



# HIGH MACH

Serving the World's Premier Flight Simulation Test Complex



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## United Launch Alliance team conducts test for the Orion Exploration Vehicle in AEDC's wind tunnel

By Philip Lorenz III  
ATA Public Affairs

A team of engineers, technicians and outside machinists at AEDC played a key role in conducting transonic wind tunnel testing in support of NASA's Exploration Flight Test-1 (EFT-1), the first planned, flight test of the Orion Multi-Purpose Vehicle without a crew.

A United Launch Alliance (ULA) team, led by Mike Schoonmaker, was at AEDC's 16-foot transonic wind tunnel to gather dynamic pressure, and steady state pressure data for the 5.9 percent scale modeled Orion crew capsule mounted on a Delta IV booster.

EFT-1, which is scheduled for launch in 2014, will take Orion to an altitude of approximately 3,600 miles above the Earth's surface, more than 15 times farther than the International Space Station's orbital position. This mission will see Orion traveling farther into space than any manned spacecraft has gone in more than 40 years.

"The 'Orion' Multi-Purpose Crew Vehicle (MPCV) is a beyond-low-earth-orbit manned spacecraft that is being built by Lockheed Martin for NASA," Schoonmaker said. "With the retirement of the Space Shuttles, Orion will provide the U.S. with manned access to space.

"Prior to flying a manned mission, an



Artist's rendering of Orion during Exploration Flight Test-1, the first spaceflight of America's next generation spacecraft. A scale model of this configuration of the Orion underwent testing in AEDC's 16-foot transonic wind tunnel in support of an upcoming flight test in 2014. (Graphic courtesy of NASA)

unmanned Orion will fly on a Delta IV to demonstrate both flight and reentry performance parameters. The testing at AEDC supports the first flight test, EFT-1, of Orion."

Schoonmaker said the test article his team installed in AEDC's 16T wind

tunnel is the entire three-body configuration of the Delta IV Heavy with the Orion, the Orion Service Module, and the Orion Launch abort system on the front end.

Nathan Payne, the Aerospace Testing Alliance project engineer on the ULA

Orion entry test at AEDC, said, "This is a buffet/acoustic test in our 16T wind tunnel facility. The Orion's test objectives are to gather dynamic pressure data over the entire model's surfaces. ULA can then use this data to provide vehicle forcing function for axial, pitch, yaw and their respective moments.

"We are defining the surface acoustics and vibrational environment on the model to support a component that will be used on the full scale vehicle."

Payne added, "We are gathering static pressure data over selected areas of the vehicle's surface and obtaining [Background-Oriented] Schlieren images of shock interaction between the payload and the strap on liquid rocket nose cone geometries."

The wind tunnel testing at AEDC supported buffet environment definitions and provided whole vehicle buffet forcing functions.

"The Delta IV Heavy vehicle is a flight-tested configuration, but every time a new geometry is put on the front end, ULA must verify flight margins," Schoonmaker said. "The new element in this case, Orion, has not flown yet, but Orion models have been tested in other wind tunnels; thus, these new data are really to support whole vehicle buffet modeling and response predictions. This

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## AEDC prepares for acceptance test in the new space threat test chamber



Second Lt. Akshay Tripathi (left) and Capt. Nicolas Bauer, in the AEDC Space and Missile Test division, install a microsatellite in AEDC's new Space Threat Assessment Testbed to conduct an initial site acceptance test. The initial site acceptance test is the equivalent to the halfway point of mission capability. The STAT can simulate a realistic operational environment to space hardware, using multiple source simulators to emulate the conditions existing at various space orbits. The STAT facility will reach Initial Operating Capability this month, followed by Full Operational Capability certification by September 2013. The facility will be operated under the Space Combined Test Force (CTF). (Photo by Jacqueline Cowan)

## SecDef says furlough days reduced for civilians

By Nick Simeone  
American Forces Press Service

WASHINGTON (AFPS) – The Defense Department has revised from 22 to 14 the number of days hundreds of thousands of civilian employees could be furloughed this year because of the budget sequester, Defense Secretary Chuck Hagel announced March 29.

In addition, a senior Defense Department official speaking on background told reporters the start of the furloughs will be delayed until mid-to-late June, after more than 700,000 department employees receive furlough notices now set to go out in early May. Furloughs would happen over seven two-week pay periods until the end of September, when the current fiscal year ends, the senior official said, with employees likely to be told not to come to work for two days during each of those pay periods.

Department officials say they are still working to determine which employees might be exempted.

Hagel characterized the reduced furloughs as well as a revised estimate of sequestration's impact on the defense budget as good news. The changes follow Congressional approval last week of a defense appropriations bill that prevented an additional six billion dollars in cuts, ordered under sequestration, from taking effect.

"It reduces a shortfall at least in the operations budget," the secretary told reporters at a Pentagon news conference. "We came out better than we went in under the sequester, where it looks like our number is \$41 billion [in cuts] now versus

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## AIAA Tennessee Section accepting award nominations

By Raquel March  
ATA Public Affairs

The American Institute of Aeronautics and Astronautics (AIAA) Tennessee Section presents annual awards to recognize significant technical accomplishments, outstanding achievements and support to AIAA Section activities.

This solicitation is an opportunity for individuals to recognize colleagues, peers, mentors and co-workers. The award criteria acknowledges the craftsman whose

specialized skills fabricated design into state-of-the-art precision instrumentation; the engineer whose innovative ideas and analysis approach resulted in significant cost savings and improved data quality; the administrative support personnel who assisted in organizing AIAA meetings and conferences, and the scientist who directed research efforts which contributed to the understanding of physical phenomenology.

Membership in AIAA is not a requirement for the recipient for two of the award

categories – the Griffith Award and the Special Award – and for any of the five award categories, the nominators don't need to be AIAA members.

The General H.H. Arnold Award is the most prestigious award presented by the AIAA Tennessee Section. The award recognizes outstanding personal contributions to the advancement of aerodynamic or astronautical sciences. The work must have been accomplished within the past

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## HIGH MACH

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- 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

# We're not talking about your dad's Old Spice

By Capt. Sarah Kress  
AEDC Judge Advocate Office

In the small backroom of Hemp World, a head shop in Marytown, Tenn., a worker dutifully arranges an array of ceramic pipes inside a well-lit glass case. Another clerk cranks up the Greatful Bed music just before pulling out a new shipment of bong and vaporizers. It's unusually warm outside and the owner knows it's going to be a good day for Hemp World. The students at Marytown University (MTU) just finished final exams and are gearing up for summer vacation. From inside the store, the owner hears two Delta Nu co-eds chatting.

Co-ed 1: "This is new. It's called Mickey's Magic. Look at that cute mouse on the package."

Co-ed 2: "That's the synthetic marijuana stuff the Phi Del's had at their party couple of weeks ago. They call it SPICE. It's a little pricy but it can beat a drug test. Plus, it's totally legal in Tennessee."

Clerk: "Yea, that stuff is selling like crazy. I can't keep enough of it in the store. But be careful. It's not your dad's Old Spice for sure," the clerk says and smiles from behind the glass counter.

But what the two co-eds don't know is that the substance is not marijuana at all. Spice is a mixture of herbs and botanicals sprayed with synthetic cannabinoids, similar to the compounds found in Tetrahydrocannabinol



Capt. Sarah Kress

(THC), the main ingredient in marijuana. Although these chemicals are designed to mimic the effects of marijuana, they often induce a variety of other, dangerous side effects – everything from elevated heart rate and increased blood pressure, to paranoia and hallucinations.

These chemicals are largely unregulated, experimental in nature, and behave unpredictably in the body. For this reason, the user never really knows the potency of any particular dose of spice, or in this case, Mickey's Magic.

Prior to 2012, users could easily go online or walk into head shops, similar to the one described here, and purchase spice. However, all that changed in July when the President signed into law the Synthetic Drug Abuse Prevention Act of 2012. The chemicals



(Image provided)

found in spice are now listed alongside LSD, ecstasy, and marijuana as Schedule I controlled substances, the most restrictive category. That same month, Tennessee joined the fight when it amended its drug laws to specifically include "imitation controlled substances."

However, the states and the Department of Justice

use of any "intoxicating substance...that is inhaled, injected, consumed, or introduced into the body in any manner to alter mood or function." The instruction specifically prohibits the use and possession of "controlled substance analogues," or designer drugs such as spice.

A violation of AFI 44-121 carries with it a variety of criminal and administrative consequences to include the possibility of a federal conviction. The maximum punishment that could be imposed at a general court-martial

*In 2010, one in every eight Air Force drug courts-martial included a spice charge. By 2011, the number increased to one in every three Air Force drug courts-martial.*

are not alone in this fight. Spice use and possession is also prohibited by Air Force Instruction (AFI) 44-121, Alcohol Drug Abuse Prevention and Treatment (ADAPT) Program, 11 Apr 11, and Article 112a, Uniform Code of Military Justice (UCMJ). Air Force Instruction 44-121 criminalizes the possession and

for spice use in violation of AFI 44-121 is a dishonorable discharge (or a dismissal for an officer), confinement for two years, total forfeiture of all pay and allowances, and a reduction to E-1 (reduction available only for enlisted members). Spice use and possession is also prohibited under Article 112a,

UCMJ, which prohibits the use and possession of Schedule I controlled substances. When Article 112a is charged, the maximum period of confinement jumps to five years.

What good is the law if you aren't able to test for the substance, right? The Air Force Drug Testing Lab (AFDTL) had the same thought and added synthetic cannabinoids to their list of testable drugs. As a result, the Air Force has the capability to test for known, synthetic cannabinoids as part of an individual random drug test, a unit sweep, or even a military magistrate directed search authorization.

Finally, with so many tools at the prosecutor's fingertips, it makes sense that the courtrooms are seeing just as much spice action as the head shops.

From 2010 to 2011, the Air Force saw a sharp increase in the number of spice-related courts-martial. In 2010, one in every eight Air Force drug courts-martial included a spice charge. By 2011, the number increased to one in every three Air Force drug courts-martial.

These numbers tell us that synthetic drugs are here to stay. They also tell us that investigators and prosecutors have the tools and resources available to hold offenders accountable for their actions. So in other words, whether you are civilian or military, don't SPICE UP your life.

Contact the AEDC legal office at 454-7814 for more information.

# It takes a village - especially these days

By Senior Master Sgt. Haishhia Havens  
940th Aerospace Medicine Squadron

**BEALE AIR FORCE BASE, Calif. (AFNS)** – "Hey, Mom, guess what!"

It was an innocent start to a recent conversation with my son that served as a real wake-up call for me.

When my 10-year-old told me someone had asked him if he wanted to get high, my first reaction was to begin interrogating him with a barrage of who, what, where, and how's. But he was looking at me to see my reaction, so I had to make myself take a deep breath. I invited him to sit down next to me on the couch and tell his story.

That afternoon, he'd been outside playing in the neighborhood when two classmates approached him with chalk dust and hand sanitizer, suggesting he could get high with the items.

He said it scared him; he wasn't expecting it. Frankly, neither was I. He's only 10. We live in a safe neighborhood, and my sons attend a good school just down the street. At that moment, I was so thankful we'd already had "the talk" about drugs and alcohol. And he had listened!

After hearing his story about the encounter, I suggested we have a snack. I was buying myself time

to gather my thoughts and carefully formulate the questions I had to ask so that I could understand the whole situation. I asked him to tell me the story again, then I reassured him he had done the right thing.

I called my 11-year-old son in and asked if he had ever been approached. I learned he had been – a few days earlier, by the same children, in the school cafeteria. He too had turned down the invitation to get high with hand sanitizer and chalk dust.

I was thankful my sons were not accepting to the invitation to get high, but I dreaded telling the parents of the children who had approached them. Still, I knew they needed to know. I would want to know.

As a former Air Force Office of Special Investigations agent, I had worked cases of drug and alcohol interdiction with families. As an Air Force reservist in the medical field, part of my duty involves educating military members and their families about the dangers of drugs. I needed to gather answers to the questions I was sure the other parents would ask.

