

AEDC support for NASA's Orion aids in first launch preparation

By Deidre Ortiz
ATA Public Affairs

Testing at AEDC has assisted NASA in preparing the Orion spacecraft for its first trip into space, anticipated in December.

It was announced this month that the spacecraft has completed several milestones at NASA's Kennedy Space Center in Florida. Engineers have finished building the Orion crew module, attached it and the service module to the adapter that will join Orion to its rocket.

"Nothing about building the first of a brand new space transportation system is easy," said Mark Geyer, Orion program manager, said. "But the crew module is undoubtedly the most complex component that will fly in December. The pressure vessel, the heat shield, parachute system, avionics – piecing all of that together into a working spacecraft is an accomplishment. Seeing it fly in three

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(Above) The Orion crew module and launch abort system model as it appeared in one configuration during the aerodynamic effects testing it underwent in AEDC's 16-foot transonic wind tunnel. (Photo by Rick Goodfriend)



(Left) The Orion crew module, stacked atop its service module, moved out of the Neil Armstrong Operations and Checkout Building at NASA's Kennedy Space Center in Florida on Sept 11. Orion was transported to the Payload Hazardous Servicing Facility at Kennedy where it will be fueled ahead of its December flight test. During the flight, Orion will travel 3,600 miles into space to test the spacecraft systems before humans begin traveling in Orion on future missions. (Photo by Dan Casper, NASA)

Dr. Mark Mehalic selected as executive director of AEDC

By Deidre Ortiz
ATA Public Affairs

A new executive director has been chosen to assist in leading the mission of AEDC.

It was announced recently that Dr. Mark Mehalic accepted the position, officially beginning in his new role earlier this month.

Mehalic stated that he's glad to be at AEDC and is ready to assist in its mission.

"I chose AEDC because I wanted to be part of the outstanding work that the Complex does for the Air Force and the nation," he said. "The reputation of AEDC is well known and greatly respected throughout the Air Force and the aerospace community, and being part of this organization is a great privilege."



Dr. Mark Mehalic

Mehalic is making the transition to Arnold AFB from Kirtland AFB, N.M., where he was serving as director for Engineering and Technology Management at the base's Air Force Nuclear Weapons Center. As the director, he led a team of 40 people working engineering-related issues for the Center.

These issues included workforce development, test and evaluation, engineering policy, and technical advice to the Center Commander and Program Executive Officer for Strategic Systems.

In his role at Kirtland AFB, Mehalic was also responsible for ensuring implementation and execution of sound systems engineering practices across the Air Force Nuclear Weapons Center portfolio, which included the Minuteman III ICBM, the Air Launched Cruise Missile (ALCM), the B61 and B83 gravity bombs.

"I believe my experiences will help AEDC as we approach the changes ahead of us," Mehalic said. "The Air Force, and the test and evaluation community in particular, are going through a time of change. My experiences, especially those in the nuclear enterprise, have given me the tools to lead and manage change in a highly technical organization. In addition, my experiences have taught me that we must take care of our people. Caring for our workforce is the foundation of a vibrant organization."

AEDC Commander Col. Raymond Toth stated he's confident that Mehalic will be a great addition to leadership at Arnold AFB and asks all personnel to join in making him feel welcome.

"[Mehalic] has a strong engineering background with a PhD in electrical engineering, is a retired Air Force colonel and has been much

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AEDC summer students conclude program with presentations

