



# HIGH MACH

Serving the World's Premier Flight Simulation Test Complex



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## Col. Todaro takes command at AEDC

By Raquel March  
ATA Public Affairs

Col. Rodney Todaro assumed command of AEDC as the 29<sup>th</sup> commander during a change of command ceremony July 8.

The ceremony was attended by local dignitaries and AEDC personnel in front of the Administration and Engineering building.

Todaro comes to AEDC from Edwards Air Force Base, Calif., where he was the 412<sup>th</sup> Operations Group commander.

As the AEDC commander, Todaro leads the largest and most advanced complex of flight simulation test facilities in the world. The Complex employs more than 2,000 people and comprises 28 aerospace test facilities located at Arnold Air Force Base, as well as two geographically separated units – the Hypervelocity Tunnel 9 in White Oak, Md., and the National Full-Scale Aerodynamics Complex at Moffett Field, Calif.

The facilities simulate flight from subsonic to hypersonic speeds at altitudes from sea level to space. All NASA manned spacecraft, every high performance aircraft and missile, as well as most space launch systems and many military satellites in use by the Department of Defense today, have been tested in the Complex's facilities.

Todaro replaces Col. Raymond Toth who retired from the Air Force June 26.



Air Force Test Center Commander Maj. Gen. David A. Harris, left, presents the AEDC flag to the newly-designated Complex Commander Col. Rodney F. Todaro during an assumption of command ceremony Jul. 8 at the Administration and Engineering building. (Photo by Jacqueline Cowan)

## Revolutionary Change: Col. Krajewski announces updates to BCITS contract award

AEDC Test Support Division Director Col. James Krajewski provided updates on AEDC's Source Selection efforts to the entire workforce via email on July 7 and July 14. Additionally, messages and other information can be found online at [www.arnold.af.mil/transition](http://www.arnold.af.mil/transition).

July 7

Team AEDC,

As Col. Toth made you aware on June 19, the Base Communications and Information Technology Services (BCITS) contract was awarded to OBXtek, Inc. with transition expected to begin on July 1 with performance beginning on Oct. 1.

However, I was informed today that two unsuccessful offerors to the BCITS contract protested the award to OBXtek.

We are currently assessing options regarding start of contract transition. If transition is further delayed, our plan remains to extend the ATA contract past Oct. 1 to ensure mission continuity. As these protests are resolved, we would then remove the awarded requirements from the ATA

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## Major savings occur as part of AEDC wind tunnel improvement program

By Deidre Ortiz  
ATA Public Affairs

Replacing the test article control system (TACS) and Data Acquisition System (DAS) feedthrough assemblies used at the 16-foot transonic (16T) wind tunnel is saving AEDC more than \$1 million this year.

This effort is part of the Improved Transonic Test Capability (IMTTC) program, meant to improve equipment and processes for 16T.

Located on the Propulsion Wind Tunnel (PWT) test carts, the 16T TACS and DAS reside in 10 environmental enclosures that protect them from the harsh environment of the 16T tunnel conditions.

Elijah Minter, Air Force acquisition program manager for the Flight Sustainment Branch at AEDC, explained the electrical feedthrough assemblies are an integral component of the systems.

"They transport low-level signals from instrumentation located in the high temperature and low pressure areas of the tun-

nel to sensitive equipment protected inside the environmentally controlled enclosures," he said. "There are approximately 130 feedthrough assemblies needed for the TACS and DAS."

The feedthrough assemblies that have been employed by the TACS and DAS require extensive labor and time to fabricate. Each cost on average \$13,000 to assemble.

"The IMTTC program launched

See PROGRAM, page 8

## CTF is 'nothing new' for Space and Missiles

By Deidre Ortiz  
ATA Public Affairs

Since late last year, testing at AEDC has been carried out by the recently implemented Combined Test Force (CTF) organizational structure in which government and contractor personnel work side-by-side to complete the Test and Evaluation mission.

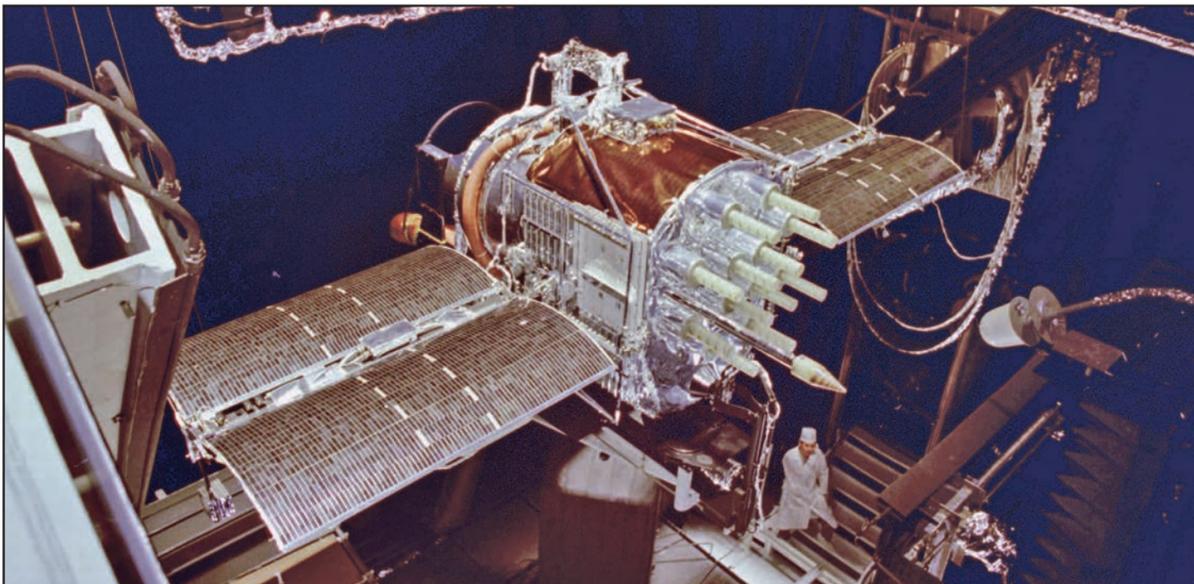
According to Lt. Col. Jay Orson, former director of the Space and Missiles CTF, this approach has allowed the Complex to move away from being a functional organization and toward a more mission-focused one.