I turned to the Internet

to do further research. I couldn't find anything on chalk, but I learned that hand sanitizer contains alcohol. Consuming one bottle is the equivalent of drinking two shots of vodka – enough to kill a child.

That was all I needed to know. I immediately got on social media and sent the information out to other parents in the neighborhood. Without revealing specifics of my sons' experiences, I alerted others to the potential that their children may have been approached, and I provided details about the dangerous content of the items, along with the symptoms of the abuse. I urged them to take the time to talk with their children about this real and present danger.

Within minutes of my posting, parents were commenting and sending me private messages. I sent an email to the school's principal and asked to meet with her.

The following afternoon, I gathered my courage and knocked on the doors of the families whose children had been involved in both my sons' incidences. I didn't know how they would react, but I knew they needed to hear what I had to tell them. Their children's lives and the lives of other chil-

dren were at stake.

The parents were very surprised and saddened at the news, but they were appreciative I'd come to talk privately with them. Obviously, this isn't something any parent wants to hear, but the sooner the truth is revealed, the better – before something tragic could happen.

The school principal was also responsive when I met with her the next day; I could hear genuine concern in her voice. She immediately took action to meet with the involved families to provide guidance and resources to help them address the problem. She took the opportunity to meet with classes to re-emphasize the

school's anti-drug teachings, encouraging students not to give in to peer pressure when confronted with drugs and alcohol.

The school had a health fair scheduled, and the principal allowed my unit, the 940th AMDS, to set up a booth educating parents and students about drug and alcohol abuse prevention. We were able to talk with several families at the fair.

I'm a real advocate for open communication, not only with my own children, but with other parents and our schools.

Building strong community ties will help keep our children safe. As they say, it takes a village – especially these days.

## Action Line

### Team AEDC

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

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

Col. Raymond Toth  
AEDC Commander

## Smoking Policy

1. The following revised AEDC smoking policy is effective immediately. Smoking is permitted solely in designated areas identified by a plastic "smoke genie." This receptacle is for the sole purpose of cigarette butt disposal. If there is no receptacle, you cannot smoke in that area. It is the responsibility of all smokers to clean up the area surrounding the receptacles for any cigarette butts on the ground. Smoking in government-owned vehicles is strictly prohibited. Personnel are allowed to smoke in their personal vehicles at any time. In case of inclement or cold weather, employees are encouraged to use their personal vehicles if a sheltered designated smoking area is not available nearby. Smoking areas will be held to the absolute minimum and will be located in low traffic, low visibility areas away from points of building ingress/egress and air intakes. A map of all authorized smoking areas is available on the AEDC web portal at [https://es.eis.afmc.af.mil/sites/cio/IM/Pubs/AEDC/Pubs%20and%20Forms/AEDC%20Publications/Smoking\\_area\\_map.pdf](https://es.eis.afmc.af.mil/sites/cio/IM/Pubs/AEDC/Pubs%20and%20Forms/AEDC%20Publications/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.

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

- 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.

# Air Force Network migration coming to Arnold

By Ken Robinson

AEDC Communications Branch

The Arnold AFB Unclassified Network (AUNet) computer users and computers will soon migrate into the centrally managed Air Force Network (AFNet).

As the Air Force continues to transform its cyber operations, the Air Force Network Integration Center and 24th Air Force have established a centralized user directory and e-mail service for all Air Force network users called AFNet.

The AFNet project goal is to collapse all individual and stand-alone Air Force, Air Force Reserve and Air National Guard networks into a single network. For the Air Force, this migration represents a major change to

how the computer networks are managed.

Until now, major commands and various other Air Force organizations have been operating their own independent networks that consequently added unique and unit specific maintenance requirements. Over the years, this approach lacked standards across the network resulting in high operation and maintenance costs and a lack of enterprise situational awareness. In short, there was no single organization or commander responsible for the entire network.

The AFNet migration project addresses these issues, and places Air Force cyber operations under the operational control of a single commander. This approach will yield a significant improvement in the Air Force's ability to glob-

ally fight daily virus activity and malicious intrusion attempts.

Additionally, AFNet migration will centralize services like email, Enterprise Information Management (SharePoint) data storage and help desk. Operational and training costs will be reduced through the elimination of redundant systems and services.

Over a period of 47 days beginning May 20, technicians will begin migrating AUNet connected Arnold workstations, network users and email into the AFNet. To the majority of Arnold network computer users, most of the changes will be transparent and should not cause an interruption to network access or normal day-to-day operations.

The most visible change to AUNet computer users will be

the format of your email address. The migration replaces the first.last@arnold.af.mil email address with an Air Force standard first.last@us.af.mil address. The new address will remain with users for the duration of their career, employment, or affiliation with the Air Force, regardless of the base or organization assigned.

Email messages sent to the legacy first.last@arnold.af.mil address will be forwarded to your new email address until your separation from Arnold. As more bases join the AFNet, you will be able to login to your account from any AFNet base without requesting and creating an additional account. This will allow easy access to the Air Force network during deployments and throughout temporary duty and permanent

change of station moves.

Sites such as the Air Force Portal, Air Force Personnel Center and Defense Finance Accounting Service, will remain easily accessible regardless of your duty location.

As the projected start date approaches, a team of the Air Force Network Integration Center, 690th Network Support Group and Arnold AFB Communications Branch technicians will be busy preparing equipment and resources to facilitate the migration.

To ensure a smooth transition to the AFNet, look for future user notification email messages with additional migration related information. For additional information call the AEDC/TSDI Communication focal point at 454-4459, or email [Gena.McDonald@arnold.af.mil](mailto:Gena.McDonald@arnold.af.mil).

## Former astronaut speaks at local National Engineers Week banquet

Commentary By Paul Kelly

Arnold Engineering Development Center

As an engineer at a place like AEDC and someone who is interested in helping to promote science, technology, engineering and mathematics (STEM) careers to young people, I found it an honor and privilege to attend the recent National Engineers Week Banquet in Manchester.

The event's keynote speaker, former astronaut Dr. Jan Davis, truly impressed me. She provides an example for all high school students to emulate, especially those students who have the skills and focus to pursue a STEM education and career path.

Dr. Davis is currently the vice-president of the Engineering and Sciences Services and Skills Augmentation (ESSSA) Group for Jacobs Engineering at the NASA Marshall Space Flight Center.

She has a Bachelor of Science degree in applied biology from the Georgia Institute of Technology, and a Bachelor of Science in mechanical engineering from Auburn University. She earned a Master of Science degree and a doctorate in mechanical engineering from the University of Alabama in Huntsville.

She shared many of her experiences and lessons learned with the audience.

Davis went into space on three Space Shuttle missions: STS-47 in September, 1992, STS-60 in February, 1994, and STS-85 in August of 1997. Her first flight included a Japanese astronaut and the space laboratory, Spacelab-J. Dr. Davis and the other astronauts conducted 43 experiments in life sciences and materials processing during the mission.

One of the experiments included determining if frog eggs would orient themselves properly

in space in order to reproduce. The experiment was a success, showing that the eggs would orient themselves properly and develop into normal tadpoles.

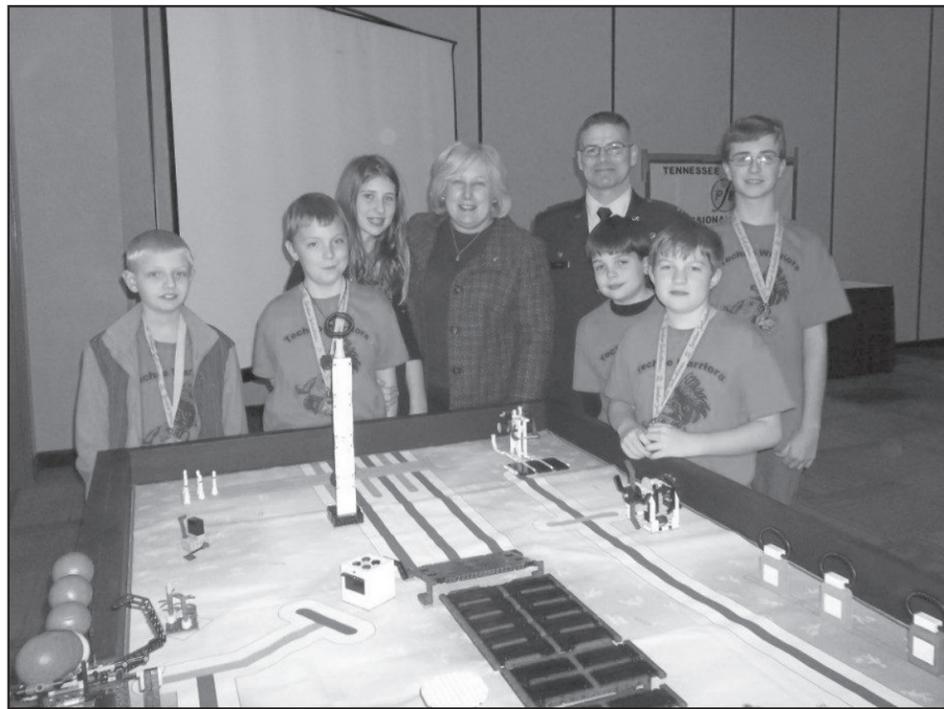
On her second mission, STS-60, she was involved in an attempt to identify the crystalline structure of insulin which had not been possible in earthbound laboratories. A middle school student in the audience asked her what was her most fun experience as an astronaut.

She answered, "My most enjoyable moment in space was making the insulin crystal grow, and by doing so, we were able to show the structure which had never been seen before. Mission control wanted me to stop working and take my scheduled rest, but I saw that the parameters were changing, and I wanted to stay with it to see the crystal grow."

Her second mission included the Space Habitation Module (Spacehab) which was smaller than Spacelab-J but still contained plenty of experiments to carry out. This mission also included a Russian cosmonaut as part of the shuttle team for the first time.

On her third mission, STS-85, she operated the Japanese Manipulator Flight Demonstration (MFD) arm and deployed and retrieved the CRISTA-SPAS payload. The mission also included many experiments in earth sciences, life science and materials science. Upon completing her third mission, she had orbited the earth more than 450 times and logged more than nine million miles in space.

She reminded the audience of the disasters involving the Space Shuttle Orbiters, Challenger in



The Techno Warriors, East Coffee Elementary School's Lego Team, demonstrated their robotics at the National Engineers Week Banquet, Feb. 21. The team met and talked with former astronaut Dr. Jan Davis and AEDC Commander Col. Raymond Toth. Pictured from left are Kyle Duke, 4th grade, Tyler Bernotas, 5th grade, Sarah Leedy, 5th grade, Dr. Davis, Col. Toth, Brason Fletcher, 4th grade, Ian Prater, 5th grade, and Grey Landrum, 7th grade. (Photo provided)

1986, and Columbia in 2003. She was involved in the investigations into both accidents, and one of her conclusions was that both were caused by errors in judgment by managers and engineers.

In both cases, the hardware had been showing signs, indications of potential catastrophic failures, but because the Shuttle had flown many times without incident, the hardware evidence was ignored. Another contributing factor was an environment which did not encourage those who had concerns to step forward and speak up.

Some of the lessons learned from her investigations were to open up the lines of communication and to foster an environment in which no one on the team is

afraid to step forward if they have a concern about the safety of a mission. Organizational changes were made at NASA to help make people responsible for their decisions.

She said, "Following a process is good, but always use good, sound engineering judgment."

She took questions from the audience at the conclusion of her presentation. One question was, "How long did it take to recover from being in space?" She said that the first day back on the ground was the hardest, getting

used to gravity again, but that in about a week she felt back to normal.

Davis was impressed by the two middle school LEGO® robotics teams who were displaying their robots at the banquet.

She told the students that, "You are the future of engineering, and we need bright minds for the NASA of the future."