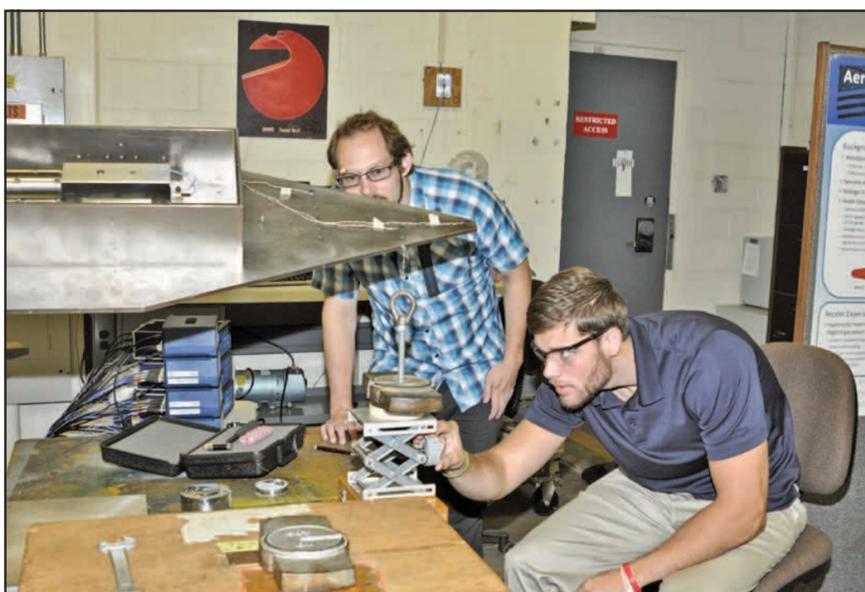
By Deidre Ortiz
ATA Public Affairs

Just as summer is coming to a close, so are the part-time student programs at Arnold Engineering Development Complex (AEDC) Hypervelocity Wind Tunnel 9 in White Oak, Md.

Five undergraduate students worked on site at Tunnel 9 as part of a mentoring program funded by AEDC. Based on their chosen field of academic study, the students had the opportunity to apply what they have learned to test and evaluation at Tunnel 9.

The program's participants are chosen from the honors program at the University of Maryland. As part of the selection process, they

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AEDC mentor Eric Marineau watches as University of Maryland student Jack Draper, participant in the summer program at AEDC Hypervelocity Wind Tunnel 9, carefully applies calibration loads to a dynamic force balance technology demonstrator. (Photo by Mike Smith)

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HIGH MACH

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An Air Force Materiel Command Test Complex

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- Service before self
- Excellence in all we do



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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

October is Energy Action Month

By Nick Hibdon
AEDC Contributing Writer

Energy Action Month is almost here and a few events are taking place at AEDC during the month of October as part of this campaign.

Key events will include "Go Green Wednesdays" and an Energy Expo.

The Energy Expo is Oct. 11 from 10:30-11 a.m. in the main auditorium. A TVA representative will be coming to share tips and tricks on saving "Energy @ Home."

As part of Go Green Wednesdays, personnel are encouraged to

Power the Force. Fuel the Fight.



wear a green shirt every Wednesday throughout October to help boost Energy Awareness.

AEDC Energy Manager Nick Hibdon will be visiting different locations to take pictures of groups wearing green and participating in

the awareness campaign.

Hibdon said he hopes that all base personnel will take part in Energy Action Month and asks everyone to remember the campaign's motto, "I am Air Force energy!"

More information about Energy Action Month activities will be sent out through email and posted on SharePoint.

Espionage threats remembered during Counterintelligence Awareness Month

By AEDC Industrial Security

In March 2013, NASA locked out foreigners and ordered a security review following concerns of Chinese spying.

NASA locked its facilities to foreigners, disabled online research databases and ordered a complete review of access by foreign nationals to its facilities, as allegations swirled of foreign spies within the space agency.

The reports came to a head with the arrest of former consultant Bo Jiang as he was leaving the country with a one-way ticket to China carrying several data storage devices, including hard drives, flash drives and computers that likely contained sensitive information.

Jiang was employed as a scientist by the National Institute for Aerospace, a contractor at the NASA Langley Research Center in Hampton, Va. Jiang traveled to China in 2012 carrying volumes of sensitive NASA information. His position afforded him virtually unlimited, unescorted access throughout the Langley facility, which houses significant satellite technology resources with military applications. Jiang was paid at least \$200,000 in income.