"However, this is nothing new for Space and Missiles," he said. "We've been mission-focused for years. We bring all our mission and functional leads together weekly to ensure we're all on the same page."

"We also prototyped a Space mini-CTF when we stood up the Space Threat Assessment Test (STAT) capability a couple of years ago. It was a small, focused team that was essential

See CTF, page 8

## GPS 20<sup>th</sup> anniversary recognized



A full-scale GPS was tested in the Mark I Space Chamber at AEDC in 1977. The tests checked reliability of the satellite's systems prior to its launch in 1978. AEDC personnel reflected back on this testing on July 17 the 20<sup>th</sup> anniversary of when GPS reached full-operational capability. (AEDC Photo) See complete story on page 3.

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**HIGH MACH**

**Arnold Engineering Development Complex**  
An Air Force Materiel Command Test Complex

**Col. Raymond Toth**  
Commander

**Jason Austin**  
Chief,  
Public Affairs



**Steve Pearson**  
General Manager,  
Aerospace Testing Alliance

**High Mach Staff:**  
Kathy Gattis, ATA Public Affairs Manager & Executive Editor  
Raquel March, Editor

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**The complex's vision:** Be the nation's best value ground test and analysis source for aerospace and defense systems.

**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 asset 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

# Can you see me now?

**By AEDC Safety, Health and Environmental**

How many times have you walked up behind someone only to have them turn and bump into you because they didn't see you walk up? In that case a simple "Excuse me" or "Sorry, I didn't see you" will be the result. But when approaching operating heavy machinery the results can be devastating.

On June 24, an employee of Federal-Mogul Corporation in Athens, Ala., died in a forklift accident. According to the report, the 25-year-old employee was killed when he walked in front of a forklift apparently to secure an empty barrel. The victim reportedly approached the forklift

from a blind side. The operator, who had stopped the forklift, proceeded to move forward, unknowingly knocking the victim down and running over him. The victim was under the forklift when rescuers arrived and was pronounced dead at the scene.

Heavy machinery plays a vital role in AEDC's day-to-day operation. Loaders, cranes, backhoes, forklifts, aerial work platforms, etc., are in use base-wide. This equipment and its operators keep our base going but also present us with an ongoing danger. These machines are loud and large with lots of blind spots. Operators are focused on performing the job safely and are often engaged in very

precise operations. Support personnel – vehicle maintenance, fueling, laborers, etc. – and anyone else in the area have the potential of being within close proximity to this equipment.

If you encounter industrial vehicles or other heavy equipment on the roadway, proceed with caution. Use extra care in passing. If equipment is operating in an area roped off with caution or warning tape or otherwise barricaded, do not cross or enter the area unless authorized to do so.

If you are working on or supporting a segment of the job, find the on-site project lead or person in charge of the job-site. Let them know what you are there to do and

gain permission to enter the work area.

When you enter the work area, approach the heavy equipment slowly within clear view of the operator. Make eye contact with the operator. This is very important. Even if you are in the line of site, the operator may not see you if he is focused on the task he is performing. A combination of eye contact and hand signals verified by the operator is the best way to ensure he sees you and knows you are in the area.

Wait until the operator is fully stopped and signals you to approach then tell him why you are there, how long it will take, and that you will let him know when your task is complete. Instruct

the operator on where to position the machine or whether to shut the machine down, lower attachments, etc.

After your task is complete, inform the operator you are done, gather tools and materials, and leave the work area the same way you came in, in full view of the operator. When clear of the machine, again make eye contact with the operator to let him know you are clear and that he can proceed with his task.

If you are just passing by a barricaded work area via sidewalk, entering or exiting buildings, or driving, never enter the work area even if no work is in progress. Maintain situational awareness at all times.

# General courts-martial for sexual assault: How do they work?

**By Maj. Derek Rowe**  
*366<sup>th</sup> Fighter Wing Legal Office*

**MOUNTAIN HOME AIR FORCE BASE, Idaho (AFNS)** – Support for military sexual assault victims and the number of reported offenses have increased in recent years, resulting in more investigations and courts-martial involving sexual assault charges. This article describes the general court-martial process and some of the unique aspects with regards to sexual assault cases.

One distinct aspect of a sexual assault court-martial is that victims of sexual assault are eligible for a Special Victim's Counsel to represent their interests. All service members and certain categories of adult dependents who report being victims of sexual assault are eligible for an SVC.

Since implementation of the program in 2013, an SVC is an active-duty military attorney with the specific mission to represent a victim's interests during investigation and court-martial proceedings. An SVC has the ability to speak on behalf of the victim during certain parts of the trial. There are 34 SVCs in the Air Force.

For most matters during the court-martial process, a sexual assault victim's interests are aligned with the government, or prosecution, and the victim is considered a

government witness – but the victim's interest may not always align with the government. For example, during investigation and before trial, both the defense and government attorneys will naturally want to interview the victim several times each, in preparation for trial.

The SVC will be present for these interviews and may advise the victim to limit participation due to the victim's emotional state or perhaps due to collateral misconduct the victim was involved in, such as underage drinking or another offense. In courts-martial for other types of offenses, government witnesses do not have this level of flexibility when it comes to participating in pre-trial interviews.

