

Record-setting model

AEDC's B-52H store separation model largest ever built

By Philip Lorenz III
Aerospace Testing Alliance

The Air Force's oldest legacy bomber still in service, the B-52H Stratofortress, is in the midst of major weapons and flight systems upgrades, including a capability to drop smart bombs from the plane's internal weapons bay.

AEDC has 40-plus years of store separation experience, but this test entry is unique and challenging in several ways, according to Doyle Veazey, the ATA store separation section manager.

"We have never tested a store separation aircraft model of this size in our wind tunnels," he said. "For that matter, our design group and Model Shop have never fabricated a store separation test article this large."

Work started last November when the B-52H Program Office agreed to fund a wind tunnel test program and the Air Force SEEK Eagle Office provided CAD (computer-aided design) geometry files to AEDC's design personnel.

The Air Force is upgrading the B-52's internal weapons bay to expand the air-



Paul Haas, B-52 Program Office, Tinker AFB, Druana Sanders, Booz-Allen & Hamilton Inc., and Don Arrowood, B-52 Program Office, Tinker AFB, examine the B-52H model's stores in AEDC's 16T between store separation test runs. (Photo by Rick Goodfriend)

craft's payload by roughly two-thirds, according to Lt. Gen. James Kowalski, commander of Air Force Global Strike Command.

"The B-52 delivers the widest variety of stand-off, direct-attack nuclear and conventional weapons in the Air Force and we have been investing in multiple improvements," General Kowalski told an audience recently during a National Defense University Foundation-sponsored address in Washington, D.C.

This effort represents the "most significant B-52 modernization since the [1980s] and will add 21st century capability to the aircraft," Kowalski said.

Major improvements include new flight control software to enhance targeting pod capabilities and incorporate miniature air launched decoys onto the B-52, as well as a modern digital communications system. With progress thus far, General Kowalski said he expects the B-52's combat network communications technology upgrade to

enter low-rate production by 2013.

For AEDC's role in the B-52H store separation testing, the design team, led by Scott Wieland, has worked concurrently with projects representatives, who established requirements and shop personnel, all on a highly accelerated timeline.

Since January, AEDC's Model Shop has been busy fabricating and assembling the components making up the approxi-

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Record arc heater test a significant step toward filling hypersonic capability gap

By Philip Lorenz III
Aerospace Testing Alliance

Twenty-five minutes may not seem like much time to many people, but for engineers conducting a recent test in AEDC's 70 megawatts segmented arc heater, H3, it set a record.

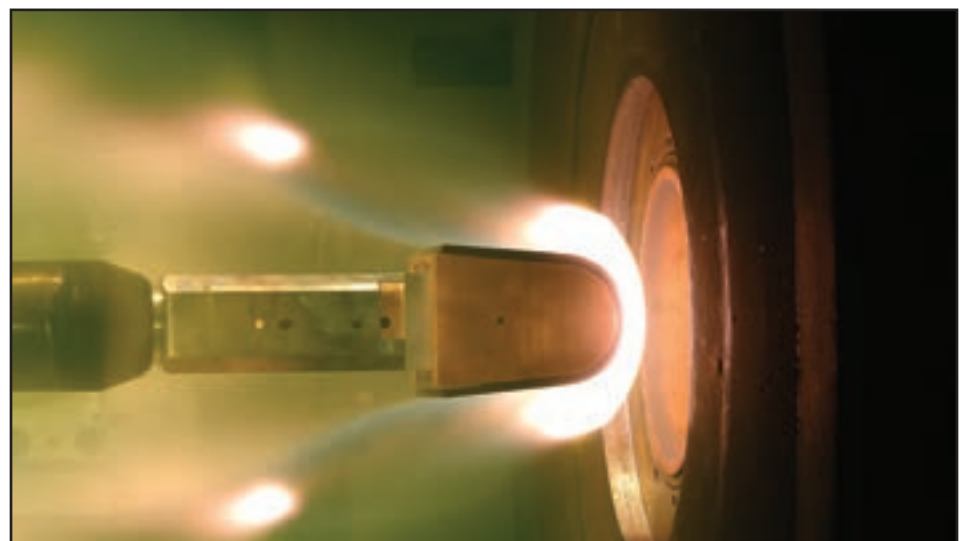
"The longest run in H3 to date, until Aug. 17, was about nine minutes," said Carrie Reinholtz, AEDC's project manager for the three-phased test program. "They almost tripled their longest run time in H3."

Reinholtz said the real significance

of the long run time is it may provide engineers at AEDC with advanced arc heater technology to eventually fill a long-standing ground testing capability gap between facilities at Arnold and NASA.

According to Dr. Joe Sheeley, ATA project manager and technology engineer, the DOD segmented arc heater facilities, located at AEDC, have traditionally been used to simulate the high shear, low altitude portion of a ballistic vehicle's flight. At the other end, the arc heaters at the

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Pictured here are carbon-carbon leading edges under test in the 24-inch diameter nozzle in Arc Heater H2 for the HTV-3 technology program during 2007. This is representative of the type of testing H2 would conduct, but with the new mid-range capability, it would be possible to simulate higher enthalpies at mid-altitude shear conditions and longer run times, like those experienced by long-range global strike vehicles. (AEDC file photo)

First leases signed for privatized base housing

By Philip Lorenz III
Aerospace Testing Alliance

As of Sept. 30, Forest City Military Communities LLC officially took over the housing at Arnold AFB.

The base's military members have already begun signing their leases during the first phase of the ongoing privatization project which will result in 22 new homes being built in place of the 40 existing structures.

Arnold AFB Housing Manager Mark Anderson said the new homes will mark a significant improvement over the current housing, which was originally built in 1965.

"The houses will be built to LEED (Leadership in Energy and Environmental Design) standards," he said. "Therefore, we should see a significant energy savings per unit versus our 1965 built units. They will also use photovoltaic lighting and thermal solar energy generation at the community center to be built in the

housing area."

Arnold AFB, along with Keesler AFB in Mississippi and Shaw AFB in Charleston, S.C., will all come under Forest City Military Communities LLC's management.

Shortly after Arnold Commander Col. Michael Brewer signed his lease Sept. 14, he said base privatization represents a definite quality of life improvement for active duty airmen and their families who live on base.

John Hoyt, vice president of development for Forest City Communities LLC, said being in the position to bring Arnold AFB's base housing up to 21st century standards has been a great experience for everyone he represents.

"We saw this was an opportunity," he said. "I can't tell you how excited we are to kick-off our housing there - we're re-

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From left to right, Arnold AFB Housing Manager Mark Anderson, looks on as AEDC Commander Col. Michael Brewer signs his housing lease, with Parry Hazen, Arnold AFB community manager for Forest City Enterprises, on hand to explain the lease documents. The signing coincides with the recent finalization of base housing's privatization with Forest City Military Communities LLC as the official leaser. (Photo by Rick Goodfriend)

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HIGH MACH

Arnold Engineering Development Center
An Air Force Materiel Command Test Center

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



Vision

"ATA will be a trusted partner in delivering best value warfighter support and assert stewardship to AEDC"

Core Values

- Be accountable for our own actions
- Ensure the safety of individuals and equipment
- Demonstrate the highest integrity and ethical standards
- Communicate clearly and openly
- Deliver professional and technical excellence
- Nurture, enable and treat people fairly
- Align with customer goals and objectives
- Use disciplined and innovative processes
- Continually improve in all that we do



Core Values

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

Future of AEDC workforce is in our hands

By Col. Michael Brewer
AEDC Commander

Last week, in response to reduced federal funding, several of our valued team members were thanked for their service and asked to understand why we could no longer employ them.

AEDC's direct budget authority, the money we get from the federal government, declined and has the potential to continue to decline in the future.

Because workforce labor represents one of our greatest costs, one of the common impacts of budgetary reductions is employee layoffs.

However, I believe that with an infusion of good ideas from our workforce we can identify areas where we might save money while



Brewer

preserving core test capabilities.

As our direct budget authority – funds that pay for the infrastructure and employee salaries when we're not testing – declines, we'll have to become more efficient without compromising workplace safety. In the "new normal" of our fiscal future, organizations and processes must become

leaner while preserving high level effectiveness and value-added benefit. To the degree practical, we must all adopt a "small business mindset" to identify facilities, critical skills, and other resources necessary to deliver maximum benefit for minimum cost.

In this pursuit, we need to ensure our priority remains fixed on preserving those assets that our nation and allies require to test future aerospace systems.

Our reimbursable budget authority – funds reimbursed to us from customers/clients - can help offset our declining direct budget authority. Every test customer who contracts for our facilities and services pays for the direct costs to include employee salaries

for the engineers, craftsmen, and others who support their project.

One of our many challenges is attracting new customers at a time when everyone's budget is in flux, while also ensuring that our charging structure is optimized for a win-win experience by both AEDC and the customer. Achieving this goal is simple in theory but more difficult in execution. Simply stated, we must maximize efficiency in our operations and processes in order to minimize overhead cost while delivering superior bang-for-the-buck to the customer.

Since our foundation, AEDC has been sustained and advanced by the brilliance of its workforce. I

call upon you now to apply your intellect toward generating ideas that can help shape a leaner, faster, more agile and cost efficient AEDC of the future.

What organizational structures, processes, or other areas are you aware of that can be done just as well, or better, for less cost?

You may submit your good ideas through a new web link on AEDC's tvv homepage titled "Submit Your Idea!" that will be active next week. When submitting an idea, you may choose to identify yourself, or remain anonymous.

Each submission will be carefully considered. Will your idea make the cut? Focus your thoughts, dust off your keyboard and find out! Fortune favors the bold!

Changing the energy culture

By Gen. Donald Hoffman
AFMC Commander

WRIGHT-PATTERSON AFB, Ohio – The absolute lifeblood of the modern military is energy.

It allows us to be expeditionary and go anywhere on the globe. For true energy assurance as an Air Force, we need to be able to find energy solutions and strategies anywhere, even in hostile nations. At the most basic level, that assurance starts with reducing demand, diversifying supply and changing the culture.

It can seem overwhelming to think about energy in terms of the entire military, so I want to emphasize saving energy at the point of consumption – it all begins at the lowest levels. Indeed, I believe that conserving resources and using them judiciously is a personal responsibility as well as an organizational responsibility. Whether at home or in our professional lives, being good stewards of energy is simply a matter of changing the culture of how individuals and organizations view and use energy.

To initiate this change in culture, some AFMC bases are participating in contests that pit organizations, and even buildings, in a competition against one another to see which has contributed the most to energy savings. This might translate simply as flipping off light switches and turning off monitors at the end of the day – essentially treating the Air Force's energy consumption as we would our own residences.