In testimony before the House Appropriations subcommittee that funds the space agency, the NASA chief said the associate administrator would head a complete investigation into the issue, and that external investigations would likely follow.

NASA ordered a complete review of the access that foreign nationals are granted at NASA facilities. Jiang wasn't the only foreign national working in NASA facilities around the country. There were 281 foreign nationals with physical access to the agency's facilities including 192 Chinese nationals.

The number of U.S. citizens working in Chinese facilities? - None.

In addition to the security review, NASA closed down a publicly available technical reports database due to the risk of confidential information leaking out. NASA also instigated a moratorium on access to NASA facilities and data from several foreign countries, including China, Burma, Eritrea, Saudi Arabia and Uzbekistan. Remote computer access from those countries was terminated as well.

The NASA Chief stated, "This is about national security, not NASA security, and I take that seriously. I will hold myself accountable once the review is completed."

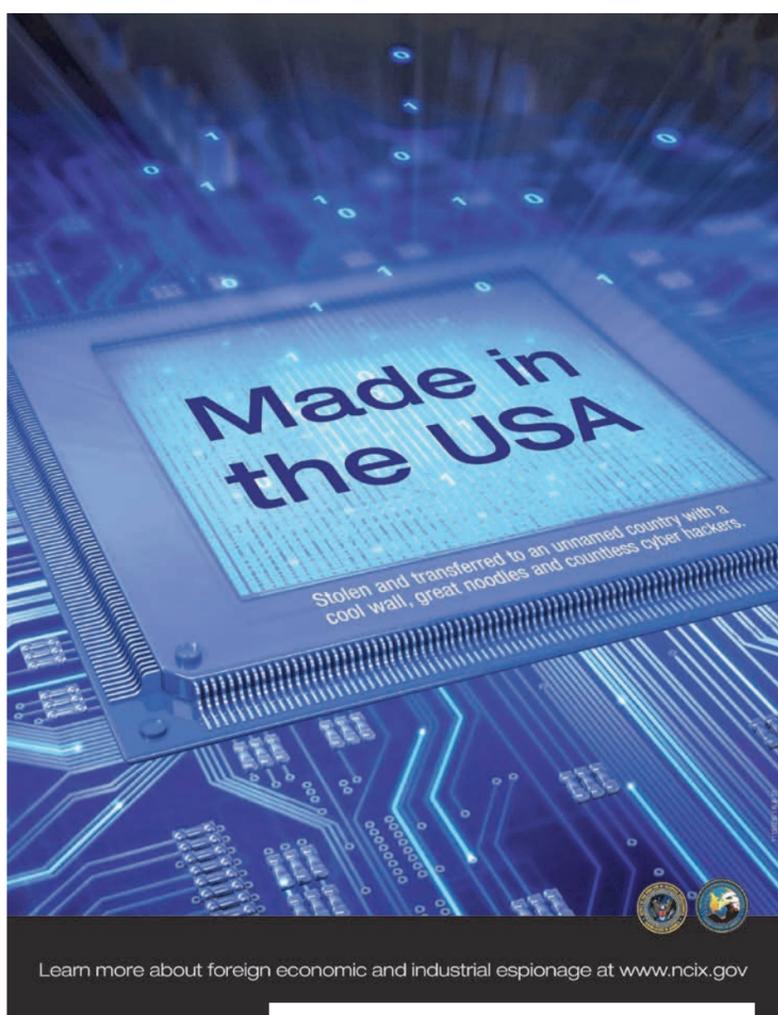
The FBI is investigating multiple NASA centers to counter the growing space espionage threat. Federal law enforcement officials are mounting anti-espionage investigations at multiple NASA facilities to counter what FBI Director Robert Mueller believes is a growing threat against U.S. space technology.

Mueller stated that foreign nationals targeting NASA for espionage purposes are a "significant threat," and disclosed for the first time that the bureau has "a number of investigations ongoing" at several facilities within the space agency.

