

Upgrade already saving more than \$534K annually

By Philip Lorenz III
Aerospace Testing Alliance

A project to replace the original compressed air supply system at AEDC is nearing completion and is already paying significant dividends, literally, according to an AEDC project manager.

"Add this energy savings to the money saved by not having to constantly repair and maintain the old system and we end up with over \$534,000 saved each year," said Fred Hutchinson, a project manager for ATA's project and design engineering department here. "This new system costs \$345,000 a year in energy to operate and has reduced the maintenance cost to \$65,000.

"That energy savings translates into a system that pays for itself in just a few years. Plus that yearly energy savings grows every year as the cost of energy increases, and we recognize this perpetual increase in savings for the entire life of the system."

Hutchinson said to appreciate those savings it helps to know how much the system cost before the upgrades.

"The most current figures we have are from 2009," he said. "At that time our old system was costing us almost \$800,000 a year in energy to operate. Maintenance cost added another \$150,000. The energy savings we are already seeing with the new system will translate into a system that pays for itself in just a few years."

Hutchinson said understanding the role the service air system plays at a place like AEDC helps put the cost of the upgrade and the resulting savings into perspective.

"What began decades ago as a need for

compressed air to power the pneumatic tools in shops scattered around the base has grown to serve the test cells whose demand and volume of air needed far surpasses the shop needs," he explained. "As AEDC grew so did its need for compressed air, especially in the test cells where it is used for everything from running drills, to floating jet engines into the test cell on a cushion of air, to the huge amounts needed to crank up a jet engine. Simply put, if we didn't have this compressed air, we wouldn't be in business."

Hutchinson said the old system used a lot of energy, both from its inefficient use of electricity to drive huge compressor motors and the need to "bleed off" a great deal of compressed air that it couldn't use.

"It's not quite this simple, but picture a compressor the size of a tractor trailer cranking up just so someone could put air in a tire," he said. "The old system was 'big' because sometimes we needed big. But when we only needed a little, we still got 'big.'

"We have to remember that the old system was developed when energy costs were not really a driving force in design. But of course now all that has changed."

So, what is the status of the project today?

"We currently have about 75 percent of our new system installed and up and running," Hutchinson said. "We're ready to enter the final stage of installation that will bring this project to completion near the end of 2011. But we don't have to wait until completion to start recognizing our energy savings.

"Our engineers who designed this system



AEDC's Fred Hutchinson, left, talks about ongoing changes being made to the original system supplying service air to the base with Brandon Lucy, center, who was the Air Force project manager on the upgrade at the time. Mike Harvey, right, an engineer with ATA's Mechanical Systems Engineering Branch, who is also working with the service air system upgrade. Hutchinson is a project manager for ATA's project and design engineering department at AEDC. (Photo by Philip Lorenz III)

allowed for each package to be brought on line individually so that we could start using each new set of compressors as they were installed."

Hutchinson is clearly proud of what has already been accomplished on base.

"As a result of that forward thinking, the older, energy-inefficient compressors have been turned off and will not be used unless a

large demand is called for prior to our final installation next year," he said. "What that means for us today is that we've been able to rely on our new energy efficient system for about 90 percent of our need over the past two years. And when completed by the end of 2011, the American taxpayers will be able to recognize some serious energy cost savings."

Employees lauded for response to fire

By Shawn Jacobs
Aerospace Testing Alliance

AEDC officials are congratulating a group of employees who quickly reacted to a recent refrigerator fire in the von Kármán Gas Dynamics Facility (VKF).

In fact, Wayne Jennings, the safety engineer with Aerospace Testing Alliance's (ATA) Safety and Health Group who investigated the fire, called it a case where "everybody did everything right."

Jennings said six VKF employees responded to the incident and took appropriate action. As a result, the fire was extinguished without injury or damage to the building.

"Those six individuals reacted, as far as I'm concerned, pretty much textbook the way you would want individuals to react," Jennings said.

According to Jennings' report, the incident began approximately 3 p.m. Aug. 16, while Chris Bird and David Harrison were working in Bird's office. Ricky Mead came in and reported smelling smoke.

Those three men, joined by John Wright, proceeded to the second floor of Building 676, where they discovered a refrigerator in room 201 was smoking and flames were coming out of the bottom.

Jennings said Bird then took charge of the situation.

"He [directed] one individual to pull the fire alarm and one to call 911," he said. "He grabbed the fire extinguisher, pulled the pin, pointed it down where you're supposed to point it - low to the ground - and sprayed a couple of passes.

"He did the right thing; some-



(Left to right) John Wright, Mickey West, David Harrison, Chris Bird and Ricky Mead were recognized for reacting quickly to a fire in VKF. Not pictured is Steve Simpson. (Photo by Rick Goodfriend)

body had mentioned unplugging the refrigerator and he said, 'no, let's don't do that,' which was a good call because in an electrical fire you don't know what's going on."

In addition, Steve Simpson and Mickey West joined the other four men in ensuring that everyone in the building was evacuated. Jennings said the men were concerned because the audible fire alarms did not properly activate. The AEDC Fire Department was notified, however, by both the alarms and the 911 call. The problem with the audible alarms was immediately investigated to ensure the failure does not happen again, according to Jennings.

AEDC Assistant Fire Chief George Chambers said the fire was put out by the extinguisher used by Bird. Chambers determined that the fire was due to a short in the refrigerator's compressor relay wires.

"In my opinion, they safely

evaluated the situation and took the correct action," Jennings said. "They investigated, found it, [and] took immediate action. As a team they made sure that each did the correct action because one person can't do it all."

Jennings said a judgment call must be made as to whether to run away from a fire or get a fire extinguisher and fight it.

"We stress the point that if there's any doubt, evacuate because you're not trained to be a firefighter," he said. "However, if you can safely put the fire out or knock it down, like he [Bird] did, [it's a] good thing because it could have done a lot more damage."

Jennings and Bird both said the company safety training paid off.

"I thought it was a good point for the company that we stress that fire extinguisher training

See FIRE, page 3

New on-base fitness track under construction



Construction crews work to remove trees behind the A&E building for the new fitness track which should be completed by the end of the year. (Photo by Rick Goodfriend)

By Darbie Sizemore
Aerospace Testing Alliance

By the end of the year, AEDC employees will have a new track for physical fitness.

Earlier this week, work began on a six-lane, 400-meter running track, which will be located behind the A&E building.

The project is funded by dollars specifically earmarked for Department of Defense Fitness Operations and Maintenance Projects. The total cost of the project is \$381,925.

"There is a need for a dedicated running track to support current Air Force Fitness initiatives," said Ron Stephenson, Fitness Center manager. "This track is an

investment into the health and well-being of the AEDC work force."

The project includes clearing, grading, drainage improvements, new asphalt pavement, a warm-up area, rubberized track surfacing with lane and start/finish lines, a concrete sidewalk and a concrete apron for the drive/walkway.

"The track will provide a safe area for military physical training and for the entire work force to exercise outdoors rather than on streets or on the fitness trail," Stephenson said. "The fitness trail, because of its rugged nature, is not ideal for many people especially

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HIGH MACH

Arnold Engineering Development Center
An Air Force Materiel Command Test Center

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Vision

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- 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

Take time to remember the true meaning of Labor Day

By Col. Michael Panarisi
AEDC Commander



Panarisi

As the summer draws to a close, temps creep out of the triple digits, schools get into full swing, we'll come together this weekend, as a nation, to celebrate Labor Day.

For some, it's just another "day off," time to hit the malls, the "links" or take one last shot at your favorite summertime activity.

I hope everyone can enjoy this day, as I plan to as well.

But before you do, please take a minute and reflect on how we came to celebrate this day, and how important the honorees have become to our nation, and in particular, AEDC.

We have lots of holidays honoring specific

groups in our country.

Memorial Day, Veteran's Day, President's Day just to name a few.

But what about Labor Day?

Where did that come from?

Why is it a national holiday? The answer might surprise you.

The history of Labor Day isn't entirely clear, but it's well acknowledged

that the idea emerged in the late 1800s and started at a local level, most likely by the Central Labor Union in New York City.

The concept was to establish a "working man's holiday" and, in the case of the Brotherhood of Carpenters and Joiners, a day to honor those "who from rude nature have delved and carved all the grandeur we behold."

The first recorded large scale event occurred on Sept. 5, 1882, and included a parade and a festival for workers and their families.

In the following years, the idea spread rapidly, as first municipalities, and then states, passed legislation formalizing the celebration and reserving "the first Monday in September" as the official day of recognition.

But it wasn't until 1894 that Congress passed legislation officially declaring a national holiday.

Here at AEDC, we have a special reason to celebrate this day.

Why? Just look around! Can there be any doubt who we owe a debt of gratitude to "all the grandeur we behold" on our base?

Sure, we're proud of all the technical achievements attributable to the legions of researchers, scientists, engineers and technicians that have graced our hallowed halls.

But AEDC would still be little more than a forest without the tireless efforts of the carpenters, welders, pipefitters, electricians, bricklayers and countless other craftsman who poured their hearts and souls into making this place THE center of aerospace development.

Think about it. Somebody had to build all of this!

I host a lot of tours here, and while I make it a point

to showcase our technical capabilities, I spend the vast majority of my time bragging about all the phenomenal facilities built right here.

Where do I take the VIPs? The C-2 Exhaust "tubes;" the Model Shop; a walk through 16S.

I point out the miles of pipe, the beautiful welds, the immaculate machining.

And the fact that we make most of the parts that keep this stuff running right here.

Every aspect of our facilities oozes pride, professionalism, and a dedication to something bigger than any one of us.

Couldn't have done it without the Ph.Ds, but we'd be a stack of drawings without the craft men and women who sacrificed so much to turn those dreams into reality.

So this weekend, please join me in thanking those who put this place on the

See LABOR, page 8

Legal advice for political activities and the workplace

The Nov. 2 general election is just around the corner.

