALC Pizza to go, 11 a.m.-1 p.m., pick up orders only, call ahead 454-5555 FC Pilates 11 a.m.	4 FC Cycle Pump-Yellow Shirt cycling, 11 a.m. FC Karate 3 p.m. FC Zumba 4:15 p.m. ALC Dinner & Movie Night, dinner 5-9 p.m.; movie 6:30 p.m. "The Blind Side," PG-13 FC Intramural Basketball, 5:30 p.m.	5 FC Piloga 11 a.m. ALC Lynchburg ribeye, \$11.95 member, \$13.95 nonmember, 5-9 p.m. ALC First Friday Jam, Irish theme, 6 p.m. FamY Movie night, 6-9 p.m., age 9 and up, free popcorn and \$1 pizza by the slice, 454-3277	6 ALC Baked snapper with chilies, ginger and basil, \$10.95 member, \$12.95 nonmember, 5-9 p.m.
7	8 FC Cycle Pump Class - Zesty cycling 11 a.m. FC Yoga 11 a.m. FC Bowling League, Tullahoma Lanes, 5 p.m.	9 FC Cycle Pump Class - Endurance cycling, 11 a.m. FC Karate 3 p.m. FC Zumba 4:15 p.m.	10 ALC Pizza to go, 11 a.m.-1 p.m., pick up orders only, call ahead 454-5555 FC Pilates 11 a.m.	11 FC Cycle Pump-Yellow Shirt cycling, 11 a.m. FC Karate 3 p.m. FC Zumba 4:15 p.m. ALC Dinner & Movie Night, dinner 5-9 p.m.; movie 6:30 p.m. "Old Dogs," PG	12 FC Piloga 11 a.m. ALC Prime rib for two, \$33 member, \$35 nonmember, 5-9 p.m.	13 ODR Paintball 9:30 a.m., \$20 includes lunch, ages 10 and up. Call 454-6084 ALC Bridal fair, 1-6 p.m., open to the public, salad bar and fruit buffet 1-4 p.m., \$7.95 member, \$8.95 nonmember, \$3.95 age 12 and under ALC Grilled teriyaki tuna, \$10.95 members, \$12.95 nonmembers, 5-9 p.m.
14	15 Deadline to sign up for Talent Show, March 20, call 454-3277 FC Cycle Pump Class- Zesty cycling, 11 a.m. FC Yoga 11 a.m. FC Bowling League, Tullahoma Lanes, 5 p.m.	16 FC Cycle Pump Class- Endurance Cycling, 11 a.m. FC Karate 3 p.m. FC Zumba 4:15 p.m.	17 ALC Pizza to go, 11 a.m.-1 p.m., pick up orders only, call ahead 454-5555 FC Pilates 11 a.m. ALC St. Patrick's Day Bash Membership night, 5-9 p.m., Irish buffet, free for members, \$8.95 nonmembers, \$4.95 age 12 and under. Entertainment by Jim Wood Trio 6-9 p.m. Special movie presentation: The Princess and the Frog, G. Sign up by March 12, 454-3350	18 FC Cycle Pump Class-Yellow Shirt cycling, 11 a.m. FC Karate 3 p.m. FC Zumba 4:15 p.m. ALC Dinner & Movie Night, dinner 5-9 p.m.; movie 6:30 p.m. "Amelia," PG (shown in the Landing)	19 FC Piloga 11 a.m. ALC Chateau briand for two, \$35 member, \$37 nonmember, 5-9 p.m.,	20 "UGT" You Got Talent Show, open to all ages, at ALC, 6 p.m., call 454-3277 for details ALC Limited menu due to talent show. Choose from Grilled pork chops or chicken breast, \$8.50 member, \$9.50 nonmember, children age 3-12 choose from chicken nuggets, corn dog or hot dog, \$6.50
21	22 FC Cycle Pump Class- Zesty cycling, 11 a.m. FC Yoga 11 a.m. FC Bowling League, Tullahoma Lanes, 5 p.m.	23 FC Cycle Pump Class- Endurance Cycling, 11 a.m. FC Karate 3 p.m. FC Zumba 4:15 p.m.	24 ALC Pizza to go, 11 a.m.-1 p.m., pick up orders only, call ahead 454-5555 FC Pilates 11 a.m.	25 FC Cycle Pump Class-Yellow Shirt cycling, 11 a.m. FC Karate 3 p.m. FC Zumba 4:15 p.m. ALC Dinner & Movie Night, dinner 5-9 p.m.; movie 6:30 p.m. "Alvin and the Chipmunks: the Squeakquel," PG	26 FC Piloga 11 a.m. ALC Kung Pao chicken, \$9.95 member, \$11.95 nonmember, 5-9 p.m.,	27 ALC Mongolian barbecue, \$9.95 member, \$11.95 nonmember, 5-9 p.m.
28	29 FC Cycle Pump Class- Zesty cycling, 11 a.m. FC Yoga 11 a.m. FC Bowling League, Tullahoma Lanes, 5 p.m.	30 FC Cycle Pump Class- Endurance Cycling, 11 a.m. FC Karate 3 p.m. FC Zumba 4:15 p.m.	31 FC Pot O' Gold Run, any time during normal hours, two laps around trail, first 25 to sign up receive T-shirt, 454-6440 ALC Pizza to go, 11 a.m.-1 p.m., pick up orders only, call ahead 454-5555 FC Pilates 11 a.m.	AEDC Golf League starts April 19. Call 454-7076 for information on how to sign up. Play is 4-person teams on Monday and Tuesday 4:30 p.m. for 19 weeks.		Easter Egg Hunt coming 11 a.m., April 3 to Youth Center back lawn for ages 2-12. Call 454-3277 to sign up.