I only wish more young people could take part in events like Engineers Week and hear speakers like Dr. Davis share their experiences to young people firsthand.

### ORION from page 1

data supports the first engineering test flight of Orion on Delta IV, EFT-1."

Schoonmaker said AEDC's 16T wind tunnel facility is the test site of choice for an entry like the ULA Orion configuration.

"AEDC was chosen because the previous Atlas V Heavy test was conducted at AEDC and reuse of those elements for a cost and schedule savings required a tunnel of the size of AEDC," he said. "The AEDC tunnel is comparatively quiet with known tunnel tones and I can interface with the AEDC tunnel operation computer to use the tunnel optimally.

"Since everything is under computer control, I can acquire 1,000 test points in a bit less than seven hours of air-on operation. With appropriate planning and support from AEDC, I find 16T to be both very efficient and cost effective for large test matrices."

Schoonmaker also enjoys the professional and personal cam-

*"With appropriate planning and support from AEDC, I find 16T to be both very efficient and cost effective for large test matrices."*

radierie that comes from years of collaboration and working closely with his counterparts at AEDC.

"I am always impressed with the friendly atmosphere and professionalism. The facilities are truly impressive, but, having spent many days and nights in the control room for other tests, I don't really pay too much attention to the hardware anymore. My focus is on the people and the clear communication of test requirements and goals. My focus is on the team that will help me meet my goals."

Buffet testing requires considerable instrumentation of the model. For this test, more than

500 pressure transducer signals were acquired from the model for each test point. The initial challenge involved with this level of instrumentation was the packaging and verification of all the transducers and cables within the model. The second challenge was to maintain functionality of all signals for the duration of the test despite the vibration environment.

Schoonmaker said, "All channels are monitored real time and any channel loss is immediately assessed as to channel criticality, how long it would take to fix that channel, and what risk is added to the test if the model is opened."

Schoonmaker was quick to add, "You will note that I don't list the AEDC test conditions as a challenge. My test conditions are well within the AEDC operational envelope. The overall challenge is always to ensure that all test goals are met and the data support the analytical buffet response assessment."

### AIAA from page 1

year and the recipient of this award must be an AIAA member.

The Billy J. Griffith Engineering Analysis Award is presented in honor of an outstanding aerodynamicist and analysis engineer. Throughout the 1960s and 1970s era, Billy Griffith supported hypersonic reentry vehicle testing in the Tunnel F facility at AEDC. In support of these testing efforts, he pioneered a structured analysis approach he called "Methodology." The approach spawned a lasting emphasis on Analysis and Evaluation at AEDC, which lead to the Integrated Test and Evaluation concept utilized today. To recognize the significance of his innovative work, the Billy J. Griffith Engineering Analysis Award is presented to individuals whose analysis approach exemplifies his philosophy. AIAA membership is not a requirement for the recipient of this award.

The Young Professional Award is a new award for 2013 and recognizes one or more outstanding contributions made by a Young Professional Member, to the advancement of the aerospace profession. These contributions could be to the local community, such as STEM activities, local event organization, local section involvement, or significant technical achievements. The contributions do not

have to be directly related to AIAA. AIAA defines a Young Professional Member as an AIAA Professional Member who is age 35 or younger.

The Special Award category is presented to recognize outstanding achievements. This award can recognize outstanding project teams as well as individuals who provide significant administrative support and mentoring. AIAA membership is not required for this award.

The Booster Award is presented to an AIAA Tennessee Section member in recognition of outstanding service and support to the Tennessee Section.

Nominations should include the following 4 items:

1. Award Category
2. Name and contact information for the nominee
3. Your name and contact information
4. A description of the accomplishment, focusing on the award criteria. The description can be as brief or as detailed as you desire.

The deadline to submit nominations is April 12. Nominations are submitted to Joe Wehrmeyer, 1099 Schriever Ave., Arnold AFB, TN 37389-9013 or by email at [joseph.wehrmeyer@arnold.af.mil](mailto:joseph.wehrmeyer@arnold.af.mil).

For additional information contact Joe Wehrmeyer at 454-4345.

# AFMC promotes Be Active: Physical Activity Initiative

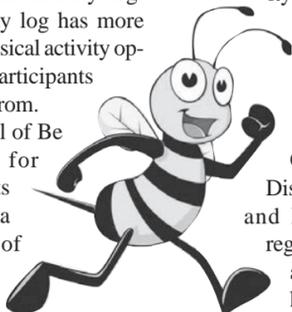
by AFMC Wellness Support Center

**WRIGHT-PATTERSON AIR FORCE BASE, Ohio** – During April and May, Air Force Materiel Command will be promoting its 'Be Active: Physical Activity Initiative.'

The Be Active initiative is designed to be progressive with frequency of physical activity. If someone has not been active for some time, this initiative allows him or her to start at a comfortable level and add a little more activity as times goes on. The initiative involves the use of the AFMC Wellness

Support Center website, [www.AFMCwellness.com](http://www.AFMCwellness.com), and physical activity log. The activity log has more than 27 physical activity options for participants to choose from.

The goal of Be Active is for participants to log a minimum of 840 minutes, or 14 hours, from April 1 to May 31. Participants who reach this goal will receive a comple-



tion award, and the top five individuals at each base with the highest minutes logged of physical activity will receive an AFMC travel blanket.

According to the Centers for Disease Control and Prevention, regular physical activity can help control body weight, reduce risk of cardiovascular disease, improve brain function and mood,

and strengthen bones and muscles. Civilian Health Promotion Services will be offering a series of physical activity classes throughout April and May, including Benefits of Exercise, Walk Your Way to Better Health, and Aging and Exercise.

To participate in the Be Active Initiative:

- Have an online account at [www.AFMCwellness.com](http://www.AFMCwellness.com).
- DOD Air Force civilians need to have a current Health Risk Assessment. Active-duty members do not need to complete an

HRA to participate. To enroll in the Be Active Initiative:

- For those logging in to the website for the first time during the enrollment period, a pop-up window should come up allowing the option to enroll. A participant may also enroll by going to the left-hand column of the homepage and clicking on 'Programs,' where the user will be prompted to 'Register in Program Group.'
- Start logging your ac-

tivity in the Activity Log Tracker located on the website home page under Personal Logs.

Be sure to speak with a physician before beginning any exercise or physical activity program to make sure it is safe.

Visit [www.AFMCwellness.com](http://www.AFMCwellness.com) often to learn of opportunities to be physically active during April and May, including your local installation's fitness center class schedule, as well as sponsored fun run and walks. For more information, contact your local CHPS staff.

## AFTC announces AEDC's Sean Smith an inaugural annual award winner

by 412th Test Wing Public Affairs

**EDWARDS AIR FORCE BASE, Calif.** – Brig. Gen. Arnold W. Bunch Jr., Air Force Test Center commander, announced the winners of the first AFTC Annual Awards March 18. The AFTC oversees testing across the Air Force, which primarily includes Edwards, Eglin Air Force Base, Fla., and Arnold AFB, Tenn.

"For the first AFTC Annual Awards, the competition was extremely tough," said Bunch. "This

reinforces my enthusiasm and belief that we have some of the Air Force's best and brightest serving in AFTC."

"I especially want to thank the supervisors who took the time to put together the award submissions and recognize the excellent work of your team members."

### 2013 AFTC Annual Award winners

- Airman of the Year - Senior Airman Erin McBride, 96th Test

Wing, Eglin AFB

- NCO of the Year - Tech. Sgt. Loren Cossette, 96th Test Wing
- First Sergeant of the Year - Master Sgt. William Russell, 412th Test Wing, Edwards AFB
- SNCO of the Year - Senior Master Sgt. Diena Mosely, 96th TW
- Company Grade Officer of the Year - Capt. Ryan Davis, 96th TW
- Civilian Category I - Adam Vogan, 96th TW
- Civilian Category II - Adam Reinelt, 96th Test Wing



Sean Smith

- Civilian Category III - Sean Smith, Arnold Engineering and Development Center, Arnold AFB

### FURLOUGH from page 1

the \$46 billion."

But despite a Congressional reprieve, Hagel said the Pentagon is still going to be short at least \$22 billion for operations and maintenance, "and that means we are going to have to prioritize and make some cuts and do what we've got to do," including making sharp reductions in base operating support and training for non-deployed units.

More critical in the long run, he said, is how budget cuts will affect readiness and the department's overall mission. Because of that concern, he said he has directed Deputy Defense Secretary Ash Carter and Army Gen. Martin E. Dempsey, chairman of the Joint Chiefs of Staff, to conduct an intensive department-wide review of U.S. strategic interests including how to protect

the nation with fewer resources. "How do we prioritize the threats and then the capabilities required to deal with threats?" he said. "There will be some significant changes, there's no way around it."

Dempsey said the department has already exhausted 80 percent of its operating funds halfway through the fiscal year and characterized the current budget situation as "not the deepest, but the steepest decline in our budget ever," and warned it will affect military readiness into the future.

"We will have to trade at some level and to some degree our future readiness for current operations," the chairman said. He called on elected leaders to give the Pentagon the budget flexibility it needs to carry out institutional reforms.

*Do your part – Please recycle this paper after reading!*

## AEDC's Melissa Miller: When triathlons became her passion

By Philip Lorenz III  
ATA Public Affairs

When she first arrived at AEDC to work, Melissa Miller, an aerospace engineer, who recently had graduated from Georgia Institute of Technology, recalls being overwhelmed.

She looked around in awe at the wind tunnels, space chambers – all of the massive infrastructure at AEDC – and met her coworkers, mostly older, married men with children.

"I didn't know a soul [here]," Miller said. "My work as a test engineer in the Propulsion Wind Tunnel complex kept me busy during the day, but afterwards, going to my home in Murfreesboro, I didn't know what to do, I didn't have a social base.

"It takes a little time to build that network of friends, so I had some time on my hands. And fresh out of college, I had this nervous energy or whatever. So, I was thinking, 'let's just get out of that apartment and go do something.' And running was some part of that something that grew into a much bigger piece."

Her experience with running changed her life in more ways than she could have imagined, but it wasn't an easy transition.

"I'd go out and see if I could run a mile and that was a real challenge to begin with, and for a year, that was the limit of what

I would do," said Miller, who has been the director for the Mach Tenn Triathlon since 2000. "Initially I didn't have a running partner, but shortly after I got started – from three to six months, the guys who I was carpooling with from Murfreesboro became my running buddies. That was when the Fitness Center first opened and running/walking trail was opened. We would go and run after work before heading home. Then we got to where we'd run two laps of the trail.

"That was just a huge day when I had run 3.6 miles. After a year, a friend talked me into running a 5K [race]. And it became just a real social thing because you run into people you know and you stand around and you make new friends in that process and so, I had a couple of friends who I was running with."

In 2003, David Ruckstuhl, who is ATA's Finance and Contracts branch manager, had relocated to the area for his new job at AEDC.

An avid triathlete in his 30s, Ruckstuhl had taken part in triathlons in Florida, Alaska, Canada, and Hawaii.

"After settling into the AEDC area, I looked for races," Ruckstuhl said.

"The Mach Tenn Triathlon was well-spoken of and local so I gave it a try. I could tell by the quality of the race – well communi-



**Melissa Miller, Mach Tenn race director, announces award winners at the conclusion of the 30th annual running of the Mach Tenn triathlon. (Photo provided)**

cated, well organized, well-marked course, safe, strong competition, etc. – that the race organizers were top-notch. I've seen really good, high quality races and Melissa and her team really put on a good show."

He said Miller's demeanor was a factor in her success as the director of the annual event.

"Melissa is calm and well spoken, a great listener, has great management skills and takes decisive actions," Ruckstuhl said. "These are all evident by the repeat participants and the high level of competition at the Mach Tenn. At the same time, because the

race is so well advertised formally and by word-of-mouth, every year they have many first-timers as well. That brings a great balance to triathlons."

Miller said she credits a retired AEDC engineer with the creation of the Mach Tenn Triathlon.