As military members and federal employees at AEDC, various laws and regulations bear on what political activities we can and cannot engage in. For military members on regular active duty, reservists while on active duty and Air National Guardsmen when federalized, AFI 51-902, "Political Activities By Members of the U.S. Air Force," 1 January 1996, is the governing directive.

Compliance with the directive is mandatory and failure to comply is a violation of Article 92, "Failure to Obey a Law-

ful Regulation," which is punishable under the "Uniform Code of Military Justice."

For DoD civilian employees, the Hatch Act, 5 U.S.C. § 7321 - 7326 addresses political activities.

All contractor employees should seek the advice of their human resources departments for guidance on what is and is not permissible on this topic.

The dos and don'ts that follow pertain only to partisan political activities: those activities relating to declared or undeclared candidates or issues specifically identified with political parties or associated and

ancillary organizations. While this is not an all inclusive list, see the chart for a few common restrictions.

Although there are a number of limitations on participation, the law also spells out what is permitted.

Make sure you observe the restrictions that apply to you based upon your military or civilian status when participating in the electoral process.

Please contact the AEDC legal office at (931) 454-7814 if you are unsure if a particular activity is permitted or prohibited.

Information furnished by the AEDC Legal Office

Military employees MAY NOT:	Civilian employees MAY NOT:
Use official authority or influence to interfere with an election, to affect its course or outcome, to solicit votes for a particular candidate or issue or to require or solicit political contributions from others.	Use official authority or influence to interfere with an election.
Participate in partisan political management, campaigns, or conventions, or make public speeches in the course of such activity.	Solicit or discourage political activity of anyone with business before their agency.
Solicit or otherwise engage in fund-raising activities in federal offices or facilities, including military reservations, for a partisan political cause or candidate.	Solicit or receive political contributions (may be done in certain limited situations by federal labor or other employee organizations).
Speak before a partisan political gathering of any kind for promoting a partisan political party or candidate.	Be candidates for public office in partisan elections.
March or ride in a partisan political parade.	Wear partisan political buttons on duty.
Military employees MAY:	Civilian employees MAY:
Register to vote, vote and express a personal opinion on political candidates and issues.	Register and vote as they choose, assist in voter registration drives and express opinions about candidates and issues.
Display a political sticker on the member's private vehicle, display a yard sign at their home or wear a political button when not in uniform and not on duty.	Display a political sticker on the member's private vehicle, display a yard sign at their home or wear a political button when not on duty.
Write a letter to the editor of a newspaper expressing the member's personal views concerning public issues, if those views do not attempt to promote a partisan political cause.	Express opinions about candidates and issues, attend and be active at political rallies and meetings and sign and circulate nominating petitions.
Make monetary contributions to a political organization or political committee favoring a particular candidate or slate of candidates.	Contribute money to political organizations and attend political fundraising functions.
Join a political club and attend its meetings when not in uniform.	Join and be an active member of a political party or club.

Local Marine finds a new way to be "green"

By Ken Jacobson
AEDC Chief of Staff

For those of you who may not know me well, I am one of the few Marines who work at AEDC. Though I retired from active duty in 2006, the slogan is true that "Once a Marine, always a Marine!" Generally speaking, Marines are not prone to be trendy people.

For example, most of us hunt and eat meat, lots of it. When it comes to being "green," we think that means applying lots of camouflage paint to exposed parts of our body in order to blend into our natural surroundings when hunting.

We don't have a long history of conserving things, especially ammunition.

Well, guess what? Times have changed. While on active duty I learned about taking "Navy showers."

When showering aboard U.S. Navy ships which must produce their own potable water, all embarked personnel are expected to quickly wet themselves, turn the water off, lather up, then quickly

rinse.

As there is not an inexhaustible supply of potable water for cooking, laundry and personal hygiene, there are no long showers of continuously running water.

While aboard ship we conserved potable water and did it with gusto, else we went without showers entirely until the ship's evaporators replenished the supply.

In conserving resources for our own household, my wife and I think of ways to minimize energy consumption and related expenses.

Lights stay off when not in use. Attic, door and window insulation is maintained in good order.

During the winter we close the air vents and doors to unused rooms. We set the main thermostat several degrees below ideal "comfort level" and use a space heater to heat the living room where we spend most of our evening, then about 30 minutes prior to bedtime we turn on a different space heater in the master bedroom.

In this manner we heat

See GREEN, page 7

Action Line

Team AEDC

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

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

Col. Michael Panarisi
AEDC Commander

Smoking Policy

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

AEDC Mass Notification System upgraded

By Shawn Jacobs
ATA Public Affairs

AEDC's Mass Notification System is nearing the completion of a total upgrade, which should help keep personnel safer in the event of severe weather, industrial accidents or security-related issues.

Recent upgrades include replacement of the six "Giant Voice" horns and siren stacks, conversion to the computer-based AtHoc IWSAlerts™ Network Centric Mass Notification and Emergency Communication System (AtHoc) and in-building speakers installed in four additional buildings.

Buildings without the in-building speakers are notified of emergencies by the Giant Voice, telephone call-ups and network pop-ups, according to Michael Glennon, chief of the Communications Branch in the Mission Support Division.

"[AtHoc is] the AFMC (Air Force Materiel Command) standard for all AFMC bases, Glennon said. "We've got a managed server and secondary backup located at two separate AFMC locations. We're getting one locally installed as well, so in case we lose total communication we'll still have the ability to use our system."

AtHoc is capable of

making notifications through Giant Voice and in-building speaker systems, pop-ups on office computers as well as making notification of significant events through cell phones, home e-mail or other methods depending on the specific situation.

"The Ops Center (Operations Center) can literally get an alert out in minutes," Glennon said. "It's a lot better than word of mouth. The Ops Center has the options from just a pop-up box to a full spectrum notification."

Glennon said the system has manual override capability as well as preprogrammed automated responses.

The last building should be finished by the end of the fiscal year, which will complete the upgrades, according to Glennon.

As for the horns and siren stacks, Glennon said, "Those horns had been out there since a 1990-91 timeframe, so we basically stripped the poles, put new equipment on them and converted over to the newer systems."

"We started doing all this about the same time of the Virginia Tech shooting," Glennon said. "That was about the same time we got money to put this on contracts, so that was a big push as well because if we have events — active shooter or chemical spill or road

closures — it's just a mass notification capability. Just having Giant Voice that we had before, we didn't have the pop-up screens, the e-mail notification and the ability to do call outs, which before were manual, so that helps a lot.

"Personnel safety has always been the point of the Giant Voice. The notification system with its enhanced capability



The "Giant Voice" towers above AEDC test facilities, ready to sound the warning for severe weather and other emergency situations. (Photo by Rick Goodfriend)

gives us more ability to notify the base populace quicker."

In addition, Glennon said, the University of Tennessee Space Institute (UTSI) bought a horn, which can also be activated by AEDC in the event of a weather emergency. Other locations of the Giant Voice include the golf course, Arnold Village and the base's mission area.

Air Force selects an offeror to privatize housing at Arnold AFB

By Shawn Jacobs
ATA Public Affairs

The U.S. Air Force announces it has selected Forest City Military Communities, LLC (Forest City) as the Highest Ranked Offeror (HRO) in its effort to privatize military family housing at four installations in the continental United States, including Arnold AFB.

The other installations include Shaw AFB, S.C., Charleston AFB, S.C., and Keesler AFB, Miss. The Air Force Southern Group Housing Privatization Project, a deal valued at \$270 million in development costs, will result in the demolition of all existing military family housing units at Arnold AFB and the construction of 22 new housing units over the next two and a half years.

Under the deal, the Air Force will lease 19 acres of land at Arnold AFB as part of a 50-year transaction and convey 40 existing inadequate housing units to Forest City. Forest City will in-turn demolish all 40 existing units that are in poor condition and construct 22 new units that will meet or exceed the current standards for military housing within the first two and a half years of closing the deal.

At the four installations combined, the Air Force will lease a total of 846 acres of land and convey 2,387 existing housing units. By the end of the four-year initial development period, Forest City will have demolished 1,189 existing inadequate housing units and constructed 987 new housing units. Forest City will continue to operate and maintain a portfolio of 2,185 housing units across the four bases for a 50-year term.

Forest City Military Communities, LLC, a wholly-owned subsidiary of Forest City Enterprises, Inc., has an established record of providing housing development and management services for the military.

Forest City's current military privatized housing portfolio consists of approximately 12,000 homes in Hawaii, Colorado, Washington, Illinois and Tennessee managed under the Navy's and Air Force's Housing Privatization programs.

The Air Force selected Forest City as the HRO on the

Southern Group Housing Privatization Project through a competitive solicitation process led by the Air Force Center for Engineering and the Environment (AFCEE), headquartered at Lackland AFB in San Antonio.

"We feel that Forest City offers the most advantageous business case to address quality development, long-term sustainability, competitive financing and the construction timeline for the bases in the Southern Group Project," said Al Fennigkoh, AFCEE project manager.

Assuming the Air Force and Forest City reach successful closing, in early 2011 the existing houses at all four installations will become the property of Forest City Military Communities Southern Group, LLC, who will own and operate the rental housing developments for military families. They will finance, plan, design and construct improvements in the development and maintain the housing units the duration of the 50-year lease period.

The Air Force's housing privatization effort has been successful at 44 installations in the continental United States with almost 70 percent of family housing being privatized, totaling approximately 38,000 units. Housing privatization has eliminated nearly 35,000 inadequate units Air Force-wide and is providing an average of 500 new and renovated homes per month. In 2009, 4,087 new homes were built and 2,654 were renovated.

Beyond the Southern Group Project, the Air Force is looking to privatize approximately 14,000 additional units at 18 installations over the next two years.

The Military Housing Privatization Initiative, originally authorized by Congress in the fiscal year 1996 National Defense Authorization Act, has given the Air Force the ability to partner with the private sector development community to provide quality homes for Airmen and their families faster than traditional Military Construction Programs.

For general information regarding the Air Force Housing Privatization program, visit: www.afcee.af.mil/resources/housingprivatization/index.asp.