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: Pizza Wednesdays, take out only, 11 a.m.-1 p.m., call 454-5555 to place orders; Dinner: Arnold Express Menu or Hap's Pizza only Thursday 5-9 p.m., dinner or Arnold Express Menus and Hap's Pizza Friday and Saturday 5-9 p.m.; Main Bar Thursday 4:30-8:30 p.m., Friday and Saturday 4:30-9 p.m.; Social Hour Friday 4-6 p.m.

Family Member/Youth Programs – Youth Open Rec. Tuesday and Thursday 4-7 p.m., Wednesday 1-6 p.m., Friday 4-9 p.m., Saturday 12-5 p.m.

Outdoor Rec / Arts & Crafts – Main Office, Check In, Marina and Auto Shop Tuesday-Sunday 8 a.m.-6 p.m.; FamCamp Store Tuesday-Friday 3-5 p.m., Saturday and Sunday 8-11 a.m., 2-5 p.m.

Fitness Center – Monday-Friday 5 a.m.-9 p.m.; Saturday 8 a.m.-4 p.m.; Sunday noon-5 p.m.

Arnold Golf Course – Pro Shop and Driving Range daily 8 a.m.- 5 p.m.. Mulligan's Grill: daily 7 a.m.-2 p.m.

Recycling – Monday-Friday 7 a.m.-4 p.m.

Wingo Inn – Monday-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.-2 p.m.; Thursday 8 a.m.-noon

BX/Commissary customer eligibility

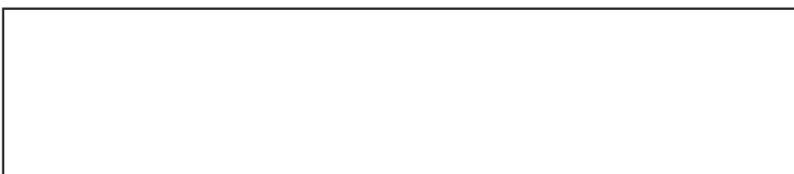
AEDC government civilian and AEDC contractor employees have access to the following limited items at the base exchange (BX): consumable items including toiletries and over-the-counter pharmaceuticals, food items such as candy, chips, little meal items, hot dogs and soft drinks. Alcohol and cigarettes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

AAFES Dividends

Dividends generated from Army & Air Force Exchange Service (AAFES) base exchange overall earnings are a major contributor to 704th Services non-appropriated fund construction and renovation projects as well as equipment purchases. 704th Services Division would like to thank all AAFES customers for their support. Dividends received for January 2010 totaled \$7,404.38

Hoops from H1

Participants must be 18 and exciting event while years or older. The NCAA Men's Division 1 Championship Tournament has been a mainstay for sport aficionados for decades. Now, even the novice can take part in this fun place is \$1,000. The NCAA Men's Division 1 Championship Tournament has been a mainstay for sport aficionados for decades. Now, even the novice can take part in this fun and exciting event while enjoying food and beverage specials as well. For more information, stop by Arnold Lakeside Center or call 454-3350. *No federal endorsement of sponsor intended.*



Briefs from H1

Arnold Lakeside Center
454-3350

1937 she set off on her most daunting mission yet: a solo flight around the world. **March 25** – “Alvin and the Chipmunks: The Squeak-quel,” rated PG starring Zachary Levi and Jason Lee. The world famous singing pre-teen chipmunk trio return to contend with the pressures of school, celebrity and a rival female music group known as The Chipettes.

