



# HIGH MACH

Serving the World's Premier Flight Simulation Test Complex



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## AEDC SBIR develops wartime space threat technology

By Philip Lorenz III  
ATA Public Affairs

With countries like Iran and North Korea striving to add nuclear weapons to their arsenals, the risk they pose to U.S. military satellites is a growing concern.

The Air Force Operational Test and Evaluation Center (AFOTEC) at Peterson AFB, Colo., and AEDC are focusing on a Small Business Innovative Research (SBIR) project that aims to develop a scintillation test capability to ensure military satellites can function regardless of natural or manmade signal disruptions.

Scintillation is a fluctuation in radio wave propagation that can result from atmospheric effects due to natural causes or a nuclear detonation.

High altitude nuclear detonations could pose a threat to satellite performance by creating mission-critical electrical malfunctions within the satellite's circuitry or by destabilizing the medium through which certain satellites send and receive radio wave signals.

"The objective is to develop a flat fading simulator for hardware-in-the-loop testing of nuclear scintillation effects on military satellite communication (MILSATCOM) systems," said Bill Sward, the SBIR project manager for Welkin Sciences, the company developing the simulator. "What we are working on is called the MILSATCOM Atmospheric Scintillation Simulator or MASS.

AEDC's mission is to test and evaluate space systems under realistic conditions and the MASS enables simulation

of actual wartime space environments by providing the ability to emulate ionospheric radio frequency scintillation in ground test facilities.

Sward added, "The MASS emulates disturbed transionospheric radio frequency propagation channels using the Defense Threat Reduction Agency (DTRA) channel models, reasonable worst-case scenarios, and specific event scenarios defined by the MASS operator."

Certain MILSATCOM systems are hardened against the degrading effects of radio frequency scintillation and the MASS provides the only practical method of testing these MILSATCOM systems designed for anti-scintillation capability.

"We understand the scintillation phenomena, but we haven't had the ability to test it," Swanson said. "Current tests have only been on the modem, not on the terminal or the satellite.

"MASS takes that to the next step. We test terminals connected to satellites and not just modems. We do fully understand the phenomena; we have statistical distributions that describe what happens over time. We are focused on this as a test asset [for AEDC]."

Swanson added, "All previous scintillations tests have been only conducted on the modem in the terminal, not the entire terminal, let alone the satellites. With MASS we have a test asset that can test a terminal connected to a satellite."

The MASS performs a critical role in verifying that the nation's MILSATCOM systems operate properly, ensuring unfettered communications in wartime conditions.



Military and civilian satellites, like the Advanced Extremely High Frequency (AEHF) Space Vehicle-1, can be subjected to natural and manmade signal disruptions. A Small Business Innovative Research (SBIR) project currently underway to simulate that disruption is taking place between Air Force Operational Test and Evaluation Center (AFOTEC) at Peterson AFB, Colo., AEDC and Welkin Sciences, Inc., Colo. The goal is to develop a MILSATCOM Atmospheric Scintillation Simulator or MASS to test the efficiency of satellite's capabilities to operate regardless of scintillation. (Courtesy of the U.S. Air Force Space Command)

## AEDC Information Protection team diligence reaps AFMC award

By Raquel March  
ATA Public Affairs

Members of the AEDC Information Protection (IP) Research Development Test & Evaluation (RDT&E) Security Team are applauded for receiving the AFMC 2012 Information Protection Team of the Year award.

This award recognizes outstanding achievements by professionals in the field of Information Protection executing information, industrial and personnel security disciplines in the protection of information.

Nominations were submitted from

across the entire Air Force Materiel Command (AFMC) and AEDC's IP security team was cited for its excellent program rating by the AFMC Inspector General in the 2012 Unit Compliance Inspection and its security test support, processes and other numerous security program developments.

AEDC's IP team provides a secure environment and educates personnel to protect classified, controlled unclassified information and assets in support of the complex's mission.

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Information Protection (IP) office team members recently received the AFMC 2012 Information Protection Team of the Year Award. Team members shown in this photo on the front row, left to right are: Loraine McElroy, ATA; Holly Petty, AEDC Test Support Division (TSD)-IP; Keena Cornelius, ATA; Jeannie Bowden, ATA; Angelia Garrard, ATA; Vivian Seals, ATA; on the second row, l-r: Tamalena Breiding, ATA; Kathy Saine, ATA; David Madison, TSD-IP; Nichol Northcutt, ATA; and Elise Sherrell, ATA. Team members not shown are Jack Glasser, TSD-IP; Lindsay Haig, Test Operations Division (TST) - Tunnel 9; and Charles Ingalls, TST - NFAC. (Photo by Rick Goodfriend)

## AEDC 'Team Remember' supports Relay for Life



AEDC's Executive Director Dr. Douglas Blake takes a chance at destroying Team Remember's car, which represents cancer, during the Coffee County Relay for Life. (Photo provided)

By Dee Wolfe  
AEDC Personnel Division

Team "Remember," from AEDC, participated in the Coffee County Relay for Life. The event, sponsored by the American Cancer Society, was held at the Coffee County Middle School last month.

Although the event was once again rained out and had to close down before 10 p.m., AEDC Team Remember raised



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## HIGH MACH

Arnold Engineering  
Development Complex  
An Air Force Materiel  
Command  
Test Complex

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Commander

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### Core Values

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



### Vision

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

### Core Values

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

# Arnold Police promote 'Rules of the Road' for National Bike Month

By Arnold Police Department

Whether it's to save money or time; to preserve your health or the environment; to explore your community; raise funds for charity or get to your destination, National Bike Month is a great time to ride! Tennessee ranks 17th in biker friendliness nationwide, but it's only fun when it's safe.

The League of American Bicyclists offers six Rules of the Road to ensure a safe and fun bike ride:

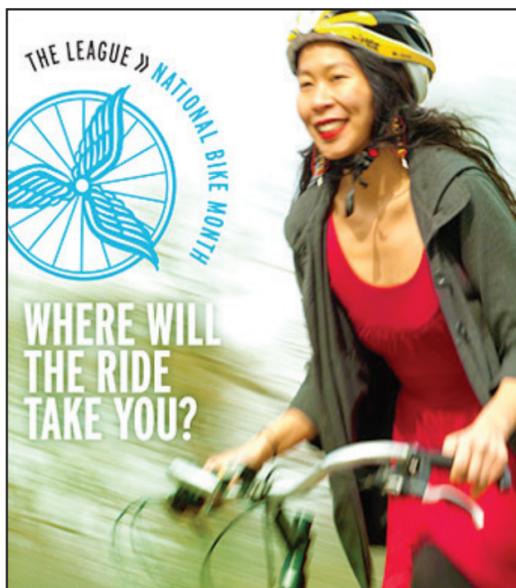
- 1. Follow the law:** Riders have the same rights and responsibilities as drivers of motor vehicles. Obey traffic signals and stop signs. Ride with traffic; use the rightmost lane headed in the direction you are going.
- 2. Be predictable:** Make your intentions clear to motorists and other road users. Ride in a straight line – single file if there are multiple riders. Don't swerve between parked cars. Signal all turns. Check behind you well before turning or changing lanes.
- 3. Be conspicuous:** Ride

where drivers can see you; wear bright clothing. Use a front white light, red rear light, and reflectors at night or any time visibility is poor. Make eye contact with drivers. Don't ride on sidewalks.

- 4. Think ahead:** Anticipate what drivers, pedestrians, and other cyclists will do next. Ride outside the door zone of parked cars, and watch for turning vehicles. Cross railroad

tracks at right angles. Be on the lookout for debris, potholes, and utility covers.

- 5. Ride Ready:** Be sure tires have sufficient air, brakes are working, chain runs smoothly, and quick release wheel levers are closed. Carry repair and emergency supplies appropriate for the ride. Wear a properly fitted helmet.
- 6. Keep your cool:** Road rage benefits no one and always makes a bad situation worse.



## Have courage, speak up

Commentary by Col. Daniel Higgins  
2nd Bomb Wing Staff Judge Advocate

**BARKSDALE AIR FORCE BASE, La. (AFNS)** – Recently, I saw a commercial depicting what appeared to be a typical business meeting. An older man, clearly the boss, said something along the lines of "So, we all agree -- it's a good idea?" To which an employee responds "I think it's a stupid idea."

In the next scene, the employee who gave his opinion is out on the street with a box of personal belongings, the implication being that he was fired for speaking his mind.

I don't recall what the commercial was trying to get me to buy, but whatever it was, I don't need it. In fact, in the Air Force, we need the opposite. It takes courage to serve in the Air Force. Yes, obviously it takes great physical courage.

All Airmen, regardless of rank or career field, can find themselves suddenly and without warning in harm's way, whether deployed to a combat zone or "safely" back at home station. Physical courage is expected; it's part of the deal we made when we volunteered to serve. And I think everyone understands that.

But there's another type of courage that Airmen need: moral courage.

Airmen need the courage to do the right thing when it might not be the easy thing. They need the courage to speak up and identify an issue or a problem when everyone else thinks things are going great.

Leaders, regardless of rank, need the courage to face their daily challenges and make the decisions necessary to accomplish the mission. Every decision involves risk; and while effective leaders can and should mitigate that risk to the extent possible, they can't eliminate it entirely.

Leaders understand that if you make enough decisions, sooner or later you'll

make one that turns out to be wrong. Effective leaders get that and they find the courage to make the decision anyway. They take in the information available to them, weigh their options, mitigate the risk where possible, but they act with confidence and persistence.

But truly effective leaders also want to hear when they are on the wrong path. In fact, I would argue that they need to hear it when they are on the wrong path. Being a good Airman requires, by definition, that you also be a good wingman -- and being a good wingman means speaking up when necessary. As my Army friends would say, the time to hear I'm about to walk into a chopper blade is before I walk into the chopper blade. After-the-fact is not helpful at all.

As a leader, I value the members of my organization who are willing to speak up with a different viewpoint. They have the courage to offer their views, understanding that they may not be popular. They may even be wrong, but they offer them up anyhow because they know it makes for a better decision.

We all bring different experiences and backgrounds to the problems we face and those different experiences influence the way we view and solve problems. There is no monopoly on good ideas; they can come from anywhere and anyone in your unit. If you are the leader, cultivate a climate of openness that encourages your subordinates to speak freely and offer alternatives and suggestions for how to better accomplish the mission. If you're a follower, speak up!

You've got to be willing to say, "I think it's a stupid idea," when it is. Be respectful of course, but it doesn't do anyone any good for you to say, "Yeah, I thought we were on the wrong path, but I didn't want to say anything." That's not courage. That's not helpful to the organization. That's not being a good wingman -- or a good Airman.

## SecDef sends message about civilian furloughs

By Secretary of Defense Chuck Hagel

As you are fully aware, the Department of Defense is facing a historic shortfall in our budget for the current fiscal year. This is the result of current law that went into effect March 1. It imposes deep across-the-board cuts on DOD and other federal agencies. Combined with higher than expected wartime operating costs, we are now short more than \$30 billion in our operation and maintenance (O&M) accounts – which



Secretary of Defense  
Chuck Hagel

are the funds that we use to pay most civilian employees, maintain our military readiness, and respond to global contingencies. The department has been doing everything possible to reduce this shortfall while ensuring we can defend the nation, sustain wartime operations, and preserve DOD's most critical asset – our world-class civilian and military personnel. To that end, we have cut back sharply on facilities maintenance, worked to shift funds from investment to O&M accounts, and reduced many other important but non-essential programs.