Before either the judge or jury begins to consider evidence, there may be one or more motions hearings. This highlights another aspect of sexual assault courts-martial, as there is usually a Military Rule of Evidence 412 motion. MRE 412 is a rule prohibiting either side from presenting evidence of a victim's past sexual behavior and sexual predisposition.

For example, if the charged offense is rape and the victim had sexual relations with a different partner two nights before the rape, the defense might want to present evidence of that sexual relationship for various reasons. The general rule

would prohibit presenting that evidence, but there are exceptions to this rule and the MRE 412 hearing will determine whether any such evidence will be allowed. This hearing typically happens the day before trial and is closed to the public because of the private nature of the matters presented. The SVC argues on behalf of the victim at the hearing.

The SVC is focused on protecting the rights of victims of sexual assault and will typically travel to wherever the victim is in order to argue motions and be present during all phases of trial. SVCs are experts in these areas and provide a great service for victims of sexual assault while guiding them through what can be a difficult and intimidating process.

After the motions are argued and decided, the court panel, or jury in the civilian sector, is selected if the accused has chosen a jury trial. It is the accused's choice whether to be tried by judge or jury. If a jury is chosen, the selection process is very different from the selection process in the civilian sector. In the military, commanders are asked to forward the names of their best personnel to the court-martial convening authority.

For general courts-martial at Mountain Home AFB, the General Courts-Martial Convening Authority is the 12th Air Force commander.

The GCMCA is required by law to pick jurors based on their age, education, training, length of service and judicial temperament. In contrast, in the civilian sector, jurors are often selected randomly based on their address. If the accused chooses to have a jury, a general court-martial requires at least five jury members. Once a fair and impartial jury is selected, opening arguments, presentation of evidence and deliberations follow.

If the accused is found guilty, the last phase of the court involves sentencing. In the military, the sentencing phase immediately follows the guilty or findings phase. The finder of fact, either judge or jury, is presented with evidence in aggravation by the gov-

ernment and evidence in mitigation by the defense, to decide an appropriate sentence.

A general court-martial may hand down any sentence including confinement for life, total forfeiture of pay, dishonorable discharge and death. In sexual assault cases, the victim will usually testify again, but this time the testimony concerns the impact of the crime on the victim's life.

Many civilian courts will have 30 days or more between the guilt phase and sentencing phase, which allows for a pre-sentence investigation to be conducted. In contrast, all individuals involved in a general court-martial will know the verdict and sentence, if any, immediately after the court.

**CHANGE from page 1**

contract.

We will continue to keep you informed as the situation changes.

Col. Krajewski

July 14  
Team AEDC,

As I informed you last Tuesday, the Base Communications and Information Technology Services (BCITS) contract that was awarded to OBXtek, Inc. is being protested.

After many discussions as the BCITS Source Selection Author-

ity, I want to inform you that the BCITS transition will be delayed. This stop-work order will remain in effect until a determination is made by the Government Accountability Office (GAO) on the merits of the protest.

Since this decision may not occur until after Oct 1, our plan still remains to extend the ATA contract to ensure mission continuity.

We will continue to keep you informed as the situation progresses.

Col. Krajewski

# 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, smoking is not permitted 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. Smoking areas will be held to the absolute minimum and will be located in low traffic, low visibility areas away from points of building ingress/egress and air intakes. A map of all authorized smoking areas is available on the Team AEDC SharePoint site. 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.

Smoking, including the use of electronic cigarettes and smokeless tobacco, is prohibited in any area, at times when official business is being conducted with government clients, test customers, outside visitors and dignitaries, and where official business is being conducted including conference rooms, auditorium settings, business meetings, or in any other area where Air Force regulations specifically prohibit use. 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. Due to the nature, appearance, and safety concerns of electronic cigarettes (also known as "e-cigs"), the use of said products will abide by the same rules for tobacco products stated above and governed by AFI 40-102, *Tobacco Use in the Air Force*.

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 policy remains effective until rescinded. (This policy is dated December 20, 2013)

# 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 two ways: via the AEDC intranet home page, 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

# A more efficient alternative used to maintain AEDC turbine engine test operations

By Deidre Ortiz  
ATA Public Affairs

A conversion to using EcoSafe Hydraulic Fluid has improved operations for the Aeropropulsion Systems Test Facility (ASTF), which tests engines for the Department of Defense and commercial aircraft.

EcoSafe32 hydraulic fluid, a Polyalkylene Glycol (PAG) chemical fluid, is now being used to flush and fill the process air valve hydraulic systems at the ASTF C-Plant. Unlike the former petroleum-based fluid, EcoSafe is chemically incapable of producing varnish and sludge and instead acts as a mild detergent helping keep systems clean. Additionally, it is able to tolerate high concentrations (parts per million) of water and does not react with water.

As with all chemical fluids, national, state and regional guidelines are in place to prevent spills, and regular inspections of facilities are also mandatory.

The Environmental Quality office at AEDC noted that proper procedures are being followed to ensure that EcoSafe is not getting into the ground or the base's water supplies.

"The Eco-Safe 32 remains a hazardous material that must not be spilled onto the soil or released into any surface waters,"



EcoSafe32 hydraulic fluid is being used to flush and fill the process air valve hydraulic systems at the ASTF C-Plant. This is what the inside of the valve looked like after one of the recent flushing and filtration operations. (Photo provided)

Dennis Flatt said. "All releases [of hazardous material] at AEDC must be reported to the Operations Center and proper response measures taken."

Flatt added there are environmental guidelines the base must follow and environmental safety is a

priority at AEDC because accidents can mean major cleanup and penalties.

"A release producing a visible sheen on water, if not controlled, violates the AEDC wastewater permit," he said. "Spills onto the soil or gravel generate contaminated soil requiring clean-

up and is not permitted for disposal in our on-site landfill. Offsite disposal of this type of contaminated soil is managed as a 'special waste' permitted into special landfills by the Tennessee Department of Environment and Conservation. This disposal and cleanup

cost exceeds \$400 a ton for disposal alone."