"The Mach Tenn Triathlon originated more than 30 years ago," said Miller, who is an Instrument and Controls Services Branch project execution specialist. "Bob Alt, a retired AEDC engineer, was the driving force in getting the triathlon started. Sarah Liechty had an idea for a triathlon and mentioned it to Bob. Bob

took the idea and ran with it – came up with the location and course.

"Bob Alt is still involved with the triathlon and has been an integral part of the event for its entire 30 years. He was the race director for several years and then turned that job over to others, but remains involved with much of the pre-race preparation and set up."

The original triathlon was the Ironman event in 1978, which consisted of a 2.4 mile swim, a 112 mile bike ride, and 26.2 mile run.

The Mach Tenn Triathlon began in 1982 as an Olympic distance event, but has transitioned to the distances of 0.6 mile swim, a 16 mile bike, and a 4 mile run.

Dennis Elston, senior project engineer in AEDC's Space and Missile Branch,

recalls what propelled Miller to the forefront of the Mach Tenn Triathlon.

"I was the Mach Tenn Triathlon race director in the mid 1990's," Elston said. "We had a situation where the programmer who provided the computer results declined to work the upcoming race. This was in the days before chip timing and results processing was a specialized task.

"The race was on the verge on cancelation. However, Melissa stepped up and volunteered to learn and provide the computer results, along with Sybil Lattremore as the race director. The race was a success. After a few years, Melissa ascended to the position of race director and has remained ever since."

The Mach Tenn Triathlon takes place at AEDC's Woods Reservoir.

Mach Tenn Triathlon

→ 🚴 🏃

Saturday, June 1, 8:00 a.m.  
Woods Reservoir

0.6 mile swim - 16 mile bike -  
4 mile run

Registration for the  
Mach Tenn Triathlon  
is now open. Scan the  
QR code to access the  
triathlon website.



## Nominations accepted for Portraits in Courage

WASHINGTON (AFNS) – Now through May 1, nominations are being accepted and reviewed for Portraits in Courage, Vol. 8.

"Portraits in Courage is a Chief of Staff initiative

designed to tell Airmen's stories of courage, valor, and heroism. Our Airmen do the impossible every day. These narratives embody our warrior ethos and personify the Air Force Vision. There's no better

time to tell your story, or share the story of fellow Airmen," said Maj. John Baum, Portraits in Courage project officer.

The volume will be published this fall online at [www.af.mil/specials/](http://www.af.mil/specials/)

[courage/index.html](http://www.af.mil/specials/courage/index.html). There will also be a limited print edition.

Air Force officials said packages should focus on leadership, valor, courage, exemplary performance and commitment, or ser-

vice above self in either a combat, combat support role, or extraordinary event outside the normal call of duty.

Baum said "extraordinary event" isn't limited to actions in theater.

Questions regarding submissions can be e-mailed to [portraitsincourage@pentagon.af.mil](mailto:portraitsincourage@pentagon.af.mil).

To view previous editions of Portraits in Courage, visit [www.af.mil/specials/courage/index.html](http://www.af.mil/specials/courage/index.html).

## AEDC's Everett graduates from law enforcement academy

By Susan Robertson

UT Institute for Public Service

Lt. Dave Everett of the Arnold Police Department recently received a certificate for completing the Southeastern Command and Leadership Academy (SECLA), a law enforcement leadership development program hosted by the UT Law Enforcement Innovation Center and the criminal justice department at UT Chattanooga.

Participants were honored with a graduation on March 8 in Chattanooga.

SECLA is divided between four one-week ses-

sions on the UTC campus and two online sessions, all of which are held over an eight-month period.

SECLA, which is open to law enforcement personnel from around the region, prepares mid- and upper-level supervisory personnel for the increased responsibility of administrative command positions by providing them with the knowledge and skills necessary for successful leadership in their agencies and communities.

While in the program,



Dave Everett

Everett was selected as class leader.

SECLA now has more than 300 law enforcement personnel who have completed the program.

## First international student-pilot flies F-35

By Maj. Karen Roganov

33rd Fighter Wing Public Affairs

**EGLIN AIR FORCE BASE, Fla.** – The first international student aviator at the 33rd Fighter Wing, training to be an F-35B Lightning II instructor pilot, completed his first sortie in the joint strike fighter here March 19.

United Kingdom Royal Air Force Squadron Leader Frankie Buchler flew with Marine Fighter Attack Training Squadron-501.

"There were no surprises, the jet was fun to fly and the flight went as expected," said Buchler. "The ground school training package at the Academic Training Center with the flight simulators prepared me for smooth flying."

The ATC is part of the F-35 Integrated Training Center hosted by the 33rd FW. It is the hub for U.S. and international partner operators and maintainers of the joint strike fighter.

"We couldn't have picked a better spring day

on the beautiful Emerald Coast to set another milestone for the F-35 program," said Col. Andrew Toth, the 33rd FW commander. "Frankie and the entire team at Eglin continue to make great strides in establishing the foundation of formal maintenance and pilot training for our services and partner nations."

Marine Capt. Daniel Flatley was Buchler's instructor pilot who flew wingman in another F-35B during the late afternoon sortie.

Watching Buchler's technique in the traffic pattern over the base was key along with him getting familiarized with the jet, he said.

"It was a clean flight... he's a very experienced aviator who took to the F-35 naturally," said Flatley.

It takes 10 flight hours, or about six to seven sorties, for a student pilot transitioning from other aircraft

to become a qualified F-35 pilot. Buchler's last time flying was a year ago, coming from a background with the Sepecat Jaguar and Eurofighter Typhoon.

Wing Commander Jon Millington, the senior UK officer at the 33rd FW, and a handful of British maintainers training within the Marine squadron were on the flight line to witness the historic event for both countries.

The UK team is fully integrated in the Marine unit and flying each other's jets interchangeably according to the vision of VMFAT-501 commander, Lt. Col. David Berke. In the near future, Marine pilots can be trained by UK pilots.

Buchler is scheduled to complete his training sorties by early April and is excited about the way ahead for the joint strike fighter.

"The potential I see in this aircraft is all the sensors for information shar-

See F-35, page 7

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# AF announces energy consumption achievements, new energy plan

**WASHINGTON (AFNS)** – From aviation operations to installations and ground vehicles within the homeland and abroad, energy is essential for Air Force operations and key to the United States' national and economic security.

"The Air Force is fundamentally a global force that the nation relies on for Global Vigilance, for Global Reach, and for Global Power; we have to

be ready to project American influence anywhere in the world on a moment's notice," said Dr. Jamie Morin, acting under secretary of the Air Force, during a media roundtable in the Pentagon with Dr. Kevin Geiss, deputy assistant secretary of the Air Force for energy. "Having those capabilities and using those capabilities requires energy - it requires a lot of electricity and even more-

so it requires a lot of gas." The roundtable, held March 21, focused on highlighting recent Air Force energy consumption achievements, as well as current initiatives under the new Air Force Energy Strategic Plan.

It should come as no surprise that the Air Force is the largest single consumer of energy in the federal government. In fiscal year 2012, the Air Force

spent more than \$9 billion for energy, with over 85 percent of those energy costs dedicated to aviation fuel. This amounts to eight percent of the Air Force overall budget.

"That of course means that even moderate improvements in our conservation, in our efficiency, can drive very large dollar savings that can enable us to invest in other vitally needed capabilities," Morin said.

While this number seems daunting, the Air Force is on track to reduce energy consumption and has already taken significant actions that have helped to avoid \$1.5 billion in energy bills last

year when compared to the baseline years for its facility and aviation energy reduction goals.

Much of this can be attributed to achievements in reducing aviation fuel consumption. In 2006, the Air Force set a goal of reducing aviation fuel consumption 10 percent by 2015.

"We have exceeded that goal three years ahead of schedule and we've done so through the combination of activities - a combination of investments, policy initiatives, and, in total - what we've been able to do is reduce our total consumption by more than 12 percent," Morin said.

But it's not just about goals for reducing fuel

consumption; the service has also reduced facility energy intensity by more than 21 percent since 2003 and increased its use of renewable energy.

The Air Force is also on track to meet goals of reducing energy intensity by a total of 37.5 percent by 2020, and the long-term goal of increasing the amount of renewable energy use to 25 percent of renewable energy consumption by 2025. Last year 5.5 percent of the Air Force's electricity came from renewable energy sources.

"These are fundamentally important accomplish-

See **ENERGY**, page 11



(U.S. Air Force graphic/Corey Parrish)

## F-35 from page 6

ing. The F-35 has enormous potential and will be a great compliment to our Typhoons," said the UK pilot.

His team is hopeful for the future when a team of 12 Royal Air Force and Navy maintainers and two UK pilots transition from Eglin to Edwards Air Force Base Calif., to perform operational testing on the jets in 2014.

"In 2018, the plan is for UK's F-35 team to achieve initial operating capability in a land-based role and aboard the future HMS Queen Elizabeth aircraft carrier in 2020."

Until then, the British element will continue to grow their skills in learning to maintain and fly the F-35 Lightning II.



**United Kingdom Royal Air Force Squadron Leader Frankie Buchler became the first international student-pilot to fly a sortie in the F-35B Lightning II March 19 at Eglin Air Force Base, Fla. He received his F-35B Short Take Off/Vertical Landing (STOVL) patch after completing the flight. (U.S. Air Force photo/Maj. Karen Roganov)**

Their next milestones in the program include a third second British pilot's first flight to Eglin this spring and the second British pilot's first flight in two weeks.

## Milestones

### 40 YEARS

Willie Hill, ATA  
Dennis Odear, ATA

### 30 YEARS

Murrell Tate, ATA  
Robert Thomas, ATA  
Jay Vandergriff, ATA

### 25 YEARS

Phillip Estep, ATA  
Douglas Grissom, ATA  
Deborah Rickner, ATA  
Carey Powers, ATA

### 20 YEARS

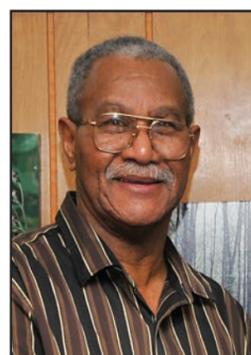
Phillip Cyree, ATA  
Michael Harvey, ATA  
Paul Stephens, ATA

### 15 YEARS

Dennis Huprich, ATA  
John Thomison, ATA  
Mark Towry, ATA  
Ray Uselton, ATA

### 10 YEARS

Gregg Adams, ATA  
John Baskin, ATA  
Eric Bjorn, AF  
Derrick Burton, ATA  
Terry Flagg, ATA



Willie Hill



Dennis Odear

Winford Phipps, AF  
Michael Turri, ATA

### 5 YEARS

Robert Porter, ATA  
Joo Reynolds, ATA  
Laurie Winton, ATA

### RETIREMENTS

Jimmy Burnette, ATA  
Brenda Bush, ATA  
Jimmy Matthews, ATA

### NEW HIRES

Amanda Barecky, AF  
Mishelle Bergeron, AF  
Robert DeGrasse, AF

Jeffery Mann, ATA  
Debra Sample, AF  
Adam Tupis, ATA

### PROMOTIONS

Jerry Burrows, ATA  
Mickey Gipson, ATA  
Daniel Hawkins, ATA  
John McInturff, ATA  
Sarah Russell, ATA  
Paul Schwer, ATA  
Kraig Smith, ATA  
Frank Wonder, ATA

*Congratulations!*



## ATA makes donation to Grundy County High School Welding Shop



ATA, the prime contractor at AEDC, recently presented a \$750 donation to the Grundy County High School (GCHS) Welding Class. Representing ATA is Jimmy Nance (center), a Grundy County resident and president of the Air Engineering Metal Trades Council at AEDC. Accepting the donation are GCHS Assistant Principal Jamie Reuhling (left), Nance and Welding Instructor Robin Dykes (right). "Thanks so much for this money; we really appreciate ATA's help," said Dykes. (Photo provided by GCHS)



In an earlier visit to the high school, AEDC officials toured the high school welding shop. From left – Dykes, Nance, AEDC STEM Outreach Coordinator Jere Matty and ATA Test Support Manager Walt Bishop. (Photo provided)

## Cowan School receives \$500 donation from ATA



A Cowan Elementary School 5th grade class recently received a \$500 donation from AEDC's prime contractor Aerospace Testing Alliance. Ted Boswell, an ATA Employee and Community Activities Committee (ECAC) representative, presented the donation which will be used to purchase K'NEX® educational construction sets. K'NEX is used to build basic geometric shapes and structures like simple machines and bridges. Students will be able to address critical mathematics concepts and enhance their understanding of algorithms. They will also research inventions and bridges to help them create their own invention. Boswell (left), ATA ECAC athletic committee chairperson, is shown with the 5th grade group and their teacher, Toni Barnes (far right.) (Photo provided)



Has cancer touched you or has your life been changed by cancer? If so, please help us find a cure by making a donation

WHAT: **BAKE SALE**

WHEN: Friday 12 April

TIME: 1030 – 1230

(or until baked goods are gone)

WHERE: Bldg 100 outside Café 100



All donations go to the American Cancer Society via Team REMEMBER

# 45th Space Wing launches second SBIRS GEO satellite

By Staff Report

Air Force SPC Public Affairs

**CAPE CANAVERAL AIR FORCE STATION, Fla. (AFNS)** – The 45th Space Wing successfully launched a United Launch Alliance Atlas V rocket carrying the second Space Based Infrared System (SBIRS) GEO-2 satellite into orbit from Space Complex 41 here March 19.