Friday night dining room specials available from 5-9 p.m. **March 5:** Lynchburg Ribeye, \$11.95 for members, \$13.95 for nonmembers. First Friday Jam begins at 6 p.m. with an Irish theme. **March 12:** Prime rib for two, \$33 for members, \$35 for nonmembers. **March 19:** Chateau briand for two served with asparagus, carrots and twice-baked potato, \$35 for members, \$37 for nonmembers. **March 26:** Kung Pao Chicken, \$9.95 members, \$11.95 nonmembers. Please call for reservations to ensure special is available. All specials and times are subject to change without notice. Please call ahead to ensure availability and openings.

Saturday availability and specials: **March 6:** Baked snapper with chilies, ginger and basil, \$10.95 for members, \$12.95 for nonmembers. **March 13:** Grilled teriyaki tuna, \$10.95 for members, \$12.95 for nonmembers. **March 20:** Talent Show limited menu: Choose from grilled pork chops with portabella mushroom sauce or grilled chicken breast with cranberry sauce. Both entrees are served with green beans, garlic mashed potatoes, corn, garden salad and rolls, \$8.50 for members, \$9.50 for nonmembers. Children age 3-12 may choose from chicken nuggets, corn dog or hot dog served with macaroni and cheese, green beans, applesauce and lemonade or capri sun, \$6.50. **March 27:** Mongolian BBQ, \$9.95 for members, \$11.95 for nonmembers. The dining room is open on Saturdays from 5-9 p.m. unless otherwise specified. Please call for reservations to ensure these specials are available. All specials and times are subject to change without notice. Please call ahead to ensure availability and openings.

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

Family Member/Youth Programs (FamY)
454-3277

Youth Movie Night set for March 5 from 6-9 p.m. Ages nine and up are invited to the Open Rec. Center to watch a movie. There will be free popcorn and pizza by the slice for \$1. Juice and water will also be provided free of charge.

Apply now for Teen Aviation Camp. This camp is open to eligible high school students entering their sophomore or junior year in fall 2010. This program is for those who would like to explore the U.S. Air Force Academy as a possible choice for college. The camp will be held June

5-10 with a wide variety of outdoor and classroom activities in Colorado Springs. Interested teens can pick up an application from Youth Programs. Selected participants are responsible for their airline and travel cost to and from Colorado Springs. Transportation, lodging and meals are covered upon arrival to location. All applications must be submitted to Youth Programs by March 22 and selections for the camp will be made on April 23. For more information call 454-3277.

Easter Egg Hunt set for 11 a.m. April 3 on the Youth Center back lawn. There will be three ages groups: 2-5 years, 6-8 years and 9-12 years. Prizes will be awarded in each age group. Expect a special appearance by Peter Cottontail. Call to sign up by March 25.

Air Force Space Camp 2010 applications being accepted. The 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 the Youth Center. 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 Arnold Air Force Base, Air Force retired military, Air Force civilian and contractor employees, Air National Guard and Air Force Reserve members. Airline or private vehicle travel costs to Huntsville are the responsibility of the attendee. Lodging, meals and activity costs are funded at no cost to the participant. All applications must be fully completed and returned to the Youth Center by April 26. Call for complete details on how to apply.

Fitness Center
454-6440

Pot O' Gold Run set for March 31. This is an on your honor run for two laps around the Fitness Center trail anytime during regular hours. The first 25 to sign up get event T-shirts.

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

Open League and Women's League Softball will begin the end of April. Get your teams together now and sign us as individuals or teams. Games will be played on Mondays for Women's League and Tuesdays and Thursdays for Open League. Three games are played each night beginning at 5:30 p.m.

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

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

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

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

Outdoor Rec (ODR)
454-6084

Paintball set for March 13. 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.