Fire from page 1

maybe year after year ... but when it comes time to use it, it's what you want," Jennings said. "That's why a lot of professionals do repetitious training; they build that muscle memory so they don't have to think when a situation like that comes up."

Bird, meanwhile, was quick to share the credit for what he called a "team effort."

"I hope none of the other guys took offense to my action and directions and, more importantly, I don't want to look like I am taking the credit," he said. "We all did our parts to make the whole effort have a good outcome — no one hurt, no one in danger, minimal damage."

Catherine Plunkett, director of ATA's Safety and Health Group, urged fellow employees to show appreciation to the men.

"It's a great testimony



This refrigerator caught fire Aug. 16 in VKF. Notice the white powdery residue from the fire extinguisher. Inset, officials believe these wires to the refrigerator's compressor relay shorted out, causing the fire. Photos by Wayne Jennings)

as why we do some of the training we do," she said. "Chris Bird and the other people are to be com-

mended for their quick response to control the fire and make sure everyone else in the building

was notified and evacuated. Their action likely prevented this event from being much worse."

Retired general to speak at AAPS event

By Philip Lorenz III
Aerospace Testing Alliance

The Arnold Association of Professional Societies (AAPS) is sponsoring a luncheon Sept. 22 at 11 a.m. at the Arnold Lakeside Center with the executive director of the American Institute of Aeronautics and Astronautics (AIAA) as the guest speaker.

Retired Maj. Gen. Robert Dickman will present, "Lessons from an Air Force National Security Space Career: From Particle Physics to Space Launch and Satellite Ops."

AIAA is a professional membership technical society with more than 35,000 members in 79 countries.

The luncheon event is scheduled to begin with a buffet lunch at 11 a.m., followed by the program with General Dickman's talk at 11:30 a.m.

To make reservations,

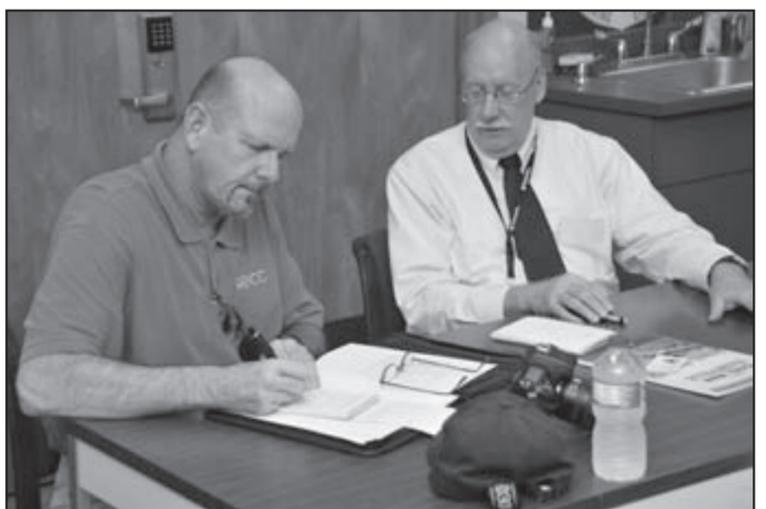
contact Gail Bryant by phone at 931-454-6641 or e-mail at gail.bryant@arnold.af.mil.

Prior to retiring from the Air Force in 2000, General Dickman was the director of the Corporate

Operations Office and senior military officer for

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Author visits Arnold



Mark Zimmerman, left, recently visited AEDC to compile information for a new book he is writing. The book about Tennessee history, titled "God, Guns, Guitars & Whiskey: The Great State of Tennessee," will include a chapter about AEDC. He met with AEDC Historian David Hiebert and toured the test facilities. Zimmerman said he was "very impressed with the facilities, the personnel, and the scope and scale of testing conducted at AEDC." He projects that the book will be completed next year. Zimmerman is the author of "Guide to Civil War Nashville." (Photo by Rick Goodfriend)

Mandatory hunters meetings scheduled

A mandatory meeting for the 2010-11 AEDC Security Area deer hunting program will be held Tuesday and Sept. 14.

AEDC employees with permanent badges may participate in this program and must attend one of these briefings.

The meetings are being held at the AEDC Main Auditorium in Building 452 beginning at 4 p.m. Hunters will be briefed

on program regulations, hunter and unexploded ordnance safety and security requirements.

Permits will be on sale beginning at 3:30 p.m. and after the meeting.

Permits may be purchased at this meeting for a cost of \$10 plus a \$1 agent fee.

The meeting will last no longer than 1 hour.

For more information, contact Rick McWhite at 454-5086.

Air Force Physical Security Program moves in a new direction

By Shawn Jacobs
ATA Public Affairs

Last October, officials at military bases across the country began a total rewrite of their Installation Security Program under the new name of Integrated Defense Plan (IDP).

At AEDC, that task belongs to Lt. David Everett, installation plans and programs officer for the Arnold Police Department. He said the new IDP is a big departure from the way base security has been handled.

"This change brings with it a new look at how we manage our security risks, develop our processes and accomplish our mission," Everett said. "It allows our commanders and senior leadership the ability to develop plans that specifically fit AEDC, rather than expending resources and assets to meet Air Force directed security measures. In this new approach to security awareness, every Airman or employee is a sensor."

While there are major changes involved in the new plan, a lot has to do with just a mindset, according to Everett. In fact, it is not even a new concept because the military operated under an IDP during the Vietnam era.

"The bottom line is we went from something that was a cookie-cutter approach to a develop your own risk-based plan," Everett said. "It's really a whole lot better because it allows the commander to have his own plan, and at the same time it allows him to be able to accept the risk in each local organization

and installation, which would be able to make recommendations as far as mitigation to the particular risk that they might have on their base."

Another positive of the plan, according to Everett, is that while it allows for local considerations, basic IDP terms and concepts will be consistent across the military.

"It deals with both stateside forces and expeditionary forces, who are people who deploy overseas," Everett said. "That allows the same base structure as far as reporting incidents, training and what have you. Everything is done stateside very similar to what they would experience when they went overseas, so it's not a real difficult issue for them to understand."

"Probably the best attribute of the IDP is that the installation commander can tailor the plan to meet his base and at the same time accept responsibility for things that you can't change."

Another important concept of the IDP is that so-called "owner/users" will be assuming responsibility for making sure their resources are protected.

"That might sound like it's the Arnold Police's responsibility, and it is," Everett said. "However, under the IDP, what they call the ID Forces, Integrated Defense Forces, comprise everybody on the installation. Everybody plays a key part; every person on Arnold Air Force Base is a sensor. We're protecting Arnold and doing what we need to do."



Arnold AFB patrol officer Danny Hall checks IDs at the gates may be the face of security for most AEDC personnel, but the new Integrated Defense Plan will make employees even greater stakeholders in base security. (Photo by Rick Goodfriend)

Lots of terminology and acronym changes will accompany the new plan.

For example, the fenced or Mission Area will be called the Base Boundary (BB) and everything outside the Base Boundary will be the Base Security Zone (BSZ).

"The Base Defense Operations Center (BDOC) will replace the old law enforcement desk or the Police Control Center," Everett said. "It just gives us a new name. Inside the BDOC is your normal Arnold Police Department, the Emergency

Communications Center (ECC), which is made up of our fire department and our 911. There will be no change in the way they operate."

Arnold Police Chief Richard Trull will also be taking on new responsibilities under the plan. Commander Col. Michael Panarisi has designated Trull as the

defense force commander (DFC).

He will be responsible for tactical control of the ID forces in any event.

Everett is writing the plan in cooperation with several other organizations and groups that advise him.

These include the Integrated Defense Council (IDC), formerly known as the Installation Security Council (ISC), the Integrated Defense Working Group (IDWG),

the Intelligence Fusion Cell (IFC) and Arnold Police Capt. Dan Hawkins and Lt. Mike Mann, the base antiterrorism officers (ATO).

Everett said the goal is to have the plan in writing early next year but that he will be constantly updating and changing the IDP.

"It's a very big plan, and it covers our normal and contingency operations," Everett said. "We started off by educating our senior

commanders, senior management and police on base, conducting our first IDWG and IDC and establishing charters for each.

"In addition, we have completed 'Toolbox Topics' and held our first meeting with off-base mutual aid/first responders. Base wide participation and owner/user cooperation will be the key to developing a good plan that all can understand and utilize."

General from page 3

the National Reconnaissance Office in Washington, D.C.

General Dickman was born in Brooklyn, N.Y., and grew up in New Jersey. He entered the Air Force in June 1966 as a distinguished graduate of the Reserve Officer Training Corps program at Union College.

He has had a varied career in space operations and in acquisition and planning, including headquarters assignments at the Pentagon, North American Aerospace Defense Command, U.S. Space Command and Air Force Space Command.

General Dickman also served in the Air Force Office of Scientific Research

and in the Air Force Satellite Communications System Program Office. He also has held the positions of first vice commander of the 2nd (now 50th) Space Wing, commander of the 45th Space Wing, director of the Eastern Range at Patrick AFB, Fla., and as the Department of Defense space architect.

Sam Dougherty speaks at AIAA-hosted AEDC event

By Philip Lorenz III
Aerospace Testing Alliance

The Tennessee chapter of the American Institute of Aeronautics and Astronautics (AIAA) recently hosted a space and missiles lunch and learn presentation at AEDC with a guest speaker who has a long history with Arnold.

Sam Dougherty is a former AEDC employee and is the Technical Fellow for Thermal and Fluid Dynamics with Jacobs Technology and ERC, Inc., at NASA's Marshall Space Flight Center in Huntsville, Ala., for the Engineering, Science and Technical Services Group.

Dougherty, who spent 22 years at AEDC and 20 years at Boeing and Rockwell International, gave a presentation on "The History of Simulated Altitude Liquid Rocket Testing at AEDC," based on his recent technical paper at the Joint Propulsion Conference.