A combined team of military, government civilians and contractors from across the 45th Space Wing provided support to the mission, including weather forecasts, launch and range operations, security, safety and public affairs.

The launch of SBIRS GEO-2 continues the replacement of the Defense Support Program (DSP) constellation, which has

been in operation since 1960. The SBIRS GEO-1 was launched May 7, 2011, also from Cape Canaveral Air Force Station, Fla.

"This spacecraft will provide next-generation missile warning, missile defense, and battlespace characterization for the next two to three decades," said Lt. Col. Paul Konyha, the 45th Launch Support Squadron commander.

"Once again, the entire team worked hand-in-hand to make this another successful launch for the Air Force and our nation," said Brig. Gen. Anthony Cotton, the 45th Space Wing commander. "Our hats go off to them for all their hard work."



In this image released by the United Launch Alliance, a ULA Atlas V rocket blasts off from Space Launch Complex-41 on March 19 at Cape Canaveral Air Force Station, Fla., carrying the second Space-Based Infrared System (SBIRS) GEO-2 satellite for the Air Force. SBIRS persistent surveillance capabilities enable detection and reporting of missile launches around the globe, support the nation's ballistic missile defense system, expand technical intelligence, and gather and bolster situational awareness for warfighters on the battlefield. (United Launch Alliance photo/Pat Corkery)

## AMERICAN BANDS 2013

For the **Wounded Warrior Project**, a Dinner-Dance Benefit  
**Saturday May 18**

Manchester/Coffee County Convention Center  
(next to Holiday Inn just off I-24 at Exit 114)

5-6 PM Happy Hour

6-7 PM Dinner & Jazz with the **ANDERSON ENSEMBLE & Dr. Jerry Anderson**

7-9 DANCE BALLROOM STYLE WITH **SOUTH JACKSON STREET BAND**

9-11+ DANCE ROCK AND ROLL with **JACKWAGON!**

Special Guest Invited - **Mason Taylor (Teenage Crooner)**

SELECTIONS: \$35 Roast Chicken      \$35 Vegetable Plate

\$40 Prime Rib      \$20 Dance Only

\$ Gift Only (for people who cannot attend)

\$300 Corporate/Buisness Tables for 8 (includes company table signage and publicity)

Easy Online Tickets Go To: [visitcowan.com](http://visitcowan.com) and scroll to Wounded Warrior Link

Mention **Wounded Warrior & American Bands 2013** for Special Group Rate Hotel Accommodations.

All American Bands 2013 proceeds less expenses go to The Wounded Warrior Project in association w/Let Freedom Ring of Franklin County, TN.

Additional information contact: **US Sgt. Major Larry Williams 931-924-3000**

**Dr. Jerry Anderson at 931-205-6380**

**WOUNDED WARRIOR  
PROJECT™**

# Air Force scientist earns DOD's top civilian award

By Amy Rollins

88th Air Base Wing Public Affairs

**WRIGHT-PATTERSON AIR FORCE BASE, Ohio (AFNS)** – Dr. Boris Tomasic from the Air Force Research Laboratory (AFRL), Air Force Materiel Command at Wright-Patterson Air Force Base was named a recipient of the 57th annual Department of Defense Distinguished Civilian Service Award.

The highest honor given by the Secretary of Defense to career civilian personnel was presented at the Pentagon in November to Dr. Tomasic, principal/senior electronics engineer, AFRL, Sensors Directorate, Electromagnetics Technology Division, Antenna Technology Branch, and Angelica M. Collazo, 92nd Information Operations

Squadron, Air Force Space Command. Ms. Collazo has been at the forefront of cutting-edge cyber defense initiatives critical to the projection of global military power and national defense.

The annual award is presented to a small number of DOD civilian employees whose service reflects devotion to duty and significant contributions to improving DOD operational efficiency and economy, said Staff Sgt. Lavon Tucker, Air Force Personnel Center Public Affairs awards and decorations.

Dr. Tomasic and Dr. S. Liu, Aerospace Corp. invented and led the development of a revolutionary new antenna - the Geodesic

Dome Phased Array Antenna (GDPAA) - for the Air Force satellite control network (AFSCN). It provides tracking, telemetry and control of nearly all DOD and National Aeronautics and Space Administration satellites, transitioning the technology from initial concept to field-ready demonstration levels. In comparison to traditional reflector antennas that can link to one satellite at a time, the GDPAA provides multiple (up to four) simultaneous satellite links and gain on demand resulting in highly flexible and efficient antenna capable of meeting future Air Force satellite traffic demands, Dr. Tomasic explained.

He also provided engineering support to Air Combat Command on the Joint Threat Emitter, devel-

oping phased array technology for systems that mimic surface-to-air missile radars employed worldwide.

Dr. Tomasic's contributions to antenna technology paved the way for Air Force, Navy and Marine fighter pilots to fly against several emulator systems in realistic combat training scenarios. He also contributed to practical radar and communication system improvements that benefit all DOD forces, including a field deployable phased array for ballistic missile defense, assessment of the Army's Comanche and Black Hawk helicopter antennas, Space Based Radar system development for the Defense Advanced Research Projects Agency and development of extremely high-frequency solid state antenna technology that resulted in improved aircraft connectivity with the military strategic, tactical and relay satellite network.

"I am honored to have received the award," Dr. Tomasic said. "It's very

competitive at all levels - AFRL, AFMC, the Air Force and then the DOD. Winning was a big surprise."

Dr. Tomasic has worked at Wright-Patterson since August 2011 when the AFRL Sensors Directorate, Electromagnetics Technology Division moved from

Hanscom Air Force Base, Mass., as part of BRAC 2005.

The lab is now working on the next generation of his antenna, which he hopes will cost half the price of the first generation.

*Louise Brown and Gloria Kwizera, AFPCPA, contributed to this story.*



**Dr. Boris Tomasic poses with a subarray-basic building block of the Geodesic Dome Phased Array Antenna he designed and for which he was given the Department of Defense Distinguished Civilian Service Award. Tomasic is the principal/senior electronics engineer, Air Force Research Laboratory. (Air Force photo by Niki Jahns)**

## ENERGY from page 7

ments for the nation," said Morin. "Every taxpayer dollar we can save on energy is absolutely going to help us transform resources into increased Air Force readiness, increased combat capability for the joint force."

Understanding that the number of missions the service flies each year is partially outside its control, Morin said the Air Force is shifting its energy goals.

"We may not always be able to control exactly how much we fly, but we can control substantially how much fuel we use for each amount of flying we do - and that is at the heart of the updated energy strategic plan that we're releasing," he said. The plan "shifts our lens and our metric of how we look at energy from simply consumption to overall operational efficiency."

This shift is also reflected in the Air Force's new energy vision to "sustain an assured energy advantage across air, space and cyberspace."

"We need to, and are focusing on the capability we get out of energy each gallon, each watt of electricity," Morin said. "We are changing the way we operate."

The new energy strategic plan lays out four priorities: improve resiliency, reduce demand, assure supply, and foster an energy aware culture. To support these priorities, the Air Force is making changes to flying operations to use less fuel, working with private industry on renewable energy facilities, and driving energy awareness at all levels of professional development and techni-

cal training, among many other activities.

"The robust, resilient, and ready energy posture that we're working to develop is about enabling the Air Force to be operationally effective; it's about enhancing national security; it's about getting better value out of every taxpayer dollar," Morin said. "We are not, and will not, accept the notion that one has to choose between energy efficiency and mission accomplishment. What I think we've demonstrated over the last several years, and will continue to demonstrate, is that those can be complimentary and mutually reinforcing goals."

To view the entire "U.S. Air Force Energy Strategic Plan," go to the Air Force Energy website at <http://www.safie.hq.af.mil/energy/index.asp>.



# Air Force to implement force structure changes

By Jennifer Cassidy  
Air Force Public Affairs

**WASHINGTON (AFNS)**—The Air Force released its plan March 28 to implement force structure changes mandated by the Fiscal Year 2013 National Defense Authorization Act.

The bill authorized the service to complete actions approved in previous years, such as aircraft retirements, and directed execution of Congressionally-approved force structure actions.

Some of these changes were outlined in the Air Force's Total Force Proposal, developed in coordination with the Air National Guard and Air Force Reserve. Others were congressionally-directed.

"Our Air Force continues efforts to maximize the strength of our Total Force, and we are pleased with the progress that is being made on this front," said Secretary of the Air Force Michael Donley. "This implementation plan illustrates the Air Force's continued commitment to transparency as it completes the force structure requirements directed and authorized by the NDAA."

The NDAA directs a reduction of 65 aircraft and approximately 1,400 military billets from the Air National Guard, 57 aircraft from the Air Force Reserve,

and 122 aircraft and approximately 6,100 military billets from the active-duty Air Force.

"Working together we can combine the personnel, equipment and readiness necessary to build a total Air Force equal to all the challenges our nation faces," said Lt. Gen. Stanley (Sid) E. Clarke III, director of the Air National Guard.

The Air Force's implementation plan includes a state-by-state description of changes for each base and the associated timeline. Each major command developed activation, reassignment, re-missioning or divestiture options.

"We've developed guiding principles to ensure that as we make decisions, we continue to have a strong foundation for what is best for our Air Force," said Lt. Gen. James F. Jackson, chief, Air Force Reserve and commander, Air Force Reserve Command. "We must leverage regular and reserve component strengths and align our decisions with a commitment as one total force team."

Key principles include: ensure personnel readiness, training and retention for transitioning units to remain at the highest level practicable and minimize mission gaps for units transitioning to new or different missions. Each of the com-

ponents embraces these principles.

The Air Force will apply this collaborative approach to facilitate open communication with key stakeholders on future total force efforts. Recently, the Secretary and Chief of Staff of the Air Force created a Total Force Task Force.

TF2 will create an enduring strategic process to determine how to correctly balance the strengths of each component to sustain capabilities required to defend our nation now and into the future.

"Our active, Reserve and Guard components are increasingly integrated — training, deploying and conducting a full range of missions together as one Air Force," said Donley, "and we're committed to ensuring that our active and Reserve component mix correctly balances the strengths of each component, meeting our strategic requirements and our fiscal demands as well. The FY13 implementation plan gets us on a path toward that end."