Trip to The Lost Sea Adventure coming May 15. Sign up by April 9 for this all day trip to Sweetwater, Tenn. This event is a tour of the largest underground lake in America. Two tours will be done. The adventure begins with a guided tour of the caverns. This involves a three-quarter mile round-trip walk on wide sloping pathways. While touring the caverns and underground lake guides will tell of the cavern's exciting and colorful history. They will also explain the fascinating geological development of the immense cavern rooms and rare formations. At the bottom of the cave board a glass-bottom boat for an exciting trip on the Lost Sea. The lake, covering more than four acres, is recognized by the U.S. Department of the interior as a Registered National Natural Landmark. This is due to the natural phenomenon of the lake as well as the abundance of a large collection of rare anothodites, more commonly known as "Cave Flowers". The lake is located 140 feet below the ground level, so coming up can be a hike. The tour lasts approximately one hour and 15 minutes and the temperature remains a pleasant 58 degrees. Along with the boat ride and cavern tour, the flashlight tour delves into an undeveloped section of the cave. This portion lasts approximately one hour and thirty five minutes. Be sure to bring a flashlight and money for meals. The

trip departs from Outdoor Rec at 8 a.m. and will end at 6 p.m. Cost is \$40 per person (\$25 for ages twelve and under). There will be a cancellation fee of \$10 if cancelled after April 30. There must be a minimum of 20 participants to take this trip. Maximum capacity is twenty-six.

Reservations for pavilion usage by authorized personnel must be made through the Outdoor Recreation Program. This includes the two pavilions at Gossick Leadership Center Beach, the Arnold Lakeside Beach and two in the Crockett Cove area. Rental fee is \$25 per day and a \$50 refundable cleaning deposit is required. Reservations may be made up to 30 days in advance at Outdoor Rec. or by calling 454-6084.

Corn Hole is now available for rent for office functions and private events. Each set rents for \$10 per day or \$15 for two days. Four sets are available to accommodate larger groups. Rental reservations may be made through Outdoor Rec. or by calling 454-6084.

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

includes balancing for four tires and is \$16 for cars and vans and \$20 for trucks.

Wingo Inn
454-3051

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

Gossick Leadership Center
454-3024

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

mation contact the CCM at (931) 454-3024.

AEDC Woman's Club
455-5676

The AEDC Woman's Club will meet March 2 at the Arnold Lakeside Center. Social time will begin at 9:30 a.m. and the meeting will start at 10 a.m. Forget about the winter blues by coming to the March program, "Gardening and Cooking with Herbs." Janet Green, North Alabama Master Gardener since 1999, owns the Sleepy Owl Herb Farm in Flintville, Tenn. Growing more than 40 varieties of lavender, 15-20 varieties of rosemary as well as a multitude of mints and other herbs. Janet will include some fun sensory herb experiences, offer a few simple tricks to help people learn about the "art of flavor" as well as some basic growing and cooking information. Even though her college education was in art and her last employment was in aerospace, she likes nothing better than to share, both learning and teaching, information about growing, using and just enjoying plants of all kinds. So, come take off your snow boots and join us for lunch. Remember, spring is just around the corner. Janet will help us plan for it now. Make your reservation by calling 455-5676.

This is a private organization which is not part of the Department of Defense or any of its components and it has no governmental status.

Two ATA employees deploy with National Guard to Iraq



ATA's Deputy General Manager Steve Pearson traveled to Camp Shelby Mississippi Feb. 5 to witness the departure of the U.S. National Guard's 278th Armored Cavalry Regiment as they deployed to Iraq. Two ATA employees are among the 4,000 Tennessee Guard Members who are deploying. Along with those two coworkers, there are several children and close relatives of AEDC's work force who are part of that group. (Photos provided)

Project from page 4

"African-Americans have engaged and fought for their country and issues since the Civil War," he said. "When you look back at the 54th Massachusetts Volunteer Infantry regiment that was depicted in the movie 'Glory' and other units you see evidence of men and women who fought and died for their freedom and ours."

"If you can imagine the conditions of separate living quarters, lack of uniforms, less pay and lack of other simple amenities that soldiers had to forfeit back then, yet they still wanted to serve and were willing to sacrifice their lives for freedom," he continued. "Today the military has achieved integration

in all branches of the armed services. Military personnel have equal opportunities for advancement. We have seen African-Americans climb to the top of the chain of command. I'm sure it was not easy, but several have achieved the four-star positions and now even the Commander-In-Chief."

Colonel Thompson said he has no regrets about joining the military.

"The military has afforded me professional growth and promotional opportunities that were not available 60 years ago," he said. "The experience, camaraderie and relationships built over time were invaluable. I have always been proud to wear

the uniform and serve.