Dougherty took the time afterward to share some of his professional experiences and his vision of AEDC going forward.

HM: Why did you choose engineering, with a focus on thermal and fluid dynamics, both academically and as a profession?

Sam Dougherty: I was at McCallie School in Chattanooga and entered the Regional Science Fair my senior year. I built a Mach 2 supersonic wind tunnel. I wrote a letter to AEDC and was invited over for a whole day at VKF. I then applied for the co-op program with ARO, Inc., at the University of Tennessee Knoxville and was fortunate enough to be accepted.

HM: Your biography says that you began your professional career as a co-op student at AEDC in June of 1958.

Sam Dougherty: Yes. My 50 years coincides with NASA's 50 years.

HM: Who were some of your mentors?

Sam Dougherty: I had many great AEDC mentors. AEDC was among the best of assignments anywhere. I



Dougherty

then went to UTSI part-time after my B.S. My major professor was Dr. Jimmy Wu.

HM: What was your experience like as a UTSI student?

Sam Dougherty: To go out to a test cell and touch flight hardware was just an exciting, fantastic experience. [This included] the people who you were with – the AEDC people and user representatives who came in to test. And there were so many firsts in our facilities.

HM: What was your most significant first while at AEDC?

Sam Dougherty: There were three – Apollo 7, 8 and 9. Apollo 7 – the first manned Apollo flight. Apollo 8 – the first human Saturn V flight and we went to the moon circum-lunar. Apollo 9 – the first manned flight of the Lunar Module [LM]. We tested the Apollo Service Propulsion Engine in J-3, the LM Ascent and Descent Engines and Reaction Control System thrusters in the J-2A, and the S-IVB Stage in J-4 Test Cell.

HM: How significant a role is computational fluid dynamics [CFD] currently playing in the study and ground testing of rocket motors at places like NASA and AEDC?

Sam Dougherty: We routinely perform CFD analyses of everything along with fluid dynamic and aero physics experiments and tests. I cannot overemphasize the importance of CFD in our propulsion and vehicle work. But we still verify by test.

HM: What are some of the newest technologies, materials and sources of rocket fuel on the horizon or in the near future – ones

that are the most promising for improving space mission capabilities as this country goes forward?

Sam Dougherty: Looking forward to the 2020s and the 2030s, for some missions to Mars, we will need nuclear electric or nuclear thermal propulsion and nuclear power. In a decade or two, the TRL [technology readiness level] for

fusion drive may become acceptable.

We need chemical propulsion and there is LOX [liquid oxygen] -hydrocarbon heavy lift and LOX-hydrogen upper stage. There are storable hypergolic in-space and LOX-methane in-space. I suspect we may still have many solid rocket motors to test – boosters and small solids for stage separation

and ullage settling. [Ullage is the space within a fuel tank above the liquid propellant].

HM: As budgets, both commercial and DoD, shrink, tighten or however you might want to characterize it, how can places like AEDC remain viable in the area of rocket motor testing from both the leadership/management side and from the project

engineering side of the house?

Sam Dougherty: There is the National Rocket Testing Alliance to preserve our mutual interests in testing capabilities nationwide. My point in the lecture is that generations of us come and go and our facilities are our great crown jewels. Take care of our facilities.

A multi-national perspective

AAPS hosts event on the future of space transportation

By Philip Lorenz III
Aerospace Testing Alliance

The Arnold Association of Professional Societies (AAPS) recently hosted a joint society luncheon with the AIAA Space Transportation Technical Committee (STTC) at the Arnold Lakeside Center. A panel of three experts from the STTC provided their perspectives on the future of space transportation.

The three presenters were Christian Dujarric, a senior launch systems engineer with the European Space Agency (ESA); Dr. Tomioka Sadatake, with the Japan Aerospace Exploration Agency (JAXA) Space Transportation Mission Directorate; and Don Sauvageau, ATK space systems director of advanced space programs.

Dujarric, who spoke first, discussed the history of the Ariane V launch system, the new Vega Launch system, as well as plans to launch the Russian Soyuz rocket from European launch sites in French Guiana, South America, in the very near future.

Dr. Sadatake provided an overview of Japanese space launch activities and touched on their efforts in hypersonic flight research. Sauvageau spoke about NASA and the proposed new direction for U.S. space transportation system development.

"I now have a better understanding of the scope of launch vehicle development," said Dr. Joe Sheeley, ATA senior engineer, chair of the local AIAA chapter and a past AAPS president. "I would expect some of these programs to result in engine, materials and aerodynamics testing at AEDC if we have the facilities that can produce the needed test conditions in place when the programs are ready."

He said events like this are important, whether someone is new to the field of engineering or a seasoned professional.

"Talented speakers with interesting topics serve a dual role," he said. "The most important purpose is to remind the audience of why they got into this field through interesting technical talks. The



(From left to right) Don Sauvageau, ATK space systems director of advanced space programs; Dr. Tomioka Sadatake, with the Japan Aerospace Exploration Agency (JAXA) Space Transportation Mission Directorate; and Christian Dujarric, a senior launch systems engineer with the European Space Agency (ESA), were the guest speakers at the recent AAPS-hosted luncheon at the Arnold Lakeside Center. (Photo by Rick Goodfriend)

secondary purpose is to increase attendance at society events, which results in a better event and chances for interaction among a more diverse group."

Dr. Sheeley also stressed the importance of wide participation by AIAA and AAPS members in arranging future lunch and learn events.

"Each of these events requires a few hours for making arrangements

with the speaker and a few hours for scheduling the venue, collecting reservations and taking care of other logistics," he said. "I'd love to see a few additional individuals volunteer to bring in a speaker or help with arrangements, even if just for one event each year. Just two to four hours a year from five-10 individuals would make a huge difference and result in stronger societies."

Diversification ... it's not just for your stock portfolio

By Col. Michael Panarisi
AEDC Commander

With so many exercise routines available, it's hard to imagine that most of us are closer to "one trick ponies" than we'd like to admit.

But it's true. Ask a fellow gym rat to share their log book, and you'll see a heavy dose of a favorite, and in some cases, you'll see the same entries over and over again.

While a heavily focused routine can offer big gains for specific purposes, if your goals are tied not to a single sport or activity, you'll be in good company if you join the ranks of the "cross trainers."

Cross training isn't a universally accepted label, so rather than describe a routine that way, let's just clarify what we're after.

When I say "cross train," I mean "diversify."

A "diversified" routine changes the core of a workout just about every day.

For example, if you are working to improve your aerobic capacity, your list for the week could include a run on Monday, a spin class on Tuesday, elliptical trainer on Wednesday, swim on Thursday and a bike ride on Friday.

Changing intensity day by day on a single routine is useful, but can't be confused with diversity. If your program centers on running, a routine that includes sprints on Monday, a 5 mile jog on Tuesday, 5-K race pace on Wednesday, hills on Thursday and

10K on Friday (assuming you could run at all on Friday!) isn't really diversified.

So, what's the problem?

As we focus on a specific activity, we never let our joints, muscles and connective tissue REST, and over a long cycle, the risk of "repetitive motion" or "overuse" injuries rises significantly.

This is OK for the pros.

They are closely monitored by coaches and trainers and are well connected to their bodies. But for the rest of us, the gains in a single area just aren't worth the risk.

You know what these risks are. Overuse a joint, and you'll pay over time.

Probably the most familiar is the infamous "Carpal Tunnel Syndrome."

In this condition, typically caused by poor biomechanics while typing, the tendons in your wrist become inflamed.

The nerves that pass through the "Carpal Tunnel" get squished.

Ask anyone who suffers from this condition...it's painful!

To avoid this risk across all of our joints, we need to "mix it up" while still keeping our eye on the prize.

I know there are some doubters out there.

"But I have to get ready for my PT test, so I have to focus on running."

Wrong answer!

Think about it. Why do we repeat an activity?

To "get better at it." Pitchers will throw

hundreds of balls a week to improve their accuracy.

Basketball players will repeat a "move" dozens of times to perfect a shot.

For these skill-based activities, repetition is necessary.

But running is not a skill activity.

The PT test doesn't measure your running skill, it measures your aerobic capacity (and your leg muscle endurance to a degree).

Lots of activities build aerobic capacity, and running does almost nothing for leg strength.

So a mix of activities

will benefit all but the most accomplished runners.

To be sure, you still need to run, even mix up the runs you execute, but ignoring the alternatives is a mistake.

You don't have to get schizophrenic at the gym to pull this off.

Even swapping across two anchor activities will help. But this is one of those "the more the merrier" realms, and the choices really are out there.

Just look at our own gym: we have four different elliptical trainers; two different

treadmills; three different stationary bikes (don't forget the spin bikes upstairs!); rowing machines; a hilly forest/dirt running trail; a flat gravel trail; a whole family of DVD workout routines; zumba; step aerobics; power yoga; spin classes; free weights, cable weighted equipment, and a host of body weight devices.

And don't forget, you have the services of a certified personal trainer at your disposal, no charge!

So stop by Ron's office, and ask him to walk you through a

plan that will keep you on track to accomplish your goals and reduce the chance you'll come up short via a trip to the clinic.

If you've settled into a focused routine, you won't believe how much more you'll look forward to gym time when you have a whole new menu at your fingertips.

And you'll feel much better at the end of the week. If you've had to skip a day occasionally to fight off the "achies" you'll leave those setbacks behind.

That's the real benefit.

See you at the gym!

Police undergo DUI training



Personnel from six area police departments were at AEDC to participate in DUI training. The purpose of the training was to provide the officers an opportunity to gain basic certification. Arnold Police Department was the host agency for a mobile training team from the Governor's Highway Safety Office who conducted the training. Participating in the training were 13 officers from White County, Warren County, Tullahoma, Chattanooga, Redbank and Arnold. Above an officer from Chattanooga performs steps for the Horizontal Gaze Nystagmus test (HGN). (Photo by Rick Goodfriend)

To advertise in the High Mach, call the Tullahoma News at 455-4545

OSI reminds you when to call investigators

Air Force Office of Special Investigations Detachment 106 reminds base members about operations security and explains the conditions of reportable situations.