Still, these steps have not been enough to close the shortfall. Each of the military services has begun to significantly reduce training and maintenance of non-deployed operating forces – steps that will adversely impact military readiness. And even these reductions are not enough. Since deeper cuts to training and maintenance could leave our nation and our military exposed in the event of an unforeseen crisis, we have been forced to consider placing the majority of our civilian employees on administrative furlough.

After extensive review of all options with the DOD's senior military and civilian leadership on how we address this budget crisis, today I am announcing that I have decided to direct furloughs of up to 11 days for most of the department's civilian personnel. I have made this decision very reluctantly, because I know that the furloughs will disrupt lives and impact DOD operations. I recognize the

significant hardship this places on you and your families.

After required notifications, we will begin the furlough period on July 8 at the rate of one furlough day per week for most personnel. We plan to continue these furloughs through the end of the current fiscal year. If our budgetary situation permits us to end furloughs early, I would strongly prefer to do so. That is a decision I will make later in the year.

Furloughs for 11 days represent about half of the number we had originally planned, reflecting the department's vigorous efforts to meet our budgetary shortfalls through actions other than furlough. There will be exceptions driven by law and by the need to minimize harm to the execution of our core missions. For example, all employees deployed or temporarily assigned to a combat zone will be excepted from furloughs.

Your managers have been given authority to develop specific furlough procedures to minimize adverse mission effects and also limit the harm to morale and productivity. They will be in touch with you to provide guidance and answers.

The president and I are deeply appreciative of your patience, your hard work, and your dedication and contributions to the critical mission of helping protect America's national security. I am counting on all of you to stay focused on this vital mission in the days ahead. As I said the day I assumed the responsibilities of secretary of defense, I'm proud to be part of your team and I'm proud to serve with you.

## Action Line

### Team AEDC

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

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

Col. Raymond Toth  
AEDC Commander

## Smoking Policy

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

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

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

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

2. Supervisors at every level will ensure this policy is followed. Disciplinary action is appropriate for repeated violations.

3. Updates to this policy will be made in the future to further align with Air Force guidelines.

4. This letter supersedes previous letter dated 28 October 2006, subject as above.

# ATA rehires many as AEDC's workload stabilizes

By Kathy Gattis  
ATA Public Affairs

ATA recently announced some good news – the company will rehire many of the employees who were reduced-in-force (RIF).

ATA reduced staffing by 170 people in April. Now the company will try and rehire about 100

of those involuntarily reduced. The jobs are being restored after the Air Force was able to secure additional funding for the contractor and the test workload improved and stabilized.

“This shows the dynamic nature of our work, but also the faith folks outside of AEDC (Air Force and test customers) have in the value of our work,” Pearson

said in a note to employees. “We are a very capable organization that provides real value to the testing community and this is why we’re seeing a turnaround,” he said.

AEDC has some unique, one-of-a-kind facilities needed for ground testing. During the last year, both the contractor and government workforce

have been aggressively marketing and it seems to be paying dividends.

Pearson did caution that the funding situation is and will continue to be dynamic in the foreseeable future... it is part of the business now.

Sequestration, federal budget cuts and testing that was canceled or delayed forced the ATA

reductions... the largest since the company was formed in 2003.

Pearson said he is thankful for the improved situation and the tremendous outpouring of support from area leaders, federal and state officials and the Arnold Community Council. ATA continues to work with these groups to try and assist those still impacted by the RIF.

## AEDC employees ‘Rev up’ for Cruise-In 2013 car show

By Raquel March  
ATA Public Affairs

Personnel at AEDC are in the process of finalizing plans for the upcoming AEDC Cruise-In scheduled for May 31.

Since the first successful Cruise-In last year, coordinators have received numerous requests for a similar event this year.

“With the success of last year’s event we hope to see a diverse collection of vehicles representing classic hot rods, muscle cars, trucks, current day luxury/performance cars and motorcycles,” said Dr. Ralph

Jones, Cruise-In coordinator.

Judging entries isn’t a part of the show but each participant will receive a dash plaque. A People’s Choice Award will be presented and is chosen by show attendees.

Cameras will be allowed at this event and attendees should ensure badges aren’t visible while in the display area. Attendees should be mindful of the complex’s rules on photography of prohibited facilities, hardware or materials.

Vehicles should be in place by 11 a.m. and will be on display until 12:30 p.m. If there is inclement weather May 31, the

alternate Cruise-In date is June 7.

Food will be for sale at the event courtesy of the base Sergeants Association and the Company Grade Officers.

Details on family member attendance will be made available to personnel as plans finalize.

Persons wanting to display a vehicle at the event must register with Tom Parrish at [Tom.Parrish@arnold.af.mil](mailto:Tom.Parrish@arnold.af.mil), 454-4896 or Shannon Tibbals at [Shannon.Tibbals@arnold.af.mil](mailto:Shannon.Tibbals@arnold.af.mil), 454-6707 by May 24th. For questions about the Cruise-In, contact Ralph Jones at [Ralph.Jones@arnold.af.mil](mailto:Ralph.Jones@arnold.af.mil), 454-6876.



Employees brought cars from all generations to AEDC's Cruise-In May 11, 2012. Employees walked through the parking lot by the Administration and Engineering Building talking with coworkers about their vehicles. (Photo by Jacqueline Cowan)

## Col. Toth represents AF at Chattanooga's Armed Forces Day



AEDC Commander Col. Raymond Toth represented the Air Force at a Armed Forces Day (AFD) on May 3 in Chattanooga. Toth attended the AFD parade and luncheon where he was able to greet local veterans like Charles Coolidge, a Medal of Honor recipient. The event was hosted by Hamilton County and the Chattanooga Area Veterans Council to honor military personnel. Honored guests included Gold Star wives and mothers, government officials and senior ranking officials from all five military branches. (photo provided)

### AWARD from page 1

“I am very proud of each and every member of the IP team,” said Danny Rewis, AEDC’s IP Chief. “The team here serves as the facilitator to orchestrate a coordinated protection strategy across multiple functional areas to ensure the protection of information. This award recognizes their crucial role and reflects the endless hours they spend, often as silent heroes behind the scene, to ensure AEDC’s mission is successful. I’m honored to be able to work with such dedicated team members.”

The endless hours Rewis spoke of were used in meeting award criteria set by AFMC Head Quarters IP division. The criteria included:

- Successfully executed information, personnel, and industrial security functions
- Demonstrated superior effort, knowledge, and ability in application of sound information protection program or process
- Worked effectively with other organizations in providing support to mission program or project
- Used or managed available resources effectively and efficiently
- Team members must have primarily worked to execute information, personnel, and industrial security duties

in protection of classified and controlled unclassified information. The team may include civilian, contractor and military members.

The IP security team received the award by meeting these criteria said Jeannie Bowden, ATA’s Industrial Security/IP manager.

“A team award is especially significant because it emphasizes the success that can be achieved when people work hard together, while maintaining individual commitments toward the common goal of protecting controlled information and assets,” Bowden said. “Teamwork involves an interdependency that creates a bond, making work more productive, valued, and meaningful. It’s a privilege to serve with a team of people who understand that our support to the AEDC/AFMC mission plays a vital role in national security.”

AEDC Commander congratulated the IP team and attributed the team’s success to the IP professionals involved.

“Our success in maintaining the security of our important acquisition programs would not be possible without the superb support of this amazing combined team of DOD and ATA Professionals,” said AEDC Commander Col. Raymond Toth.

## Workforce Development Program coming for AFMC maintainers

By Sandra B. Wimberly  
AFMC Logistics Functional Office

**WRIGHT-PATTERSON AIR FORCE BASE, Ohio** – A new career development program has been deployed to the Air Force Materiel Command maintenance community. The Maintenance Workforce Development Program (MWDP) is being implemented to provide a standard approach and increased opportunities for maintenance personnel to broaden their careers.

The Logistics Advisory Council (LAC) identified a need for development programs particularly focused on the Federal Wage System community, and issued a call for action.

According to Lorna Estep, AFMC deputy director of logistics and co-chair of the LAC, “AFMC needs a standardized training and workforce development approach in place. We need to take the time now to develop programs and broaden opportunities for our employees to gain the knowledge and skills needed for future enterprise logistics roles.”

With this general vision, the LAC chartered an integrated process team to look into current development efforts and propose a standardized approach. The IPT was led by the AFMC Logistics Functional Office with representatives from each of the command’s air logistics complexes (Hill AFB, Utah; Tinker AFB, Okla.; and Robins AF, Ga.), as well as Edwards AFB, Calif.; the Air Force Personnel Center and AFMC’s Directorate of Manpower, Personnel and Services.

Over the past 18 months, the team reviewed career development programs on-going at each of the air logistics complexes and identified best practices, which helped the team define the MWDP concept. The MWDP provides a multi-tiered approach for professional development. The first tier, modeled after

the Air Force Developmental Opportunities Program and the Tinker Opportunities for Professional Service, is called the GS Developmental Opportunities Program (MWDP-GS) and is targeted toward FWS and lower grade General Schedule employees. Under this program, FWS and lower grade GS employees may apply and be competitively selected for developmental positions (GS-05 target -09) within the maintenance area.

There are currently five occupational series eligible for the MWDP-GS: GS-0301, Miscellaneous Administrative; GS-0343, Management and Program Analyst; GS-0895, Industrial Engineer Technician/Planner; GS-1152, Production Control; and GS-1670, Equipment Specialist. When a vacancy becomes available in one of these five series, the hiring official will make a determination as to whether the position could be filled as a developmental program position. If so, the position will be re-designated and advertised for fill action as an MWDP developmental position. Once selected, the employee will be placed on a Formal Training Plan (FTP) to guide development and will be provided with quarterly feedback to ensure successful progression.

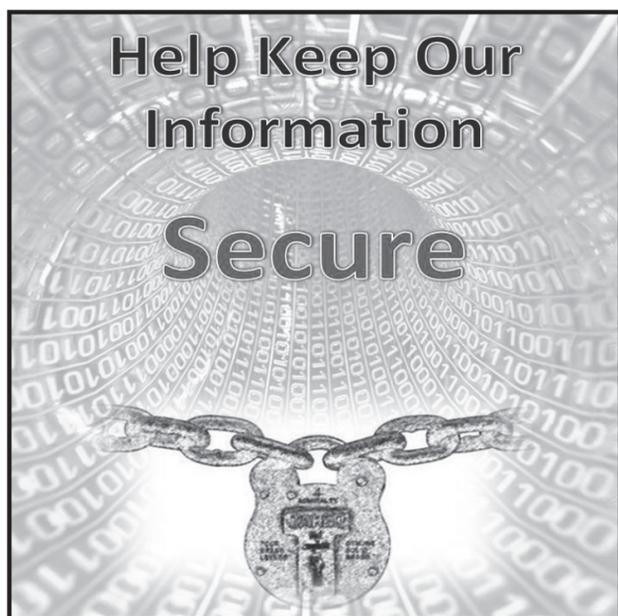
The FTP identifies required training geared for a specific job series that all personnel selected for MWDP-GS will complete, along with duty-specific tasks and training as determined by the supervisor. In order to be promoted, an employee must spend at least one year time-in-grade in the position and must successfully complete the training requirements identified in the FTP. This cycle will continue until the employee reaches the target grade of the position. Civilian employees interested in a developmental position within maintenance should monitor the USAJOBS web-site for announcements and follow

the instructions on the job announcement to apply.