Find the full text of the Air Force Fiscal Year 2013 National Defense Authorization Act Implementation Plan "A Strong Total Force for the Future" at this link: [www.af.mil/shared/media/document/AFD-130328-035.pdf](http://www.af.mil/shared/media/document/AFD-130328-035.pdf).





# B-52 gets new sniper pod

By Staff Sgt. Jason McCasland  
2nd Bomb Wing Public Affairs

**BARNSDALE AIR FORCE BASE, La.** (AFNS) – The 2nd Bomb Wing (BW) made its first live run with a new addition to the aging bomber. With constant upgrades bringing the more than 60 year-old bomber into the 21st century, the addition

of the sniper pod gives the B-52H Stratofortress better integration with ground forces and laser-guided bombs (LGB) for precision strike capability. "This flight was the first time that the 2nd BW has used the sniper pod with live ordinance like the



A Sniper Pod sits under the wing of a B-52H Stratofortress March 19 on Barksdale Air Force Base, La. The new Sniper Pod has been integrated into the B-52 and gives aircrew increased targeting accuracy and radar capabilities. (U.S. Air Force photo/Staff Sgt. Jason McCasland)

LGB," said Capt. Ryan Allen, a 20th Bomb Squadron radar navigation instructor. "This pod gives a faster response time to our targets. What would normally take me 30 to 40 button presses in five minutes, now only takes me a few seconds to actually target and drop munitions."

This new capability also allows the aircrew to coordinate with ground forces in a new way that is beneficial to their safety and planning.

"With the pod we can integrate with the guys on the ground and let them see what we see. This way we are on the same page," Allen said. "It also gives us a greater visibility range over that of the previous one."

With technology constantly moving forward this new pod gives its own set of challenges to the B-52.

"The way the pod can interact with our avionics system is state of the art," Allen said. "Most of the systems had to be radically improved to give us total interaction between the new and old."

With constant improvements on the aging plane, the 2nd Bomb Wing continues its mission of providing global deterrence – anywhere and anytime.

# JAG hosts Will and Estate Planning Workshop



AEDC's Legal Office recently held a Will and Estate Planning Workshop for AEDC personnel, retirees and dependents. Attorney Rae Ann Seay (3rd from left), with Tullahoma Legal Aid, speaks to the audience about living wills, advanced care directives and health care surrogates. Also pictured (left to right) are Attorney Russell Hedges, with Moore & Hedges in Tullahoma; Attorney Katie Evans, with Nashville Legal Aid; and Capt. Sarah Kress, AEDC Judge Advocate Office deputy. Other discussion topics included simple wills and trusts, blended families, Medicare vs. Medicaid coverage and powers of attorney.

**REDUCE,  
REUSE,  
RECYCLE**

MY STRENGTH IS FOR DEFENDING

**AEDC Victim Advocates Hotline:**

**(931) 581-7494**

Preventing Sexual Assault is part of our duty



Arnold Golf Course (GC)  
454-GOLF 454-FOOD

Check us out on Facebook! Arnold AFB Services Golf Course

**2013 Tournament Schedule**

- May 2 – Thursday Night Scramble begins
- May 11 – Two-Person Triple Play Tournament
- June 22-23 – Member-Guest Tournament
- July 20-21 – Arnold Tri-City Open Championship
- Aug. 24-25 – Club Championship
- Sept. 5 – AEDC Golf League Awards Banquet
- Sept. 19 – Thursday Night Scramble Ends
- Sept. 21 – Member Member Tournament
- Oct. 5 – Season Ending Tournament

A **Two-Person Triple Play Tournament** will be held May 11 beginning with 8 a.m. shotgun start. Play will include 27 holes – nine holes each played as best ball, alternate shot and scramble format. Flighted into A and B flights determined upon number of entries. Prizes will be awarded for top players along with two closest to the pin prizes. Cost is \$60 per team for annual green fee players. Additional \$10 green fee and \$12 cart fee for others. Deadline to sign up is May 9.

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

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

Arnold Lakeside Center (ALC)  
454-3350

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

Ascend Federal Credit Union has removed the ATM from the Arnold Lakeside Center lobby. Currently, there is no ATM facility in the Arnold Village area.

Arnold Lakeside Center will host a **Members Only Texas Hold 'Em Mini Tournament** every Friday in April. Play will begin at 6 p.m. in The Landing bar. There is no cost to enter but all players must be age 18 or older. Prizes will be awarded each week to 1st, 2nd, and 3rd place finishers. Tables will be created by random draw of the players present at starting time. Players must be present by 6 p.m. to draw tables. No players accepted after 6 p.m. Dinner is available from 5-9 p.m.

The Community Center at Arnold Lakeside Center will host a **Daddy Daughter Dance Sock Hop** April 20 from 6-9 p.m. All ages are invited to attend with their daddy. If daddy is unavailable, another guy may come in his place. Dress will be in the 1950s Sock Hop theme and may vary from poodle skirts to prom gowns and greasers to gents. The menu will follow the 1950s diner and malt shop theme with a choice of cheeseburger or chicken strips served with either French fries or onion rings and milkshake or sundae. Dinner will be served from 6-7:30 p.m. and the malt shop will be open from 6:30-8:30 p.m. Each person will receive a ticket upon arrival to redeem at the malt shop for either a milkshake or sundae. Also upon arrival, have your picture taken next to a classic car (weather permitting) and a commemorative photo will be ready for you to take

## Services Military Spouse Appreciation "Tour Services" program offered in May

Services is recognizing active duty military spouses with a "Tour Services" program including free goods/services and a chance to win \$50 in Services Bucks. All active duty Air Force military spouses assigned to Arnold will receive a package in the mail containing their "Tour Services" passport and information explaining the program.

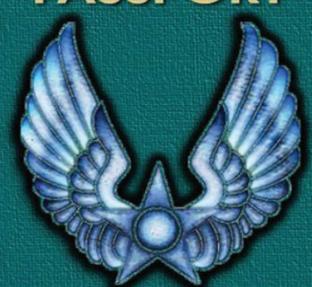
During the month of May, military spouses visit five Services facilities and participate in a specified activity to receive a stamp in their passport. These include Arnold Golf Course free 18 holes plus cart for two, Arnold Lakeside Center free dinner for two, Café 100 either free breakfast or lunch for two, Outdoor Recreation free tandem kayak rental for the day (may substitute another rental of equal value) and Fitness Center group class.

Once the passport is complete, redeem at the Services Marketing office for \$50 in Services Bucks to be used anywhere in Services. Incentives will be given at each facility as you get your passport stamps.

This trip around Services is our way of saying thank you for being there to support your military spouse.

Active duty spouses of all branches are eligible to participate. Contact Services Marketing at 454-3128 or 454-3415 to obtain your passport package or for more information.

*Tour Services*  
**PASSPORT**



**Arnold Air Force Base Tennessee**



*Watch for your package in the mail*

*Entire month of May*

### Military Spouse Appreciation Program

Visit Services locations and participate to receive passport stamp

Once completed redeem passport for \$50 in Services Bucks

## Brushes and Bottles Painting Party comes to Gossick Leadership Center

Arnold Lakeside Center announces Brushes and Bottles, a new monthly program to be held at the GLC.

Bring your favorite beverage and get ready to get creative as an instructor will lead you through a canvas painting work of art step-by-step. By the end of the evening you will have your own masterpiece to take home. The first event will take place May 10 from 6-8 p.m.

These painting parties are for all skill levels ages 21 and over with a cost of only \$25 per person. All paint, brushes, aprons, easels, canvas and other necessary materials will be provided.

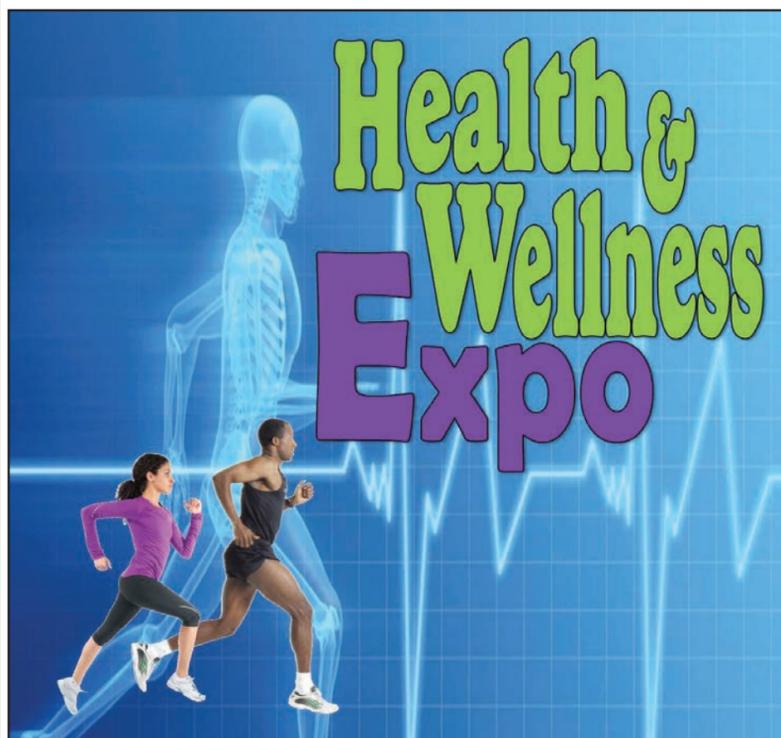


All you have to bring is your beverage of choice. Light snacks will be provided and other beverages will be available for purchase. Deadline to sign up for this event is May 7 and class size is a maximum of 15.

## Services Fitness Center hosts a Health & Wellness Expo May 15

The Fitness Center will host the annual Health & Wellness Expo May 15. The event will kick off with a run (2 laps around Fitness Center trail) at 11:15 a.m. The Expo will be from 11 a.m. to 1 p.m. with exposure

and education on different dimensions of wellness. Pick up a door prize card when you arrive and while visiting the booths get the card initialed. Once the card is complete it may be entered for a chance to win prizes.





## Miss AEDC Pageant returns to ALC May 18

Arnold Lakeside Center will host a Miss AEDC Pageant for ages 1-18 May 18. The event is open to the public and will be held from 10:30 a.m. to 6 p.m. Cost to enter is \$25 and each division winner will receive a crown, sash and flowers.

Second, third and fourth place winners in each division will receive flowers. There will also be a People's Choice winner who will receive a goody bag and sash. Any attending may vote for the People's Choice winner for only \$1 per vote.

There will be four divisions this year which include Tiny Miss AEDC for ages 1-3, Little Miss AEDC for ages 4-7, Preteen Miss AEDC for ages 8-11, Junior Miss AEDC for ages 12-15 and Miss AEDC for ages 16-18. Each participant is allowed one person back stage to assist in getting ready but they must return to the front before the pageant begins.

Participants should arrive no later than 30 minutes prior to start time with hair and makeup complete. A box lunch will be available for \$8 and includes ham or turkey sandwich, chips, cookie and drink. Deadline to enter the pageant is May 13. Call 454-3350 for more information and to request registration forms.

## ALC honors mothers with Mother's Day Brunch May 12

Arnold Lakeside Center will have a Mother's Day Brunch May 12 from 11 a.m. to 2 p.m. The menu will include scrambled eggs, bacon, sausage, french toast

with syrup, salad bar, boneless pork chop or grilled chicken tenderloin, pinto beans, mashed potatoes, gravy, roll, apple or peach cobbler, orange or apple juice, tea and

one complimentary Mimosa beverage. Cost is \$14 for members, \$16 for non-members and \$9 for ages 3-10. Call 454-3350 for reservations by May 7. All mothers attending will receive a rose.