As an example of how seemingly small changes can make a big difference, a simple project to detect water leaks has saved Kirtland AFB 179,000,000 gallons of water annually. On a more strategic scale, all of our bases are working toward being better stewards of energy through space optimization and facility condition assessments, as well as by forging partnerships with industry to understand how companies organize, prioritize and sustain their facilities.

There is a reason "protect, conserve and consume resources under your control as if they were your own" is one of my leadership principles. I'm proud of the work AFMC has done to reduce demand, diversify supply and change the culture, thereby helping the Air Force secure a proactive energy mindset. The one energy source that I think we can expend freely, as it is 100 percent renewable, is the energy I see daily in the workforce as you collectively and individually think of new and innovative ways to address this challenge. Thank you for your continued dedication to changing the energy culture.



Hoffman



October is National Disability Employment Awareness Month

By Amanda Stroop
AEDC Human Resource Specialist

The effort to educate the American public about issues related to disability and employment began in 1945, when Congress enacted a law declaring the first week in October "National Employ the Physical Handicapped Week."

In 1988 Congress expanded the week to a month and changed the name to "National Disability Employment Awareness Month."

This month has been dedicated to raise awareness about disability employment issues and celebrate the contributions of America's workers with disabilities in today's economy.

On July 26, 2010, President Obama issued Executive Order (EO) 13548, which directs executive departments and their agencies to improve their efforts to employ federal workers with disabilities and targeted disabilities through increased recruitment, hiring and retention of these individuals.

According to a memo from John Berry, director of the U.S. Office of Personnel Management, "EO 13548 demonstrates the president's commitment to making the federal government a welcoming place for people with disabilities and provides a work environment where they can thrive and make

the most of their talents and abilities."

The U.S. Department of Labor's Bureau of Labor Statistics released disability employment statistics for August 2011 that show the percentage of people with disabilities in the total U.S. labor force was 21 percent.

The underrepresentation of individuals with disabilities continues to be problematic. Incorporating individuals with disabilities into our civilian workforce is a national imperative.

The Air Force has adopted the DOD goal to increase individuals with disabilities to represent 4 percent of the civilian workforce and individuals with targeted disabilities to represent 2 percent of the civilian workforce by 2015.

Targeted disabilities are those disabilities that the federal government, as a matter of policy, has identified for special emphasis. The targeted disabilities are: hearing, vision, missing extremities, partial paralysis, complete paralysis, epilepsy, severe intellectual disability, psychiatric disability and dwarfism. Individuals who have a targeted disability and have proof of their disability (e.g., documentation from a physician or other medical profession-

al), a licensed vocational rehabilitation specialist or any federal agency, state agency or agency of the District of Columbia or a U.S. territory that issues or provides disability benefits to include certification of job readiness, may apply for federal employment using noncompetitive procedures under the Schedule A, 5 CFR 213.3102 (u) appointing authority.

Individuals may apply for employment consideration directly to the staffing team of Arnold AFB at arnoldstaffing@arnold.af.mil.

There are numerous federal programs, hiring authorities and resources designed to help accommodate an employee with a disability as well as the hiring manager throughout the process. These initiatives and resources should expand the opportunities throughout government and help eliminate barriers in hiring individuals with disabilities.

As a federal employer, the Department of the Air Force has a responsibility and an obligation to be a model employer by recruiting, hiring and retaining individuals with disabilities and making reasonable accommodations.

Government leaders at all levels must embrace the call for the federal government to be a model employer for all groups including people with disabilities.

Smoking Policy

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

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

Regarding use of smokeless tobacco, containers of tobacco waste product, including sealed containers, must not be left unattended or disposed of in trash receptacles. Users of smokeless tobacco must flush tobacco waste down the toilet. Smokeless is strictly prohibited in conference room meetings and other areas, e.g. PMEL, where Air Force regulations specifically prohibit.

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

Action Line

Team AEDC,
I believe in free and open communications with our Team AEDC employees, and that's why we have the Action Line available. People can use the Action Line to clear up rumors, ask questions, suggest ideas on improvements, enter complaints or get other issues off their chests. They can access the Action Line in one of three ways: via the AEDC intranet home page, Action Line boxes at the base cafeterias and by calling 454-6000.
Although the Action Line is always available, the best and fastest way to get things resolved is by using your chain of command or by contacting the organization directly involved. I encourage everyone to go that route first, then if the situation isn't made right, give us a chance.
Col. Michael Brewer
AEDC Commander

Test Chief Colonel Bailey transferred from Arnold

By Shawn Jacobs
Aerospace Testing Alliance

After being at Arnold AFB for only slightly more than a year, AEDC's Chief of the Test Division, Col. William Bailey, has been transferred.

Colonel Bailey's farewell luncheon at AEDC was held Sept. 29 and he was to report no later than Sept. 30 to the Air Force Rapid Capabilities Office (RCO) at Bolling AFB in Washington, D.C.

Test Division Technical Director Tom Fetterhoff will serve as acting chief until AEDC Commander Col. Michael Brewer selects a replacement from the Command Screening Board list. U.S. Navy Cmdr. Brian Allen is the division's deputy chief.

Colonel Bailey – who arrived at AEDC in July 2010 – said he did not seek the permanent change of station (PCS), which came about rather quickly.

"I did not expect it," Colonel Bailey explained. "I had been assigned to the Rapid Capabilities Office before in the 2003-2006 time frame, so they knew who

I was.

"I'm going to replace a friend of mine, who got tapped to go to Wright-Patterson AFB. He got notified probably about a month before I heard, so I think it was a rapid fill to go take over for [him] at the Rapid Capabilities Office."

Colonel Bailey will be a senior materiel leader in the RCO, which is similar to a group commander.

"They're a combination of a program office to the acquisition program as well as a headquarters unit all rolled into one, so there will be quite a bit of work," Colonel Bailey said.

An electrical engineer and flight test engineer, Colonel Bailey was very familiar with the test business before coming to AEDC, but he said the base has given him a greater appreciation for ground testing.

"It's been surprising how fast this place grows on you," Colonel Bailey said. "I know I was at Wright-Patterson [AFB] at the lab and got notified of the assignment, so I started telling people, 'I'm going to Arnold.' I



Bailey

heard two types of responses. One shouldn't surprise anybody. 'Arnold, where's that?' The other response was, 'Arnold? You know so-and-so went down to Arnold and they never came back.'

"So I knew there was something going on down here that was going to be pretty special. It's been fantastic. The base is focused enough on its mission that everybody here can get their brain around why they're here and what's important. Everybody

can pull in the same direction. It's very good when the people are fired up about the mission and they know where they fit and why it's important."

Despite AEDC's preeminence as a world-class ground testing center, it is not immune to constant budgetary pressures, which will only likely increase in the future, Colonel Bailey said. He said the Department of Defense (DOD) and Air Force are both under budgetary scrutiny. High-profile programs like the F-35 Joint Strike Fighter and the F-22 Raptor are being singled out for possible cuts and sometimes that gets translated into cuts in test and evaluation, he said.

"So telling our story [and] explaining our value to the acquisition community and to the Air Force is something we can never stop doing," Colonel Bailey said. "I've been assigned to headquarters before and, in watching those budget battles, the only way to lose is to quit.

"We have a lot of capabilities that are unique to the U.S. and

to the world and it will be very important to explain why that is significant and important because just the statement by itself won't be enough to convey our value to decision makers."

Colonel Bailey said he has enjoyed working with Col. Michael Brewer in recent weeks and he is impressed with the new commander's ability to tell AEDC's story.

"He's got a lot of experience in the different centers that do test and evaluation and he has great perspective," Colonel Bailey said. "He really understands what it takes to explain that value and he's been confident in explaining that to the senior leadership.

"As customers come in, as we're looking at a project, we need to provide as much value as we possibly can as a center, so when they leave they understand exactly why they came here. As we have distinguished visitors come in, we put out best foot forward and we explain to them why it's important to have this

See BAILEY, page 5

Enlisted graduates honored at ceremony

By Shawn Jacobs
Aerospace Testing Alliance

The lobby of the Administration and Engineering Building (A&E) was nearly full Sept. 22 as AEDC held a graduation ceremony for six enlisted personnel who received college degrees this year.

The guest speaker was Chief Master Sgt. Brian Randolph, command chief of the 46th Test Wing at Eglin AFB, who congratulated the graduates and reminded them how valuable their degrees could be to their career both during and after their enlistment. He pointed out that the Air Force has the highest rate of enlisted personnel with college degrees among all of the armed forces. He then joined AEDC Commander Col. Michael Brewer in handing out diplomas to the graduates.

Colonel Brewer reminded the graduates that their diplomas are symbols of achievement and that "commencement" is really only the beginning of using their new degrees to benefit the mission.

The graduates and the degrees they received included Master Sgt. Patrick Lazarus, quality assurance superintendent, Bachelor of Arts in Organizational Leadership, Ashford University; Tech. Sgt. John Bankston, NCO in charge (NCOIC), Financial Services, Bachelor of Arts in Business Administration, Middle Tennessee State University; Tech. Sgt. James Key, weapons safety manager, Associate of Applied Science in Munitions Systems Technology, Community College of the Air Force; Senior Airman Eric Ball, financial services technician, Associate of Applied Science in Financial Management,

Community College of the Air Force; and Senior Airman Tara Kindermann, financial services technician, Associate of Applied Science in Financial Management, Community College of the Air Force. Tech. Sgt. Danielle Morris, NCOIC, TRICARE Operations, who was unable to be present, received her Bachelor of Science in Health Care Administration from Columbia Southern University.

After the ceremony, Chief Master Sergeant Randolph said it is appropriate to promote education because it means better mission and effectiveness for the Air Force.

"More than that is what it means to the individual," Chief Master Sergeant Randolph said. "We may not even realize when we're doing the classes – associate degree, bachelor's, master's – what it is going to mean to us outside or after the Air Force. Monetarily, in the job that you decide to do after the Air Force, you can see pay increases based on levels of education. [Additionally are the] the personal experiences and things they achieve in the classroom that they would have no clue [about] other than [from being] in the classroom.

"I'm very proud of them. I'm proud of all of our enlisted airmen who set out to achieve a goal and achieve it. Education is one of these goals. There are others that are out there, whether it's enlisted PME [professional military education], PCSing [permanent change of station], deployments – there are several goals."

Colonel Brewer said Chief Master Sergeant Randolph's attendance was an honor in itself.



AEDC Commander Col. Michael Brewer, Master Sgt. Patrick Lazarus, Tech. Sgt. John Bankston, Tech. Sgt. James Key, Senior Airman Eric Ball, Senior Airman Tara Kindermann and Chief Master Sgt. Brian Randolph at the enlisted personnel graduation ceremony Sept. 22. (Photo by Rick Goodfriend)

"There's nothing better than having a chief master sergeant come to kick this off, so thanks to Brian Randolph who came up from Eglin to kick the festivities off," Colonel Brewer said.