Air Force Instruction 71-101, Volume 4, requires all active-duty Air Force, Air Force Reserve and Air National Guard personnel (when federalized), as well as Air Force civilian employees to report the following situations:

- Personal contact with an individual (regardless of nationality) who suggests that a foreign intelligence or any terrorist organization may have targeted them or others for possible intelligence exploitation.
- A request by anyone (regardless of nationality) for illegal or unauthorized access to classified or unclassified controlled information.
- Contact with a known or suspected intelligence officer to include attaches' from any country.
- Contact for any reason, other than official duties, with a foreign diplomatic establishment, whether in the United States or abroad. Note: Certain Air Force members and civilian employees in positions designated as "sensitive" by their Air Force component may be required to notify their commanders or supervisors in advance of the nature and reason for conducting a foreign diplomatic establishment.
- Activities related to planned, attempted, actual,

or suspected espionage, terrorism, unauthorized technology transfer, sabotage, sedition, subversion, spying, treason or other unlawful intelligence activities targeted against the Department of the Air Force, other U.S. facilities, organizations or U.S. citizens.

- Information indicating military members, civilian employees or Department of Defense contractors have contemplated, attempted, or effected the deliberate compromise or unauthorized release of classified or unclassified controlled information.
- Unauthorized intrusion into U.S. automated information systems, whether classified or unclassified; unauthorized transmissions of classified or unclassified controlled information without regard to medium, destination or origin.
- Unauthorized attempts to bypass automated information systems security devices or functions, unauthorized requests for passwords, or unauthorized installation of modems or other devices into automated information systems (including telephone systems) whether classified or unclassified.

The OSI detachment has made the reporting process simple.

Those who are unsure if a situation requires a report or if you have any questions, contact Special Agent Matt Bryant, Special Agent Matt Page or Special Agent Jennifer Olmstead at 454.7820.

Ms. Cheap to speak at annual Women's Equality Day luncheon

Mary Hance, known across Tennessee as Ms. Cheap, will be the guest speaker at the annual Women's Equality Day luncheon.

The luncheon, sponsored by the Federal Women's Program, will be held at 11:30 a.m. Sept. 15 at the Arnold Lakeside Center (ALC) and is open to the public.

Hance's Ms. Cheap column, which appears Mondays, Thursdays, Saturdays and Sundays in the Tennessean's Life section, is its 16th year and focuses on being a smart, frugal consumer.

She has also written three books, "Ms. Cheap's Guide to Nashville," "Ms. Cheap's Guide to Getting More for Less" and "99 Things to Save Money in Your Household Budget." She also appears weekly



Hance

on "Talk of the Town" on NewsChannel5.

A native of Senatobia, Miss., she is a graduate of the University of the South at Sewanee.

The menu for the luncheon is Mexican buffet and is \$8 for ALC members and \$9 for non-members.

Reservations and payment are required by Tuesday by contacting Toni Trimble, 454-7131, or Holly Jones, 454-5613.

Green from page 2

only the space we occupy, when we occupy it, instead of the entire house which is largely empty.

When we leave for work in the morning the thermostat goes down until we return home that evening.

We're not beyond wearing a sweater inside the house, throwing an extra blanket on the bed and wearing socks when we sleep to help keep our feet warm.

While we live in considerable comfort, we attempt to do it without being wasteful.

I expect that many of you practice similar energy and cost saving measures for your own households.

For many years, government budgets have been plump and easily able to absorb wasteful consumption habits.

Not anymore.

For the few who may not have noticed, lean budgets prevail throughout our government.

The squeeze is on. Fellow team mates, it's time we bring our energy

and cost-saving practices with us to work.

We're entering that time of year when some mornings are pleasantly cool and it won't be long before the days become cool, too. If you're a cold-natured person, please bring a sweater into work rather than first reaching for the office thermostat or space heater.

When you're cold even with the sweater, go for the space heater but please use it in moderation.

When most people in your office are feeling cool, then it's time to turn up the thermostat. I know the keen minds which enable development of the world's most advanced aero/astro space systems can find ways to enjoy a comfortable work environment while implementing reasonable measures to conserve energy.

Please do your part and encourage your co-workers to do theirs.

I will not close this brief article without letting you know how proud I am to

be part of this awesome establishment.

The work done here and the people who do it are simply spectacular!

To all of you, thanks for what you do and have a blessed day.

Track from page 1

the 1.5 mile military run test; it is hilly, covered with loose, uneven gravel and is unsuitable for timed runs. Also runners and walkers must contend with traffic if on the loop in front of the A&E building."

Tinsley Asphalt in Estill Springs is the prime contractor on the project which is expected to be complete later this fall.

**Reduce.
Reuse.
Recycle.**



Labor from page 2

map.
Those who turned steel and concrete into the world's premier aerospace test facility.
A place that bred the F-15, the F-22 and the F-35, the engines that put

the "super" in supersonic, and literally, took the nation on our first steps to landing on the moon.
I couldn't be prouder of the craft team that makes it happen every day, typically in the most

demanding working conditions, and often behind the scenes.
They don't ask for, and rarely get the limelight.
This is their day. I salute each and every one of them.

Because of them, I can come through the gates in the morning and pinch myself.
I still can't believe I get to work here.
And get paid for it!
They chose to make a

difference, and our nation is still the greatest thanks to their efforts.
From all of us at "HQ" a hearty thanks and our best wishes on a day you have absolutely deserved.

Have a
safe and
happy
Labor Day

AFMC leaders told to seek efficiencies, get back to basics

By Ron Fry
AFMC Public Affairs

Challenging times ahead and developing efficiencies to accomplish the mission were among the key topics highlighted at the semi-annual Air Force Materiel Command Senior Leaders Conference Aug. 23-25.

AFMC Commander Gen. Donald J. Hoffman led his center and wing commanders, along with other command leaders, through three days of meetings that also focused on topics ranging from a back-to-basics approach to doing business to the command's ongoing efforts to reinvigorate the sustainment of the Air Force's nuclear assets. Other topics included several work force issues and energy conservation.

"We have a lot of tough issues facing our command," General Hoffman said. "But don't let the bureaucracy stifle your efforts to seek efficiencies. Do the best with what you have."

The general reminded the group that budgets will get tighter in fiscal 2011.

"If we can find more efficient ways of doing business, we can better support the warfighter," the general said. "And that is our mission – support the warfighter."

As the command buckles down for challenging times ahead, AFMC Command Chief Master Sgt. Eric Jaren updated the leaders on his ongoing efforts to emphasize a back-to-basics initiative designed to encourage greater interaction and further strengthen service culture throughout AFMC's enlisted corps.

"We have to get back to basics in order to emphasize a culture of service and overcome a culture of convenience," the chief said.

He also called on the command to embrace the Air Force's new fitness standards and asked commanders to emphasize training and education.

"I want our enlisted people to be better trained and better educated so they can make a greater impact across the AFMC enterprise," Chief Jaren said.

One area of back-to-basics emphasis for AFMC is its nuclear

sustainment mission. AFMC, like the rest of the Air Force, has made nuclear surety its top priority following two well-publicized incidents in 2007 and 2008 that highlighted a nuclear mission neglected since the end of the Cold War.

Brig. Gen. Everett Thomas, the Air Force Nuclear Weapons Center at Kirtland AFB, N.M., updated the conference on continuing efforts to improve sustainment of the Air Force's nuclear arsenal.

"It's challenging, but we're going to keep improving," General Thomas said.

However, he warned that problems remain and new ones will likely be discovered following nearly 20 years of neglect.

"We have to keep opening doors and looking for problems that need to be fixed."

He credited his weapons center team and all of AFMC for helping get the nuclear sustainment process on track.

Sustaining the AFMC work force was another important topic highlighted at the conference.

Leaders were updated on the

upcoming conversion from the National Security Personnel System to the General Schedule pay system for civilian employees, in-sourcing, diversity and equal opportunity hiring practices, and training.

But special emphasis was placed on how leaders can better engage with their work forces to improve their safety and wellness, motivate them and make them feel like greater stakeholders in the AFMC mission.

Air Force officials announce changes to space functions

Washington, D.C.— Air Force officials announced the realignment of some Headquarters Air Force space functions Aug. 26, following the recent completion of a review of Headquarters Air Force space management and responsibilities, which was directed by Secretary of the Air Force Michael Donley in December 2009.

In a memorandum signed Aug. 26 Secretary Donley reinforced some existing alignments and directed several changes to Air Force headquarters space organizations, including the identification of the undersecretary of the Air Force as the focal point for space within Headquarters Air Force, with responsibility for coordination of functions and activities across the Air Force space enterprise.

Also, the responsibility of space acquisition has been realigned from the undersecretary of the Air Force's office to the Assistant Secretary of the Air Force for Acquisition.

"These decisions will allow us to perform our space work in

a more streamlined and effective way, with our ultimate goal of providing the best space support to the warfighter," Secretary Donley said in the memorandum. "We recognize the importance and criticality of space not only for the Air Force, but for all our joint military and inter-agency partners, and with these changes I believe the Air Force and our headquarters will be better organized to carry out this vital work."

The review was focused on Headquarters Air Force, so it did not address any changes within field organizations such as Air Force Space Command or the Space and Missile Systems Center. Richard W. McKinney, who was recently named deputy undersecretary for Space Programs, led the review that involved more than 70 interviews with key individuals and organizations from the Air Force, Department of Defense, Congress and other space related government, commercial and international organizations.

Air Force News Service

Senators weigh in on renewable energy at Nevada Energy Forum



Undersecretary of the Air Force Erin C. Conaton delivers opening remarks at the Nevada Energy Forum, an Air Force-hosted three-day brainstorming to find ways for the service to reduce fossil fuels usage in Las Vegas. Conaton opened the discussion with Terry Yonkers, the assistant secretary of the Air Force for installations, environment and logistics, and Nevada's Lieutenant Governor, Brian Krolicki. (Photo provided by U.S. Air Force photo/Scott M. Ash)

By Tech. Sgt. Amaani Lyle
Secretary of the AF PA

Two senators addressed Nevada Forum attendees Aug. 25 to laud the Air Force for its leadership in green initiatives and offer support in finding safe, compatible ways to continue renewable energy without impeding military training missions.