According to testimony, while foreign intelligence services continue traditional efforts to target political and military intelligence, counterintelligence threats now include efforts to obtain technologies and trade secrets from corporations and universities.

The loss of critical research and development data, intellectual property, and insider information poses a significant threat to national security.

Each year, foreign intelligence services and their collectors become more creative and more sophisticated in their methods to steal innovative technology, which is often the key to America's leading edge in business.



Learn more about foreign economic and industrial espionage at www.ncix.gov

Potential Espionage Indicators:

- Failure to report overseas travel or contact with foreign nationals
- Seeking to gain higher clearance or expand access outside the job scope
- Engaging in classified conversations or meetings without a need-to-know
- Working hours inconsistent with job assignment or insistence on working in private
- Exploitable behavior traits
- Repeated security violations
 - Attempting to enter areas to which they have not been granted access

especially when one has legitimate access to it represents a spy in our midst, but we need to be aware of the actions of those around us, and report any suspicious behaviors, especially those that may be related to a potential compromise of classified or other protected information. It's better to report than to take a chance

- the increasing exposure of businesses to foreign intelligence services as joint ventures grow and businesses become more global

Not every suspicious circumstance or behavior

- theft of information is a low-cost route to avoid investment in research

- the ease of stealing information that is stored electronically,

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 AEDC web portal at https://papro.arnold.af.mil/PORTAL/images/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.

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 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

Framed prints donated to AEDC in remembrance of 9/11

By Deidre Ortiz
ATA Public Affairs

In recognition of the anniversary of the 9/11 attacks on the U.S., two framed prints of fighter jets flying over the Pentagon and the World Trade Center on Sept. 11, 2001, were donated to AEDC.

Dean and Judy Mohler presented the prints to AEDC Commander Col. Raymond Toth, who accepted on behalf of AEDC. Dean is a retired Air Force Chief Master Sergeant and former AEDC civilian employee and Judy currently works for the AEDC Technology and Analysis and Evaluation branch.

Dean explained he bought the prints from artist Rick Herter in 2002 while on temporary duty at the Pentagon.

"At the time I was stationed with the United States Special Operations Command at MacDill AFB," he said. "The original paintings were presented to the Pentagon, where they remain today. [My wife and I] finally framed the prints this year and decided to donate them to AEDC so they could be enjoyed by everyone that visits the building as a remembrance of 9/11."

The prints will be displayed on the third floor of the A&E building.



Dean and Judy Mohler, right, presenting one of the two prints to AEDC Commander Col. Raymond Toth, left. (Photo by Jacqueline Cowan)

Lt. Col. Ed Tucker promoted to Colonel



During a recent promotion ceremony at AEDC, Lt. Col. Ed Tucker (center) was promoted to the rank of colonel in the U.S. Air Force Reserve. Tucker's wife Pam and daughter Kristina are shown here pinning on his new rank. Also participating in the ceremony was Tucker's sons Bradley and Brandon, and Bradley's wife Amber. Col. Tucker is the senior reservist for the 96th Test Wing at Eglin AFB. Tucker also serves as chief of the AEDC High Speed Systems Test Technology Branch. (Photo by Jacqueline Cowan)

Capt. Bauer receives Joint Service Achievement Medal



Capt. Nicholas Bauer (right), with the AEDC Space and Missile Test Branch, receives the Joint Service Achievement Medal (inset image) for Meritorious Service for the Armed Forces of the United States from Col. Jay Orson, the AEDC Space and Missile Test Branch director, on Aug. 28. The medal was awarded from the Department of Defense by Rear Adm. Deborah P. Haven with the U.S. Navy. She is the acting Defense Contract Management Agency International Commander. (Photo by Rick Goodfriend)

See something? Hear something? Say something!

AFOSI Tip Line available across multimedia spectrum

By Michael Schnable
Arnold Air Force Base,
OSI

274637 (CRIMES). Texting may not be available in some overseas locations.