He agreed with Chief Master Sergeant Randolph that both the individual and the Air Force benefit from the enlisted personnel's education achievements.

"It's certainly good for the individual and it's a betterment for them, but it also makes the Air Force better because we have sharper guys [and] more educated folks both in the field and here doing the training so it makes us all better to get the mission done. Clearly, that's what it's all about ultimately.

"What's great is if you look around the audience, this is not a military audience. This is not a civil service audience; this is

not a contractor audience. This is a civil service, military and contractor audience and that just points to what a team this is supporting us regardless of which background we came from to do the mission."

Dee Wolfe, education specialist in the Arnold Education and Training Office was the mistress of ceremonies for the event and said she was very pleased with the attendance.

"The Education and Training Office is always thrilled when we have 'standing room only' at any of our events because it shows the support we have from the base populace," she said. "This is a big endeavor for our enlisted personnel and they deserve this recognition. Having so many people turn out shows that base personnel genuinely support enlisted education and

individual achievement.

"This is a big achievement, especially when you consider these degrees were earned while working full time, going on deployments and dealing with other family and military issues," she said. "It is important for us to take the time and effort to recognize the graduates for all their hard work and dedication."

This was the third such graduation ceremony held at Arnold since 2008.

Wolfe thanked Colonel Brewer and Chief Master Sergeant Randolph for participating in the event.

"Without the assistance and support of various agencies and individuals across the base as well as funding from the Top 4, we could not have organized such a successful event," Wolfe said.

Second technical excellence poster session scheduled

By Darbie Sizemore
Aerospace Testing Alliance

The Arnold Association of Professional Societies (AAPS) in conjunction with the AEDC Technical Excellence Board (TEB) will hold the second annual Technical Excellence Poster Session Oct. 20.

This event will be the October Technical Excellence Seminar and will be held from 11:30 a.m. to 1 p.m. at the AEDC Training Facility. The event will feature the work of early career aerospace professionals with 15 years or less of cumulative professional work experience.

"The intent is to develop the technical and presentation skills of early career employees and provide visibility for their work," said Dustin Crider, Aerospace Testing Alliance (ATA) Space and Missiles Technology project

manager and chair of the American Institute of Aeronautics and Astronautics (AIAA) Tennessee Section Young Professionals. "Each participant will create a poster highlighting a technical aspect or aspects of work he or she has performed within the last two years. The posters will be technically focused but will also give the needed background information for the topic being presented."

Last year, 24 engineers presented posters highlighting their work over the last two years. They represented all areas of AEDC and Tunnel 9, including members of the military, government and contractor workforces.

"We were very excited to have that many participants; the room was full," he said. "The real purpose of the event was to develop technical excellence with the early career profession-

DETAILS

What: Technical Excellence Poster Session

When: 11:30a.m.-1p.m. Oct. 20

Where: AEDC Training Facility

Who: Professionals with 15 years or less of professional experience

als, engineers and scientists and government contractors, and to help them develop technical writing skills, presentation skills and also get visibility for their work."

Last year's event also garnered the attention of AIAA in the form of an award.

The inaugural poster event was recognized as a first place winner of an Outstanding Activity Award in the "medium" category, which is based on membership size. AIAA section awards annually "honor particularly notable achievements made by member sections in offering activities that

fulfills AIAA's mission in a wide range of fields."

This award allows AIAA to "acknowledge sections that held an outstanding activity deserving of additional recognition."

"We were extremely excited to be recognized in this way," Crider said. "The early career workforce does a lot of great work out here, and we want to make people aware of it. These employees are the foundation and future of AEDC."

Last year, Inna Kurits, a project engineer at Hypervelocity Wind Tunnel 9 in White Oak,

Md., won first place for her presentation, TSP (Temperature Sensitive Paint) System Development and Implementation at AEDC Tunnel 9, while second place went to Andy Escue, a modeling and analysis engineer for Dynetics, with Transient Model of a Steam Accumulator.

Third place involved a three-way tie between Brian Binkley, an engineer/scientist and propulsion analyst in Facilities and Test Technology, Modeling and Analysis of Eductor System Performance; Carrie Reinholtz, a technology project manager in the Technology Branch, Background-Oriented Schlieren Capabilities (BOS) at AEDC; and Kent Wilcher, a scientist/engineer working in the Instrumentation and Diagnostics Section of the Technology and Analysis Branch, Combustion Diagnostics Using Extractive Gas Analysis.

Air Force targets heat plants for energy savings

By Jennifer Elmore
AFCESA/CEBH

AFCESA – Engineers at the Air Force Civil Engineer Support Agency, Tyndall AFB, Fla., are on a mission to help save facility energy across the Air Force. One target is central heat plants, which have miles of distribution lines and are known to be inefficient according to Tom Adams, an AFCESA mechanical engineer. He has evaluated heat plants across the Air Force and says some of the 50-year-old structures are only 50 percent efficient.

“Today you can achieve up to 95 percent efficiency with facility condensing boilers,” said Adams. “This technology improvement essentially makes central heat plants obsolete, at least from an energy efficiency standpoint.”

The Air Force has decentralized 10 heat plants; an additional decentralization project is under construction at McGuire AFB, N.J. Efforts are also underway at Tinker AFB, Okla., and Robins AFB, Ga., to award projects to decentralize heat plants.

AFCESA engineers would like to see most heat plants decentralized and replaced with individual facility boilers, where cost effective.

These projects could help the Air Force meet the Energy Independence and Security Act of 1997 mandate that requires all federal agencies to reduce energy consumption by three percent per fiscal year through 2015.

“Back when central heat plants were constructed in the fifties and early sixties, energy wasn’t an issue in our country,” said Adams. “It was very plentiful, very cheap, and the larger you built the boilers, the more efficient they were. So many times, it was advantageous to have a central heat system.”

A central heat plant satisfies a base’s heating requirements by burning fuel oil or natural gas in large

boilers to create hot water or steam, which is usually distributed in underground pipes throughout the base. Each building taps into the hot water or steam distribution system to access the heat.

“We always want to propose a solution that makes sense for the base and the major command,” said Adams. “We have to satisfy the mission first. Sometimes decentralizing a heat plant is not going to allow you to accomplish your mission as effectively.”

For example, Adams recently evaluated the heat plant at Arnold AFB, Tenn., and says although it is operating at 50 percent efficiency it may not be a good candidate for decentralization because of the base’s large heat requirement for test facilities. He says AFCESA is looking at repair options because small facility boilers may not be able to meet the steam demand for testing requirements.

“AFCESA is working with Arnold and Air Force Materiel Command to determine the most beneficial and cost-effective way forward including heat plant improvements and repairs to the distribution system,” said Adams.

He estimates a \$14 million investment could improve Arnold’s efficiency 20 percent and save the base \$920,000 a year in utility costs.

AFCESA engineers will continue to evaluate opportunities throughout the Air Force and will actively pursue cost effective candidates as they are identified.

AFCESA is home to the Air Force Facility Energy Center. The center is made up of more than 50 engineers and professionals who identify, evaluate and help implement technologies and funding strategies to enable the Air Force to meet and surpass federal energy goals.

HEATER from page 1

NASA centers like Ames, Johnson and Langley have been used to simulate the high altitude regime of a vehicle flight where high lift vehicles such as the shuttle fly.

Since 2008, the arc heater developers in the Technology and High Temperature Lab (HTL) have been working on a range of arc heater technologies to fill the mid-range capability gap.

They hope to ultimately incorporate the total package of these technologies into AEDC’s H2 cell, replacing the existing Huels heater design with a segmented heater of the H3 design. This would provide the 60-year-old facility with a cutting edge, segmented arc heater with longer runs times capable of simulating higher enthalpies at mid-altitude shear conditions, like those experienced by long-range global strike vehicles.

In the Huels heater, the electric arc is struck across a single insulator and establishes its own length while in a segmented heater, copper segments separated by insulators are used between

the electrodes. The segmentation allows the heater to be operated at higher voltages – and therefore higher enthalpies – since more segments and insulators can be added to the heater to cause the arc to be longer. The segmented heater is also cleaner, produces less copper in the test gas, heats the gas more efficiently and creates more repeatable conditions.

“[At AEDC] we want to be able to run at high enthalpy conditions in the mid-altitude range,” Reinholdt said. “Before the program began they had only demonstrated these conditions for very, very short periods of time. The short run times aren’t providing a sufficient duplication of flight test conditions.”

“For example, say a customer wants to perform bonding, thermal protection, or nose materials testing. If you’re able to run simulated flight conditions for 25 minutes, you’ll have a more realistic understanding of what the materials will experience and determine whether the materials will survive re-entry.”

Reinholdt said the next part of this first phase will involve testing a new electrode in H3. Testing will be conducted to determine whether the new design further reduces the wear rate on the electrode. Reducing wear rates would increase electrode life and allow for longer run times with multiple test articles, which in turn, increases test efficiency.

“The long term vision of this project is to be able to take the H3 segmented heater technology and replace the H2 Huels heater with that specific technology,” she said. “The upgrade to the H2 facility will then provide the long run times in the mid pressure test envelope.”

“That capability is required for re-entry and boost glide vehicles. Providing this test envelope for ground testing will help to reduce the overall program risk.”

Reinholdt added, “This effort is funded by OSD’s T&E/S&T (Office of the Secretary of Defense Test and Evaluation/Science and Technology) Advanced Propulsion Test Technol-

ogy (APTT) program. This funding is not ‘internal’ to AEDC. It is also worth noting the goal of T&E/S&T is not to perform the H2 upgrade. That upgrade, if selected, would be funded by a CTEIP (Central Test and Evaluation Investment Program) project.”

“Hypersonic flight test programs can easily cost \$100 million per flight and are becoming more difficult to perform due to treaties and test range availability issues,” Sheeley said. “They are also very visible, with a failure possibly resulting in the cancellation of a program. It is worth a significant investment in ground test infrastructure if it will allow vehicle developers to down-select materials and improve material models in ground test programs costing only hundreds of thousands.”

Regarding H2’s transformation into a segmented arc heater for future ground testing, Reinholdt said, “Additional work and funding is required before H2 transformation can be completed. However, this is a necessary first step.”

Right on target



An A-10 Thunderbolt II from the U.S. Air Force Weapons School at Nellis AFB, Nev., drops an AGM-65 Maverick during a close-air support training mission Sept. 23, 2011, over the Nevada Test and Training Range. U.S. Air Force Weapons School students participate in many combat training missions over the NTR during the six-month, graduate-level instructor course. (U.S. Air Force photo/Senior Airman Brett Clashman)

HOUSING from page 1

ally excited to build a relationship with all of the families and being a partner with the Air Force.”