"I think the changes that I have seen over the last 20 years are steps in the right direction. I'm sure every branch still has issues and challenges when it comes to race relations; however, I feel we have moved forward by making positive changes, adding diversity training, adding the resources and avenues for all soldiers that were not available 30 years ago."

For more information on the archival/history project at AEDC, or to contribute information, contact Shawn Chapman at (931) 454-6708 or David Hiebert, Arnold AFB historian, at (931) 454-4203.



David Hiebert, Arnold AFB historian, presents an account of Camp Forrest for 27 base personnel during a cultural walk held Oct. 27, 2009. The concrete foundations pictured are similar to the physical record found on the African-American cantonment area located elsewhere on one of the Army's largest training bases during World War II. Hiebert and Shawn Chapman, the base archeologist, are working with AMEC's Hillori Schenker to conduct archival research, including oral histories, on the African-American soldiers who were at Camp Forrest. (Photo by Rick Goodfriend)



Winter wonderland at White Oak, Md.

In the 26 years living in the D.C. area, Dan Marren, White Oak site director, has never seen a weather event like what they just experienced a few days ago.

"In a few days, a relentless piling of snow continued to impede all efforts to bring this area back to some form of operational normalcy," Marren said. "The efforts of the Tunnel 9 staff working with their GSA counterparts assured a safe and logical return to operations at the AEDC White Oak site."

Considering that each and every employee at White Oak also had serious concerns regarding the safety of their home and family, Marren found it exemplary that they were able to garner efforts to protect the significant investment in the unique facility.

"So far a frozen condenser on our HVAC system and the T-1 connection to the outside world are our only casualties," Marren said.

While heavy snow continues to threaten roofs, busses and cars remain slowed by one lane cleared roads and we anticipate the flooding as snow melts, Marren says Tunnel 9 will spring back to operation in time to support the customer testing to come.

Article compiled by Janae Daniels, High Mach Editor.

Energy conservation shouldn't be just another program

By **Janaé Daniels**
High Mach Editor

In the February ATA Energy Conservation newsletter Aaron Wiser was awarded \$200 for being one of many who submitted a suggestion on how AEDC personnel can conserve energy.

Wiser, an engineering technician in the Design Engineering Branch, suggested installing timers on cubicle lights, as installed for the ceiling lights in buildings.

"The reason I submitted this particular idea was that when I work late some nights, on my way out of the building I have noticed people leaving their lights on," Wiser said. "So I started cutting their lights off on my way out at night. I figured if the people I notice are leaving their lights on there is bound to be many others that I don't see that are leaving their lights on."

Wiser suggested the timers idea so that at a certain time every night the people who leave their lights on in their cubicles would cut off and in the early morning would cut back on.

"The biggest agenda of my idea was to save energy," he said. "I figured if timers could be installed on cubicle lights for the people who leave their lights on that would save the company hundreds, if not thousands of dollars per year."

In January, a letter went out to all ATA employees encouraging them to contribute ideas and commit to conserve energy. Each month, every participant's name is included in a drawing and the one drawn will win \$200.

"We want simple, minimal cost and easy to implement energy savings ideas and personal commitments; ideas such as installing motion sensors and electro-optical switches to control lighting or commitments including your pledge to recycle and conserve energy in your daily activities or reduce water and gas usage," ATA Deputy General Manager Steve Pearson said.

"We are entering an era when energy conservation and recycling will become everyday tasks for each of us both at work and at home. Our efforts will reduce costs and preserve the environment."

Because of the type of work done at AEDC, command officials at Wright-Patterson AFB, Ohio, understand AEDC will use a lot of energy.

To be exact, AEDC's energy consumption of electricity, gas, potable water, raw water and fuel costs an average of \$30 million annually; ranging from between \$27-\$38 million in the past five years depending on test workload and oil prices. Between 50-60 percent of the cost of a typical flight or altitude aeropropulsion test is for energy.

"It's easy to see why energy cost is a big concern for AEDC to enable us to continue to provide affordable testing services," Pearson said. "Improving operations efficiency in our plants, utilities and offices and outright elimination of energy waste is a responsibility we all must take on as our own."

Wiser says there are many other ways to save energy, not necessarily by lights. He encourages others to do what they can



Aaron Wiser, center, is presented with his \$200 reward by the Branch Manager Jeff Utley, far left, and his supervisor Maureen Burke, far right, for participating in the ATA energy conservation program. Wiser put in an idea/suggestion to improve energy conservation in his work area. (Photo by Rick Goodfriend)

to help.