A member of the Air Force is overheard by a co-worker making blatant comments regarding harming individuals in his unit and others on base. His rant does not go unnoticed, but it is difficult to tell if he is simply blowing off steam or if this is a genuine threat.

In this instance, a fellow airman reported her suspicions to law enforcement. The next morning, the disgruntled individual attempted to enter the base. He was immediately identified and detained by law enforcement. He had personally owned weapons and ammunition in his vehicle. Acting only on her suspicions, the tipster prevented what could have turned out to be an active-shooter incident on base.

Reporting suspicious activity has become much easier. The Air Force Office of Special Investigations (AFOSI) established a Tip Line for the Air Force to support the Insider-Threat mission. The Tip Line is an anonymous reporting mechanism to advise law enforcement of illegal activities. It provides an easily accessible avenue for individuals to deliver information to AFOSI. Tips can be submitted to report all types of suspected criminal activity, such as fraud, theft, drug use, rape and espionage.

There are three reporting methods individuals can use to send tips: Web based, SMS and a smart-phone application. Use any of the following methods to send a tip:

1. Go to the following web site: <https://www.tipsubmit.com/WebTips.aspx?AgencyID=1111>
2. Text "AFOSI" plus your tip information to

3. Download the Tip-Submit Mobile application from your provider's marketplace. Select "Federal/Military" and then "Air Force Office of Special Investigations."

AFOSI encourages using the Tip Line as a means to communicate with law enforcement and reminds tipsters that making a false report to law enforcement is a serious offense and may be punishable by law. Submitting tips for a training scenario is also not appropriate. All tips received are taken seriously and followed up by AFOSI agents. Once a tip is submitted, a unique tip number is provided to the tipster. This unique number can be used by the tipster to provide more information or update the original tip. It can also be used to establish an anonymous two-way communication between the tipster and AFOSI.

The AFOSI Tip Line provides service members and civilians a safe, discreet and anonymous option to report criminal information, counterintelligence indicators or force-protection concerns. Do not minimize or rationalize events and deem them not worthy of reporting. As with any complaint, anonymous tips are vetted by AFOSI and if they do not meet criminal, counterintelligence, or force protection thresholds, AFOSI will ensure the matter goes to the appropriate action authority.

See something? Say something! Report suspicious activity!

For more information, please contact AFOSI Detachment 106 at 454-7820 or AFOSI.DET106@us.af.mil.

Wolfenbarger notified of Order of the Sword induction

**Air Force Materiel
Command Public Affairs**

WRIGHT-PATTERSON AIR FORCE BASE, Ohio – In an emotional ceremony Sep. 3, Gen. Janet Wolfenbarger, commander of Air Force Materiel Command, learned she has been selected for induction into the AFMC Order of the Sword.

The surprise notification was made in front of hundreds of Airmen from Wright-Patterson as well as senior leaders from across the command -- gathered at the base for a senior leader conference -- at the close of the day's conference sessions.

Chief Master Sgt. Michael Warner, AFMC's command chief and senior enlisted leader, announced the induction and explained the significance of the honor.

"This award was established by our enlisted force to recognize and honor senior officers for

distinct and significant contributions to the welfare and prestige of the enlisted force, to mission effectiveness, and to the overall military establishment," he said.

Wolfenbarger's nomination was reviewed by the AFMC Order of the Sword executive committee, who represent the command's 12,666 enlisted Airmen. The committee, comprised of the AFMC command chiefs, voted unanimously in favor of the general's induction.

"You lead with passion; you care about every one of your Airmen; you have made their quality of life, their training and development, and their resources in a tough environment a priority," Warner told her. "We are excited to induct you into our Order of the Sword because you are a leader among leaders and an Airman among Airmen!"

The general was noticeably surprised and



Gen. Janet Wolfenbarger, Air Force Materiel Command commander, expresses her surprise and gratitude to Chief Master Sgt. Michael Warner, AFMC command chief (left) – and all the command's enlisted Airmen – at being selected for induction into the Order of the Sword. (U.S. Air Force photo/JC Snediker)

humbled by the notification.