Hoyt said the new housing will have a lot to offer the on-base residents.

“We’re offering all the modern amenities,” he said. “[Houses will] be three or four bedrooms, depending on rank and family status. We’re going with the open family floor plans which we find to be very successful, both in the military community as well as out on the economy.”

Hoyt said one housing unit will be accessible to occupants who have American with Disabilities Act (ADA) requirements.

“This will be a one-story house that will have all the modern amenities – what they’d find if they went off to buy a new house,” he said.

Hoyt said the company he represents has a lot of experience in developing housing for a wide demographic.

He said Forest City Military Communities LLC has “a lot of experience in developing real estate. So, what we’ve done is we’ve taken that experience in developing real estate [and] combined it with our experience in developing real estate for military family housing which is a little bit of a different genre.

“It’s kind of a unique niche and we have designed these houses to be the best fit for our military families. For instance, a typical stairway is a three-foot wide staircase going up, but we know that our military families move a lot. So, we have a wider staircase for our families to get in and out of. We also know that our military families like to have bulk storage and one of the problems is that the housing they live in now doesn’t have enough interior bulk storage.”

He said the houses were designed to avoid occupants having to resort to storing belongings in their garages.

“We’ve actually designed more interior bulk storage on the second floor for our residents,” Hoyt said. “We also have two-car garages for all of our residents.”

He also spoke about the newest energy standards.

“We’ve gone through many iterations of how we can make this more LEED [compliant] or green,” he said. “Let’s face it; one of the problems we’re in today with our global crisis is because of energy consumption. All of our houses will be built to ‘green’ standards.”

Hoyt said some technological limitations to the existing infrastructure supporting base housing will make LEED certification of the housing impractical.

“We’re looking at how we can incorporate the water heating system into a more environmentally friendly system there,” he said. “Instead of having a simple 40-gallon tank there, heating it 24 hours a day.”

Anderson said the first phase will tentatively be complete by September 2012, with the final phase scheduled for completion by May 2013. Phase 1 work began Oct. 1 and will include grading for a new road, demolition of old housing and installation of utilities to support the new houses and 14 new homes.

“They are already working on grading and utility tie-ins,” he said. “Once the road and infrastructure are in they’ll start pouring concrete pads and building these new homes on the outside of the new loop drive, the area beside the lake.”

The new housing will include three duplex buildings and 16 single-family homes.

“Units will range from 1,790 to 3,382 square feet, which doesn’t include the two-car attached garage in that square footage,” Hoyt explained. “All units [will] have a master bedroom with a private master bath and walk in closet.”

A new community center is also a feature of the new base housing.

“[The] community center will co-locate Air Force housing and Forest City housing offices,” Hoyt said. “In addition, the community center will have a multi-purpose room, with a kitchen, for residents to plan and host events, a dedicated business center for residents to use and last, but certainly not least, there will be an outdoor swimming

pool at the community center as well.”

AEDC Finance Counselor Senior Airman Tara Kindermann and her husband, Bronson, are hoping to be at Arnold long enough to transition to the new housing.

“I’ve been in the Air Force just over three years,” said Airman Kindermann, who has already signed her lease for the new housing. “I live in base housing. [Since this is] my first assignment I don’t really know what to compare it to, but it’s a pretty decent house.”

Their family also includes a young daughter and two dogs. Airman Kindermann has some idea of what to expect with the new homes.

“They’ve had rough sketches of what they anticipate it to look like,” she said. “It looks nice from the outside [and] it’s supposed to be a lot larger home. I figure everything is going to be brand new. We shouldn’t have any problems with anything, at least for awhile. I’m really excited to get into something nicer and newer and larger.

“My husband is excited as well. He’s hoping to have more room for some of his belongings and I’m hoping that they’ll have bigger yards as well for the dogs and cooking out.”

Bronson, who enjoys living on base, is also excited about the prospects of moving into a new house.

“I like living on base because it is a short commute for my wife and I to drive to and from work,” he said. “The estimated time frame to move in to the new house – once they start construction – is around a year. We will remain in our current house on base until the new ones are built.

“The base housing is family friendly because they offer playgrounds, a walking trail and the lake. My expectations for the new housing on base are better constructed homes. I would also like to see garages and more room for a family and guests. I think it will be something the family will enjoy because there aren’t many times where you get to be the first person to live in a brand new house.”

B SMRT. DNT TXT & DRV.**Girl Scout goes for Gold, crusades against texting while driving**

By Shawn Jacobs
Aerospace Testing Alliance

danger to everybody else on the road.”

The Gold Award, the equivalent of the Boy Scouts’ Eagle Scout award, is the highest honor a Girl Scout can achieve.

The daughter of two AEDC employees is using an unpleasant experience to help her earn that prestigious honor and provide a valuable community service at the same time.

Amber Wolfe, a senior at Coffee County Central High School, is conducting a community awareness campaign about the dangers of texting while driving after her parents “busted” her for doing the same thing.

She lost her cell phone privileges for a couple of weeks due to her infraction, but the incident made her reflect on the dangers involved and gave her an idea for her Gold Award project.

“I only texted at stop lights or when I was stopped, but they said it was still dangerous because there were still other distracted drivers on the road that I had to pay attention to,” Amber said. “And as a teenager it’s very prevalent among us as an age group because we are attached at the hip to our phone. We feel the need to have constant contact with everybody.”

“If I can help even one person think about not texting and driving, that will be one less person on the road doing it and one less distracted driver on the road who is not only a danger to themselves but a

Amber said her project is made up of various components, which she is continuing to expand. She is especially focused on making her message available to the general public.

“I made up posters that I’ve hung up around the school,” Amber explained. “I’ve also made up a Power Point presentation and delivered it to the driver’s ed classes in my school and my English class. I’ve got pledges for people to sign saying they won’t text behind the wheel.”

“There’s actually a video on YouTube [“AT&T texting while driving”] that shows people texting behind the wheel and the consequences of it. There have been people who died from it. There have been people permanently disabled from it.”

Amber said she’s investigating the possibility of getting a wrecked car placed in front of her high school with a sign indicating the wreck could have been the result of texting behind the wheel.

She’s planning on setting up a table at the AEDC Commissary Oct. 15 from 10 a.m. to 2 p.m., displaying her posters and encouraging people to sign the pledges not to text while driving. She also hopes for more presentations at school and plans to place the posters at other high-traffic locations.

Texting while driving an automobile is illegal in Tennessee and any use of a hand-held cell phone while driving within the



Amber Wolfe stands by the posters she created for a community awareness campaign about the dangers of texting while driving as part of her Girl Scout Gold Award project. Amber is the daughter of Shawn and Dee Wolfe, both of whom are AEDC employees. (Photo by Andrea Stephens)

AEDC fenced area is prohibited. In addition, ATA, AEDC’s operating contractor, forbids the use of hands-free devices while driving on base.

That prohibition extends to off base if employees are driving on company business.

Amber said she’s always known it was dangerous, and research for her Girl Scout project has served to reinforce that danger in her mind.

“Studies have proven that it’s as bad as having a blood alcohol content of .08,” she said. “It reduces your brain activity by 37 percent when you’re using the phone behind the wheel, so you’re distracted constantly.”

“Even if you don’t look at the phone you still have to take your mind off of what you’re doing. You still have to look at the

phone to read the text.

“In the video it asks if you would close your eyes for six seconds going down the road. Reading a text is basically doing the same thing.”

Amber’s parents are Shawn Wolfe, who works in executive support for AEDC’s Maintenance Division, and Dee Wolfe, AEDC education training specialist.

Dee said she’s pleased that her daughter has embarked on the project.

“The fact that she learned how dangerous this is makes all the difference in the world. If she doesn’t change the opinion of anybody else in the world, she changed her own opinion. That’s all that matters to me – that she is a safe driver and she comes home safe every night.”

Dee said she and Shawn

have copies of the pledge in their AEDC offices in case anyone on base wants to sign one or take it home for their children to sign.

Amber is expected to spend a minimum of 80 hours to implement a well-rounded community project for her Gold Award, which could help her get into college and earn scholarships.

“Once I complete my 80 hours, I have to send the feedback from my project back to the Girl Scout Council in Nashville,” Amber said. “They’ll look at what I’ve done and they’ll count up all of my

hours [which I have to document].

“They’ll give me either a ‘yes’ or a ‘no.’ If they say, ‘yes,’ there is an awards ceremony, probably in the spring in Nashville.”

“I’ve been a Girl Scout for 13 years and I’ve gotten my Bronze and Silver Awards. I want to receive the highest award that a Girl Scout can get, which is the Gold Award.”

“The Girl Scouts promote community service and making the world a better place and this Gold Award project is the epitome of it.”

BAILEY from page 3

investment in Middle Tennessee.

Colonel Bailey said he, his wife, Tana and two children, 11-year-old Will and 10-year-old Katie, will miss AEDC and the community.

“They love it here and there were some long faces ... when orders came through because they had, in that short amount of time, made great friends both on and off base,” he said. “They got involved in local soccer and school activities and have been doing well in the local schools.”

Colonel Bailey said his family loved living on base and the nearby outdoor amenities.

“Having the lake right

there was fantastic, whether hanging out on the beach or going to the marina and checking out a boat,” he said. “The Services guys have been wonderful. We loved their attitude and tried to take as much advantage of [what they had to offer] as much as we could.”

Colonel Bailey said his departure is certainly bittersweet, but he is looking forward to his new assignment.

“My head’s still swimming a little,” he said. “It’s a bit the lot of an officer to move on a periodic basis. Now, clearly, this is a litter sooner than later, but it’ll be exciting and I look forward to it.”

Milestones



John Bowen
40 years



Laurence Campbell
35 years

INBOUND MILITARY
Capt. Peter Shore, AF

RETIREMENTS
Larry Campbell, ATA
Carl Cantrell, ATA

Thomas Cromer, ATA
Donald Curty, ATA
Thomas Hargreaves, ATA
Bobbie Hodge, ATA
James Massengill, ATA
Glenda Partin, ATA

Ronald Polce, AF
Charles Roberts, ATA
Anne Sotherland, ATA
David Swann, ATA
Jeffrey Waldo, AF

NEW HIRES
Marcus Conner, AF
Eric Marineau, AF
Peggy Proffitt, NAF
Jeffrey Waldo, ATA
Artious Walker, AF

30 YEARS

Mark Ellis, ATA
Charles Mangino, ATA
Ray Schlegel, AF

25 YEARS

Richard Cox, ATA
Robert Grimes, ATA
Troy Haywood, ATA
Sam McKelvey, ATA
Hugh Partin, ATA
Luther Rose, ATA
Bonnie Sherrill, ATA
Michael Shuran, ATA

20 YEARS

William Gonce, AF
Myra Kline, AF
Timothy Mansfield, ATA
Larry O'Neal, ATA
Jack Walters, AF

15 YEARS

Peter Montgomery, ATA
Morgan Underwood, ATA

5 YEARS

Rickey Bruce, ATA
Michael Tyler, ATA

B-52 from page 1

mately 3,400-pound aluminum and steel B-52H model, at 10-percent scale, to undergo store separation testing in the center's 16-foot propulsion wind tunnel in August.