The second tier of the MWDP is designed for Wage Leader development. IPT members interviewed supervisors at their respective locations and collected information concerning common knowledge gaps with newly assigned WLs. That information, along with training identified that could be used to close the gaps, culminated in the Wage Leader Development Program (MWDP-WL). The MWDP-WL includes a series of developmental courses new WLs must complete to help provide the knowledge and skills needed to succeed in the new position and assists with making the transition from mechanic/worker to leader. Under this program, new WLs must complete the identified training within one year of assignment.

“We applaud leadership’s desire to develop our maintenance workers and provide them a path to transition to the General Schedule,” said Troy Tingey, American Federation of Government Employees Council 214 president, during a briefing on the program. “A program like this has been needed for a long time.”

For the maintenance WG and WL communities, MWDP offers a great opportunity for professional, as well as personal, growth. The MWDP applies only to the air logistics complexes; however, other AFMC maintenance organizations may adopt the program if desired. For more information, see AFMCI36-2602, Maintenance Workforce Development Program – which was published March 1, 2013, and provides eligibility requirements and other program information – or contact your local MWDP point of contact (Hill AFB, Kevin Moore and Steve Tharp; Tinker AFB, Beverly Brown and Barry George; Robins AFB, Abe Banks; HQ AFMC/A4, Sandra Wimberly and Steve McBride).



# F-35 Lightning II fighter takes another step forward

By Joel Fornter

Secretary of the Air Force Public Affairs

**EGLIN AIR FORCE BASE, Fla. (AFNS)**—The Air Force took another step forward with its newest fighter jet when an advanced F-35 Lightning II landed at the service's lead training base, home to the largest fleet of F-35s worldwide.

The new stealth fighter kicks off a major training effort at the F-35 schoolhouse on an aircraft with unmatched capabilities.

The F-35 is the military's newest stealth fighter jet. Students from all military branches who are learning to fly the plane go through the schoolhouse at Eglin, including some from international services.

In addition to a few design improvements, the major difference between the new aircraft and others is sensors and software.

For example, pilots for the first time will begin training on a capability that gives them a 360-degree view around the jet.

Sensors that act like highly sophisticated cameras that can detect heat and other information are embedded in the front, sides and back of the F-35.

When in use, the pilot basically can see everything around them near and far, a capability not found in any current military fighter, said F-35 instructor pilot, Major Jay Spohn.

The system was designed to see other aircraft, people on the ground, missile launches, and more, and share that information with other aircraft and command centers on the ground.

Other new capabilities include a weather tracker



**Maj. Matthew Johnston, (left) 58th Fighter Squadron, instructor pilot, shakes hands with Col. Stephen Jost, 33rd Operations Group commander upon arriving at Eglin Air Force base, Fla. with the advanced F-35 Lightning II joint strike fighter, May 6. The advanced F-35 will be utilized by all military branches at the Air Education Training Command F-35 schoolhouse to train on new systems and software on the platform. (U.S. Air Force photo by Staff Sgt. Nicholas Egebrecht)**

and an enhancement of a system known as ALIS, or autonomic logistic information system, which transmits aircraft health and

maintenance information and makes use of a portable computer planeside for the maintainer.

"This system is a game

changer," said Senior Master Sgt. Eric Wheeler, production superintendent, 33rd Aircraft Maintenance Unit. "It combines real-time

data collection and trouble shooting in one system, eliminating the need for carting out stacks of binders and paper forms to the jet, as well as having to dual annotate once on paper and again later in the office on a computer."

The latest system software, which has a better user interface and enhanced capability to download, is another step along the track in fixing problems in less time, which can be critical in time of conflict, Wheeler said.

The new F-35A will share the skies over Eglin's training ranges with the Navy VFA-101 flying squadron here, which is slated to get their first two F-35C aircraft later this month along with another United Kingdom F-35B assigned to the Marine Corps VMFAT-501 flying squadron, scheduled to arrive here in about a month.

## Research center established at the UT Space Institute

Office of Public Relations

University of Tennessee Space Institute

Over the past few years, members of the University of Tennessee Space Institute (UTSI), the University of Tennessee, Knoxville (UT) and the University of Tennessee Research Foundation (UTRF) have been working towards the establishment of a strategic technology research and development organization to support economic development and UTSI's mission.

During September 2011,

The Center for Advanced Scientific Support and Engineering Technology (ASSET.TN) was established on the campus of UTSI as a 501(c)(3) organization affiliated with UTRF. In Oct. 2012, ASSET.TN implemented its first financial agreement and became operationally effective early this year.

The focus of ASSET.TN is on technology development, engineering, and scientific support for the

purposes of complementing the Space Institute's educational and research capabilities. Ahmad Vakili, professor of mechanical and aerospace engineering at UTSI, has been actively involved in the development of ASSET.TN.

According to Vakili, "as a non-profit organization, ASSET.TN overcomes publicly funded university limitations for technology development types of research with funding and growth opportunities, creating a mechanism for a different level of engagement

with its customers and the Department of Defense and will help to facilitate new types of opportunities for UT, the Space Institute and other organizations."

There are many similar non-profit centers in operation where companies work closely with their affiliated universities and have jointly become quite successful. Such companies have become a symbol of adjunct support for academic accomplishments, generating advanced technologies that lead to technology jobs.

The processes involved

are typically through developing applications from intellectual properties created by affiliated academic institutions, individual entrepreneurs and industrial partners.

Transitioning such technologies into products contributes to the communities, facilitating technology companies to be supported directly and indirectly, and to help their growth by providing services that frequently smaller companies do not have readily available in order for them to compete against their peers located

in well-established industrialized regions. Other resources, such as faculty and staff, as well as access to facilities and laboratories, can be made available through coordinated agreements that benefit all parties involved.

Robert Moore, UTSI Executive Director, remarked "ASSET.TN will help facilitate participation by UTSI faculty, students and technical staff in real engineering projects, while contributing to the economic growth of the region and communities located in the Tennessee Valley Corridor."

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## AIAA Tennessee Section announces annual awards luncheon at AEDC

The American Institute of Aeronautics and Astronautics (AIAA) Tennessee Section is having an annual Awards Luncheon May 29, 11 a.m. to 12:30 p.m. at the Arnold Lakeside Club. Membership in AIAA is not required for attendance.

AIAA will recognize colleagues who have achieved significant technical accomplishments and provided valued support to AIAA professional activities.

An Italian lunch buffet (bowtie pasta, fettucini pasta, red and white sauce, meat lasagna, garlic bread, and salad) will be served at 11 a.m. and an awards presentation, kicked off by a short introduction from Col. Raymond Toth, will begin at 11:30.

Awards will include the prestigious General H. H. Arnold Award, presented to an individual rec-

ognized for outstanding personal contributions to the advancement of aerodynamic or astronautical sciences. Special awards will also be presented to recognize outstanding teams and individuals that have provided significant support and/or outstanding achievements within the technical community. This year's awards also include the Billy J. Griffith Engineering Analysis Award, which is presented for an outstanding application of the integrated test and evaluation "Methodology."

The luncheon is \$9.95 for non-ALC members or \$8.95 for ALC members. A reservation is required in order to obtain an accurate count for planning. If attending, please contact Joe Wehrmeyer at [Joseph.wehrmeyer@arnold.af.mil](mailto:Joseph.wehrmeyer@arnold.af.mil) or 454-4345 by close of business May 22.

## Officials approve implementation guides for mobile devices

WASHINGTON (AFNS) – Pentagon officials approved the security technical implementation guides for BlackBerry 10 smartphones and BlackBerry PlayBook tablets with BlackBerry Enterprise Service 10, as well as Samsung's Android Knox, to be used on Defense Department networks.

"This is a significant step towards establishing a multivendor environment that supports a variety of state-of-the-art devices and operating systems," Air Force Lt. Col. Damien Pickart, a Pentagon spokesman, said in a statement announcing the approval.

Several mobile devices

and operating systems are going through the Defense Information Systems Agency's review and approval process. A security technical implementation guide approval establishes a configuration that allows a secure connection to DOD networks, which facilitates the process by eliminating the need for security reviews at the individual organization level, Pickart explained. However, he added, yesterday's decision does not result in product orders.

The level of security necessary throughout the department does not rest solely on any one mobile device, Pickart said, adding that the network

and software also must be secured and managed appropriately. An integral part of the secure mobility framework will be the Mobility Device Management and Mobile Application Store, which is in source selection now and anticipated for award in early summer, he said.

"We are pleased to add Blackberry 10 and the Samsung Knox version of Android to our family of mobile devices supporting the Department of Defense," the spokesman said.

"We look forward to additional vendors also participating in this process, further enabling a diversity of mobile devices for use within the department."

## Life can change in a split second

By Tech. Sgt. Mareshah Haynes  
Air Force News Service

**COLORADO SPRINGS, Colo. (AFNS)** – Life can be described as a series of moments, seconds even, strung together to form experiences and memories. A split-second decision can mean the difference between life and death.

Senior Master Sgt. Martin Smith knows the impact just one second can make.

Smith, a seasoned motorcycle rider and Active Guard Reservist, was driving home from work just as he had done countless times before. A construction project on the interstate caused traffic to back up on the roadway. As he came around a sharp curve, he didn't realize the cars in front of him were actually at a stand-still.

"I tried to brake, but because of the heat and the asphalt and my tires, I slid," he said. "I let up on the brake and tried to re-brake, and I realized I wasn't going to clear (the car in front of me), so I tried to go into the ditch. But I was a millisecond too late, and I clipped the back right-hand corner of that car, all on my left leg."

Smith said he didn't realize the gravity of what had happened initially. He saw that his leg was badly injured and bleeding profusely, so he began to perform self-aid and buddy care on himself.

"I took my belt off and wrapped around the bottom of my knee, trying to tourniquet it," he said. "It was almost like I was looking

back at myself. I was on a slope and my leg was on the downhill part of that, so I knew I had to get turned but I didn't have the strength to get turned."

Eventually, the adrenaline from the accident wore off and Smith began to go into shock. Bystanders, including a prior Marine, attended to Smith while the local emergency responders were en route via helicopter. Smith said he remembers the EMTs talking to him during the flight to the hospital trying to keep him awake.

Smith's leg had been crushed in the accident and the damage was worse than he anticipated. The trauma to the tissues and nerves was so severe the doctors suggested that below the knee amputation would be

See **CHANGE**, page 11





**RELAY** from page 1

more than \$4,500 for cancer research and overall the event raised more than \$40,000.