During the second day of the three-day forum, Undersecretary of the Air Force Erin Conaton introduced key note speaker and U.S. Senate Majority Leader Harry Reid (D-Nev.) and Sen. John Ensign (R-Nev.) as tireless advocates for renewable energy.

Senator Reid described renewable energy as a discussion "long overdue and more urgent than ever," given the country's significant energy challenges.

"We use 21 million barrels of oil every day ... and about 70 percent of oil we use we import from foreign nations," Senator Reid said. "The military has long recognized that we will never be a secure nation until we are secure with our energy production."

In a later speech, Senator Ensign noted that not only do training opportunities abound in Nevada, but the area has a chance to help the U.S. lead the way in energy independence.

"We should harness the power of American-based sources of energy; we have tremendous opportunities to be a leader in green energy," Senator Ensign said. "Our geography and topography have made us a unique location for our investment in renewable energy projects, especially solar and geothermal."

Senator Ensign related the significance of the Nevada Test and Training range, the largest of its kind in the Air Force infrastructure.

"It truly is a national treasure and it must be preserved ... it is

critical that these ranges remain intact," he said.

In addition to a vast training canvas, the area provides a rich energy resource.

"We have to look no further than the photovoltaic fields at Nellis (AFB), (where the array generates over 25 million kilowatt hours of electricity every year and supplies about a quarter of Nellis's power needs."

Senator Ensign explained that a careful balance must be struck in exploiting renewable energy potential while preparing for war.

"Operating space is an incredible commodity, and one that is necessary for our pilots to receive the proper training that they need," Senator Ensign said. "Renewable energy development must be done as a partnership with our national security interests, not at the expense of them."

Senator Ensign said he has worked with Senator Reid to approve the permitting process for renewable energy on Nevada's

public lands to minimize obstacles that could stifle development or military training.

"Our military has a tremendous opportunity and responsibility to play a lead role in making the United States a clean energy leader," Senator Ensign said. "The life and safety of our service members is and must continue to remain priority number one."

Senator Reid also shared his perspective on the military's role in energy initiatives, explaining that the Air Force is "ahead of the curve," by using the B-52 to begin their aircraft certification of hybrid fuel use at least four years ago.

"The military is holding up their end of the bargain, following through on a commitment to use energy more efficiently and to use cleaner alternatives to integrate clean engine technologies," he said.

The senators said they each look to the Air Force as an example for the nation on how to use energy well and that the forum is vital to addressing energy challenges.

Airmen enhance F-15E capabilities with helmet-mounted cueing system



Senior Airman Kevin Boyne custom fits Capt. Dan Olthoff's Joint Helmet-Mounted Cueing System at Seymour Johnson AFB, N.C. The 4th Operations Support Squadron life support specialists fit each pilot with a JHMCS and visor guaranteeing a perfect fit and also making the helmet more comfortable and lightweight. (Photo by Senior Airman Makenzie Lang)

By Tech. Sgt. Tammie Moore
4th Fighter Wing PA

The concept is like something out of a movie – the ability to find a target from a jet cockpit with the naked eye and lock onto it simply by fixing your gaze upon it. This science fiction concept has become a reality at the 336th Fighter Squadron.

The 4th Operations Support Squadron aircrew flight equipment technicians, who support the 336th FS, have spent the past few months equipping "Rocket" pilots with the Joint Helmet-Mounted Cueing System.

The JHMCS integrates a magnetic helmet mounted tracker that determines where the pilot's head is pointed with a miniature display system that projects information onto the pilot's visor.

Together, the head tracker and visor display act as a targeting device that can aim sensors and weapons wherever the pilot is looking.

"JHMCS is a force multiplier that significantly improves the speed and agility with which F-15E aircrew can find, fix, track, target and engage on the battlefield," said Lt. Col. Charles Wallace, 4th Operations Squadron commander. "It's the next step in advanced sensor integration and man-machine interface in the cockpit."

"The JHMCS interface provides visual information from the aircraft such as basic flight parameters, sensor and targeting information from the crewmate and other aircraft's location and targeting information," said Capt. Matt Swanson, 336th Fighter Squadron Weapons Flight commander. "It puts needed information in front of your eye so that you can quickly find those locations on the ground, and maneuver the aircraft to support the ground commander."

The F-15E pilot's use of the system enhances the aircrew's ability to engage threats facing ground troops and reduce collateral damage.

"It allows F-15E aircrew to provide unparalleled support to the ground troops in the close-air-support environment," Captain Swanson said. "The crew will be able to quickly cue sensors and identify friendly locations. The enhanced aircrew coordination

Operation New Dawn begins



The United States military marked a historic milestone Sept. 1 as it made the transition from Operation Iraqi Freedom to Operation New Dawn. This transition signifies a formal end to U.S. military combat operations and reaffirms the U.S. military's commitment to the Iraqi Security Forces and the government and people of Iraq. (Air Force graphic)

Milestones

30 YEARS

Alan Fudge, PKE
Mike Barlow, ATA
Kenneth Crosslin, ATA

25 YEARS

James Thompson, ATA
William Dunn, ATA
Lera Davis, ATA
George Winton, ATA
Christa Herron, ATA
Scott Glass, ATA

20 YEARS

Steven Lepley, ATA
Darrell Booher, ATA
Jennifer Johnson, ATA

15 YEARS

Stuart Elam, ATA
Dotty Davis, ATA

10 YEARS

Patricia Norfleet, NAF
Kathryn Stephens, ATA
Larry Patton, ATA
Thomas Coker, ATA

5 YEARS

Troy Caldwell, ATA
Joseph Cowan, ATA
Jason Colbert, ATA
Steven Lampley, ATA
Cliffa Wilhoite, ATA
Christopher Rogers, ATA
Michael Hollowell, ATA
Ollie Vincent Jr., ATA
Ralph Lance, ATA
Paul Gallagher, ATA
David Kline, ATA
Kenneth Wells, ATA
Troy Jernigan, ATA
Jamie Conlee, ATA

OUTBOUND MILITARY

Capt. Michael Feigenblatt

NEW HIRES

Nissa Smith, AF
Donna Spry, AF
Jesse Humberd, AF
Frederick Rone, AF
Manmohan Tuli, AF
Henry Daniels III, AF
Reginald Floyd Jr., AF
Robert Green, AF
John Lamb, AF
Christopher Leone, AF
Donna Paredez, AF
Corey Rice, AF
Alvin Ross, AF
Dhruti Upender, AF

**Reduce.
Reuse.
Recycle.**



Obituaries

James "Jimmy" Virgil Yates, 56, of Tullahoma, passed away Aug. 27.

He worked for ATA as a crane and small equipment operator.

He was a member of Victory Baptist Church. He also was a member of the Masonic Lodge and Operating Engineers Local 917.

He was preceded in death by his daughter, Chasity Yates and one sister, Clara Jane Yates. He survived by his parents, James and Mary Yates of Tullahoma; his wife, Sherry Yates of Tullahoma; one son, Derek Yates and fiancée, Stacy Christenson, of Tullahoma; one daughter, Lindsay Bogle and her husband, J.T. of Tullahoma; two grandchildren, Kylie Leann Bogle and Cloye Yates; his in-laws, Edward and Nellena Gold of Tullahoma; and his best friends, Tim and Misty Brown of Decherd.

Sea turtle eggs on Eglin beach make trek to evade potential oil spill effects



Above, from left, Erica Laine, Dusty Varble and Kathy Gault, 96th Civil Engineer Squadron biologists, carefully remove sea turtle eggs from a nest on an Eglin AFB, Fla., beach. The group of biologists removed 117 eggs from the nest on this day, and more than 300 eggs have been moved so far. (Photo by Samuel King Jr.)

By Mike Spaits
96th Air Base Wing PA

Eglin AFB, Fla. – Though the oil well has finally been capped, Eglin biologists are still digging up sea turtle nests and moving the eggs to the East Coast as a safety precaution.

To date, three of Eglin's nine nests have been excavated and more than 300 eggs have been transported to Cape Canaveral, Fla., in hopes of diverting the hatchlings from possible life-threatening exposure to the oil slicks in the Gulf of Mexico.

See **TURTLE**, page 13

Arnold Golf Course 454-7076

Mulligan's Grill at Arnold Golf Course will close for the remainder of major renovation.

This project includes new counters that will extend across the room and include an order station and pick-up station, the bulkhead will be removed, a digital menu board with LCD monitors will be added, a grab-and-go cooler will be built into the counter for easy access to salads, cold sandwiches, desserts and more.

A highlight of this endeavor will be the addition of Starbucks coffee. Mulligan's Grill will now be a "Proud to Brew" member of the Starbucks brand. A grand reopening with ribbon cutting will be scheduled upon completion of this improvement project.

A Member/Member Tournament is scheduled for Sept. 18 with 8 a.m. shotgun start. Entry fee is \$80 per team and includes lunch. Cart fee is not included. Front 9 holes will be two-person best ball and the back 9 holes will be two-person scramble. Sign up in the Pro Shop by Sept. 15.

Arnold Lakeside Center 454-3350

Arnold Lakeside Center will host a **Texas Hold 'Em Tournament** for Members First Plus members beginning Sept. 9. The tournament will be held every Thursday at 6:30 p.m. and will run for eight weeks.

Prizes will be awarded for first, second and third place each week and each weekly winner will earn a seat at the championship table.

Points will be assigned according to place finished. Top point earners will finish out the seats at the championship table. Prizes will be awarded to the championship first, second and third place winners.

Weekly tables are created by random draw of players present at starting time. Players must be present by 6:30 p.m. to draw tables.