Veazey said the upcoming test will support a more efficient and effective weapons system platform.

"The Global Strike Command has a requirement to put weapons into the [internal] weapons bay of the B-52H that historically have not been there, specifically Global Positioning System (GPS) weapons, like the MALD (Miniature Air Launched Decoy), the JASSM (Joint Air-to-Surface Standoff Missile) and the several variants of JDAM (Joint Direct Attack Munition)," he said. "The requirement is to carry them internally in the weapons bay. That reduces the aerodynamic drag on the airplane and allows for extended range missions of the B-52H.

"That's one way to get more energy efficient, to bring those weapons internal. It also allows them to carry more weapons on a B-52H. They can load up the wing pylons' two Heavy Stores Adapter Beams and they can load up the new Conventional Stores Rotary Launcher internally."

Safe release of the stores from the aircraft is imperative for a successful mission to protect the crew, avoid damaging the airplane or the stores and accurately strike the targets.

"Bay separations from any airplane are complex and dynamic enough as it is, but when you combine that bay separation with stores that are not necessarily aerodynamically stable to begin with, it just really makes things even more challenging," Veazey said. "Aside from the



From right, former AEDC Commander Col. Michael Panarisi showed visiting AFMC Commander Gen. Donald Hoffman and his wife, Jacki, a 10-percent scale wing section of a B-52H Stratocaster test article, the largest model ever fabricated at AEDC for a ground test. (Photo by Rick Goodfriend)

safety of the crew, the risk to the weapons and the airplane is a real concern."

The primary measurements obtained during a store separation test are the force and moments of the separating store in the flow field of the airplane.

"There will be captive trajectories, pseudo-freestream and aerodynamic grid data that will be acquired, the usual CTS (captive trajectory support) test techniques," Veazey said. "Pseudo-freestream testing means the aircraft model is in the tunnel during CTS store model freestream data acquisition."

If a test article is too large, it can block enough of the airflow in the wind tunnel to adversely affect the test.

"The total blockage of the model is one of the things we were concerned about," said JT Thompson, ATA project engineer.

Veazey said, "It is about 2.2 percent, which is higher than desired from an aerodynamicist's perspective, but for store separation work, that's tolerable. We're using CFD (computational fluid dynamics) to support that engineering judgment."

The test team plans to use one

other tool to ensure the stores deploy safely from the B-52H model and that blockage is not an issue with the test.

"One of the things we're looking at using during the course of the test is Background-Oriented Schlieren (BOS), which may help show some flow characteristics around the test articles," Veazey explained. "This technique, installed and operated by ATA Technology personnel, uses a simple optical set-up consisting of a structured background pattern, an electronic camera with a high shutter speed and a high-intensity light source. Then

special COTS (commercial off-the-shelf) software is used to process the images and produce the final product.

"This first B-52H store separation effort will result in AEDC employing all its capabilities from planning, design, fabrication, testing, computations and analysis and reporting. Combining that with the ongoing collaboration with the B-52H Program Office, AFSEO and the several weapons program offices and their contractors makes this a truly 'Integrated Test and Evaluation' program."

B-52 model brought to life by machine programmers

By Patrick Ary & Shawn Jacobs
Aerospace Testing Alliance

To hear Paul Denton and Joel Gregory talk about it, the most important aspect of building a one-tenth scale model of a B-52H was patience, not their skill. That's the way they consider most of what they do.

"Sometimes it can get real involved," Gregory said. "But basically we get a model, we make a tool path, we'll send it to the shop and the guys will cut it. That's the simplified version of it."

Denton and Gregory, numerical control (NC) programmers at the AEDC Model Shop, spent months programming the shop's machines to cut massive pieces of metal into the parts that became the B-52H model used for store separation testing in the Propulsion Wind Tunnel Facility's (PWT) 16-foot transonic wind tunnel.

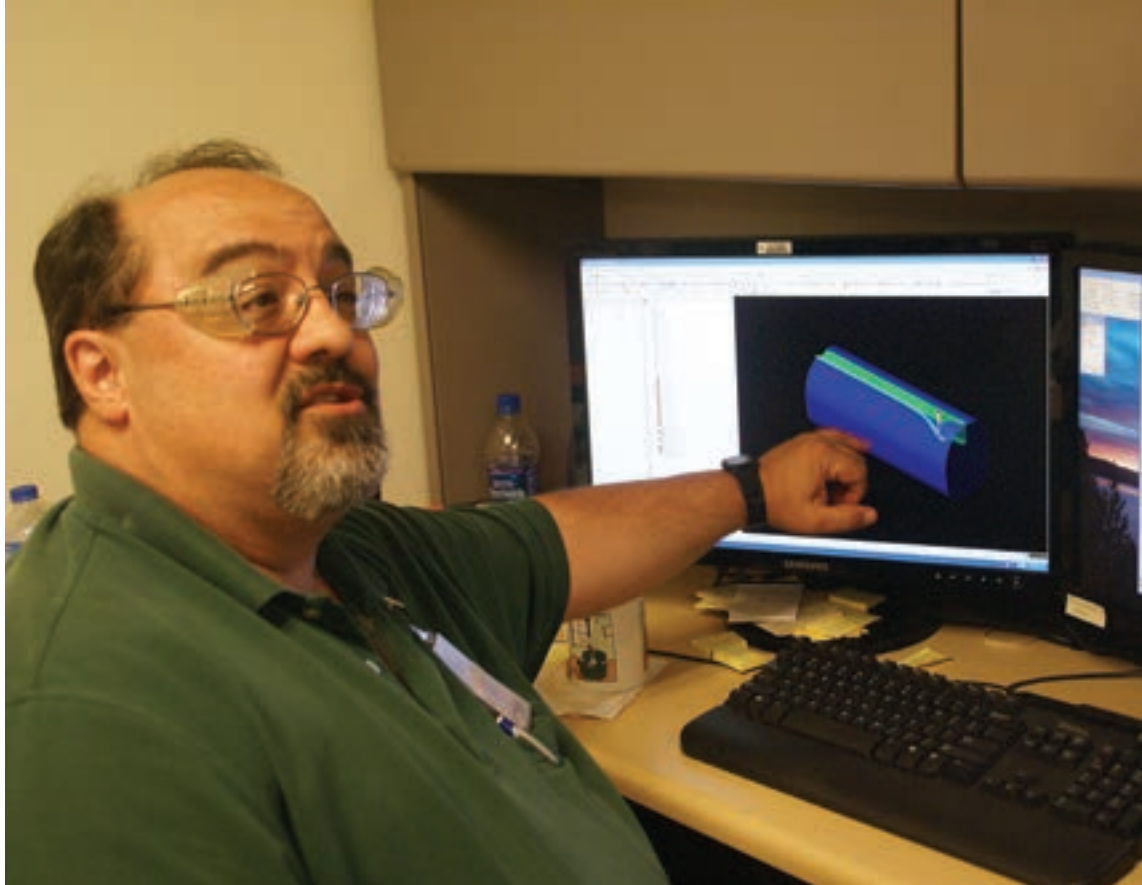
The model is one of the largest ever built at AEDC for use in testing and, even though the schedule for completing the model was tight, it was a welcome break from the normal routine.

"It has been fun," Gregory said. "It's one of those jobs that's interesting, because a lot of times all we see are ducts and hardware that go in all our facilities. It's neat to work on models. Those are the fun jobs."

While it may have been fun, that doesn't mean the work was simple. Because of the tight schedule, designers sent Gregory and Denton 3-D models of each part as they finished it.

"It's not totally unheard of," said model designer Scott Wieland. "We have done this kind of thing before but to a lesser extent. If we need parts quickly, we will send them to the Model Shop and have them proceed before a completed drawing is done. It's outside the normal process, and it takes a buy-in from management. They have to be willing to accept the risks when we do this."

Once they received the computer file from designers, Denton and Gregory consulted with



Joel Gregory, an ATA numerical control programmer in AEDC's Model Shop, explains how he programs more than a dozen different machines to cut chunks of metal into parts that made up the B-52 model used in store separation testing at AEDC. (Photo by Philip Lorenz III)

Model Shop machinists to determine the best position to start cutting the blocks of metal into the final product. After developing a game plan, Denton and Gregory started generating programs that would trace the path a tool would take. Those were eventually loaded onto the various machines to make rough initial cuts of the metal and eventually the finishing cuts.

Denton and Gregory's programs generate coordinates on a three-dimensional plane. Those coordinates tell the cutting tools what paths to take in cutting the metal.

"It'll generate a bunch of numbers ... millions of numbers," Gregory said. "And I will feed that to the machine and I'll tell (the machinist) where the origin is. We have a numbering system that we set up for these programs, and we'll say OK, run such-and-such number program with the part set up this way. They'll do it and hopefully, at the end of the day, it'll be something that looks kind of like what we have on the

screen."

Piece by piece, Denton and Gregory generated programs for the individual parts sent to them by designers. The major parts consisted of the B-52's wings, engine pods and segmented sections that were later bolted together to form the plane's body. Programs for some of the parts were large files, consisting of numbers that in at least one case was more than five times the length of Leo Tolstoy's "War and Peace" — a book that is about 1,400 pages long, depending on the version.

In addition to the hours spent generating the programs, Denton and Gregory checked all of the programs to ensure they weren't making any errant cuts that could destroy the part and require the work to be started over again.

Denton and Gregory worked about 58 hours a week to try and get all the programs ready at the right time. They say they weren't worried about getting the project finished on time, but they had enough to keep them busy.

"The fact that they wanted it

so early was going to push us a lot because there are only two programmers, and we have to supply the programs for the machine tools," Denton said. "And there are quite a few of them."

Machine Shop Planner Jeff Harvey became involved in the B-52H project even before Denton and Gregory. He had to determine if the Model Shop would have the capability of doing the job to begin with, especially in such a short time period.

"I felt like we could do it and then just basically tried to work out the schedule to make everything work out right," Harvey said. "The guys did a great job in making that happen. I was relatively optimistic about it the whole way.

"I was glad that we got this [because] this is the Model Shop. This is a model, so we want to do it here. I believed that if we were able to get this model and were successful, it's something the base could be proud of."