David Lynn, ATA systems engineer for C-Plant, stated the switch to EcoSafe is benefitting the plant and is expected to help keep the system in satisfactory condition.

"We have seen a sub-

stantial reduction in the reported erratic valve operation, servo failures and burned out solenoid valves together with greatly reduced filter element replacement frequency," Lynn said. "This results in increased equipment uptime and availability."

# AEDC support of GPS remembered on 20<sup>th</sup> anniversary

By Deidre Ortiz  
ATA Public Affairs

The Global Positioning System (GPS) achieved full-operational capability July 17, 1995, and as the U.S. Air Force celebrated this anniversary, AEDC engineers also reflected on the Complex's role in the testing and development of the system.

The final acceptance and qualification tests for the Navstar GPS were completed in the Mark I space chamber at AEDC in 1977. Testing for GPS continued at AEDC into the mid-to-late 1980s, when thermal qualification and engineering design tests on a prototype of the Block II Navstar GPS satellite. Since that time life extension review and certification of systems has also taken place at the Complex.

During its initial launch in 1978, officials had already envisioned the GPS as a 24-satellite radio navigational network that would permit military aircraft, ships and ground units to determine their position within approximately 10 meters in three dimensions and offer continuous global coverage for all-weather use.

Primary program objectives of the tests conducted at AEDC were certification of the satellite's thermal control system, verification of the vehicle's operational systems and identification of any potential defects. Every operating system aboard the satellite was tested under simulated space conditions with the exception of the rocket motor that positioned it in its final orbit.

Though once used predominantly for military

operations, GPS has been integrated into most aspects of human activity.

"It is amazing how people continue to find new and innovative uses for the GPS signal," said Micah Walter-Range, the Space Foundation director of research and analysis.

"GPS can be used on a personal level for summoning a taxi or ridesharing service to your precise location, or for letting your 'smart home' devices know when you are near your house so they can be ready and waiting for you," he said. "Businesses also rely heavily on the precision timing of the GPS signal, which enables companies to capitalize on the reliability and accuracy of an atomic clock for a relatively low cost."

Jim Burns, aerospace engineer with the AEDC Space and Missile Test Branch, stated being a part of the research and development of GPS was a proud accomplishment for personnel at AEDC because they knew it would be revolutionary.

"I believe many of those at the time did know they were changing the world," Burns said. "That's why many of us work here, and at the rest of the Air Force Test Center and Air Force Research Laboratory, because we want to change the world. It just takes the rest of the world years to catch up."

Air Force Space Command continues to enhance the GPS signal through technology upgrades. It's anticipated that GPS III will launch in 2017 and be a more reliable vehicle with a longer mission life, complete with multiple signals to support military and civilian users.



Initial testing of the NAVSTAR Global Positioning System (GPS) was conducted in the Mark 1 Space Chamber at AEDC during the late 1970s. Pictured here are AEDC personnel taking a close look at the stowed solar array panels that provide electricity for the NAVSTAR GPS satellite. (AEDC Photo)



## AEDC Job Shadow Day

Sons and daughters of AEDC employees were invited to participate in Job Shadow Day July 10. ATA General Manager Steve Pearson welcomes the group by encouraging them to "ask questions throughout the day." After watching an introductory video the group toured the Propulsion Wind Tunnel, Mark I Space Chamber and the Aeropropulsion System Test Facility C2 test cell. (Photos by Rick Goodfriend)

# Wingmen continue successful interventions across AFMC

By Kim Bowden  
Air Force Materiel  
Command Public Affairs

**WRIGHT-PATERSON AIR FORCE BASE, Ohio** – Across Air Force Materiel Command, Airmen continue to embrace the command's culture of respect and resiliency. This is especially evident in their behavior as wingmen.

"Accountability is at the core of the culture we emphasize, and it's at the core of the wingman concept," said Jennifer Treat, AFMC Community Support Coordinator. "A good wingman stays alert for signs of danger from whatever source – whether suicide, safety mishaps, alcohol abuse, sexual assault, bullying, medical issues

or other difficulties; gets involved by knowing their fellow Airmen; and takes action when necessary to protect their wingman, on and off duty. We're proud to have so many true wingmen in our command who look out for the welfare of their colleagues and community."

Some recent examples of successful wingman intervention include:

- Wingmen found the driver of a crashed car pulseless and apneic. They provided initial care, CPR and defibrillation until first responders arrived. The driver regained a pulse and was taken to the hospital.
- Another wingman was notified by an Air-

man's spouse that the Airman had threatened suicide. The wingman found the Airman engaged in a preparatory act but intervened and immediately escorted the Airman to the mental health clinic. The wingman continued to provide support until the Airman returned to duty.

- One wingman noticed an overturned, burning vehicle and worked to remove the passengers. The wingman flagged down assistance and made contact with emergency responders, staying on the scene until they arrived.
- At a club during spring break, a wingman wit-

nessed several drunken males near a group of underage females. The wingman overheard one male shouting about 'hot little minors,' so she asked the females if they were okay and stayed close by to intervene again if necessary. Later, the same wingman helped a drunk, underage female into a cab when the female tried to drive home.

- One wingman responded to an off-duty emergency. The wingman found an Airman's infant family member not breathing and initiated CPR. The wingman provided stability until first responders arrived.

- After an Airman had an on-duty breakdown and threatened coworkers, a very dedicated supervisor and wingman intervened. The wingman involved the Airman's peer group, and together they ensured the Airman made it to the hospital. Over the course of the next year, the wingman coordinated a get-well plan and escorted the Airman to various appointments, allowing the Airman to remain productive until he was medically retired.

By staying engaged, showing concern and being alert for signs of distress, these wingmen helped others avert danger and even saved lives.