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

Services information written and provided by Tanya Bryan

This Services supplement is published by *The Tullahoma News*, a private firm in no way connected with the U.S. Air Force, under exclusive written contract with Aerospace Testing Alliance (ATA). This supplement is an authorized publication for members of the U.S. military services. Contents of this supplement are not necessarily the views of, or endorsed by, the U.S. Government, the Department of Defense, the Department of the Air Force or ATA. Services is an exclusive area available to all AEDC personnel, active duty, retired military, National Guard, Reserve military and others as approved by the commander. Services activities include Wingo Inn (lodging), Arnold Lakeside Center (Club, Community Center, Information, Tickets & Travel (ITT), Barber Shop, Café 100), Outdoor Rec (Marina, FamCamp, Crockett Cove, Dogwood Ridge), Golf Course and Fitness Center. Those mentioned above are eligible to use any Services activity during regular operating hours unless it is specified as a "members only" event. Membership is a personal choice. However, only members are entitled to discounts and other benefits associated with membership.

## 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

Café 100 – 454-5885  
 Membership Information – 454-3367  
 Information, Tickets & Travel – 454-3303  
 Barber Shop – 454-6987  
 Gossick Leadership Center – 454-4003  
 Human Resources – 454-5481  
 Marketing & Sponsorship – 454-3128  
 Recycling – 454-6068

Wingo Inn – 454-3051  
 Fitness Center (FC) – 454-6440  
 Golf Course (GC) – 454-GOLF (4653)  
 Mulligan's Coffee Bar and Grill - 454-FOOD (3663)  
 Outdoor Recreation (ODR) – 454-6084  
 includes Marina, FamCamp,  
 Crockett Cove &  
 Dogwood Ridge

# May 2013

| Sunday   | Monday   | Tuesday   | Wednesday  | Thursday   | Friday   | Saturday  |
|--|--|---|--|--|--|---|
| <p><b>Military Spouse Appreciation</b><br/> <b>"Tour Services" program during</b><br/> <b>May – free goods/services and</b><br/> <b>prizes!</b><br/> <b>Call 454-3128 for details.</b></p> |  |   | <p style="text-align: center;"><b>1</b></p> <p>ODR Summer Hours begin 8 a.m. – 6 p.m. Tue-Sun<br/>                     GC Summer Hours begin 7 a.m.-dusk<br/>                     FC Boot Camp 6 a.m.<br/>                     ALC Café 100 BBQ lunch special \$6<br/>                     FC Yoga 11 a.m.</p> | <p style="text-align: center;"><b>2</b></p> <p>FC Cycling Class 11 a.m.<br/>                     FC Interval Class 3:30 p.m.<br/>                     ALC Movie Night "Jack Reacher" PG-13 6:30 p.m. dinner available 5-8 p.m.</p>   | <p style="text-align: center;"><b>3</b></p> <p>FC Boot Camp 6 a.m.<br/>                     FC Yoga 11 a.m.<br/>                     ALC First Friday Jam 6 p.m.</p>   | <p style="text-align: center;"><b>4</b></p> <p>ODR Kayaking for Beginners Class, 9 a.m., \$10, sign up by May 3<br/>                     ODR Paintball, 9:30 a.m., ages 10+, \$35, sign up 454-6084<br/>                     ALC Intro to Hula Hooping, 10 a.m.<br/>                     ALC Closed due to special function</p> |
| <p style="text-align: center;"><b>5</b></p> <p>ODR Camping Guests Lake Tour, 12-2p.m., \$5</p>   | <p style="text-align: center;"><b>6</b></p> <p>FC Boot Camp 6 a.m.<br/>                     FC Cycling Class 11 a.m.<br/>                     FC Yoga 11 a.m.</p>  | <p style="text-align: center;"><b>7</b></p> <p>FC Cycling Class 11 a.m.<br/>                     FC Interval Class 3:30 p.m.</p>  | <p style="text-align: center;"><b>8</b></p> <p>FC Boot Camp 6 a.m.<br/>                     ALC Café 100 BBQ lunch special \$6<br/>                     FC Yoga 11 a.m.</p>  | <p style="text-align: center;"><b>9</b></p> <p>FC Cycling Class 11 a.m.<br/>                     FC Interval Class 3:30 p.m.<br/>                     ALC Movie Night "Beautiful Creatures" PG-13 6:30 p.m. dinner available 5-8 p.m.</p>  | <p style="text-align: center;"><b>10</b></p> <p>FC Boot Camp 6 a.m.<br/>                     ALC Jewelry Fair, Café 100, 8 a.m. – 2 p.m.<br/>                     FC Yoga 11 a.m.<br/>                     ALC Brushes and Bottles, \$25, 6-8 p.m., sign up by May 7, 454-3350</p> | <p style="text-align: center;"><b>11</b></p> <p>GC Two Person Triple Play tournament, 8 a.m., \$60, sign up by May 9, 454-GOLF<br/>                     ODR Paintball, 9:30 a.m., ages 10+, \$35, sign up 454-6084<br/>                     ALC Intro to Hula Hooping, 10 a.m.</p>  |
| <p style="text-align: center;"><b>12</b></p> <p>ALC Mother's Day Brunch, \$14 members, \$16 non members, \$9 age 3-10, RSVP by May 7, 454-3350</p>   | <p style="text-align: center;"><b>13</b></p> <p>FC Boot Camp 6 a.m.<br/>                     FC Cycling Class 11 a.m.<br/>                     FC Yoga 11 a.m.</p> | <p style="text-align: center;"><b>14</b></p> <p>FC Cycling Class 11 a.m.<br/>                     FC Interval Class 3:30 p.m.</p> | <p style="text-align: center;"><b>15</b></p> <p>FC Boot Camp 6 a.m.<br/>                     ALC Café 100 BBQ lunch special \$6<br/>                     FC Yoga 11 a.m.<br/>                     FC Health &amp; Wellness Expo 11 a.m. – 1 p.m., Run 11:15 a.m., Door Prizes</p>                              | <p style="text-align: center;"><b>16</b></p> <p>FC Cycling Class 11 a.m.<br/>                     FC Interval Class 3:30 p.m.<br/>                     ALC Movie Night "Escape from Planet Earth" PG 6:30 p.m. dinner available 5-8 p.m.</p>   | <p style="text-align: center;"><b>17</b></p> <p>FC Boot Camp 6 a.m.<br/>                     FC Yoga 11 a.m.</p>   | <p style="text-align: center;"><b>18</b></p> <p>ODR Paintball Tournament, 10 a.m., ages 10+, \$55/team, sign up 454-6084<br/>                     ALC Miss AEDC Pageant, 10:30 a.m., ages 1-18, \$25, enter by May 13, 454-3350<br/>                     ALC Dinner: full menu available in The Landing</p>                     |
| <p style="text-align: center;"><b>19</b></p> <p>ODR Kayaking for Beginners Class, 9 a.m., \$10, sign up by May 3<br/>                     ODR Camping Guests Lake Tour, 12-2p.m., \$5</p>  | <p style="text-align: center;"><b>20</b></p> <p>FC Boot Camp 6 a.m.<br/>                     FC Cycling Class 11 a.m.<br/>                     FC Yoga 11 a.m.</p> | <p style="text-align: center;"><b>21</b></p> <p>FC Cycling Class 11 a.m.<br/>                     FC Interval Class 3:30 p.m.</p> | <p style="text-align: center;"><b>22</b></p> <p>FC Boot Camp 6 a.m.<br/>                     ALC Café 100 BBQ lunch special \$6<br/>                     FC Yoga 11 a.m.</p>   | <p style="text-align: center;"><b>23</b></p> <p>FC Cycling Class 11 a.m.<br/>                     FC Interval Class 3:30 p.m.<br/>                     ALC Movie Night selection not available at time of publication, call 454-3350 or 454-3128 for schedule, 6:30 p.m. dinner available 5-8 p.m.</p> | <p style="text-align: center;"><b>24</b></p> <p>FC Boot Camp 6 a.m.<br/>                     FC Yoga 11 a.m.<br/>                     ALC Dinner: full menu available in The Landing</p>   | <p style="text-align: center;"><b>25</b></p> <p>ODR Paintball, 9:30 a.m., ages 10+, \$35, sign up 454-6084<br/>                     ODR FamCamp Guests free movie, "Life of Pi", PG, 7:30 p.m.<br/>                     ALC Dinner: Express menu only available in The Landing</p>  |
| <p style="text-align: center;"><b>26</b></p>   | <p style="text-align: center;"><b>27</b></p> <p>FC Open 8 a.m. – 1 p.m., no classes<br/>                     Café 100 &amp; Barber Shop closed</p>                 | <p style="text-align: center;"><b>28</b></p> <p>FC Cycling Class 11 a.m.<br/>                     FC Interval Class 3:30 p.m.</p> | <p style="text-align: center;"><b>29</b></p> <p>FC Boot Camp 6 a.m.<br/>                     ALC Café 100 BBQ lunch special \$6<br/>                     FC Yoga 11 a.m.</p>   | <p style="text-align: center;"><b>30</b></p> <p>FC Cycling Class 11 a.m.<br/>                     FC Interval Class 3:30 p.m.<br/>                     ALC Movie Night selection not available at time of publication, call 454-3350 or 454-3128 for schedule, 6:30 p.m. dinner available 5-8 p.m.</p> | <p style="text-align: center;"><b>31</b></p> <p>FC Boot Camp 6 a.m.<br/>                     FC Yoga 11 a.m.<br/>                     ALC Last Friday Trivia, 6:30 p.m.</p>  |   |

## Hours of operation

**Arnold Lakeside Center:** Catering/Management offices by appointment. Operations Clerk – Tuesday, Thursday and Friday, 7:30 a.m.-4 p.m. Dinner: full menu available – Thursday, 5-8 p.m.; Friday and Saturday, 5-9 p.m. Main Bar – Thursday, 5-8 p.m.; Friday, 4-10 p.m.; and Saturday, 5-10 p.m. Social Hour – Friday, 4-6 p.m. Movie Night – Thursday, 6:30 p.m.  
**Information, Tickets & Travel (ITT):** Tuesday through Friday, 10 a.m.-3 p.m.  
**Café 100:** Monday through Friday, 6:30 a.m.-1:30 p.m. **Closed May 27**  
**Barber Shop:** by appointment – Monday, Tuesday, Thursday & Friday, 8 a.m.-4 p.m. **Closed May 27**  
**GLC (office located at Arnold Lakeside Center):** Monday through Friday, 7 a.m.-3:30 p.m. May vary depending on bookings.  
**Outdoor Rec:** Tuesday through Saturday, 10 a.m.-5 p.m. **Summer Hours begin May 1:** Tuesday through Sunday, 8 a.m. - 6 p.m.  
**Fitness Center:** Monday-Friday, 5 a.m.-7:30p.m.; Saturday, 8 a.m.-1 p.m.; Sunday Closed. **Open 8 a.m. - 1 p.m. May 27, no classes**  
**Arnold Golf Course:** Pro Shop & Driving Range – 8 a.m.-dusk. **Summer Hours begin May 1:** 7 a.m. - dusk. Driving Range open 24 hours with prepurchased key card. Mulligan's Coffee Bar & Grill – Monday through Friday, 10:30 a.m.-2 p.m.; Saturday and Sunday, 8 a.m.-2 p.m.  
**Recycling:** Monday through Friday, 7 a.m.-4 p.m.  
**Wingo Inn:** Monday through Friday, 7 a.m.-6 p.m.; Saturday and Sunday, 8 a.m.-4 p.m.  
**Nonappropriated Funds Human Resources:** Monday through Friday, 7:30 a.m.-4 p.m. **Closed May 27**

## 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 Christopher Floden, BX manager, at (931) 454-7153 or Patrick Jordan, Commissary manager, at (931) 454-5921.

### AAFES Dividends

Dividends generated from the Army and Air Force Exchange Service (AAFES) overall earnings are a major contributor to Services nonappropriated fund (NAF) construction and renovation projects as well as equipment purchases. Services would like to thank all AAFES customers for their support. Dividends received for March 2013 totaled \$5,185.27.