No players will be added after 6:30 p.m. Players must be age 18 or older to play.

Air Force clubs throughout the world offer club members who participate in the **Football Frenzy** promotion chances to win a trip to regular season games and the Super Bowl.

Members need only to attend a Football Frenzy event at their local club and fill out an entry form to be registered to win.

In addition to the NFL game trips, the club offers other specials and local prize giveaways during Football Frenzy events.

Nonmembers are welcome to attend and are eligible for local prizes but only members may enter for the grand prizes.

The promotion runs concurrently with the NFL season Sept. 9 - Feb. 6.

The Arnold Lakeside Center will be open every Sunday beginning Sept. 12 from 11:30 a.m.-7 p.m. showing games determined by those in attendance.

Members may enter every time they attend but only once per visit.

In the first two drawings, members have a chance to

win a trip to a regular season game.

Each winner is allowed to bring one guest to the game.

In addition to game tickets, winners also receive airline tickets, rental car and hotel accommodations.

In the third drawing, conducted Jan. 5, members can win a trip to Super Bowl XLV held Feb. 6 in Arlington, Texas, home of the Dallas Cowboys.

The final, "end-of-season" bonus drawing is conducted Feb. 22 where ten lucky participants will each be selected to win a \$500 bonus prize.

For more information, call 454-3350 or stop by Arnold Lakeside Center.

Services welcomes back Books Are Fun for a **book fair** from 9:30 a.m. - 3 p.m. Sept. 13 in the A&E Building's Arnold Room, room A123. Discounted selections include paperbacks, best sellers, educational, reference, cookbooks, children's items, gift selections and more. Save up to 70 percent off retail prices and get an early start on Christmas shopping.

Arnold Lakeside Center will host a **luau on the ALC beach** Sept. 17 from 7-11 p.m.

A themed buffet will be served to include salad, pasta salad, Huli Huli chicken, pulled roasted pork, Aloha sweet potatoes, Luau fried rice, Haupia coconut pudding and macadamia cookies.

A best luau dressed competition will be held along with other games and prizes.

Cost for the evening is \$18 for members and \$20 for nonmembers. Reservations need to be made by Sept. 13 by calling 454-3350.

Trivia Contest returns 6 p.m. Sept. 24. Teams can have up to four people. No cell phones are permitted during the event. Anyone using a phone while a question is underway will be disqualified.

A tutorial will be given promptly at 6 p.m. to all participants prior to the start of the game. The game will begin immediately following the tutorial.

Six rounds of questions will be administered consisting of three questions in each round. Each round is worth ten points. The team with the most points at the end will have their choice of available prizes.

Remaining teams will select prizes in order of finish in point standings. Ties will be broken by a trivia play-off.

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. In addition to the Hap's Pizza menu, chef salad is available for \$4.50 which comes with ham, turkey, cheese and boiled eggs. Add grilled or fried chicken for \$2 more.

Call to see what the surprise Wednesday special will be. The special could include items such as homemade chicken salad or lasagna.

Movie nights are every Thursday with movie start time of 6 p.m. and dinner available from the Express or Pizza menus from 5-8 p.m.

The schedule for Sep-

tember is: **Sept. 9** - "The Karate Kid," rated PG starring Jaden Smith and Jackie Chan. Work causes a single mother to move to China with her young son who finds himself the target of the school bully but with the help of a kung fu master settles the battle at a local tournament.

Sept. 16 - "Knight and Day," rated PG-13 starring Tom Cruise and Cameron Diaz. June Havens finds her everyday life tangled with that of a secret agent who has realized he isn't supposed to survive his latest mission.

Sept. 23 - "Twilight: Eclipse," rated PG-13 starring Robert Pattinson, Taylor Lautner and Kristen Stewart. As a string of mysterious killings grips Seattle, Bella, whose high school graduation is fast approaching, is forced to choose between her love for vampire Edward and her friendship with werewolf Jacob.

Sept. 30 - "The Last Airbender," rated PG starring Noah Ringer and Dev Patel. The story follows the adventures of Aang, a young successor to a long line of Avatars, who must put his childhood ways aside and stop the Fire Nation from enslaving the Water, Earth and Air nations.

Friday night dining room specials available from 4-9 p.m. Sept. 3 :

Lynchburg rib-eye, \$13.95 members, \$14.95 non members. No First Friday Jam due to holiday weekend.

Sept. 10: Cedar plank salmon, \$11.95 for members, \$12.95 for nonmembers.

Sept. 17: Luau at the ALC beach, 7-11 p.m., games, contests and prizes, \$18 members, \$20 nonmembers. Regular dining closed; to go Express and Pizza menu only.

Sept. 24: Prime rib for two \$31.95 members, \$32.95 nonmembers.

Please call for reservations to ensure special is available. All specials and times are subject to change without notice. Please call ahead to ensure availability and openings.

Saturday availability and specials: Sept. 4: Veal parmigiana with pasta, \$9.95 members, \$10.95 nonmembers.

Sept. 11: Dining room closed; to go Express and Pizza menu only.

Sept. 18: Crawfish boil (1 lb.) with corn on the cob and red potatoes, \$12.95 members, \$13.95 nonmembers.

Sept. 25: Dining room closed; to go Express and Pizza menu only.

The dining room is open on Saturdays from 5-9 p.m. unless otherwise specified.

Please call for reservations to ensure these specials are available. All specials and times are subject to change without notice. Please call ahead to ensure availability and openings.

Chili cookoff has been set for Oct. 1 behind Arnold Lakeside Center.

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.

Costumes and booth decorations are highly en-

Mission Support Division hours of operation:

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

Family Member/Youth Programs - Tuesday through Friday 10 a.m. - 5 p.m., Saturday 12-5 p.m., First Friday Movie Night 5-7 p.m.

Outdoor Rec - Main Office, Check In, Marina and Auto Shop Tuesday through Sunday 8 a.m. - 6 p.m., FamCamp Store Tuesday through Friday 3-5 p.m., Saturday and Sunday 8-11 a.m., 2-5 p.m. Lifeguards begin Memorial Day weekend GLC beach daily 10 a.m. - 6 p.m., ALC beach Saturday and Sunday 10 a.m. - 6 p.m.

Fitness Center - Monday-Friday 5 a.m.-9 p.m.; Saturday 8 a.m.-4 p.m.; Sunday 12-5 p.m. **Open 8 a.m. - 4 p.m. Sept. 6, no classes due to holiday**

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

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

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

Barber Shop: by appointment - Monday, Wednesday & Friday 8 a.m.-2p.m.; Thursday 8 a.m.-noon

couraged.

Official rule sheets are available upon request.

Prizes will be given for best tasting, best tasting runner-up, best team spirit (decorations and costumes), most unusual ingredient and people's choice voted on by others in attendance.

People's choice votes are \$1 for three tasting bowls to sample chili and cast votes.

There is no cost to enter chili.

Casino Night is back with Oktoberfest theme Oct. 16 from 6-10 p.m. The event is for ages 18 and up and the gaming portion is free.

Participants will be given play money to try their hand at various tables to include blackjack, roulette, craps and wheel of fortune.

After gaming is complete, participants will use their winnings to bid on prize items during an auction.

All are encouraged to come in appropriate costume and a contest will be held for Most Oktoberfest Spirit.

A German buffet will be served for \$12.95 for members and \$14.95 for nonmembers. Call 454-3350 for dinner reservations.

Family Member/Youth Programs (FamY) 454-3277

Arnold Youth Programs is proud to have been selected to participate as a charity in the **2010 Combined Federal Campaign**, an annual workplace charitable giving campaign for employees of the U.S. Government.

The mission of the CFC is to support and promote philanthropy through a voluntary program that is employee-focused, cost-efficient and effective in providing federal employees the opportunity to improve the quality of life for all.

The solicitation period for the campaign runs from September through December.

As we get closer to this period we will provide you with Arnold's CFC code that will be used for our Youth Program.

We will also be hosting fundraisers such as bake sales during the solicitation period. CFC is significant because it is an opportunity for all of us to really make a difference for our Arnold Community.

The contributions made to Youth Programs will directly affect active duty, retirees, DoD and contract civilians and their families who reside here in our local community

CFC funds will support recreational activities and

holiday programs for both our families and youth.

The **Youth Employment Skills (YES) Program** is an on-base youth volunteer program funded by the Air Force Aid Society (AFAS) and jointly administered by AFAS and Air Force Family Member Programs Flight.

This program is offered to high school aged children (grades 9-12) of active duty Air Force members assigned to Arnold Air Force Base.

The YES Program allows all certified and enrolled high school students to "bank" volunteer dollar credits toward their post-secondary education/training at a rate of \$4 per hour volunteered in an on-base position. Students may accumulate as much as 250 hours, for a potential \$1,000 maximum, over all four years at high school combined.

In addition, the participating base youth program will "bank" base community credits at a rate of \$2 for every hour volunteered per student, up to a maximum of \$10,000 per program year. Students who wish to participate can contact Youth Programs at 454-3277.

Youth Movie Night will be Sept. 3 from 5-7 p.m. Ages 9 and up are invited to the Open Rec Center to watch a movie. There will be free popcorn, juice and water.

On Sept. 23 our **4-H Extension Officer** (Franklin County) will be hosting new enrollment club meeting briefing opportunities the youth can do if they decide to join. Arnold Youth Programs 4-H Club is open to all AEDC affiliated children from 4th grade to 12th grade.

4-H offers many different opportunities. When you join 4-H you are joining the world's largest youth organization. 4-H is also not just an American organization as there are 4-H clubs in over 80 countries around the world.

Some of the big contests that 4-H really encourages are the speaking events and the poster contest. These events allow 4-Hers to express their creative sides and develop skills that will come in handy later on in life.

4-H also offers many different contests, camps and honor's programs that the members can become involved with. 4-H is always striving to teach young adults how to become better citizens and leaders through the many programs available.

On Oct. 28 all new members will be introduced to the 4-H public speaking contest. All participants

that receive a blue or red ribbon will get to move on to the county contest.