Col. Raymond Toth, AEDC commander, and Dr. Douglas Blake, AEDC executive director, attended the event. Toth said, "Relay for Life is such an inspiring event, particularly for me as cancer took three very important people in my life. Through events like Relay and the dedicated, amazing volunteers and participants that help put it together, I'm hopeful we will see cancer eradicated during our lifetimes."

Team Remember raised money prior to the event by selling T-shirts and holding a bake sale. The bake sale raised more than \$750 thanks to the generosity of AEDC employees. The team raised money at the event by selling "Fight Like a Girl" and "Fight for Hope" T-shirts, hosting carnival games, offering chair massages, and providing attendees the opportunity to beat on a car with sledgehammers.

Additionally, several officers and their wives were in attendance and assisted with the fundraising efforts. Due to everyone's dedication and assistance, fundraising efforts were a

huge success, according to Shawn Wolfe, chief of AEDC Military Personnel.

"The survivor lap and caregiver lap are emotional times for the participants," Wolfe said. "As cancer survivors circled the track for the survivor lap and as survivors and their caregivers circled the track for the caregiver lap, their friends, family and teammates were there to cheer them on."

"Three AEDC employees, Education Training Specialist Dee Wolfe – the base liaison with the Relay for Life committee, Café 100 Manager Bryan

Larson and Contract Specialist Karen Buckner participated in the survivor lap. We were so proud of all the people who participated in the Relay event, and we hope the base's participation in the event continues to grow each year. We had a small team, but we still exceeded our team goal of \$4,000," Wolfe said, who has shared the team's participation coordination since 2009.

Peg Proffitt, from the Mission Support Squadron said, "I would just like to say that I am proud to have been part of the team and was quite glad to

see so many come out to support us during the rain and cold weather and I am looking forward to next year. Go Team Remember.

"Thank you to everyone who helped make this event a success."

Team Remember included the following members: Shawn, Dee and daughter Amber Wolfe; Proffitt; Capt. Ryan Anderson, Heather Fair-Rawn, Rhonda Ward, Melissa Warren and Shanda Peterson with the AEDC Financial Management and Comptroller Division; and Pat Harris and Mike and Debby Lewis, non-AEDC community participants.

## STRATCOM strives to build coalitions for space operations

By Donna Miles

American Forces Press Service

**OFFUTT AIR FORCE BASE, Neb. (AFPS)** – Recognizing the value of multinational coalitions for operations in the land, maritime and air domains, officials at U.S. Strategic Command here hope to forge a coalition that shares assets and capabilities in space.

The U.S. and its allies are discussing details for the first agreement of its kind promoting combined space operations, Brig. Gen. David D. Thompson, the STRATCOM's deputy director of global operations, told American Forces Press Service.

The agreement could spell out specific areas in which the participating nations will work together, and what each will contribute to those efforts, Thompson said.

The agreement will formalize an arrangement tested last year during a period discovery. Based on the findings, the U.S. and its allies agreed in September to continue working toward closer combined space operations.

Thompson said he hopes the agreement will be the first step in forging international military-to-military cooperation in space that is essential to all. The STRATCOM staff already is promoting the concept with what is hoped to be the next wave of nations to join the coalition.

"Our intent with combined space operations is to mirror some of the partnerships we have in other mission areas that are long-term and enduring," Thompson said.

Space is vital to military operations, providing an array of capabilities that

give space-faring nations' forces a military advantage, he said. These include intelligence, surveillance and reconnaissance capabilities that enhance warfighters' situational awareness, space-based communications that provide them instant, global communications, and global positioning systems that deliver highly accurate navigation and targeting positions.

"This gives them an awareness and understanding that enhances their capabilities to conduct operations the way no other armed forces can today," Thompson said. "That's why it's vitally important to our military forces."

However, as more nations, organizations and commercial companies vie to take advantage of space-based capabilities, the once-pristine space domain is becoming increasingly congested and competitive, Thompson said.

And of particular concern to military leaders, space is an increasingly contested domain, with potential adversaries hoping to level the playing field by denying access to space and space-based capabilities, he said. The response, Thompson said, must be the same unity in numbers that has proven itself out in every other domain. Coalitions provide more capability than any one nation can provide alone, while also sending an important deterrent message to potential adversaries, he said.

Unlike recent coalitions, formed for specific periods to accomplish specific objectives, Thompson said he hopes those formed for operations in space endure.



AEDC Commander Col. Raymond Toth attempts to throw balls into pales for Team Remember's Survivor Island game fundraiser while AEDC's (left to right) Melissa Warren, Rhonda Ward and Heather Fair-Rawn assist. (Photo provided)



AEDC Education Training Specialist Dee Wolfe, the base liaison with the Relay for Life Team Remember, displayed luminary bags in honor of her mother and father. The team also displayed a luminary in honor of Wolfe. During the Relay for Life Luminaria Ceremony, votive candles are lit inside personalized bags to shine a light on the fight against cancer. (Photo provided)



AEDC employees (second, from left to right) Bryan Larson, Dee Wolfe and Karen Buckner, along with Wolfe's neighbor Maryann Coleman, walk around the Coffee Middle School track at the Coffee County Relay for Life "Survivor Lap." (Photo provided)

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# Local veterans take Honor Flight to Washington D.C.

By Claude Morse

*Southern Middle Tennessee Honor Flight*

**Coffee County, Tenn.** – Thirty-two World War II and Korean War veterans and 13 guardians (escorts) had a great day in Washington D.C. Saturday May 11.

The veterans visited the World War II and Korean War Memorials, meeting Senator Bob Dole and watching the changing of the guard at Arlington National Cemetery's Tomb of the Unknowns.

The Southern Middle Tennessee Honor Flight is

already signing up veterans and guardians for a fall flight.

With the closure of the Music City (Nashville) Honor Flight Hub this month the Southern Middle Tennessee Honor Flight will take veterans from Middle Tennessee and surrounding states.

World War II Veterans have priority followed by Korean War veterans; terminally ill veterans have top priority. The trip is free for Veterans, Guard-

ians pay their own way.

For information on signing up a veteran for the fall Honor Flight, contact Veterans Coordinator, retired Sgt. Maj. Larry Williams at [tennesseans2@blomand.net](mailto:tennesseans2@blomand.net) or (931) 224-3226.

For information on becoming a guardian contact Vice Chairman and Guardians Coordinator Lana Woodard at [lwoodard@ctcbonline.com](mailto:lwoodard@ctcbonline.com) or (931) 455-3488. For general information on Honor Flight contact Chairman Claude Morse at [aeroheritage@bellsouth.net](mailto:aeroheritage@bellsouth.net) or (931) 247-5151.



AEDC Fellow Dr. Jim Mitchell (center) and AEDC retiree Ross Roepke (right) stand with a fellow veteran to view the World War II Memorial as part of the Southern Middle Tennessee Honor Flight on May 11. (Photos by Claude Morse)



Senators Bob (center) and Elizabeth Dole (top left) meet with Honor Flight Veterans from across the country at the World War II Memorial on May 11.



Changing of the Guard at Arlington National Cemetery May 11.

## Defense Acquisition University registration to open in May

**WRIGHT-PATTERSON AIR FORCE BASE, Ohio** – Defense Acquisition University registration opened online May 16, and students should apply as soon as possible since classes fill quickly. Members' applications will be processed by priority,

supervisor approval date and class start date, with Priority 1 students taking precedence.

Acquisition workforce members should regularly monitor the ACQ Now website for the most current information regarding DAU registration

and course updates. Most resident classes only hold 30 students, and students should apply upon immediate release of the schedule. It's important for applicants to note that a hundred or more other students may be applying for the same class – especially if it is the first one on the schedule.

For commonly used courses such as ACQ 201B, Intermediate Systems Acquisition Part B, students should apply for more than one offering. Even though ACQ Now may show availability, the

ACQ Now site is refreshed every 24 hours. With classes filling up and forming waitlists, students will not be able to see updates until the following day.

The number of students in the Defense Department taking DAU training is more than 100,000. These

courses are open to students across the entire federal government, with all military service components – Army, Navy, Air Force, DOD – as well as other service components, federal agencies and organizations registering for DAU courses at the same time.

## ATA makes donations to local high school, soccer team



ATA presented a charitable donation to the Coffee County Central High School (CCCHS) men's soccer team last month. Richard Goodwin, of the ATA Employee and Community Activities Committee (E&CAC), presented the donation to the soccer team's head coach Andy Escue. The CCCHS men's soccer team, pictured left to right and standing, are Dallan Lush, Ricky Ramirez, Josh Jones and Pierce Green. Team members on the front row, left to right are Baltazar Burrera, David Bynum, Pedro Martinez and Caio Guimaraes. (photo provided)



The Coffee County Central High School Environmental Science class received a donation from ATA which will be used to build a functioning solar panel in conjunction with a Principles of Engineering class involving 120 students. Environmental Science Class Teacher Megan Benton (right) and Principal John Bush accepts the donation check from ATA Employee and Community Activities Committee (E&CAC) representative Becky Combs. (photo provided)

## Through Airmen's Eyes: Refugee becomes AF nurse

By Staff Sgt. David Dobrydney  
455th Air Expeditionary Wing Public Affairs

**BAGRAMAIRFIELD, Afghanistan (AFNS)** – After escaping the violence of the Iran-Iraq War, a young girl and her family reached a refugee camp in Turkey.

One of the things she still remembers vividly from this journey are the large red crosses emblazoned on the aid tents in the camp. After all, it was here that 1st Lt. Wajeeha Omar first encountered an American nurse who worked in the immunizations area – an encounter that would later influence the course of her own life.

"Back then they wore the white dress and a pretty white hat," Omar said.

After living in the camp without access to regular showers, Omar felt rather embarrassed when she got to the front of the immunization line, where the wait could last for hours, when the nurse confidently reached out her hand.

"It didn't bother her," Omar said. "I could tell she was telling me not to be afraid. She reassured me and... was very comforting. It was at that moment I wanted to be a nurse."

Today, Omar is one of 120 American nurses and medical technicians at Craig Joint Theater Hospital here, providing health care to sick and injured service members.

Omar admitted that at the time the dream of becoming a nurse seemed remote in a culture that prized family and child-rearing above all.

"Living in the camp it was a very big dream, something I didn't think would be possible," she said. "I didn't think I would end up in America or a country where I would even go to school."

Upon arriving in the United States in 1992, 13-year-old Omar was immediately placed in the ninth grade and said she struggled in the new environment.

"It was a very frightening experience," she said.

As time went by though, Omar found herself discovering the world was more full of opportunities than she'd once thought.

"Living in northern Iraq it seemed very small; I didn't know the world was



1st Lt. Wajeeha Omar, 455th Expeditionary Medical Operations Squadron patient movement nurse, discusses inbound patient records with Lt. Col. (Dr.) Dave Hardy, 455th EMDOS chief of aerospace medicine, at the Craig Joint Theater Hospital on Bagram Airfield, Afghanistan, May 9. Deployed from Lackland Air Force Base, Texas, Omar is responsible for the efficient movement of patients into the hospital and either back to their downrange units or to further care outside the area of operations. (U.S. Air Force photo/Staff Sgt. David Dobrydney)

as big as it was," she said.