AFMC has been consciously building the concept of wingman intervention since 2013. The goals are to raise awareness of helping behaviors, increase the motivation to help, develop the skills and confidence to safely intervene and assist when necessary, and ensure the safety and well-being of self and others.

If you become aware of situations in which personnel have recognized at-risk behaviors and proactively intervened, please contact your local Community Support Coordinator. AFMC's goal is to highlight these situations as teachable moments to encourage similar behavior and continue its focus of maintaining a "Culture of Respect and Resiliency."

## Test flight completed after F-35B modifications



By Micah Garbarino  
75th Air Base Wing Public  
Affairs

**HILL AIR FORCE BASE, Utah (AFNS)** – The Ogden Air Logistics Complex completed an F-35B Lightning II functional check flight here June 18, after the first depot-level short take off and vertical landing modifications were completed on two F-35Bs for the Marine Corps.

Lt. Col. Kevin Hall, a member of the 514th Flight Test Squadron and the first depot test pilot in the Air Force qualified in the F-35B, took off from Hill Air Force Base and zoomed to altitude before heading to the Utah Test and Training Range for a functional check.

As he returned to base, Hall converted the versatile aircraft for short takeoff vertical landing operations and performed a "short" landing and a "rolling" takeoff.

Witnessing the successful flight was "eye-watering," said Lt. Gen. Lee Levy II, the commander of the Air Force Sustainment Center.

The Marine Corps sent two F-35Bs to the Ogden Air Logistics Complex on Feb. 2, 2015, for depot-level modifications. The jets came to Hill AFB from the Marine Corps with less than a week's notice.

In just over four months, workers completed the modifications necessary for the F-35B's initial operational capability, putting in 24,000 hours to get the job done.

"The work accomplished by the men and women of the 570th Aircraft Maintenance Squadron has been nothing short of amazing," said Brig.

Gen. Carl Buhler, the Ogden Air Logistics Complex commander.

Completing the modifications on time required the maintainers to overcome numerous challenges, Buhler said. They removed sections of the aircraft that many thought would never be removed, and they strengthened wing ribs and worked in areas that required rare "micro tolerances."

"In the process, the maintainers developed techniques that will be used as benchmarks in a variety of depot opera-

tions in the future," Buhler said. "The accomplishments of the members of the squadron – in concert with our Lockheed Martin teammates, with the support of the 75th Air Base Wing – have been remarkable."

The second F-35B is scheduled to be completed in the coming days.

"I couldn't be prouder of you and the support we're providing to our joint partners," Levy said in a message to the workforce. "The Marines were counting on us, and you delivered."

**A Marine Corps F-35B Lightning II takes off at Hill Air Force Base, Utah, June 18. The aircraft underwent a functional check flight following modifications at the Ogden Air Logistics Complex. (U.S. Air Force photo/Alex R. Lloyd)**

# B-52s demonstrate strategic reach



A B-52H Stratofortress is marshalled to a stop at Barksdale Air Force Base, La., after a 44-hour sortie July 2. Aircrew members and two B-52s from Barksdale AFB's 96th Bomb Squadron flew a round-trip mission to Australia where they integrated with Royal Australian Air Force ground forces in the region to conduct an exercise with inert conventional weapons and perform a low approach at RAAF Base Tindal, Australia. (U.S. Air Force photo/Senior Airman Benjamin Raughton)

By U.S. Strategic Command Public Affairs

**OFFUTT AIR FORCE BASE, Neb. (AFNS)** – Two B-52 Stratofortresses assigned to the 2nd Bomb Wing at Barksdale Air Force Base, La., returned July 2 from a 44-hour, nonstop mission to Australia.

The mission, which was closely coordinated with the Australian De-

partment of Defence, demonstrated the United States' ability to project its flexible, long-range global strike capability and provided unique opportunities to synchronize strategic activities and capabilities with a key ally in the U.S. Pacific Command area of operations.

"These flights are one of the many ways the U.S. demonstrates its com-

mitment to a stable and peaceful Indo-Asia Pacific region," said Adm. Cecil D. Haney, the U.S. Strategic Command commander. "In addition to strengthening aircrew skills and enhancing their familiarity with operating worldwide; combined training and theater security cooperation engagements with our regional allies serve to improve our interoperability and



Capt. Eric Bow (right), the 2nd Operations Support Squadron Conventional Plans Flight commander, conducts a premission briefing with aircrew members at Barksdale Air Force Base, La., June 30. During the mission, two B-52H Stratofortresses flew round-trip to Australia, where they integrated with Royal Australian Air Force ground forces to conduct an inert conventional weapons exercise on the Delamere Air Weapons Range and performed a low approach at RAAF Base Tindal, Australia. (U.S. Air Force photo/Senior Airman Benjamin Raughton)

capability to respond to any potential threat together."

During the mission, the B-52s integrated with Royal Australian Air Force ground forces in the region, conducted an inert conventional weapons drop on the Delamere Air Weapons Range and performed a low approach at RAAF Base Tindal.

USSTRATCOM's bomber force regularly conducts such training and engagements around the globe. In June, three B-52s deployed to Royal Air Force Fairford, England, where they conducted training flights with ground and naval forces around the region and participated in multinational exercises Baltic Operations 2015 and Saber Strike 2015 over international waters in the Baltic Sea and the territory of the Baltic states and Poland.

In May, two B-52s participated alongside Jordanian forces in U.S. Central Command's exercise Eager Lion 2015.

The mission consisted of a nonstop, 30-plus-hour sortie from the continental U.S. to the USCENTCOM area of operations. Previously, in April, four B-52s flew round-trip flights to both the Arctic and North Sea regions. The training mission, Polar Grawl, enabled bomber crews to conduct air intercept training with fighter aircraft from the U.K., Canada and the Netherlands.