"This has got to be the highest honor I could

ever have bestowed on me, of anything that I could think of in my entire three-plus decades

in the United States Air Force. It doesn't get any better than this," she said. "Thank you all very, very

much."

Wolfenbarger's formal induction ceremony is scheduled for Feb. 5, 2015.

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months is going to be amazing."

A team of engineers, technicians and machinists at AEDC conducted a test last year in the 16-foot transonic wind tunnel (16T) in support of NASA's Exploration Flight Test-1 (EFT-1), the first planned, flight test of the Orion Multi-Purpose Vehicle without a crew.

A United Launch Alliance (ULA) team, led by Mike Schoonmaker, gathered dynamic pressure and steady state pressure data for the 5.9 percent scale modeled Orion crew capsule mounted on a Delta

IV booster.

EFT-1 will take Orion to an altitude of approximately 3,600 miles above the Earth's surface, more than 15 times farther than the International Space Station's orbital position.

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

Installed in AEDC's

16T wind tunnel was the entire three-body configuration of the Delta IV Heavy with the Orion, the Orion Service Module and the Orion Launch abort system on the front end.

Data received during the test was beneficial to ULA in determining how the vehicle would function.

Nathan Payne, Aerospace Testing Alliance project engineer for the test, said, "This was a buffet/acoustic test in our 16T wind tunnel facility. The Orion's test objectives were to gather dynamic pressure data over the en-

tire model's surfaces. ULA can then use this data to provide vehicle forcing function for axial, pitch, yaw and their respective moments.

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

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

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

"AEDC was chosen because the previous Atlas V Heavy test was conducted at AEDC and reuse of those elements for a cost and schedule savings required a tunnel of the size of AEDC," he said.

Not only has AEDC conducted flight testing of the Orion spacecraft, in early 2007 a team at the Hypervelocity Wind Tunnel 9 made use of conventional and advanced mea-

surement techniques during the NASA-sponsored aerothermal testing on a scale model. The primary objective of the Orion testing at Tunnel 9 was to obtain heating data over the model's surface covering the full operational range of the facility at Mach 8 and 10 freestream conditions.

That same year NASA engineers specializing in arc heater testing teamed with their counterparts at AEDC to conduct validation runs at the Complex's High Enthalpy Aerothermal Test H2 test facility. The arc heater tests helped pave the way for successful screening and performance evaluation testing of Orion's heat shield candidate materials.

Since the testing performed at AEDC's various facilities, NASA has continued to get ready for Orion's initial launch.

Finishing the Orion crew module marks the completion of all major components of the spacecraft. The inert service module and the launch abort system were completed in January and December, respectively. The crew module was attached to the service module in June to allow for test-

ing before the finishing touches were put on the crew module.

The adapter that will connect Orion to the United Launch Alliance (ULA) Delta IV Heavy rocket was built by NASA's Marshall Space Flight Center in Huntsville, Ala. It is being tested for use on the agency's Space Launch System rocket for future deep space missions.

On Sept. 11, NASA, Lockheed Martin and ULA managers oversaw the move of the spacecraft from the Neil Armstrong Operations and Checkout Building to the Payload Hazardous Servicing Facility at Kennedy, where it will be fueled with ammonia and hyper-propellants for its flight test. Once fueling is complete, the launch abort system will be attached. The spacecraft will then be ready to stack on the Delta IV Heavy.

Though there will not be a crew onboard during the December flight test, in the future, the module will be used to transport astronauts safely to and from space. Many of Orion's critical safety systems will be evaluated on this mission.

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of his career on both active duty and as a government civilian in Air Force Materiel Command and the acquisition community," Toth said. "Please welcome him as warmly as you welcome all newcomers to Middle Tennessee and AEDC."

Starting a new job in a new place has its challenges, but Mehalic said

he hopes he'll make a positive impact and help AEDC continue to be successful.