Realizing that she could become a nurse if she wanted to, Omar decided to go to nursing school while also working full-time and raising a young daughter as a single mother. Eventually, she was drawn toward the military to help her continue her education.

From the time she entered the service, Omar was keen to deploy, wanting to

provide the type of service she had benefited from long ago in that refugee camp.

"I wanted to do the same thing that others had done for us," she said. "I wanted to give back to those who had given so much to ensure our care and freedom."

Omar has now been in the Air Force more than two years. Her current deployment to Bagram Airfield is

her first, and while her work is primarily processing the paperwork that moves service members in and out of the hospital, she realizes the importance of her role.

"It's a big part of the mission," she said. "I don't provide their care directly, but I do send them home."

While Omar still hopes to do more humanitarian work in the future, today she's appreciative of the

exposure the Air Force is giving her to various aspects of nursing work.

"There's a huge variety, you never get bored," she said. "I'm learning things here that I never heard of back home."

Omar's leadership considers her a vital part of the Craig Joint Theater Hospital team.

"(Omar) is one of the best, hardest-working officers I've had the pleasure of working with in my 22-year career," said Lt. Col. Doug Houston, the 455th Contingency Aeromedical Staging Facility flight commander. "She's very meticulous with details and is not afraid to hold people to standards. She has a bright future ahead of her."

Omar said people often ask her how she went from a refugee to a successful officer in the Air Force, thinking that she's either extremely smart or just had things handed to her. She said she has had to study and work hard to reach this point.

"Almost everything I have tried, I have failed the first time," she said. "Part of me getting this far was not giving up ... and I continue not to give up."

## X-51A Waverider achieves breakthrough in final flight

By Daryl Mayer  
88th Air Base Wing Public Affairs

**WRIGHT-PATTERSON AIR FORCE BASE, Ohio (AFNS)** – The final flight of the X-51A Waverider test program has accomplished a breakthrough in the development of flight reaching Mach 5.1 over the Pacific Ocean May 1.

"It was a full mission success," said Charlie Brink, the X-51A program manager for the Air Force Research Laboratory Aerospace Systems Directorate.

The cruiser traveled more than 230 nautical miles in just over six min-

utes over the Point Mugu Naval Air Warfare Center Sea Range, Calif. It was the longest of the four X-51A test flights and the longest air-breathing hypersonic flight ever.

"I believe all we have learned from the X-51A Waverider will serve as the bedrock for future hypersonics research and ultimately the practical application of hypersonic flight," Brink said.

The X-51A took off from the Air Force Test Center at Edwards AFB,

Calif., under the wing of a B-52H Stratofortress. It was released at approximately 50,000 feet and accelerated to Mach 4.8 in about 26 seconds powered by a solid rocket booster. After separating from the booster, the cruiser's supersonic combustion ramjet, or scramjet, engine then lit and accelerated the aircraft to Mach 5.1 at 60,000 feet.

After exhausting its 240-second fuel supply, the vehicle continued to send back telemetry data until it splashed down into the ocean and was destroyed

See X-51A, page 10



The X-51A Waverider prepares to launch its historic fourth and final flight. The cruiser achieved Mach 5.1 traveling 230 nautical miles in just over six minutes, making this test the longest air-breathing hypersonic flight ever. (U.S. Air Force photo/Bobbi Zapka)

## GPS IIF-4 successfully launched from Cape Canaveral AF Station

**LOS ANGELES AIR FORCE BASE, Calif. (AFNS)** – A U.S. Air Force Global Positioning System (GPS) satellite built by Boeing was successfully launched May 15. The fourth GPS IIF satellite, Space Vehicle Number (SVN) 66, was carried aboard a United Launch Alliance Atlas V Launch Vehicle at 5:38 p.m. EDT from Cape Canaveral Air Force Station, Fla.

The new capabilities of the IIF satellites will provide greater navigational accuracy through improvements in atomic clock technology; a more robust signal for commercial aviation and safety-of-life applications, known as the new third civil signal (L5); and a 12-year design life providing long-term service. These upgrades improved anti-jam capabilities for the warfighter and improved security for military and civil users around the world.

"I'm extremely pleased with today's launch and

delighted to be part of this mission that enhances our nation's critical GPS capability. Thanks to the superb efforts of the of the 45th and 50th Space Wings, United Launch Alliance, our industry partners, the Atlas V and GPS IIF launch teams, the GPS IIF-4 mission was successfully carried out," said Col. Bernie Gruber, director of the Space and Missile Systems Center's Global Positioning Systems Directorate.

"The GPS constellation remains healthy and continues to meet and exceed the performance standards to which the satellites were built. Our goal is to deliver sustained, reliable GPS capabilities to America's warfighters, our allies and civil users around the world, and this is done by maintaining GPS performance, fielding new capabilities and developing more robust modernized capabilities for the future," Gruber said.

From the launch of its first satellite, GPS has trans-

formed navigation and precise timing for all users. GPS has grown into a global utility whose multi-use services are integral to U.S. national security, economic growth, transportation safety, homeland security and are an essential element of the worldwide economic infrastructure. GPS is the pre-eminent military space-based positioning, navigation and timing system in the world and is an integrated part of U.S. and coalition military training and operations. While GPS is a military-procured and operated satellite constellation, it is recognized as a global utility serving billions of users around the globe.

The Air Force continues to meet and exceed its operational requirements with GPS and maintain its commitment to sustain the constellation and modernize GPS to develop and field new capabilities for the military and civil users worldwide.

### X-51A from page 9

as designed. At impact, 370 seconds of data were collected from the experiment.

"This success is the result of a lot of hard work by an incredible team. The contributions of Boeing, Pratt and Whitney Rocketdyne, the 412th Test Wing at Edwards AFB, NASA Dryden and DARPA were all vital," Brink said.

This was the last of four test vehicles originally conceived when the \$300 million technology demonstration program began in 2004. The program ob-

jective was to prove the viability of air-breathing, high-speed scramjet propulsion.

The X-51A is unique primarily due to its use of a hydrocarbon fuel in its scramjet engine. Other vehicles have achieved hypersonic, generally defined as speeds above Mach 5, flight with the use of hydrogen fuel. Without any moving parts, hydrocarbon fuel is injected into the scramjet's combustion chamber where it mixes with the air rushing through the chamber and is ignited in a

process likened to lighting a match in a hurricane.

The use of logistically supportable hydrocarbon fuel is widely considered vital for the practical application of hypersonic flight.

As a technology demonstration program, there is no immediate successor to the X-51A program. However, the Air Force will continue hypersonic research and the successes of the X-51A will pay dividends to the High Speed Strike Weapon program currently in its early formation phase with AFRL.

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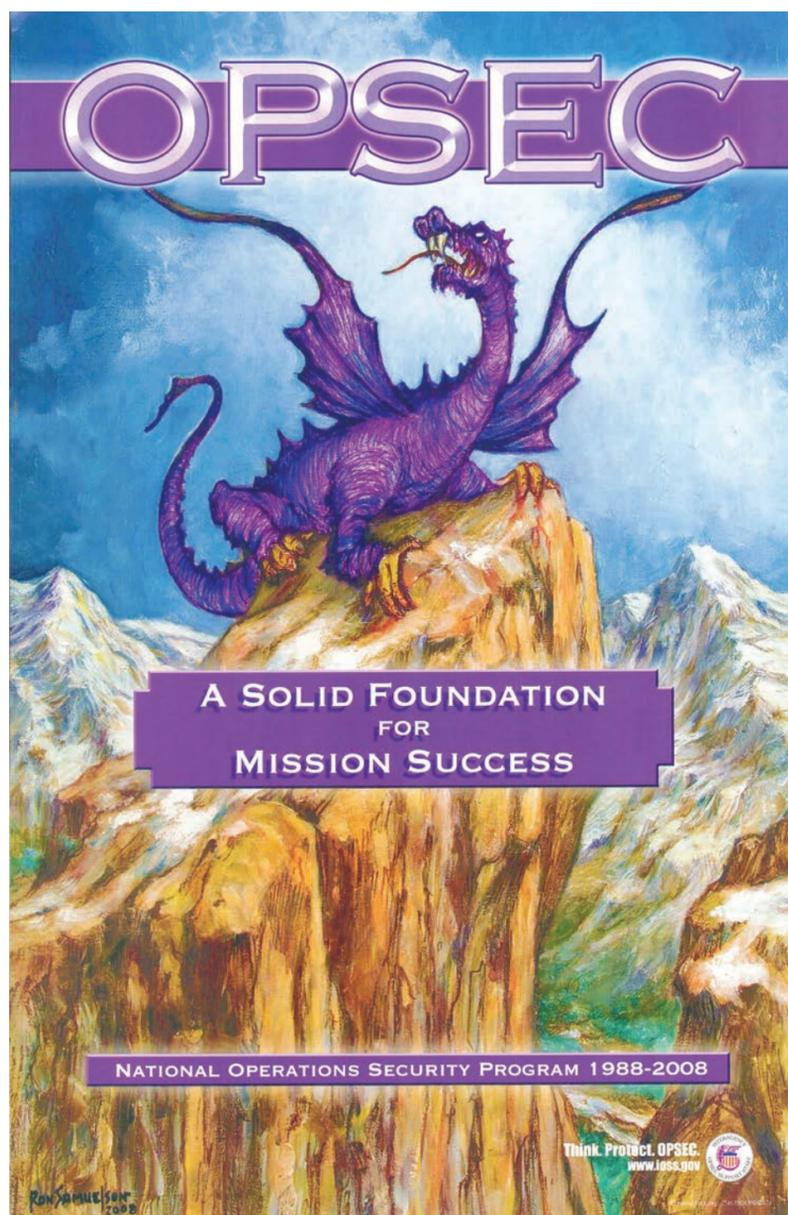
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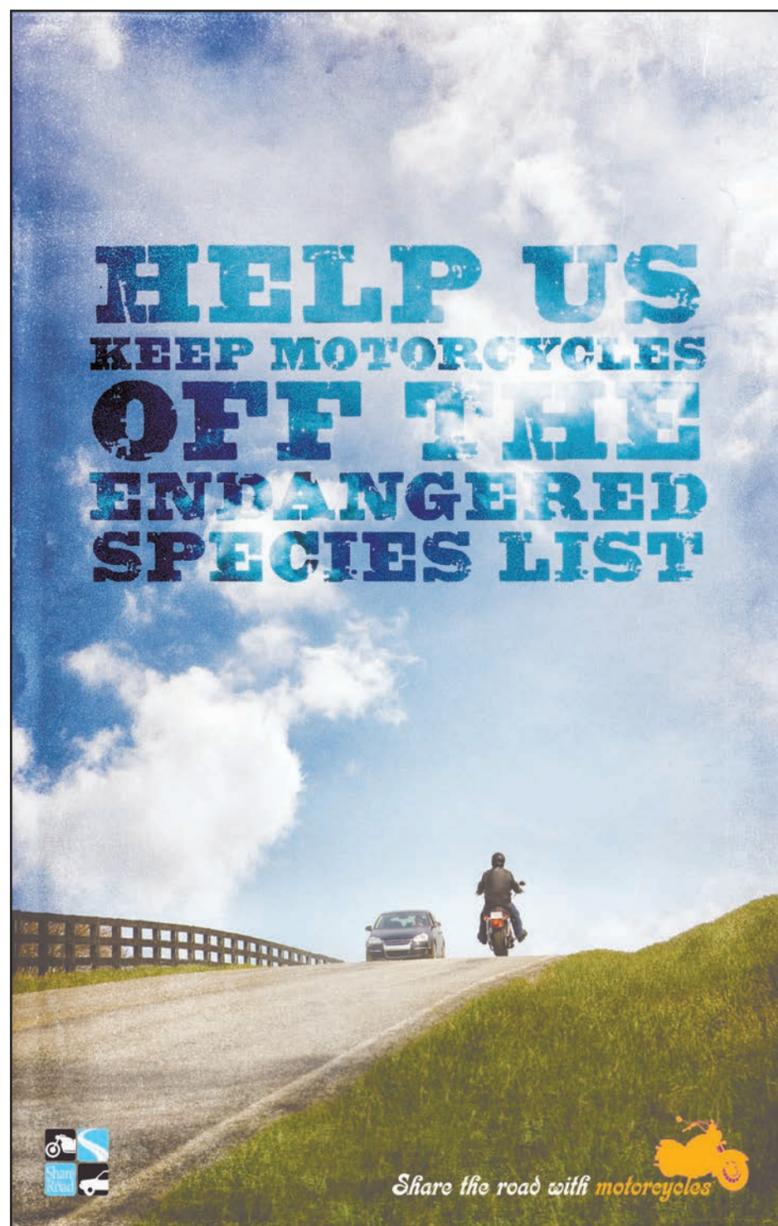