B-52s also participated in NATO exercise Noble Justification in October 2014, during which the bombers assisted in the exercise's focus of validating the Spanish Maritime Force as the 2015 Maritime NATO Response Force.

USSTRATCOM is one of nine Defense Department unified combatant commands and is charged with strategic deterrence; space operations; cyberspace operations; joint electronic warfare; global strike; missile defense; intelligence, surveillance and reconnaissance; com-

bating weapons of mass destruction; and analysis and targeting.

## This day in espionage history

By AEDC Industrial Security

**July 20, 1989** – Huseyin Yildirim sentenced to life in prison for espionage

**July 30, 1916** – Black Tom Railroad Yard Bombing – Two million tons of war materials packed into train cars blew up in the Black Tom Railroad Yard on what is now a part of Liberty State Park

- ❖ The culprits were German agents who were determined to prevent American munition shippers from supplying its English enemy during the first World War

- ❖ Ultimately led Congress to pass the Espionage Act of 1917 which outlawed a variety of crimes associated with German agents

**Indicators of Security Risks:**

- ❖ Alcohol Abuse
- ❖ Drug Abuse
- ❖ Spending inconsistent with known income level
- ❖ Foreign interests



# Airman passes on knowledge to Civil Air Patrol cadets

By Airman 1st Class  
Zackary A. Henry  
18th Wing Public Affairs

**KADENA AIR BASE, Japan (AFNS)** – As a first lieutenant in the Civil Air Patrol on Kadena Air Base, Chance Sheek is an emergency services training officer, communications officer, and he oversees all of the cadet training. But during the weekday, he is a senior airman assigned to the 18th Logistics Readiness Squadron working as a vehicle operations vehicle operator.

Chance first became interested in the Civil Air Patrol when he was 15 years old with hopes to one day learn how to fly a plane. Shortly after joining, he set out on a ground search and rescue mission and his interest in flying quickly changed.

“The Civil Air Patrol’s ground emergency team conducts over 85 percent of all search and rescue missions in the continental U.S.,” said Todd McLain, the Kadena Civil Air Patrol leader. “Those missions include things like downed aircraft and lost hikers, but they also have a hand in disaster relief and support missions as well

as homeland security with the border control.”

Sheek stayed an active member of CAP up until he learned that a few friends in his flight were going to an Air Force Pararescue Orientation Course. It peaked Sheek’s interest and after investigating, he decided he wanted to become an Air Force pararescueman. Within one month Sheek had spoken with a recruiter, taken all necessary tests for special operations, and signed his enlistment contract.

A couple of months later, after graduating high school, Sheek graduated basic military training and went on to begin his pararescueman training at Joint Base San Antonio-Lackland, Texas.

After pushing his mind and body through four of the most intense weeks of his life, Sheek had self-eliminated.

“If you want to know a terrible feeling, look at your team and tell them you quit,” Sheek said. “Even though they are sucking it up, you look at them and you’re just like, ‘I am done, I can’t handle anymore.’”

After self-eliminating, Sheek became a student



Senior Airman Chance Sheek (right), an 18th Logistics Readiness Squadron vehicle operator, teaches a young cadet in the Civil Air Patrol how to use a compass on Kadena Air Base, Japan, June 26. Sheek is now a first lieutenant in the CAP and is held responsible for ground emergency training such as search and rescue. (U.S. Air Force photo/Airman 1st Class Zackary A. Henry)

waiting retraining, but he didn’t take this time off. While awaiting his reclassification, Sheek became a black rope for a drill team and went on to lead the team in competition as well.

After receiving his reclassification instructions, Sheek went on to his next technical training for vehicle operations at Fort Leonard Wood, Mo. While there, he again stepped up to another leadership posi-

tion and became a yellow rope, earning two letters of acknowledgement.

“I just had to realize that I wasn’t the first to fail training for pararescue and I will not be the last,” Sheek said. “It’s the moments after that I feel are the most important. I gave up once and it was a wake-up call.”

Upon completion of his technical training, Sheek went on to his first duty station at Altus Air Force

Base, Okla. Shortly after arriving, he rejoined the CAP. As an active-duty service member, Sheek was immediately promoted into the adult officer ranks.

As an officer in the CAP, it was Sheek’s responsibility to guide the cadets. He is able to take from his past experience and life lessons to better teach them.

While stationed at Altus, Sheek found a way to

use the skills and ambition he learned from pararescue and used that passion to receive his emergency ground team leader certification. As part of his certification, Sheek had to perform multiple search and rescue tactics and basic first aid, such as wound dressing and splints.

“I chose emergency services because it was fun,” Sheek said. “In a small unit, carrying some

See AIRMAN, page 9

## CTF from page 1

in developing and testing the concepts and processes required to run a full-up CTF. It was a major success and helped AEDC pave the way for base-wide implementation.”

Because they’ve been operating in this manner for several years now, the recent switch to CTFs base-wide hasn’t been as noticeable to contractor and government personnel working in Space and Missiles.

“The recent AEDC organizational change to implement CTFs has strengthened and helped our team focus on the mission-related aspects of our work,” Orson said. “We disbanded the mini-CTF, but this was a minor

change because the STAT team was already operating in a combined fashion, with government and ATA workforce working jointly to operate the facility and execute the mission.”

With the current contractual transition, Orson added the implementation of CTFs was “definitely the right thing to do at the right time.”

“It keeps the team focused on the mission during the transition and makes AEDC look and feel like our brother and sister squadrons at Edwards and Eglin [Air Force Bases],” he said. “For the last two years I have been preaching ‘one team, one fight.’ Even with the ongoing transi-

tion, I am very proud of how the Space and Missiles CTF has come together to execute and grow our mission. I believe two key reasons workload is growing across AEDC is our recommitment to technical excellence and our customer focus we bring to work every day.”