Harvey said the sheer size of the model is impressive, and

the fact that it's made mainly of aluminum was helpful to the model builders and to meeting the schedule.

"It's big, but there aren't a lot of small complexities with it, so that helped out a lot, too," he said. "The job was enormous and to shove it into that short of a time frame and have everything come together correctly took a lot of work."

And the fact that the model is a legacy aircraft like the B-52? Well, that just made the project more exciting.

"You know everybody's impressed by a B-52," Harvey said. "I think there's even more excitement than maybe even the F-22. We're proud of it, and we hope to get a lot of testing time from this model."

ATA Model Shop manager Walt Bishop said everyone involved with the project went above and beyond on a job that could have suffered serious setbacks in the program schedule if any part of the system had broken down. He says the NC programming was a key part of the process.

"They're kind of the unsung heroes," Bishop said. "The work that they did, taking what came from Scott Wieland, making those programs, coming down, putting them in, checking them out, keeping the guys busy ... if they had gotten sick at any point in time, if they had not done their jobs as efficiently as they had done and as professionally as they had done, we would have had problems."

Both programmers say they enjoyed the work despite the hectic schedule, and they would be willing and ready to take on another model.

"It's been an interesting job to work on," Gregory said. "It's also been highly visible. I've worked here almost 25 years and I have never seen the people come in to see a job that we were working in the shop as much as this one. We have had countless tours come through, from the AFMC commander on down."

AEDC POW/MIA EVENT RAISES NEARLY \$2,000

AEDC Commander Col. Michael Brewer speaks to AEDC employees during a POW/MIA recognition ceremony held on Sept. 15. More than 100 employees walked around the base running track and made donations totaling close to \$2,000 for the local POW/MIA chapter and the National League of Families of American Prisoners and Missing in Southeast Asia.



Members of the AEDC Honor Guard presented the POW/MIA flag at the recognition ceremony on base. The flag was carried around the base running track throughout the day in honor of Americans who took part in the nation's conflicts and are still missing.



It was one of the first cool, wet days of fall. But that didn't stop AEDC workers from spending Sept. 15 recognizing those who have been left behind in the nation's conflicts. Dozens turned out that wet Thursday morning for the start of AEDC's POW/MIA recognition ceremony.

"It's very special to me, being a retired Army officer," said Darrell Day, an AEDC financial manager and one of the event's organizers. "I served in Desert Shield and Desert Storm and Enduring Freedom and Iraqi Freedom, and our fellow Soldiers and Airmen and Marines, they're like brothers to us. And the ones who are left behind, that's like a piece of our family that's still missing. And we need to bring them home."

AEDC commander Col. Michael Brewer kicked off the flag's journey around the base's running track – where it continued to travel throughout the day in the hands of anyone who wanted to support the cause.

The Smyrna chapter of the Rolling Thunder – a group that keeps the POW/MIA issue on the forefront – was invited to come take part in the day's activities, which included presentation of the POW/MIA flag by the base's honor guard, a table ceremony in honor of those who are missing and a burger burn during the middle of the day.

"It's incumbent upon all Americans to resolve where their men and women are from all the wars," said Rolling Thunder Smyrna chapter vice president Jim Phillipson. "Just think of the families that have a son, or a husband, or a father ... they are gone and they don't know where he's at or what happened."

The day was planned by AEDC's chapter of the American Society of Military Comptrollers. AEDC's Air Force Sergeants Association, Company Grade Officer Council, Junior Force Council and Top 4 also took part in the events to raise money for the local POW/MIA chapter and the National League of Families of American Prisoners and Missing in Southeast Asia.

Senior Airman Tara Kindermann, a financial services technician, spent the entire day coordinating the event in the wind and misting rain.

"I had anticipated it to maybe rain a little bit in the morning and then possibly clear up in the afternoon," Airman Kindermann said.

Despite less-than-ideal weather conditions, more than a hundred people took time away from their busy schedules to walk around the track in honor of those still missing – more than organizers expected. The five organizations that took part raised close to \$2,000 through T-shirt sales, a burger burn and individual donations.

For those who carried the flag around the track, it was an honor to remember those who have not been found and the families they have left behind.

"I mean it's the least I could do," Airman Kindermann said. "I feel very privileged to carry the flag around the track."

Due to this year's large turnout, organizers say they plan to continue the tradition in the coming years. For Day, it's about making sure people remember the sacrifice made by some of the nation's armed services members.

"I think it's just like our freedom," Day said. "I think we take it for granted. If it's not at the forefront of our mind every day and we don't think about it, it'll be forgotten."

"No war is really popular," Phillipson said. "And the longer it goes on, people start to forget and get complacent. But they need to remember that the men and women are still out there on the lines every single day, and they're protecting our interests."



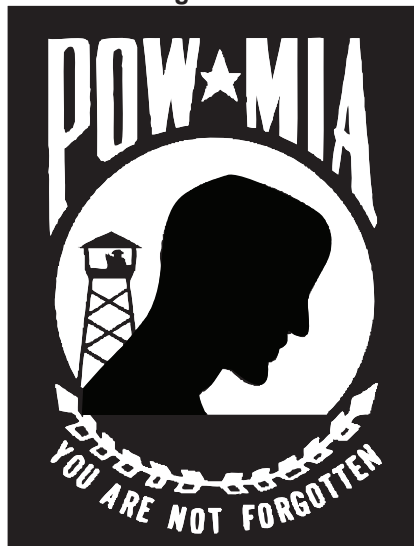
AEDC Commander Col. Michael Brewer and 1st Lt. Jamie Gurganus take the POW/MIA flag on its first lap around the base running track. Throughout the day, other supporters took turns carrying the flag around the track to raise awareness and funds for POW/MIA efforts.



Senior Airman Tara Kindermann stands ready to take POW/MIA fund donations from AEDC workers during lunch time Sept. 15. The food, T-shirt sales and individual donations totaled nearly \$2,000 for the local POW/MIA chapter and the National League of Families of American Prisoners and Missing in Southeast Asia.



AEDC workers walk around the base running track to raise awareness and funds for POW/MIA efforts.



**STORY BY PATRICK ARY
PHOTOS BY RICK GOODFRIEND**

Arnold Golf Course
454-GOLF; 454-FOOD

Check us out on Facebook!
Arnold AFB Golf Course

Mulligan's Coffee Bar & Grill new hours as of Oct. 1. The grill will be open 7 a.m. to 2 p.m. daily. Call ahead orders for dine or carry out, 454-FOOD (3663).

Arnold Lakeside Center
454-3350

Check us out on Facebook!
Arnold Lakeside Center and Arnold AFB Service Information Tickets and Tours

The annual **Chili Cookoff** has been set for Oct. 14 behind Arnold Lakeside Center (ALC). Teams entering the event will need to provide all of their own supplies to start, cook and complete their chili entry and plan to make enough to provide samples as well as a batch for final judging. Teams need to be self sufficient and make all necessary arrangements for electrical (if required), tables, chairs, utensils, containers, ingredients, etc. The ALC will provide supplies for the judges and for the attending personnel not affiliated with a team to judge for people's choice. Ties of any kind will be decided by public coin toss. Power may or may not be available to contestants so teams need to plan accordingly. Eight-foot tables are available to rent from the ALC or Outdoor Rec (454-6084) for \$4 each and must be reserved in advance to guarantee availability. Costumes and booth decorations are encouraged but not required. Official rule sheets are available upon request. Cash prizes will be given for best tasting (\$200), best tasting runner-up (\$125), most unusual ingredient (\$75) and people's choice voted on by others in attendance (\$100 plus half of voting form sales). People's choice votes are \$3 per person for a voting form entry and includes napkins, cups and spoons for every booth entered in the competition.

Arnold Lakeside Center has planned an evening getaway to **Chaffin's Barn Dinner Theater** in Nashville Oct. 28 to see "Southern Fried Funeral," a comedy by Osborne and Eppler. Who knew Southern Fried could be so good for you? Dewey Frye is dead and his wife Dorothy is left behind trying to pick up the pieces and hold her family together. Her daughters are at each other's throats, Ozella Meeks from the SonShine committee at the church is trying to take over the funeral and Dewey's older brother is trying to take her house. Funerals bring out the best, the worst and the funniest in people and the Frye family is no exception. It is a big-hearted comedy about family, Southern-style. Enjoy dinner before the show and then watch as the real magic begins, the lights dim and the stage descends from the ceiling. Cost is \$55 and deadline to sign up is Oct. 13. Cost if signed up Oct. 13-20 will be \$60. Depart from the ALC at 4:30 p.m. and return at approximately midnight. This trip has all the elements for an outstanding night of fun located in one building and with transportation provided at a great price. Chaffin's Barn Dinner Theater is rated one of the top 25 tourist attractions in Nashville. Call Melissa at 454-3303 to sign up for the trip. There must be a minimum of four to go and maximum participants allowed is 15.

First Friday Jam is moved to second Friday for October and will have an Oktoberfest theme. Jam night will be Oct. 14 starting 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.

Last Friday Trivia Contest returns 6:30 p.m. Oct. 28. Teams can have up to four people. No cell phones are permitted during the event. Anyone using a phone while a question is underway will be disqualified. A total of 25 questions in random categories will be given. Prizes for top finishers.

Movie nights are every Thursday with movie start time of 6:30 p.m. and dinner available from the Express or Pizza menus from 5-8 p.m. The schedule for October is: **Oct. 13** - "Captain America: The First Avenger," rated PG-13 starring Chris Evans, Hugo Weaving and Samuel L. Jackson. After being deemed unfit for military service, Steve Rogers volunteers for a top secret research project that turns him into Captain America, a superhero dedicated to defending America's ideals. **Oct. 20** - "Transformers: Dark of the Moon," rated PG-13 starring Shia LaBeouf, Rosie Huntington-Whiteley and Tyrese Gibson. The Autobots learn of a Cybertronian spacecraft hidden on the Moon, and race against the Decepticons to reach it and to learn its secrets. **Oct. 27** - "Green Lantern" rated PG-13 starring Ryan Reynolds, Blake Lively and Peter Sarsgaard. A test pilot is granted a mystical green ring that bestows him with otherworldly powers, as well as membership into an intergalactic squadron tasked with keeping peace within the universe.

Wednesday Lunch is available for dine in or carry out from 11 a.m. to 1 p.m. Call ahead to 454-5555 to place orders. No delivery available. For better service, you may call on any day and preorder. Regular menu items available during lunch include specialty burgers, chicken tenders and salads. Call to see what other specials are available each week or check Sharepoint.