## BRIEFS from page H1

### Arnold Lakeside Center (ALC) 454-3350

home at the end of the event. In case of inclement weather the photos will be moved indoors. A DJ will provide music from 6-9 p.m. and there will be twist and hula hoop contests. An event keepsake will be presented to all "Dollies" (1950s slang for girl). Cost for the evening is \$22 per couple for members and

\$24 per couple for non-members. Additional "Dollies" in the same family will be \$10 extra for members and \$11 extra for nonmembers. RSVP to 454-3350 by April 16.

**Administrative Professionals' Day** special in Café 100, April 24. In honor of Administrative Professionals' Day, April 24, Café 100 will be giving a free cupcake with all combo purchases (while supplies last) from 10:30 a.m. to 1:30 p.m. This spe-

cial is for all customers – not only administrative – so stop by and try a combo and get your free cupcake.

**Introduction to Hula Hooping** will be held April 27, May 4 and May 11 at 10 a.m. All ages and skill levels are welcome. Single and double hula hooping demonstrations and instruction will be held. The class will be held outside, weather permitting, and each class will be different so you can attend one, two or all three. A limited number of hula

hoops will be provided and you may bring your own if you want. There are no sign ups required and no fees involved, so come on out for some fun on a Saturday morning at the ALC.

**Arnold Lakeside Center will have limited or no dining** on the following days in May:

- May 4 - closed due to special function
- May 18 - full menu available in The Landing
- May 24 - full menu available in The Landing

May 25 - Express menu only available in The Landing

**First Friday Jam** will be May 3 beginning at 6 p.m. Come to play, listen, dance and enjoy. Join in with the band to play an instrument or sing. Or take over and do your own performance. Dinner is available from 5-8 p.m.

**Last Friday Trivia Contest** will be April 26 and May 31. Trivia starts at 6:30 p.m. with questions in

random categories. Teams may have up to four people. No cell phones are permitted during the event. Anyone using a phone while a question is underway will be disqualified. There are eight rounds with three questions per round. For rounds 1-4 teams have two, four and six points to wager per round. Rounds 5-8 teams will have four, eight and twelve points to wager per round. Only one point value may be used

See BRIEFS, page H3

## ALC holds Pretty Discoveries Jewelry Fair at Café 100

Arnold Lakeside Center welcomes back Pretty Discoveries for a jewelry fair May 10 in the A&E building, Café 100, from 8 a.m. to 2 p.m. All jewelry prices are below \$20. Other accessories may be available such as belts, handbags and jeans.



The *Camp Adventure Program* will not be offered this summer because of funding constraints and facility limitations. We apologize for any inconvenience. If you would like a list of other options available in the local community please call 454-3415.

### BRIEFS from page H2

#### Arnold Lakeside Center (ALC) 454-3350

per question. For example, if you wager four points on the first question then you must choose either two or six points for the next question. Whichever value is left must be used for the final question in that round. After the eighth round, teams may wager up to their total points earned for the final question. Prizes are awarded for top finishers.

**Barber Shop** is located in the A&E Building in room A107 and is open Monday, Tuesday, Thursday and Friday from 8 a.m. to 4 p.m. Haircuts are \$8 and are by appointment. Call 454-6987.

#### Fitness Center (FC) 454-6440

**Check us out on Facebook! Arnold AFB Services Fitness Center**

**Group Class Schedule:** Boot Camp – Monday, Wednesday and Friday, 6-7 a.m.

Yoga – Monday, Wednesday and Friday, 11 a.m.-12 p.m.

Cycling – Monday, Tuesday and Thursday, 11 a.m.-12 p.m.

Interval Training – Tuesday and Thursday, 3:30-4:30 p.m.

#### Outdoor Rec (ODR) 454-6084

**Check us out on Facebook! Arnold AFB Services Outdoor Recreation**

**Outdoor Rec Expo** will be held at building 100 (loading dock side) from 10 a.m. to 2 p.m., April 11. All base employees are encouraged to come by and see some of the items available for rent from Outdoor Rec. Stop by to see what is new for the summer and learn about many of the customer favorites available. Some of the new items include custom made corn hole, tandem kayaks, archery equipment and Frisbee golf. Other items include kayaks, canoes, windsurfer, pontoon, team building kit, inflatables, grills, canopies, fishing poles and more. Brochures with pricing and information on these items as well as camping at FamCamp, Crockett Cove and Dogwood Ridge will also be available. Door prizes will be given throughout the event so be sure to register. You do not have to be present to win but all entries must be filled out completely to be eligible.

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

Regular Saturday play is every weekend from 9:30 a.m. to 2:30 p.m. except third Saturday due to monthly tournaments. Those inter-

ested need to call and sign up at least a day ahead of time to ensure equipment availability. When the day arrives, simply meet at the paintball field and get play underway with the direction of an Outdoor Rec (ODR) staff member. Cost is \$35 per person with equipment provided and includes 500 paintballs and a tank of air. It is \$20 per person for those with their own equipment and that also comes with 500 paintballs. All paintballs used must be purchased from ODR for \$13 per bag of 500 or \$45 for a box of 2,000.

**Kayaking for Beginners Class** will be held at Crockett Cove May 4 and 18 from 9 a.m. to 1 p.m. This is a beginners' introduction to learn about the kayak, equipment, emergencies and wet exits. Following the classroom time, participants will load up equipment and go down to the beach to practice entering, maneuvering, paddling and turning. A wet exit, basic self-rescue and additional strokes will also be practiced. Participants will then take a tour of the lake to practice their newfound skills. The class will be approximately four hours. Make sure you wear appropriate clothing and bring sunblock. This class is for ages 10 and up and cost is \$10 per person. There must be at least three to hold the class and maximum class size is six. Call to sign up by the day prior.

**Camping Guests Lake Tour** is scheduled for 12-2 p.m., May 5 and 19. ODR will be hitting the open lake in the SS Stewart to explore the history of Woods Reservoir. Learn about the islands, buildings, and other sites that make this area unique. The lake tour is \$5 and open to guests staying in FamCamp, Crockett Cove and Dogwood Ridge. Call to sign up by the day prior.

**FamCamp outdoor movie night** is set for May 25. If you are camping over Memorial Day weekend you can enjoy an outdoor movie for free on Saturday beginning at 7:30 p.m. Bring your chairs or blankets to the open grass area behind the upper bathhouse. The movie will be "Life of Pi" rated PG with a run time of two hours seven minutes. "Life of Pi" is a story of a young man who survives a disaster at sea and is hurtled into an epic journey of adventure and discovery. While cast away, he forms an unexpected connection with another survivor ... a fearsome Bengal tiger. Free caramel popcorn will be provided.

**May 2** – "Jack Reacher," rated PG-13 (2 hr. 11 min.) starring Tom Cruise, Rosamund Pike and Richard Jenkins. A homicide investigator digs deeper into a case involving a trained military sniper who shot five random victims.

**May 9** – "Beautiful Creatures," PG-13 (2 hr. 4 min.) starring Alice Englert, Viola Davis and Alden Ehrenreich. Ethan longs to escape his small Southern town. He meets a mysterious new girl, Lena. Together, they uncover dark secrets about their respective families, their history and their town.

**May 16** – "Escape from Planet Earth," PG (1 hr. 29 min.) starring voices of Brendan Fraser, Sarah Jessica Parker and Jessica Alba. Astronaut Scorch Supernova finds himself caught in a trap when he responds to an SOS from a notoriously dangerous alien planet.

**May 23** – Movie selection not available at time of publication. Call 454-3350 or 454-3128 for schedule.

**May 30** – Movie selection not available at time of publication. Call 454-3350 or 454-3128 for schedule.

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The Services insert to the High Mach is designed to inform our customers of events and specials in Services activities. All program dates, times and prices are subject to change.

## May Movie Schedule

Movie nights are Thursdays with movie start time of 6:30 p.m. and dinner available from 5-8 p.m.



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May 2



May 9



May 16



May 23



May 30

## The Green Scene

brought to you by Services Recycling Program

### Solid Waste Fast Facts



Every year we generate around 18 million tons of food waste (106 lbs per person). Only 4% is composted. The rest is incinerated or landfilled.

Americans make more than 200 million tons of garbage each year.

Each year Americans throw away 25,000,000,000 Styrofoam cups. Even 500 years from now, the foam coffee cup you used this morning will be sitting in a landfill.

Americans throw away about 28 billion bottles and jars every year.

Disposable diapers last centuries in landfills. An average baby will go through 8,000 of them.

The Container Recycling Institute (CRI) estimates that the 36 billion aluminum cans landfilled had a scrap value of more than \$600 million. Someday we may be mining our landfills for the resources we've buried.



Thank You from *The Green Team*  
Robbie Evans (manager), Doug Richards, Matt Gluck  
931-454-6068



**BRIEFS from page H3**

**Outdoor Rec (ODR)  
454-6084**

days in advance for active duty, National Guard and Reserve military. Up to 40 days in advance for military retirees and up to 30 days for DOD employees. All others may make reservations up to 20 days in advance. Tent camping is available at \$7 daily. Washer/Dryer service is \$2 and boat docking is \$5. A convenience store is open 12-4 p.m. Friday through Sunday May through October and open Mondays if in conjunction with a holiday weekend. Other camping is available at Crockett Cove and Dogwood Ridge. Crockett Cove offers five rustic cabins with heat and air, mini fridge, microwave, front porch swing, grill and picnic table. There is no running water but a bathhouse is on site. The one or two room cabins rent for \$40/\$50 per day during the summer and \$30/\$40 during the winter. Dogwood Ridge consists of six travel trailers with water, sewer, electric and propane complete with deck, picnic table and chairs. The trailers rent for \$40 daily, \$75 for two days or \$200 per week. Extended three month stays are also available at these areas. Call Outdoor Recreation at 454-6084 for more details or to make reservations.

**RV and Covered Boat**

**Storage slots available.** Outdoor Rec has open slots available in the RV storage yard. Each slot is 30 feet long and 10 feet wide and rents for \$25 per month or \$250 per year. The covered boat storage has nine slots open. The boat storage slots are 40 feet long and 12 feet wide and rents for \$45 per month or \$450 per year. Both storage yards require proof of registration and insurance of item placing in storage along with a signed contract based on length of stay. Access to the storage yard will be granted at the time the contract is signed. Call for more details or to reserve your slot.

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

**Teambuilding Facilitation** now available through Outdoor Rec. Book your team building event at least

two weeks in advance and customize your activities to include leadership, communication, trust, conflict resolution and more. Our kit has 289 activities and can serve up to 120 participants. Large group challenges can accommodate up to 60 people. This equipment must be facilitated by an Outdoor Rec staff member and is not available for rent for private use. Department of Defense organizations may utilize the program for free. All others have the option of half day (4 hours) for \$50 or full day (8 hours) for \$100. Call to find out more information or book your team building event.

**Reservation Policy:** FamCamp, Crockett Cove and Dogwood Ridge reservations may be made 45 days in advance for active duty and reserve military, 40 days for retired military, and 30 days for all other qualified personnel. Boat reservations may be made 15 days in advance for active duty and 10 days for other eligible individuals. All reservations are made through the Outdoor Recreation by stopping by or calling 454-6084.

**Wingo Inn  
454-3051**

**Check us out on Facebook! Wingo Inn**

**Reservations for Wingo**

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

**Gossick Leadership Center (GLC)  
454-4003**

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

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

**Navigating the Social Network**

**Do's and Dont's of Social Media for Leaders**

- Do listen to your followers and engage as necessary.
- Do keep your interactions conversational and informal, yet professional.
- Do consider your public image when using social media professionally and personally.
- Do pick the right communication tools for your audiences.
- Don't rely on social media alone to communicate your messages.
- Don't stifle conversations. If a comment or post doesn't hurt anyone and doesn't violate your comment policy, don't delete it.
- Don't be afraid of negative comments or opinions. It's just feedback and a potential opportunity to educate people about a topic.

**Air Force  
Public Affairs  
Agency  
Social Media Division**



**LIGHTNING CAN KILL IN THE BLINK OF AN EYE**

**BE READY**

[www.BeReady.af.mil](http://www.BeReady.af.mil)

FEMA Ready