The regional contest for the seniors will be held at MTSU and the sub regional contest for juniors is still to be determined. Seniors also have to give an impromptu speech.

There will also be a short program from the 4-H microwave usage program.

The 4-H program offers many different opportunities such as the Demonstration Contest, Clover Bowl, Judging Teams, showing livestock, camps and many more opportunities. Call 454-3277 to sign-up today.

Fitness Center 454-6440

The Fitness Center will be open **8 a.m. to 4 p.m. Sept. 6** in observance of the Labor Day holiday. There will not be any classes conducted this day.

A **racquetball ladder tournament** will begin Sept. 27.

Participants should sign up no later than Sept. 7 to be on the list of players. Games will be played Monday through Friday and scheduled among participants.

Call for more details and to sign up.

The Fitness Center Intramural program is taking signups for the **Volleyball league**.

Deadline to sign up is Sept. 7. Volleyball will begin Sept. 21 at the Fitness Center with games on Tuesday and Thursday starting at 6 p.m.

Call 454-6440 for more details or to sign up as individuals or teams.

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

Outdoor Rec (ODR) 454-6084

Paintball is back Sept. 11. Ages 10 and older are invited to play. Meet at Outdoor Rec. at 9:30 a.m. Cost is \$20 and includes lunch. Remember to wear long-sleeved shirts and long pants.

Outdoor Rec is going to the **Ocoee River** for rafting down Class III and IV whitewater rapids on the

See **BRIEFS**, page 13

Falconer sweeps Spangdahlem airspace clean

by Senior Airman Clay Murray
52nd Fighter Wing Public Affairs

Tailspotters may come to Spangdahlem Air Base with an eye out for the F-16 Fighting Falcons or other aircraft, but if they stop at the right time and place, actual falcons can be seen on the prowl.

To the surprise of some, these birds and the base falconer serve an important role in pest and foreign-object damage control.

Ronald Leu, a 52nd Civil Engineer Squadron base falconer, is the fulcrum between the base and these mission-critical predators that keep nuisance populations to tolerable levels.

"These birds prey on rabbits, but more importantly crows," Leu said. "It's important to keep airspace clear so the aircraft can fly as normal."

Leu's job as base falconer is part-time; his other hands-on job is casting and making precision machine parts.

Briefs from page 11

middle Ocoee Sept. 18. This section is a five-mile stretch that takes you through rapids such as Grumpy, Broken Nose, Diamond Splitter and Table Saw.

Ages 12 and older will meet at Outdoor Rec at 6:30 a.m. to begin this full-day adventure.

Plan to return to Outdoor Rec by 6 p.m.

Cost is \$65 and deadline to sign up is Sept. 8. A late registration fee of \$5 will be applied after that date and a \$5 cancellation fee will be charged after Sept. 14.

There must be a minimum of 12 participants to go and maximum capacity is 24.

Remember to wear or bring swimsuits or appropriate clothing for water sports. Also bring dry clothes to change into after rafting and money for food and drinks.

Participants age 12-17 must have a parent sign a release form.

No experience is necessary to enjoy the adventure of Ocoee River rafting. The guides have the reputation of being some of the most experienced and best guides on the Ocoee River.

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

Cruise the Grand Canyon of the Tennessee River and see one of nature's most magnificent wonders dressed in its entire fall splendor.

Outdoor Rec is going to Chattanooga to take a ride on the **Southern Belle Riverboat** Oct. 30. Meet at Outdoor Rec at 10:30 a.m. and return approximately 6:30 p.m.

Cost is \$45 per person and deadline to sign up is Oct. 19 (nonrefundable if cancelled after Oct. 20). There must be a minimum of 12 to make the trip and max number of participants is 28. The cruise will take you on the famous Tennessee River Gorge to see nature's brilliant canvas of vivid fall colors.

There will be live entertainment for a foot stompin' good time, free bingo with gift shop prizes and a delicious buffet for lunch to include roast beef and rotisserie chicken.

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

Upcoming Events:

Blue Man Group, Tennessee Performing Arts Center, Nov. 20, 5 p.m. - 12:30 a.m., age 10 and up, \$85

There are only a few steps to the falconer's job of limiting local bird populations. Trained birds-of-prey are released in airspace where they pursue crows, rabbits and other local wildlife. Once the falconer sees that a bird has made a successful catch, he quickly meets with it to limit how much is eaten. As long as the bird is still hungry, it will continue hunting in the area.

These types of birds do an excellent job at reducing the numbers of animals that pose threats to aircraft, Leu said.

"The birds keep the airspace clear of crows, and this lowers the number of bird strikes," he said. "I wouldn't want to lose Rosie. She is even a very experienced cat hunter. Crows and other birds are much easier to hunt than cats, since (cats) have claws in the front and back, and teeth too."

Although he is only seen on base with the birds two to four times each week, he said, a lot of time and effort must be spent training the birds and working with them, he said.

Leu said. "I train them for about a month before we begin, but sometimes it's less. If you buy birds of prey that are already trained, you also buy some other people's problems."

Training and interacting with birds has been a passion of Leu's for years. His interest began at the age of 4, when he would seek books and everything else he could find about birds. He owned his first bird when he was 9, and years later owned many sparrows. He has been the base falconer for 10 years.

Turtles from page 10

"The turtles like to eat their prey that hang onto solid objects like grass mats. The turtle may mistake oil mats for grass mats and may emerge into it thinking there's food there and, instead, ingest oil," said Kathy Gault, endangered species biologist with Eglin's Natural Resources section.

The effort is part of a national plan to relocate more than 700 nests from the Gulf Coast to the Atlantic. Beginning June 26, biologists from the U.S. Fish and Wildlife Service, the Florida Fish and Wildlife Conservation Commission, the National Park Service and the National Oceanic Atmospheric Agency devised the plan to excavate the eggs from all sea turtle nests in Mississippi, Alabama and Northern Florida and transport them to the Atlantic Coast for hatching and release

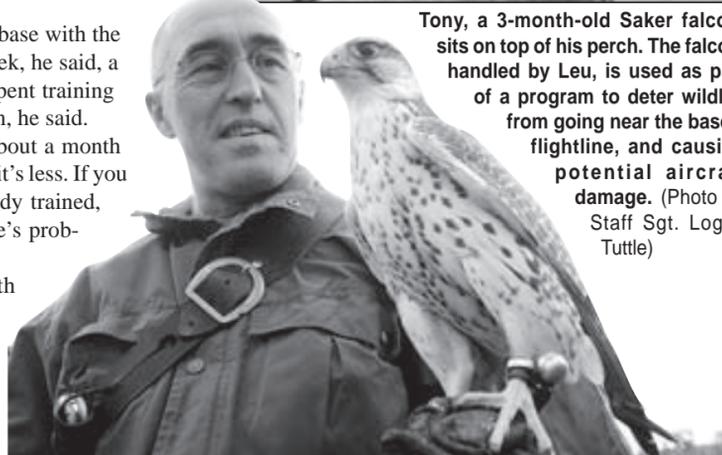
in an attempt to save as many as possible.

Rather than risk releasing the hatchlings into the Gulf of Mexico where they could encounter oil, the agencies chose to relocate them with minimal vibration and close temperature control.

"Turtles need to breathe air, so there's potential they could emerge through an oil slick and either absorb the toxins through their skin or eat the oil. Also, since the hatchlings can't stay submerged as long as adults, they have a much greater chance for exposure,"



Tony, a 3-month-old Saker falcon, sits on top of his perch. The falcon, handled by Leu, is used as part of a program to deter wildlife from going near the base's flightline, and causing potential aircraft damage. (Photo by Staff Sgt. Logan Tuttle)



Ronald Leu holds Gina, a 5-year-old falcon. Gina, a mix of both Saker falcon and Gyrfalcon breeds, is trained to hunt wildlife near the flightline to help prevent aircraft damage. Leu is the base falconer with the 52nd Civil Engineer Squadron. (Photo Staff Sgt. Logan Tuttle)

said Gault.

Because turtle eggs take an average of 60 days to incubate, the eggs aren't moved until after they've been in the nest for 50 days, so the turtles are more developed and hardier. The fragile eggs are packed into sand-filled coolers, which fit snugly into pallets that have shock absorbers attached.

Eglin's wildlife managers expect more eggs before the nesting season ends in August.

"On average, we get approximately 24 nests per year," said Erica

Laine, Jackson Guard's Volunteer Program manager. "However, so far this year we are well below our average."

Although at home in the ocean, sea turtles are tied to the land because females must leave the water to lay their eggs in a sandy beach.

Being a threatened species on a federal installation means Eglin is required by law to protect the turtles, and more than 40 volunteers help manage and document annual nesting. Threatened status means the species is likely to become endangered.

To advertise in the High Mach, Call the Tullahoma News at 455-4545

Helmet *from page 9*

and seamless system integration will increase accuracy while shortening the employment chain.”

Although aircrew flight equipment technicians and aircrew members had to overcome some initial challenges in equipment maintenance and training, the implementation process has gone smoothly.

“Everyone involved is

fully aware of the importance getting this absolutely right,” Colonel Wallace said.

The colonel said there is a huge sense of pride in the opportunity for the Rockets to be the first JHMCS operational F-15E squadron, and he is confident they will prove the JHMCS combat value immediately.

In fact, the expectation is

that once proven, JHMCS’ combat utility will help provide the leverage necessary to fully fund F-15E JHMCS integration.

“We are definitely looking forward to the possibility of achieving the full synergy and capability of JHMCS by outfitting all F-15E pilots and WSOs (on base) in the future,” Colonel Wallace said.

The aircrew members recognize the effort Team Seymour has put into the successful implementation of the JHMCS at the 336th FS.

“The JHMCS modification has only been possible with the hard work of the aircrew flight equipment technicians, maintainers and avionics specialist Airmen,” Captain Swanson said.



To advertise in the High Mach, Call the Tullahoma News at 455-4545