Friday night dining room specials available from 4-9 p.m. **Oct. 7:** Cajun chicken pasta, \$10.95 member, \$11.95 non. **First Friday Jam** moved to second Friday. **Oct. 14:** Grilled snapper or tilapia, \$11.95 members, \$12.95 non. **Oct. 21:** Meatloaf, \$9.95 member, \$10.95 non. **Oct. 28:** Stuffed bell peppers, \$9.95 member, \$10.95 non. All specials and times are subject to change without notice. Please call ahead to ensure availability and openings.

Saturday availability and specials: **Oct. 8:** New York strip, \$18.95 member, \$19.95 non. **Oct. 15:** Prime rib for two, \$29.95 member, \$31.95 non. **Oct. 22:** Bacon-wrapped stuffed chicken, \$12.95 members, \$13.95 non. **Oct. 29:** Shrimp and scallop scampi, \$13.95 members, \$14.95 non. The dining room is open on Saturdays from 5-9 p.m. unless otherwise specified. All specials and times are subject to change without notice. Please call ahead to ensure availability and openings.

October Drink Special (all month long):
Frozen Midori margarita, \$4.95 - Say farewell to summer with a traditional margarita infused with melon liqueur served frozen.

Family Member/Youth Programs (FamY)
454-3277

Check us out on Facebook!
Arnold AFB Youth Programs

A Youth Art Camp Silent Auction will be held Oct. 11 in the A&E lobby from 11 a.m. to 2 p.m. featuring some of the art creations children made during the Art Camp held Oct. 3-7.

Lock-In, Max Out: Take the AF Challenge for Pre/Early Teens is coming Oct. 14-15. Ages 9-14 are invited to spend the night at the Youth Center and learn about healthy living. We'll get started on Friday at 6 p.m. and finish on Saturday morning

at 7 a.m. We will increase awareness of living a healthy lifestyle and offer challenging activities. We are partnering with the local health department and Fitness Center. We will have a fitness instructor come in to teach the newest dance craze, Zumba. Then we will have a nutritionist from the Health Department show how to create a healthy meal. This will be a hands-on experience where youth will work with each other to create different aspects of the meal. The nutritionist will stress the importance of a healthy diet and lifestyle. A box breakfast will be provided the following morning. Stop by or call to sign up for this awesome free night of meet and greet with a healthy spin. Deadline to sign up is Oct. 11.

Fitness Center
454-6440

Check us out on Facebook!
Arnold AFB Services Fitness Center

The Fitness Center will be open **8 a.m. - 4 p.m.** on Oct. 10 in observance of the Columbus Day holiday. There will be no group classes.

The 5 Card Draw Run/Walk will be Oct. 12 on the Fitness Center trail. Complete the trail anytime between 8 a.m. and 4 p.m. and pick up five cards along the way. The top three hands of the day will receive prizes.

Group Class Schedule (for eligible users only):

Boot Camp: Monday, Wednesday and Friday 6-7 a.m. on the basketball court

Yoga: Monday 11 a.m.-noon on the basketball court

Cycling: Monday, Tuesday and Thursday 11 a.m.-noon upstairs

Zumba: Tuesday and Thursday 4:15-5:15 p.m. upstairs

Karate: Tuesday and Thursday 3-5 p.m. on the basketball court

Pilates: Wednesday 11 a.m.-noon on the basketball court

Piloga: Friday 11 a.m.-noon on the basketball court

Outdoor Rec (ODR)
454-6084

Check us out on Facebook!
Arnold AFB Services Outdoor Recreation

An **Archery Basics Class** has been scheduled for Oct. 22 beginning at 3 p.m. for ages 10 and older for only \$3 each. There will be bows, arrows and targets on location but you may bring your own equipment if you have it. Deadline to sign up for the event is Oct. 19. There must be a minimum of three to hold the class and maximum participation is ten. This class will teach how to properly hold a bow, correct shooting technique and even some archery history. This is a great opportunity to start a new hobby.

You wanted it, you got it! Engage in a masterful collection of **paintball** battles and objectives. As of September paintball is now every Saturday from 9:30 a.m. to 3:30 p.m. We have added a few new forts to the course. Anyone age 10 and older may play but ages 10 to 17 must have a parent permission form. Interested participants need to call and sign up at least a day ahead of time to ensure equipment availability. Once the day comes everyone will meet at the paintball field. 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 2000. So if you're looking for some fun filled, scenario paintball we will see you on Saturday.

Tired of paying high prices for

Services Hours of Operation:

Arnold Lakeside Center - Special function luncheons available. Call 454-3350 for arrangements. Catering/Management offices Tuesday-Friday 10 a.m.-3 p.m.; Lunch: limited menu Wednesdays, 11 a.m. - 1 p.m., call 454-5555 to place orders; Dinner: Arnold Express Menu or Hap's Pizza only Thursday 5 - 8 p.m., dinner or Arnold Express Menus and Hap's Pizza Friday 4 - 9 p.m. and Saturday 5 - 9 p.m.; Main Bar Thursday 5 - 8 p.m., Friday 3:30 - 10 p.m. and Saturday 5 - 10 p.m.; Social Hour Friday 4 - 6 p.m., Movie Night Thursday 6:30 p.m.

Family Member/Youth Programs - through Friday 10 a.m. - 5 p.m., Saturday 12 - 5 p.m.

Outdoor Rec - Main Office, Check In, Marina and Auto Shop Tuesday-Sunday 8 a.m. - 6 p.m.

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

Arnold Golf Course - Pro Shop & Driving Range 7 a.m. - dusk, Driving Range open 24 hours with prepurchased key card. Mulligan's Grill: 7 a.m. - 2 p.m.

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

Wingo Inn - Monday - Friday 7 a.m. - 6 p.m., Saturday and Sunday 8 a.m. - 4 p.m.

Barber Shop: by appointment - Monday - Friday 8 a.m. - 4p.m.

vehicle maintenance? Come by and visit the **auto shop** located at Outdoor Recreation. Our auto shop is equipped with a vehicle lift, air compressor, parts washer and a variety of tools for anyone to perform regular vehicle maintenance jobs. The fee is a low \$2 per hour. For additional fee our staff can repair, mount, balance and rotate tires. Anyone wanting that done must call ahead for an appointment. Tire repairs requiring a plug are only \$5 per plug. Mountings are \$3 per tire and \$2 for balancing.

It's party time! Need an **inflatable bounce house or slide** for your child's next birthday party? Look no farther than Outdoor Recreation with our low prices. We have an assortment of inflatables for almost everyone's needs. We have a huge backyard obstacle challenge measuring 40' L x 10' W x 13' H, and a double lane jump slide for only \$200 per day. We also have a giant basketball hoop for \$75 per day and a Rocket Bounce House for \$100 per day. If you need a water slide then our 18' Double Drop Wet/Dry slide will be great for any event and is only \$200 per day. Please contact Outdoor Recreation at 454-6084 to make your reservation today!

Trying to decide where to hold your family reunion or party? We have a few **locations with pavilions to rent** that you can choose from. There are two pavilions at Crockett Cove and one at the Arnold Lakeside Beach. Usage is for authorized personnel only. Rental fee is \$25 per day with a \$50 refundable cleaning deposit that will be charged upon reservation. Once the pavilion is confirmed to be clean the \$50 will be refunded. Reservations may be made 30 days in advance at the Outdoor Recreation building or by calling 454-6084.

Do you like to cruise on the lake? Want to take your child to that secret fishing spot or teach them how to ski? Give Outdoor Recreation a call. We have **boat rentals** for everyone's needs. We can rent you three ski boats or the Stardeck for just \$20 per hour. We also have two pontoon boats that rent for \$15 per hour and \$30 per hour. The \$30 an hour will rent you the newest pontoon boat we have, S.S. Stuart! Whatever your boating needs might be, give ODR the chance to help you meet that need. Give us a call at 454-6084.

Reservation Policy: Family Camp and Crockett Cove 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.

Hands-On Boat Certification Class is now mandatory for renting boats from the marina. Watch the video during the week any time from 8 a.m. to 4:30 p.m. After watching the video and taking the test sign up for the hands-on portion which is available Saturday and Sunday at 8:30 a.m., 9:30 a.m., 10:30 a.m., 11:30 a.m. and 12:30 p.m. This class costs \$20 and certification is valid for two years. Call to sign up or for more information.

Wingo Inn
454-3051

Check us out on Facebook!
Wingo Inn

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

Gossick Leadership Center
454-3024

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

The **Gossick Leadership Center (GLC)** is available for events such as meetings, conferences, luncheons, dinners, etc. and may be booked through the Services Conference Center Manager (CCM) up to one year in advance. Requests must be made in writing by email to arnold.gle@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.

Check us out on Facebook



Like us and receive updates and specials

Fire Prevention Week is Oct. 9-15

AEDC Fire Prevention Office Reinforces Newer Smoke Alarm Recommendations

By Daryl VanCise
AEDC Fire Prevention Officer

What's the best way to protect your family from fire? Be ahead of the game, of course.

With more than 360,000 home fires reported in the United States in 2009, according to the nonprofit National Fire Protection Association (NFPA), your best defense is a good offense.

This year's campaign, "It's Fire Prevention Week. Protect your Family from Fire!" focuses on preventing the leading causes of home fires; cooking, heating and electrical equipment, as well as candles and smoking materials.

Additionally, it urges people to protect their homes and families with life-saving technology and planning.

In 2009, 2,565 people died in home fires. Nearly all of these deaths could have been prevented by taking a few simple precautions like having working smoke alarms and a home fire escape plan, keeping things that can burn away from the stove and always turning off space heaters before going to bed.

Fire is a dangerous opponent, but by anticipating the hazards, you are much less likely to be one of the nearly 13,000 people injured in home fires each year.

The AEDC Fire Prevention Office offers the following tips for protecting your home and family from fire:

- Stay in the kitchen while you are frying, grilling, or broiling food. If you leave the kitchen for even a short period of time, turn off the stove.
- Keep anything that can burn at least three feet away from heating equipment, like the furnace, fireplace, wood stove, or portable space heater.
- Have a three-foot "kid-free zone" around open fires and space heaters.
- Replace or repair damaged or loose electrical cords.

- If you smoke, smoke outside.
- Blow out all candles when you leave the room or go to bed. Avoid the use of candles in the bedroom and other areas where people may fall asleep.

While preventing home fires is always the number one priority, it is not always possible, that's why it is so important to provide the best protection to keep lives and property safe in the event of a fire. This can be achieved by developing an escape plan which you practice regularly and equipping homes with life-saving technologies like smoke alarms and home fire sprinklers.

The following tips will help keep your family safe if there is a fire in your home:

- Install smoke alarms inside each bedroom, outside each sleeping area, and on every level of the home (including the basement).
- Interconnect all smoke alarms in the home so when one sounds, they all sound.
- Test smoke alarms at least monthly and replace all smoke alarms when they are 10 years old or sooner if they do not respond when tested.
- Make sure everyone in your home knows how to respond if the smoke alarm sounds.
- Pull together everyone in your household and make a plan. Walk through your home and inspect all possible ways out. Households with children should consider drawing a floor plan of your home, marking two ways out of each room, including windows and doors.
- If you are building or remodeling your home, consider installing home fire sprinklers.