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**CHANGE** from page 5

his best option. Smith said the doctor told him the damage was similar to that seen in roadside bombing injuries.

Within four days of the accident, Smith, his wife and the doctor agreed the best course of action would be to amputate the leg below the knee.

He and his wife had discussed the options and were confident in the decision, but Smith said after the surgery, while he was alone in his room, what had happened really began to hit him – and hard.

"It wasn't until that first weekend after the amputation, when nobody in the hospital room, all of a sudden, out of the blue, everything just kind of bloomed on that Saturday afternoon," Smith said. "I got down in a pretty dark hole. It was kind of like, 'Stop lying to yourself, this is where it's really at. Everything's changed. You're going to have to relearn to do stuff. There's a bunch of stuff you can't do.' It was pretty dark. I never realized all this stuff was out there (emotionally)."

Smith said without even knowing, his wife walked in just at the right moment and reached out a hand that helped him begin to climb out of that hole.

"She said just the right thing at the right time,"

he said. "I was not expecting her to say that and she said it calmly and strongly, 'We're both fighters.' I was like, 'Wow. Thanks.' It hit me like a silver bullet. She was able to chase all that stuff away. It's still hard to deal with, but it wasn't so desperate when she came in there and talked to me that Sunday. It was scary. I'd never felt feelings like that before."

Smith said his family and his faith helped him get through the tough times and they continue to now.

Now, eight months out from his accident, Smith is diving into some old habits. A competitive swimmer in high school, Smith said he hadn't swum competitively in more than 30 years.

"I wasn't doing much of a long distance, but at least I was doing something that was making me breathe hard and it felt good," he said. "I really had just been laying around, up to that point, for three months not doing anything."

Now he's competing in the 2013 Warrior Games as a swimmer. He said training for the Games has reignited his competitive spirit and given him a goal to help him get his prosthetic leg that will give him the freedom to run and become involved in even more activities.

## Spangdahlem AB launches final A-10 in Europe

By Staff Sgt. Daryl Knee  
52nd Fighter Wing Public Affairs

**SPANGDAHLEM AIR BASE, Germany (AFNS)** – Airmen here launched the final A-10 Thunderbolt II tactical sortie in Europe May 14.

The airframe belongs to the 52nd Fighter Wing's 81st Fighter Squadron, which inactivates in June.

"I'm proud to be a part of the last sortie," said Lt. Col. Jeff Hogan, the 81st FS director of operations and a pilot from the flight.

"It's definitely a sad day for the (81st) as we end 20 years of A-10 operations here. I'm just proud to take part in this historic event."

The squadron's inactivation is due to the termination of the Continuing Resolution provision and the enacting of the 2013 National Defense Authorization Act, a plan which defines the budget and expenditures of the U.S. Department of Defense. The Air Force is reviewing and realigning its force structure since President Barack Obama announced the plan.

Flying hours across the Air Force are being reduced; however, pilots strive to maintain their proficiency by training at every opportunity.

In this sortie, the three

pilots flew the A-10s to train with a new upgrade to their helmet. The Scorpion Helmet-Mounted Cueing System includes an eyepiece attachment that taps into the data relay and communications systems of the aircraft to project a color heads-up display. Pilots can then look out of their window, and the eyepiece will highlight friendly or enemy forces.

The route of their training took them over the sky of Fulda, a village in central Germany known for its strategic location in the 1980s.

The Fulda Gap was a route for a potential tank movement from Eastern Europe into the central Germany during the Cold War. NATO planners and coalition forces prepared defenses around the area in the case of an attack. The development of the A-10 as a close-air-support aircraft is in direct relation to anticipated enemy tank defenses along the route. When the tank movement never occurred and the Cold War ended, U.S. forces used the A-10 aircraft already stationed here for ground support in contingency operations

worldwide.

"It's a difficult day, not for just the people in this squadron, but for anyone who's ever served with the 81st," said Lt. Col. Clinton Eichelberger, the 81st FS commander. "Since we've been here, the world has changed, and the Air Force has changed with it. Today marks the day when we move forward. The people

and aircraft are moving on to other units where they will continue to serve in today's theater of operations."

The aircraft are relocating to Moody Air Force Base, Ga., to help fulfill training requirements and force augmentation. The flight for the last four aircraft out of Germany was slated for May 17.



**Lt. Col. Jeffrey Hogan receives an American flag from Senior Airman Christopher Nichols May 14, at Spangdahlem Air Base, Germany. This tactical sortie is scheduled to be the last before the squadron's inactivation in June. Hogan is the 81st Fighter Squadron director of operations from Olympia, Wash. Nichols is a 52nd Aircraft Maintenance Squadron specialist. (U.S. Air Force photo/Tech. Sgt. Jonathan Pomeroy)**



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

**Check us out on Facebook! Arnold AFB Services Golf Course**

**2013 Tournament Schedule**

**June 22-23** - Member-Guest Tournament

**July 20-21** - Arnold Tri-City Open Championship

**Aug. 24-25** - Club Championship

**Sept. 5** - AEDC Golf League Awards Banquet

**Sept. 19** - Thursday Night Scramble Ends

**Sept. 21** - Member Member Tournament

**Oct. 5** - Season Ending Tournament

A two-person scramble **Member Guest Tournament** will be held June 22-23 with 8 a.m. shotgun start both days. Cost is \$125 per team and is all inclusive with lunch after Sunday's round. Sign up in the Pro Shop by June 15.

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

**Mulligan's Coffee Bar & Grill** is open 10:30 a.m. to 2 p.m. Monday through Friday and 7 a.m. to 2 p.m. Saturday and Sunday. Call ahead orders for dine in or carry out, 454-FOOD (3663).

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

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

**Movie Schedule**

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

**May 23** - "Safe Haven," rated PG-13 (1 hr. 55 min.) starring Josh Duhamel and Julianne Hough.

A young woman with a mysterious past lands in Southport, North Carolina where her bond with a widower forces her to confront the dark secret that haunts her.

**May 30** - "Lincoln," PG-13 (2 hr. 30 min.) starring Daniel Day-Lewis, Sally Field and David Strathairn.

As the Civil War rages, America's president struggles with continuing carnage on the battlefield and as he fights with many inside his own cabinet on the decision to emancipate the slaves.

**June 6** - "Oz the Great

and Powerful," rated PG (2 hr. 10 min.) starring James Franco, Michelle Williams, Mila Kunis and Rachel Weisz. A small-time magician is swept away to an enchanted land and is forced into a power struggle between three witches.

**June 13** - "Jack the Giant Slayer," PG-13 (1 hr. 54 min.) starring Nicholas Hoult, Ewan McGregor, and Stanley Tucci.

The ancient war between humans and a race of giants is reignited when Jack, a young farmhand fighting for a kingdom and the love of a princess, opens a gateway between the two worlds.

**June 20** - "Snitch," PG-13 (1 hr. 52 min.) starring Dwayne Johnson, Jon Bernthal, and Susan Sarandon.

A father goes undercover for the DEA in order to free his son who was imprisoned after being set up in a drug deal.

**June 27** - "The Incredible Burt Wonderstone," PG-13 (1 hr. 40 min.) starring Steve Carell, Steve Buscemi and Mason Cook. When a street magician's stunts begin to make their show look stale, superstar magicians Burt Wonderstone and Anton Marvelton look to salvage on their act - and their friendship - by staging their own daring stunt.

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

- May 24 full menu available in The Landing

- May 25 Express menu only available in The Landing

- June 1 full menu available in The Landing

- June 8 closed for special event

Books Are Fun is back for a **book fair** from 9:30 a.m. - 3 p.m. June 4 in the A&E Building's Café 100. Discounted selections include paperbacks, best sellers, educational, reference, cookbooks, children's items, gift selections and more. Save up to 70 percent off retail prices.

**First Friday Jam** will be June 7 beginning at 6 p.m. Come to play, listen, dance and enjoy. Join in with the band to play an instrument or sing. Or take over and do your own performance. Dinner is available from 5-8 p.m.

Arnold Lakeside Center's new monthly program **Brushes and Bottles** will be held 6-8 p.m. at the GLC June 14. Bring your favorite beverage and get ready to get creative as an instructor will lead you through a canvas painting work of art step-by-step. By the end of the evening you will have your own masterpiece to take home. These painting parties are for all skill levels ages 21 and over with a cost of only \$25 per person. All paint, brushes, aprons, easels, canvas and other necessary materials will be provided. All you have to bring is your beverage of choice. Light snacks will be provided and other beverages will be available for purchase. Deadline to sign up for this event is June 11 and class size is a maximum of fifteen. Call 454-3350 to sign up or for more information.

Arnold Lakeside Center will host a **Dart Tournament** in The Landing

consisting of 301 and Cricket to be played once a month beginning June 21 and ending Oct. 18 with a championship finale. There will be two single elimination tournaments from 6-9 p.m. each night - June 21, July 19, Aug. 23 and Sept. 20 - following American Darts Organization rules. Players may enter both the 301 and Cricket tournaments. There will be a continuing points system with point totals going toward the final seeding for the championship tournament to be held Oct. 18. Points will be as follows: 1st place - 8 points, 2nd place - 7 points, 3rd - 6 points, 4th - 5 points, 5th - 4 points, 6th - 3 points, 7th - 2 points and 8th - 1 point. Services Bucks will be awarded to 1st and 2nd place finishers in each monthly tournament. The championship winners will receive a set of darts. If the same person wins both championships then the two second place finishers will have a play-off to determine the other champion. This event is for ages 18 and up. Darts will be provided or players may bring their own ADO regulations darts.