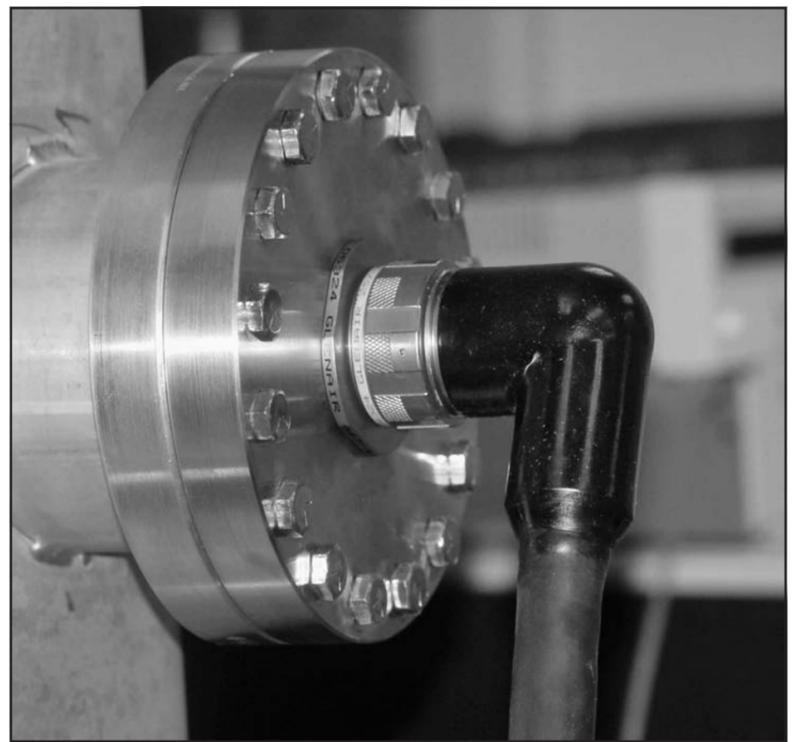
Lt. Col. Orson is leaving AEDC to attend Air War College at Maxwell Air Force Base, Ala. But Col. Tim West, senior materiel leader in the AEDC’s Test Operations Division, said he has confidence in Orson’s replacement, Lt. Col. Jason Armstrong, who came to AEDC from the Pentagon and has served in the F-35

Joint Program Office, the F-22 CTF at Edwards Air Force Base and the 413th Flight Test Squadron at Hurlburt Field, Fla.

“I’m very proud of the Space and Missiles CTF,” West said. “They have made great progress towards Lt. Col. Orson’s

‘one team, one fight’ vision. I know they will continue their progress under the leadership of Lt. Col. Jason Armstrong.”

## PROGRAM from page 1



The feedthrough assemblies for the Test Article Control System (TACS) and Data Acquisition System (DAS) used at the 16-foot transonic (16T) wind tunnel were recently replaced, saving AEDC more than \$1 million. Pictured is a new feedthrough undergoing vacuum testing in the Space Systems Test Facility (SSTF) Lab at AEDC. (Photo provided)

a study to determine a more cost effective solution to the feedthrough assembly requirement,” Minter said.

A candidate bulkhead feedthrough assembly was purchased and underwent

rigorous pressure and electrical tests to ensure that all TACS and DAS requirements were met.

Unfortunately the first candidate did not pass this testing but the ATA team

was undeterred and worked with Minter to identify another more innovative solution. Within a few weeks a second candidate was identified and a prototype was immediately ordered.

This new design passed each test and will more efficiently utilize the limited space with each enclosure than any previous feedthrough design.

“This design meets all performance requirements, occupies less space, costs 80 percent less than current design and can be delivered to meet our accelerated schedule,” Minter said.

In total, the switch to the bulkhead feedthrough assembly will provide a net savings of \$1,380,860 for this year alone.

Finding a more inexpensive option to save money at 16T was the idea of ATA employee Marc Smotherman, who received a reward for his sugges-

**AIRMAN from page 8**

gear with a few other volunteers and at such a young age, I could help save a life. I don't think there is a better feeling."

Just a short year later, Sheek received orders to Kadena Air Base, Japan, as a vehicle operator. After arriving, he quickly discov-

ered there was an overseas CAP unit and joined as soon as he could.

Sheek uses those skills from pararescue training to lead cadets through search and rescue exercises and teaches the cadets skills like using compasses, land navigation, radio usage and

basic medical skills.

Since joining the the CAP unit at Kadena AB, Sheek earned a Military Outstanding Volunteer Service Medal for his work with the CAP and as a life-guard at a local pool.

"I believe a part of why he is doing so well in the Air

Force (are) the skills and lessons he learned as a CAP cadet," Mclain said. "He is a very good leader, loves to get involved and hands-on, and he has a wealth of knowledge. It's what makes him a hard worker."

Sheek said his time in the CAP program is no-

where near its end; it has been a lifelong passion for him and he plans on continuing to give back to the program that has helped him out so much through his life and career as an Airman.

"It's really great getting to pass on your knowl-

edge," Sheek said. "You pass on that experience and you get to see a young quiet cadet who was too shy to even speak at first, start testing for rank, passing physical training tests, and taking (the) lead on programs, it's extremely rewarding."