If you have questions about keeping your family safe from fire please call the AEDC Fire Prevention Office at ext. 454-5643. To learn more about "It's Fire Prevention Week. Protect your Family from Fire!" visit NFPA's website at www.firepreventionweek.org.

CJCS outlines his tenure's themes in letter to joint force

WRIGHT-PATTERSON AIR FORCE BASE, Ohio – U.S. Army Gen. Martin E. Dempsey, Chairman of the Joint Chiefs of Staff, outlined what he sees as key themes for his time as Chairman in a letter to the joint force dated Oct. 1:

It is an honor to be the 18th Chairman of the Joint Chiefs of Staff. I am thankful for the opportunity to continue to serve with you.

The most important thing I want you to know is that I trust you to do what's right for each other and for our country.

Thanks for your service. You have fought harder and your families have sacrificed more than most will ever know. You make us the finest military on the planet. We're powerful, versatile, responsive, and resilient. We are admired by our allies and partners, and we are dreaded by our enemies. You are our decisive advantage.

To ensure we remain the Joint Force our nation needs, I'll focus on a few key themes as I begin my time as Chairman.

We must achieve our national objectives in the current conflicts. As long as our forces remain in harm's way, we must ensure they have what they need to succeed.

We must look beyond our current requirements -- to 2020 -- and develop Joint Force 2020 to provide the greatest possible number of options for our nation's leaders and to ensure our nation remains immune from coercion.

Keeping our military the best led, best trained, and best equipped force in the world is the non-negotiable imperative.



Dempsey

Doing so in a new fiscal environment will be hard, but we've overcome similar challenges in our past, and the nation is counting on us to overcome them again.

We must renew our commitment to the Profession of Arms. We're not a profession simply because we say we're a profession. We must continue to learn, to understand, and to promote the knowledge, skills, attributes, and behaviors that define us as a profession.

And, of course, we must keep faith with our Military Family. Our active, guard and reserve service members, our wounded warriors, our families, and our veterans deserve the future they have sacrificed to secure.

Continue mission! I am proud to serve with you.

MARTIN E. DEMPSEY
General, U.S. Army

Family, friends say goodbye to founding air commando

By Staff Sgt. Richard A. Williams Jr.
Air Force Public Affairs Agency

ARLINGTON, Va. (AFNS) – Airmen gathered here Oct. 3 to render a final salute to retired Maj. Gen. John Alison as he was laid to rest at Arlington National Cemetery.

"We have lost a great American, a dear friend, and a committed and loving family man," Air Force Chief of Staff Gen. Norton Schwartz said during a eulogy at the Old Post Chapel at Joint Base Myer-Henderson Hall. "And our nation has lost one of her most spectacular aviators."

Schwartz said Alison's humility was a constant theme throughout his life.

"'Call me Johnny,' he used to say," Schwartz said. "This was so emblematic of his trademark humility that, except for the many testimonials from those who knew him, like this one today, we might even forget that this was a man of audacious undertakings and extraordinary achievements."

Following the chapel service, Secretary of the Air Force Michael Donley presented the American flag to Alison's wife Penni at the graveside service.

Alison was born in Florida in 1912. He grew up in Gainesville, Fla., and graduated from the University of Florida in 1935 with an engineering degree. He enlisted in the U.S. Army Air Corps as a flying cadet in 1936 and was commissioned at Kelly Air Field, Texas, upon completion of his training in 1937.

A combat ace during World War II with

seven confirmed enemy kills and numerous unconfirmed kills, Alison served as an assistant military attaché to the British Royal Air Force where he helped transition pilots to the P-40 Warhawk prior to the United States' entry into the war.

He traveled to Moscow in October 1941 to serve as an assistant military attaché supporting the U.S.-Soviet P-40 lend-lease program and to train Russian pilots on P-40, A-20 Havoc and B-25 Mitchell aircraft. In June 1942, the China-Burma-India theater became Alison's home as he joined the Flying Tigers' 75th Fighter Squadron. His exploits included a take-off from his airfield while it was under attack, after which he quickly eliminated one enemy aircraft.

In 1943, Alison was selected by Gen. Henry "Hap" Arnold, head of the Army Air Forces, as deputy commander of the 1st Air Commando Group in the theater.

The American air commandos, along with British "Chindit" commandos, successfully performed Operation Thursday, the dramatic aerial invasion of Burma in 1944. Alison led a glider assault in that operation as the senior air officer present for the landings.

"His daring invasion deep into enemy-held Burma in 1944 was the quintessential example of where such leaders lead: from the front," Schwartz said.

Despite never having flown a loaded glider before, he piloted a lead glider, packed with mules and special operations forces, to a very harrowing landing in the dense jungle, Schwartz added.

Four decades of service come to a close for senior Air Force civilian

By Margaret Breihan

Secretary of the Air Force Public Affairs

WASHINGTON (AFNS) – It's the wonderful people that he's worked with that have made 43 years in the Air Force such a great experience, said William Davidson.

Davidson, the administrative assistant to the secretary of the Air Force, will retire in a ceremony here Sept. 30.

"They always say you'll know when to leave." He said. "I want to leave when I'm at the top of my game, and I can make the transition as smooth as possible. My wife and I are high school sweethearts, and now I want to give back to her and the rest of the family by cheering at my grandchildren's games."

Looking back

Davidson said his love of the Air Force, and of the sky, began at an early age. His father was a veteran World War II flyer and a commercial pilot. Davidson said he also wanted to be a pilot in the Air Force, but his eyesight was too poor. The backup plan was to keep the Air Force in his future and integrate another of his interests: law enforcement.

"A position with (Air Force Office of Special Investigations) seemed to be the best of both worlds," he said.

Just seven days after graduating from Florida State University's ROTC program, he was offered a position as a polygrapher with AFOSI.

At AFOSI, Davidson worked his way into leadership positions, eventually becoming the chief of the Air Force Polygraph Program. He was also inducted into the AFOSI Hall of Fame.

Prior to retiring as a colonel in 1990, he served as the deputy for security and investigative programs with the Office of the Administrative Assistant. Entering the civilian service immediately after his military retirement, he first served as the deputy administrative assistant until 1994 when he assumed the administrative assistant position.

Among a multitude of responsibilities, the administrative assistant is also the senior career civilian adviser to the secretary of the Air Force.

A mentor

Throughout his career, 22 years in uniform then 21 as a senior executive service civilian, Davidson said he has worked hard to follow the examples of those who helped him find his way to success.

"When I was coming into the service there were a lot of World War II veterans who were still in the service who showed me the ropes, mentoring me," he said. "Mentorship has always been a part of my Air Force experience."

Davidson grew from mentee to mentor.

"He's the person people constantly seek out for advice," said Doug Thomas, the former National Counterintelligence principal deputy director, one of Davidson's mentees.

Tim Beyland, the Air Force assistant deputy chief of staff for manpower and personnel, said he is still learning from Davidson in preparation for taking over Davidson's duties. Beyland has been selected to be the next administrative assistant to the secretary.

Adaptation

"(Davidson) has fundamentally changed the way the Defense Department looks at security," Beyland said. "He has changed it from dealing with an individual security incident to coming up with a concept that prevents the incident from happening."

"You watch how he navigates through so many technical areas and comes up with an ideal solution for whatever scenario you think of," said Robert Corsi, Davidson's deputy. "He has the ability to understand the dynamics of a situation and is able to assimilate all that and navigate a way ahead, no matter how complicated the issue. (Davidson) is such a revolutionary, evolutionary, thinker that instead of adjusting to change, he drives change."

Recognition

Throughout his career, Davidson has achieved an impressive collection of

military and civilian service awards, to include two Distinguished Executive Presidential Rank Awards, which recognizes him as part of the top one percent of the most valued federal government career civilian leaders.

"(Davidson) actually had three careers in the Air Force: serving in uniform as a cop and investigator, serving as a staff officer, and finally serving as the senior civilian advisor to the secretary of the Air Force," said Michael Donley, the secretary of the Air Force. "With over 20 years working in the Office of the Administrative Assistant, (Davidson) has been the go-to person for anyone who wants to know how to get something done in the Air Force, in the Pentagon and beyond. His knowledge and experience have provided continuity to our Air Force, which is a critical contribution on a



William Davidson, the administrative assistant to the secretary of the Air Force, prepares for an incentive flight in an F-16 Fighting Falcon from the 555th Fighter Squadron at Aviano Air Base, Italy. Davidson retires Sept. 30 after more than 17 years as the administrative assistant and 43 years of Air Force service. (Courtesy photo)

day-to-day basis, but absolutely essential in times of crisis and transition."

Davidson said he is confident in the abilities of those who will continue on after his retirement.

"Now people are talking a lot about my legacy, and as

I see it, legacy is what you leave behind," he said. "As I look up and down these

halls, I see people who I've mentored are now leading the Air Force, and who happen to be good friends. The

Airmen coming in are really bright and smart."

New tracking system helps cut gas cost at Robins

By Geoff Janes
78th Air Base Wing

ROBINS AFB, Ga. – Robins AFB is testing a smarter data-tracking system, which if fully implemented, could help the base reach its energy reduction goals and save fuel.

The Automotive Information Module 2, or AIM2, is an upgrade to the current way the military issues fuel and tracks fuel costs in government vehicles. With the new system, once a driver inserts the gas nozzle in the vehicle's fuel tank, the vehicle and fuel pump exchange information through wireless communication and the pump starts to distribute the fuel. The system is designed specifically for this function, and doesn't have the risks associated with using a cellular phone while refueling.

In January the system was approved for testing in 15 to 17 of the more than 100 vehicles at Robins, and should improve the accuracy of tracking the information, said 1st Lt. Mohamed Savage, 78th Logistics Readiness Squadron Fuels Flight officer in charge.

"AIM2 removes human error from the data collection process," he said. "For instance, when refueling, drivers would sometimes improperly use one fuel key to refuel multiple vehicles,

or would input the incorrect mileage resulting in inaccurate mileage-pergallon data."

But AIM2 will do more than track fuel cost. The upgrade will capture data on fuel use, improve asset visibility and help monitor maintenance.

Further, with a tie to sensors installed at each gate, the system can better track a government vehicle's off-base use, which is important for federal excise tax. According to Savage, due to the base's inability to

document accurate off-base use in the past, the installation has had to pay more in

taxes than necessary.

"If a vehicle was driven off base just once, the in-

stallation had to pay excise tax for the entire quarter," Savage said.