Arnold Lakeside Center and Outdoor Recreation have joined together to bring you the **2013 Fishing Rodeo** at Crockett Cove. Things get underway at 2:30 p.m. June 22 with the official check in. Fishing will begin at 3 p.m. with a shotgun start so that all participants start with equal advantage. No one will be allowed to select their fishing spot or claim their area until the shotgun sound. This event is free and registration is encouraged to ensure there are enough door prizes for everyone. Additionally, the first 30 to register at 454-3303 will receive a rod and reel. There will be four age groups (5-7, 8-10, 11-12, 13-15) with 1st, 2nd, and 3rd place prizes awarded in each along with an overall prize for longest fish. Prizes in each age group are based on total length of fish caught. Every fish caught must be measured by an official scorer on the participant's score card. Fishing will be allowed from the designated Crockett Cove shoreline using any bait or lure. Fishing will last until 4:30 p.m. at which time all tally sheets will be collected and tabulated. During the results processing Outdoor Rec will conduct a casting contest where participants will cast a bobber into a hula hoop. A prize will be given to the casting champion. Other awards and door prizes will be presented upon completion of the casting contest. Outdoor Rec will also provide bounce houses from 2:30-5:30 p.m. for everyone's enjoyment throughout the afternoon. All participants are required to bring their own fishing equipment, bait, chairs, snacks, etc. Bottled water will be provided.

**Last Friday Trivia Contest** will be May 31 and June 28. Trivia starts at 6:30 p.m. with questions in random categories. Teams may have up to four people. No cell phones are permitted during the event. Anyone using a phone while a question is underway will be disqualified. There are eight rounds with three

## Hours of operation

**Arnold Lakeside Center:** Catering/Management offices by appointment. Operations Clerk Tuesday, Thursday and Friday 7:30 a.m.-4 p.m. Dinner: full menu available Thursday 5-8 p.m., Friday and Saturday 5-9 p.m.; Main Bar Thursday 5-8 p.m., Friday 4-10 p.m. and Saturday 5-10 p.m.; Social Hour Friday 4-6 p.m., Movie Night Thursday 6:30 p.m.

**Information, Tickets & Travel (ITT):** Tuesday through Friday 10 a.m. - 3 p.m.

**Café 100:** Monday through Friday 6:30 a.m. - 1:30 p.m. **Closed May 27**

**Barber Shop:** by appointment - Monday, Tuesday, Thursday & Friday 8 a.m. - 4 p.m. **Closed May 27**

**GLC (office located at Arnold Lakeside Center):** Monday through Friday 7 a.m. - 3:30 p.m. May vary depending on bookings.

**Outdoor Rec:** Tuesday through Sunday 8 a.m. - 6 p.m.

**Fitness Center:** Monday-Friday 5 a.m.-7:30p.m.; Saturday 8 a.m.-1 p.m.; Sunday Closed. **Open 8 a.m. - 1 p.m. May 27, no classes**

**Arnold Golf Course:** Pro Shop & Driving Range 7 a.m. - dusk. Driving Range open 24 hours with prepurchased key card. Mulligan's Coffee Bar & Grill Monday through Friday 10:30 a.m. - 2 p.m., Saturday and Sunday 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.

**Nonappropriated Funds Human Resources:** Monday through Friday 7:30 a.m. - 4 p.m. **Closed May 27**

questions per round. For rounds 1-4 teams have two, four and six points to wager per round. Rounds 5-8 teams will have four, eight and twelve points to wager per round. Only one points value may be used per question. For example, if you wager four points on the first question then you must choose either two or six points for the next question. Whichever value is left must be used for the final question in that round. After the eighth round, teams may wager up to their total points earned for the final question. Prizes are awarded for top finishers.

Arnold Lakeside Center will have a **membership night** June 29 from 5-9 p.m. where guests will select their steak, add their own variety of seasonings from a selection provided then grill it themselves. The grill will be setup by the covered patio and guests may dine on the patio or take their steak back inside to the dining room. The meal includes sirloin steak, baked potato, corn on the cob, salad and roll. There will be a hamburger steak option for kids. Cost for Members First Plus members and their immediate family is only \$1 per person (.50 cents for kids' hamburger steak). Cost for nonmembers is \$14 and \$8 for age 12 and under. Cornhole and volleyball will be available for your enjoyment. Sign up by June 18 by calling 454-3350. Open dining is available in the Four Seasons Room and in The Landing.

Air Force Services is conducting the **Annual Club Membership Scholarship Program**. Current Members First Plus individuals and their family members who have been accepted by or enrolled in an accredited college or university for entry during the fall of 2013 term as a part time or full-time student are eligible to apply for scholarships. Grandchildren are eligible if they are a dependent of the club member. Student enrollment status may involve either undergraduate or graduate curricula. Applicant must provide a copy of their college or university acceptance letter.

Twenty-five \$1,000 scholarships and high performance Dell laptop computers will be awarded. To enter, write and submit a 500 words or less essay on the following topic: "Who or What Inspires You to Be Successful? Why?" Essays exceeding 500 words

(excluding title) will be disqualified. Essays must be typed in MS Word 12-point Times New Roman font, single-spaced, with double-spacing between paragraphs. One-inch top and bottom margin and 1.25 inch left and right margin submitted on CD. The application package must include CD containing essay with participant's name, date and word count, entry form (included in the brochure or online at afclubs.net) and current college/university acceptance letter or official transcripts.

Essays not meeting the above parameters will be disqualified. Submit entries to Services Marketing, 100 Kindel Drive Suite C321, Arnold AFB TN 37389-3321 by July 1. Final scholarship awards will be announced by September 17. All nominees will be advised of scholarship selection or non-selection. Only one essay per eligible person.

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

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

**Fit to Fight Competition** will be held the first three weeks of June. Each week participants will be scored on a different workout. The workouts are not announced in advance so as to ascertain the true on-the-spot fitness of the competitor. Even though the workouts will be different each week they will be judged the same on either repetitions and/or time. After the three weeks, each participant's scores will be tallied to see who is the most Fit to Fight. T-shirts will be awarded to the top five finishers in both men's and women's categories.

The Fitness Center will host the **Golden Baton Relay** June 19 beginning at 8 a.m. in front of the A&E Building. Each team runner must complete two laps around the A&E Circle before passing the baton to the next runner. Teams must consist of four runners with a combined total age of at least 120 and one timekeeper. Teams may select appropriate and tasteful ways to distinguish themselves and may bring their own baton or use batons provided by the Fitness Center. The first six teams to sign up will receive event t-shirts. Prizes will also be given for the most clever team name, best team costumes and overall team speed. Call 454-6440 to sign up or for more details.

**Group Class Schedule:** (for eligible users only)

Boot Camp Monday, Wednesday and Friday 6-7 a.m.

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

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

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

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

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

**Kayaking for Beginners Class** will be held at Crockett Cove June 15 and June 29 from 9 a.m. to 1 p.m. This is a beginners' introduction to learn about the kayak, equipment, emergencies and wet exits. Following the classroom time, participants will load up equipment and go down to the beach to practice entering, maneuvering, paddling and turning. A wet exit, basic self-rescue and additional strokes will also be practiced. Participants will then take a tour of the lake to practice their newfound skills. The class will be approximately four hours. Make sure you wear appropriate clothing and bring sunblock. This class is for ages ten and up and cost is \$10 per person. There must be at least three to hold the class and maximum class size is six. Call to sign up by the day prior.

**FamCamp outdoor movie nights** will be May 25, June 8 and June 22. If you are camping over these weekends you can enjoy an outdoor movie for free on Saturday beginning at 7:30 p.m. Bring your chairs or blankets to the open grass area behind the upper bathroom. Free caramel popcorn will be provided. The movies are as follows:

May 25 - "Life of Pi," PG, 2 hr. 7 min. The story of a young man who survives a disaster at sea and is hurtled into an epic journey of adventure and discovery. While cast away he forms an unexpected connection with another survivor ... a fearsome Bengal tiger.

June 8 - "Parental Guidance," PG, 1 hr. 45 min. Artie and Diane agree to look after their three grandkids when their type-A helicopter parents need to leave town for work. Problems arise when the kids' 32st-century behavior collides with Artie and Diane's old-school methods.

June 22 - "The Hobbit: An Unexpected Journey,"

## BRIEFS from page 13

### Outdoor Rec (ODR) 454-6084

PG-13, 2 hr. 49 min. A younger and more reluctant Hobbit, Bilbo Baggins, sets out on an "unexpected journey" to the Lonely Mountain with a spirited group of dwarves to reclaim their stolen mountain home from a dragon named Smaug.

**Basics of Canoeing** is a beginners' introduction course to canoeing. Come join us June 1 as we have a day on the water exploring canoeing. Meet at the Crockett Cove pavilion at 9 a.m. where guests will learn about the canoe, equipment, emergencies, and wet exits. Following the class room time, participants will pair up (2 people per canoe) and load equipment to go to the beach and practice entering, maneuvering, paddling and turning. A wet exit, basic self-rescue, and additional strokes will also be practiced. Participants will then take a tour of the lake to practice their new skills. The class will be approximately 5 hours in length. Cost is \$10 and the class is for ages ten and older. There must be at least four to take the course and no more than ten. Sign up by May 31.

**Archery Basics Class** will be held June 8 for all ages. The class costs \$5 and will begin at 9 a.m. Deadline to sign up is June 7. There must be at least two to take the course and no more than twelve. This class will teach the basics of archery to include how to hold a bow properly, how to shoot with correct technique and also learn some history. Bows, arrows

and targets will be provided but you may bring your own equipment if you have it.

Join Outdoor Rec for an **Introduction to Hiking Class** June 22 with a mid-morning hike at Old Stone Fort State Archaeological Park. The course costs \$10 and includes safety on the trails, leaving nature how it was found, a visit to the museum and history of Old Stone Fort. Leave from ODR at 9 a.m. and return at approximately 3 p.m. This class is for ages ten and older. There must be at least five to take the class and no more than fifteen. Remember to wear closed toed shoes and bring water and sunscreen if needed. Sign up by June 19.

**Paintball** continues with regular play every Saturday. Paintball is for ages 10 and older and ages 10-17 must have a parent permission form. Remember to wear appropriate clothing – long pants, a long-sleeved shirt and closed toe shoes. Regular Saturday play is every weekend from 9:30 a.m. to 2:30 p.m. Those interested need to call and sign up at least a day ahead of time to ensure equipment availability. When the day arrives, simply meet at the paintball field and get play underway with the direction of an Outdoor Rec (ODR) staff member. Cost is \$35 per person with equipment provided and includes 500 paintballs and a tank of air. It is \$20 per person for those with their own equipment and that also comes with 500 paintballs. All paintballs used must be purchased from ODR for \$13 per bag of 500 or \$45 for a box of 2000. Call 454-6084 for more information about

the paintball program or to sign up for these events.