# August 2015



ALC – Arnold Lakeside Center, 454-3350  
 Café – Café 100, A&E, 454-5885  
 ODR – Outdoor Recreation, 454-6084  
 RRRP – Recycling, 454-6068  
 Marketing/Sponsorship – 454-3128  
 Barber Shop – 454-6987

GC – Arnold Golf Course, 454-GOLF  
 MG – Mulligan's Grill, GC, 454-FOOD  
 FC – Fitness Center, 454-6440  
 WI – Wingo Inn, lodging, 454-3051  
 Resource Management – 454-7425  
 Admin – 454-7779

Sunday Monday Tuesday Wednesday Thursday Friday Saturday

**100 Sit Up Challenge**  
 FITNESS CENTER  
**all month**  
 Top 2 at end of month with highest reps win prize

**BATTLEFIELD DAY**  
**Aug 5 11 am**  
 running track behind A&E building  
**PRIZE WINNER IN EACH EVENT:**  
 4 person 400 meter relay  
 60 meter sprint  
 Tug of War  
 Tire hammer/toss

ALC Dining Room  
 Thu 5-8pm  
 Fri 5-9pm  
 Sat 5-9pm

1

2 3 4

6  
 Movie: The Spongebob Movie: Sponge Out of Water

7  
**ALC: First Friday Jam**  
 6pm

8  
**ODR Archery Class** age 10+  
 10am-noon \$8  
 Sign up by Aug 1

**Arnold Golf Course**  
 ARNOLD AFB TENNESSEE

**BASE CHAMPIONSHIP**

This event closed to public. For AEDC/military affiliated and Advanced Green Fee players only.

**8 & 9 Aug \$55**  
**8am Sat 1pm Sun**

\$40 for Annual Green Fee Players includes lunch on Sunday, cart extra

Individual Stroke Play  
 Closest to the Pin Competition each day  
 sign up by Aug 6 454-GOLF

11

12  
**ALC: Jewelry Fair**  
 Café 100 8am-1pm  
 All jewelry \$20 or less

13  
 Movie: Little Boy

14

15  
**ODR: Stand Up Paddleboard Class** at Crockett Cove  
 10am-noon  
 \$10 age 13+  
 Sign up by Aug 8

18

19

**Arnold AFB Services**

**LIKE us**  
 on Facebook  
 and receive updates

20  
**ALC: Brushes & Bottles** \$25  
 GLC 6pm  
**Sign up by Aug 14**

21

22  
**ODR Archery Class**  
 10am age 10+ \$8  
 Sign up by Aug 15

16 17

25  
 Movie: Age of Adeline

26

29  
**Beginner Stand Up Paddle Board Class**  
**Aug 15 & 29**  
**10 am - 12 pm**

Crockett Cove  
 \$10/person  
 Ages 13+  
 Sign up by Aug 8 & 22  
**454-6084**

23 24 25  
 30 31

27  
 Movie: San Andreas

28  
**ALC: Last Friday Trivia**  
 6:30pm

ALC FREE THURSDAY MOVIES 6:30 PM



**AEDC STEM Camp 2015**  
(Photos provided)



# Fighter pilot makes history at USAF Weapons School



Capt. Kari Armstrong, an F-15E Strike Eagle weapon systems officer with the 389th Fighter Squadron, received more than a diploma from the U.S. Air Force Weapons School at Nellis Air Force Base, Nev., June 27. Armstrong also became the first female F-15E weapons school officer and the second female student in a fighter platform – after Col. Jeannie Leavitt in June 1998 – to complete the graduate-level school. (Courtesy photo/Susan Garcia)

By Susan Garcia  
U.S. Air Force Weapons School

**MOUNTAIN HOME AIR FORCE BASE, Idaho (AFNS)** – Capt. Kari Armstrong, an F-15E Strike Eagle weapon systems officer with the 389th Fighter Squadron, received more than a diploma from the U.S. Air Force Weapons School at Nellis Air Force Base, Nev., June 27. Armstrong also became the first female F-15E weapons school officer and the second female student in a fighter platform – after Col. Jeannie Leavitt in June 1998 – to complete the graduate-level school.

While she appreciates the historical aspect of her experience, Armstrong said her vision for the future goes beyond her gender. Her ultimate goals are to be the best instructor she can be and to inspire others to excel in the same way her mentors did. Those goals motivated her to apply to

the weapons school in the first place.

Armstrong did not have to put herself through weapons school – a rigorous school that selects only the top 3 percent of F-15E aircrew, with an elimination rate of 10 percent per class. However, Armstrong had observed and admired the graduates – also known as “Patches” – at her unit for some time.

“I realized that the people I wanted to emulate the most happened to be Patches,” Armstrong said. “They really summed up the ‘humble, approachable, credible’ motto of the weapons school. To me, a Patch means being very proficient at your job, but also being willing and available to help those around you.”

Her skills and teaching acumen resulted in her selection to the 17th Weapons Squadron’s F-15E Weapons Instructor Course on her first application to the weapons school. After arriving, Armstrong soon realized

she might be the first female weapons school officer to graduate from the fighter weapons instructor course; however, she could not allow herself to think about that. She had to focus on the 260 academic hours, 28 flying missions and a course designed to contain the toughest operational conditions most students ever see.

“Going through the course, I didn’t feel singled out,” Armstrong said. “At the end of the day, (gender) doesn’t matter in the briefing rooms. All that matters is the quality of your brief, execution and debrief.”

The 17th WPS leadership echoed that sentiment. “Captain Armstrong’s accomplishments are notable simply because of her ability,” said Lt. Col. James Blanton, the 17th WPS commander. “She’s a very good aviator and instructor. Regardless of gender, all of our students will be excellent leaders for the (U.S. Air Force).”

Her fellow classmates were essential to Armstrong’s success. She advised potential weapons school students to “stay positive and lean on your classmates for support – look for the little wins.”

Small successes during the course are important. They help counter the challenging hours of training and the constructive feedback from instructors.

As she returns to the 389th FS and Mountain Home Air Force Base, Armstrong said she hopes to encourage other weapons school officers to apply for the school. She wants them to know becoming a Patch is an attainable goal; however, “It is not a goal you can complete overnight; it is something you have to work hard at every single day.

“(The weapons school) is challenging, but it’s also the best flying I’ve ever had the opportunity to participate in,” Armstrong continued. “Unless you go to a Red Flag, you won’t typically see how all the platforms work together. Getting outside your own bubble helps you see the bigger picture of how we all play a role in the overall mission.”