"I would safely say I am an energy conservation kind of person basically by instinct," he said. "I make sure the lights are off in a

room when I exit. I don't turn the heat up in excess in the winter months at home.

For each degree that the thermostat is lowered a percentage of an energy

bill is lowered. Basically it is common sense things that could help out the cost of everyone's energy bill whether it is at work or at home."

Save from page 1

"We maintained CPR for about three minutes until the paramedics and EMTs arrived."

Jimmie McCullough, Jackie Wiseman, Danny Myers and Barry Benson cleared a path and opened doors otherwise not accessible from the outside to ensure access for Tim Mansfield and L. E. Brown and other first responders with AEDC's Fire Department.

AEDC's paramedics suc-

cessfully employed their automated external defibrillator, which restarted Bunch's heart before he was transported to the hospital.

Arnold's security forces helped clear the route off-base and communicated with Tullahoma police who helped speed the transit to the hospital.

West, reflecting on that day, said, "I've worked in emergency rooms [and] emergency situations and

I've worked with trained medical personnel. What I saw back there in the lab last Thursday afternoon was just as calm and professional as you'd see in any emergency room setting.

"These guys did what needed to be done, no questions asked, no yelling, no panic and nobody standing there wringing their hands," he added. "We just did what needed to be done and we're thankful that it such a posi-

tive outcome."

Jessica McNeese, CORE nurse practitioner at the base dispensary, had joined the work force at AEDC the same time as Bunch.

When the ambulance with Bunch inside pulled up to the base dispensary, McNeese was there to help. As a nurse practitioner, she also knew his medical history.

"I ended up in the back of the ambulance all the way to the hospital," McNeese

said. "They [base EMTs] were trying to get an IV in [and] he pulled it out, so I put another one in. [The] second time was a charm."

Shortly after the medics rolled Bunch into the emergency room, McNeese went back inside to provide the ER doctor with the patient's medical history.

Bunch, who had a special device implanted in his chest to both control his heartbeat and administer

micro shocks to avoid irregularities, is still coming to terms with the experience.

"It makes you think what could have happened [under different and less favorable circumstances]," he acknowledged. "I eventually wound up at St. Thomas Hospital in Nashville, where the implantable cardioverter-defibrillator was actually put into my chest. They say I can come back to work in about three weeks."

Commander's Fit Tip: *A beat is a terrible thing to waste*

By Col. Michael Panarisi
AEDC Commander

So, you've already busted your New Year's resolution, you missed the Commander's Fit Tip on the Christmas Day Marathon, and despite the times you did make it to the gym, you just aren't seeing the results. Maybe you need to look a little deeper than the scale. In fact, the real results are far more important than a better day at the beach or one more year in your favorite jeans. The real benefit comes with every beat of your heart. And in this fight, every beat counts.

Some of you have heard of the "heartbeat theory." I read some gym humor (OK, that's just a little disturbing!) where a patient asked a doctor if exercise would help him live longer. The doctor also subscribed to the heartbeat theory...where you are born with a fixed number of heartbeats and wasting them all on the treadmill

was just that...wasteful. "Tell me this..." he'd ask "If you want your car to last longer, do you drive it faster? If you want to live longer, take a nap." Well, there's certainly some goodness in a nap, but just for fun, let's bust this myth and add one more tool to our bag of tricks when it comes to seeing results from our workouts.

Let's just assume this theory has some merit. At the extreme, we really might just burn out the old ticker, right? But since the heart is a pump, and pumps are the mechanical engineer's domain, let's do some math. First some terms and units. "Heart rate" is usually described in "beats per minute." Doctors call this your "pulse." As you increase your activity, your pulse increases. But we don't exercise all day, and since we can't count our heart beats all the time, let's look at some "averages." "Resting heart rate" is the

Fit Tracker: Last issue Col. Panarisi weighed 184 pounds and as of today he has lost two pounds. Sure and steady.

number of times your heart beats in a minute, while you are at "rest." Well, "rest" is a bit of a relative term, but for this exploration, let's divide the day into "workout" and "rest." The "rest" is where the theory falls apart.