**Extended Stays available at FamCamp.** The FamCamp is a wooded area off of Northshore Road on the banks of Woods Reservoir with tent and RV camping. Amenities include bathhouse with shower, barbeque grills, fire rings, lantern hangers, boat launch pad, picnic and beach area, covered pavilion as well as washer/dryer service and boat docking service. There are 18 tent sites and 36 RV sites, 15 of which are pull-through. All RV sites are equipped with 30 and 50 amp 115V service. Daily rates for RV camping are \$20 during the summer and \$15 during the winter (Nov.-Apr.). Did you know that you can stay for up to three months at FamCamp? Monthly rates are \$450 during the summer and \$400 during the winter. Sites 27-36 are designated for extended stays. Extended stays are only allowed in three month increments and there must be a one month gap between stays. Reservations may be made up to 45 days in advance for active duty, National Guard and Reserve military. Up to 40 days in advance for military retirees and up to 30 days for DOD employees. All others may make reservations up to 20 days in advance. Tent camping is available at \$7 daily. Washer/Dryer service is \$2 and boat docking is \$5. A convenience store is open 12-4 p.m. Friday through Sunday May through October and open Mondays if in conjunction with a holiday weekend. Other camping is available at Crockett Cove and Dogwood Ridge. Crockett Cove offers five

rustic cabins with heat and air, mini fridge, microwave, front porch swing, grill and picnic table. There is no running water but a bathhouse is on site. The one or two room cabins rent for \$40/\$50 per day during the summer and \$30/\$40 during the winter. Dogwood Ridge consists of six travel trailers with water, sewer, electric and propane complete with deck, picnic table and chairs. The trailers rent for \$40 daily, \$75 for two days or \$200 per week. Extended three month stays are also available at these areas. Call Outdoor Recreation at 454-6084 for more details or to make reservations.

**RV and Covered Boat Storage slots available.** Outdoor Rec has slots available in the RV storage yard. Each slot is 30 ft. long and 10 ft. wide and rents for \$25 per month or \$250 per year. The covered boat storage has 9 slots open. The boat storage slots are 40 ft. long and 12 ft. wide and rents for \$45 per month or \$450 per year. Both storage yards require proof of registration and insurance of item placing in storage along with a signed contract based on length of stay. Access to the storage yard will be granted at the time the contract is signed. Call for more details or to reserve your slot.

**Outdoor Rec inflatables!** There is an assortment of inflatables for almost everyone's needs. We have a huge backyard obstacle challenge measuring 40'L x 10'W x 13'H, and a double lane jump slide for only \$150 per day. We also have a giant basketball hoop for \$30 per day and a Rocket Bounce House for \$75 per day. If you need a water

slide then our 18' Double Drop Wet/Dry slide will be great for any event and is only \$150 per day. Please contact Outdoor Recreation at 454-6084 to make your reservation today!

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

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

**Wingo Inn  
454-3051**

Check us out on Face-

**book! Wingo Inn**

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

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

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

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

## Hanscom AFB-managed program helps save Airman's life

By **Patty Welsh**

66th Air Base Group Public Affairs

**HANSCOM AIR FORCE BASE, Mass.** (AFNS) – A program managed here that helps get supplies safely to warfighters was recently used in Afghanistan to help save an Airman's life.

The Dynamic Retasking Capability Urgent Operational Need provides the ability for C-17 Globemaster IIIs and C-130J Hercules to be directed to an alternative location with up-to-date information.

According to program

officials, with the DRC the flight crew can receive data such as threat information, weather awareness and text messages, ultimately leading to a potential change to a mission.

By early April, the system had been used in theater for more than 11,000 flight hours and supported air land and airdrop missions. For the C-130J, more than 1,500 missions were completed and for the C-17, 675. Although originally intended to increase the

success of cargo airdrops, the team here knew there would be other unforeseen uses.

"As part of any mission those aircraft are participating in, they have the ability to use the DRC," said 2nd Lt. Joseph Silvio, a DRC program manager.

In late March, a C-130J was in use during a routine aeromedical evacuation flight in Afghanistan, conveying patients from forward operating bases to Bagram Airfield. Through the DRC, the crew received

See **AIRMAN**, page 15



**A patient is offloaded from a C-130J Hercules assigned to the 772nd Expeditionary Airlift Squadron at Bagram Airfield, Afghanistan. The aircraft is met by an ambulance that will take the patient to Craig Joint Theater Hospital. This is the same procedure that was used during an aeromedical evacuation mission to move a critically wounded combat controller from Mazar e Sharif, in northern Afghanistan, to more advanced medical care at the hospital at Bagram in late March. (U.S. Air Force photo/Capt. Tristan Hinderliter)**

# Airman faces challenge at Games as TBI victim

By Tech. Sgt. Mareshah Haynes  
Air Force News Service

**COLORADO SPRINGS, Colo. (AFNS)**—By looking at him, you would never be able to tell he is a battle-tested, combat-injured Airman. He is a testament to invisible wounds and just how their effects can become visible in everyday life.

Capt. Mitchell Kieffer is a mathematician at heart and an operations research analyst at Joint Base Langley-Eustis, Va. The three-time Air Force triathlete and personal trainer was stationed at Eglin Air Force Base, Fla., working at the Air Force Research Laboratory there when he got the opportunity he had been waiting for — a deployment.

He had volunteered to go into an engineering job at AFRL to increase his chances of deploying. He got his wish in 2010 and left for Iraq with a team from the Army Corps of Engineers.

"I was an Air Force guy in an Army uniform," Kieffer said. "I was attached to the Baghdad Resident Office, and I volunteered to be an operations officer for them. I planned and executed a lot of movements to the different project sites. We were there to build police stations, hospitals, telecommunications centers, tank facilities for their Army and all sorts of stuff."

Kieffer said for the most part, the deployment went smoothly. He had been there for five of the six months of his deployment and travelled "outside the wire" more than 40 times without incident.

Typically, he and his team would use lightly-armored SUVs when they were going downtown and mine-resistant, ambush-protected (MRAP) vehicles on the outskirts of town.

But on this particular day, things were different.

"We were going to a place that was a one-way-in, one-way-out type of a place, so that's really not the best case scenario," Kieffer said. "And this time instead of taking MRAPs, we were in the lightly armored SUVs because the MRAPs were in the shop that day."

Other factors that day led to a situation that would soon lead to a tragic chain of events. According to Kieffer, there was no close air support available, and the team was going out later in the day than normal.

"Basically we got ambushed," he said. "The first out of the four vehicles got hit by a conventional (improvised explosive device). Our vehicle, the third vehicle, almost simultaneously got hit by an explosively formed penetrating (EFP) IED, so it's basically like a copper plate that has the munition behind it, and forms a slug and basically punches through anything. "That went through our vehicle like butter about two feet in front of my forehead, and I was sitting on the blast side."

Three of the four vehicles in the convoy were hit. In addition to the EFP/IED, the attackers sprayed the vehicles with automatic weapons



**Capt. Mitchell Kieffer sprints at the Academy indoor track during the Wounded Warrior Games Training Camp held in Colorado Springs, Colo., April 17. (U.S. Air Force photo/Desiree N. Palacios)**

fire and rocket propelled grenades.

"I was knocked out for a few seconds. I can't really remember," Kieffer said. "Then I woke up inside (the vehicle) and the major, my boss, was next to me screaming and I was just like, 'What the heck is going on here?' All of the lights and AC displays were dislodged. They were hanging by the wires. The entire inside was fringed with the copper fragments, the interior was all ripped; smoke was inside."

"I was like, 'What do I do?' I was like, 'OK, he's higher ranking than me,' so I basically just laid on top of him and let the contractors do what they needed to do to break contact to get out."

The British contractors were able to subdue the attackers and all four vehicles in the convoy managed to make it back to the base. The team changed their flat tires and fixed whatever damages they could before making the two-hour drive to base with three busted vehicles.

"It was an act of God that we all made it out, especially with our vehicle being fringed," Kieffer said. "Before I left, my cousin Chris gave me this four-way medal that St. Christopher is part of, and he's the guardian of travelers. That was the main reason for Chris to give me this, so I never took it off since the day he gave it to me. And I have yet to take it off, except when I have x-rays or when I wear my blues and what not. I feel like that had a great deal to do with me getting out alive."

Once they arrived back at the base, each person on the team was examined by the doctors. It seemed everyone was fine — until it was Kieffer's turn. He wasn't able to pass a preliminary traumatic brain injury test. He was sent to the hospital in Baghdad for doctors there to observe his condition.

"While I was there, things weren't getting better," Kieffer said. "I used to joke around with the British contractors, and we would make

fun of each other and banter back and forth. I was so slow mentally it felt like English was a second language because the processing speed was so slow. They would ask me how I'm doing and it would take a bunch of time to figure out what they said, to hear it, to break down the message, to figure out what they're trying to get across and how I would respond. That's a long time to say, 'I'm good.' So the bantering back and forth stopped."

Besides not being able to keep up with the quick-witted conversations with his comrades, Kieffer said he was worried he wouldn't be able to do the things he really enjoyed.

"I was pretty darn scared because I always felt like school was pretty easy," Kieffer said. "I was a math guy and I enjoyed intellectual kinds of things. It scared me quite a bit. It actually brought me to tears one time thinking I was going to be that slow forever."

Kieffer spent a week in the hospital in Baghdad and then returned to the United States to be treated. He said after a month he began healing but he still faced some huge challenges. His TBI not only affected his cognitive thinking skills, physically it left him to deal with excruciating headaches that nothing could soothe.

He tried to keep his injury under wraps but an upcom-

ing assignment would put him to the test. Prior to being wounded, the Purple Heart medal recipient was accepted into the Air Force Institute of Technology's engineering graduate school program. Just six months after returning home from his deployment, he was scheduled to start school.

"The first assignment I did there took me seven hours straight sitting at a computer," Kieffer said. "I had to get it done. I had to figure everything out, and it was so frustrating because I knew it shouldn't be (this hard). It was a probabilities and statistics course and this was stuff I had known for a long time and had mastered before."

As Kieffer pushed himself to keep up with his studies, he stumbled upon a treatment for his TBI.

"As time went on in the program, that seven hour assignment became five hours and then four hours and after a year and a half in school those assignments were taking an hour and a half, two hours tops," he said. "I think that has been my best therapy for improving my cognitive capabilities after the traumatic brain injury. It's been basically just doing mental workouts."

"I thank God that I was able to go to that assignment because I don't know if I would've had the motivation to do all that learning on my own," he said.

## AIRMAN from page 14

an urgent message to divert to an alternate location to evacuate a patient who medical personnel thought needed more care than was available at their location.

The patient, a combat controller, had been shot in the leg and also a broken femur. His current

condition was "urgent but stable."

However, as the flight headed back to the next scheduled forward operating base per the original plan, the controller's condition worsened. He was losing blood and his blood pressure dropped.

The crew knew they

needed to get him to a medical facility that could deal with the condition as soon as possible. Unfortunately, the crew was not able to use traditional methods to communicate the request to change their flight plan. However, by using the DRC, they were able to let their command

and control know they were changing course to head straight to Bagram Airfield.

Medical crew members on the aircraft were able to control the bleeding during the flight and once arriving at Bagram Airfield, the patient had surgery, which saved his leg and his life.