To measure your "resting heart rate" find a repeatable posture (lying down or sitting) and relax for a couple minutes with no talking, no distractions. Your heart will settle down to a very steady beat. Take your pulse for a minute, and I suspect you'll see somewhere between 60 and 90 BPM. This week, mine's about 55. But I don't get to lay around all day, so in all the hustle and bustle, let's say I

average 70 BPM, including the time I spend in the 40s at night. But during my workout, I averaged 150. So, for 23 hours a day I churned out 70 x 60 x 23 hours (96,600 beats) and for an hour, 150 x 60 (9,000 beats) for a grand total of 105,600.

The heart beat theory would say I "wasted" around 4,000 beats during the workout. Not so fast!! A cardio workout makes the heart stronger, more efficient, and able to pump more blood in every beat. Two benefits...higher levels of performance when I need it, but more importantly, a correspondingly lower resting heart rate. That means, for every minute I'm "resting," the heart is beating fewer times a minute. Since I'm resting 95 percent of the time that adds up very quickly. How quickly? Look at it this way. You only have to lower your resting heart rate to 69 BPM to "break even." Here's the good news...if your resting HR

is 70, a disciplined cardio routine can lower that to 65 very reliably. At 65 BPM, you save more than 7,000 beats a day. If you subscribe to the "heart beat theory," then all the time you "waste" on the treadmill literally adds years to your life.

Tracking your resting HR is one of the most objective and reliable indicators of your success early in a workout program. It is better than blood pressure, and WAY better than weight loss. Of course, over time, your resting heart rate will plateau and eventually, no matter how much you work out you won't see a decrease. At my peak I was in the high 40s. But until you plateau, track that number and lean on it when you need a little motivation. Even a one BPM drop saves more than a thousand beats a day, and yes, that's including the 4,000 some "wasted" during the workout.

I'll take that waste to the bank.

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other Air Force base or maybe at his own local test stand, so the problem lies in getting the experts where they need to be."

Richard Walker, project manager, said GE is one of the customers who will benefit from this capability.

"A large benefit to GE is that the same people [their analysis and control experts] supporting AEDC testing can also support other testing at GE - they don't have to hire and train extra people dedicated to AEDC support," he said.

Liner said the initial plan is to only use this capability in the ETF test cells but would eventually span to the other test areas in the future.

"While we are installing it to go into ETF, the main focus is to design an AEDC capability with minimal effort to duplicate the system in another area," Liner said. "The first test targeted to use this capability is the F136 which is scheduled for May."

According to Liner, the remote capability will not cost anything.

"There is minimal design change," Liner said. "The test cells themselves

will have no change. There will be slight changes to the data system by adding another exit point for the data.

"We will also be digitizing our video. Currently all our video is analog, but we will be adding a standards-based encoder so it will turn the data into IP traffic so we can send it through the Internet."

According to Liner, several of AEDC's customers have asked if they can see the test at their home site.

This capability would keep the crucial crew at home and only send the necessary crew members to the actual test site.

"In the past, we built what we call a stove pipe system where a customer wants this capability so we're going to take whatever their data format is and change our system to be able to send that data format back to them," he explained.

"So what ends up happening is let's say we have three customers, we might build the same thing three times in three different ways."

Liner said the group took the requirements that were given to them and went a

step further.

"Several of us got together and looked at that requirement and came to the conclusion we could meet it, with a few contingencies," he explained.

Those contingencies are based on several factors. The system will be used for monitoring purposes only in order for experts at remote sites to augment critical local staff, AEDC will define the data format for real-time parameters in order to define a common AEDC interface and a single audio and video stream will be delivered to the remote site where the customer is responsible for protection and distribution.

According to Liner, all critical decisions will still be made at AEDC. This prevents remote customers from stopping a test performed at AEDC from their location.

"The project we are working on right now is to deliver both real-time and processed data to remote sites as well as a listen-only intercom loop for the test conductor," Liner explained. "We are also providing a single video feed from the test cell that the customer would be

able to view. This video would then be transmitted to the experts back home for them to review."

In order to streamline the video, a secure internet connection has to be available and any information must be encrypted - all these elements will be designed into the system.

"We've gone to great lengths to make sure that this information will be encrypted at a level where we feel safe transmitting it over the internet," Liner explained.

According to Liner, there has been real feeling of excitement each time this capability has been briefed to Arnold management and customers.

"Customers are excited about the possibilities from a cost and schedule perspective, AEDC is excited to offer a new capability to all our customers and those who have been involved over the years are excited to see an idea with roots back in the 1980s finally be made real," Liner said. "The final system has been named the Arnold Remote Link Information System (ARLIS)."