"My personal goal is to learn as much as I can about AEDC and its great mission," he said. "My goal for AEDC is to help the Commander take the Complex to the next level of preeminence technically, in customer satis-

faction and in workforce pride. I want to help make AEDC a place where people want to come and work, and a place where customers want to come and test. I really look forward to engaging with the AEDC team. I am sure that, as a team, we can overcome whatever challenges come at us."

Air Force revamps Air Expeditionary Force

WASHINGTON (AFNS) – The Air Force will deploy Agile Combat Support Airmen under its redesigned air expeditionary force (AEF) construct October 1.

The primary purpose of the redesign was to look at ways to deploy more ACS Airmen with their units and standardize dwell times across the Air Force as much as possible to present a consistent Air Force capacity to the warfighter.

While the construct was approved in April 2013 by Air Force Chief of Staff Gen. Mark A. Welsh III, the first deployments under this construct will be October 2014. Under the revised AEF construct, installations will deploy larger numbers of Airmen from the same unit under a 1:2 deploy-to-dwell ratio for active component, ACS Airmen. The revised construct establishes an 18-month battle rhythm where an Airman may deploy for six months and be home for 12. This will allow wings to more effectively posture their forces to meet global mission requirements as well as continue home station

training.

In the past, Airmen deployed as individuals or small elements via “tempo bands” based on their Air Force specialty codes. Those Airmen met downrange from bases across the Air Force.

“Our Airmen have performed superbly in their individual deployments under the current AEF structure for the last 11 years,” Welsh said. “This new construct will facilitate even better teamwork and unit performance during deployed operations. I visited a deployed squadron last year that was manned by 81 Airmen from 41 different bases! While we’ve proven we can be successful with that approach, we believe the new AEF model is a more efficient way to get the job done.”

While there are some other subtle changes, the most noticeable change to ACS Airmen will be a stabilized battle rhythm at 1:2 deploy-to-dwell ratio. Some Airmen will see this battle rhythm as an increase in their deployment vulnerability. Requirements for most skill sets have remained constant. However, those

who deployed less frequently may be more vulnerable. Not all Airmen will be selected for deployment in their vulnerability window.

Air Force leadership has worked very hard to secure 1:2 as the standard battle rhythm therefore reducing the number of Airmen who will deploy at rates greater than 1:2. While this is the goal, there may still be some high-demand specialties that may deploy under a different scheduling construct.

“Previously, Air Force specialty codes played a large role in determining an Airman’s battle rhythm and deployment location; the redesign focuses on aligning Airmen to deploy with their unit,” said Col. Stephen Hart,

the Chief of War Planning and Policy Division. “Deploying with members of their own unit increases continuity of work, allows our junior Airmen to deploy with their supervisor, trainers, and enhances the skills and management of wing missions.”

According to Hart, there are benefits to the Airmen and to the service, as it allows the Air

Force to better understand its available capacity and it allows Airmen to have a better idea of when they will be deploying within the given year.

For Airmen maintaining expeditionary readiness, it’s “business as usual.” Airmen should continue preparing themselves and their families for the reality of deployment, and ensure they are ready to go when called.

For more information on AEF battle rhythm and individual base dwell times, Airmen should contact their local unit deployment manager or base deployment manager.

(Senior Airman Jason J. Brown, 633rd Air Base Wing Public Affairs, contributed to this article.)

(Information courtesy of Air Force Public Affairs Agency OL-P)

MY STRENGTH IS FOR DEFENDING

AEDC Victim Advocates Hotline:

(931) 581-7494

Preventing Sexual Assault is part of our duty

Visit: MyDuty.mil




Share AEDC roads

By AEDC Safety, Health and Environmental

AEDC shares its roadways with a variety of users – including normal traffic, bicycle riders, motorcyclists, pedestrians and industrial vehicles. It all means that we need to be careful any time we're on the road whether we're operating a vehicle (motorcycles and bicycles included), walking or jogging.

WALKING, JOGGING, OR RUNNING

• **When you're driving, do you anticipate pedestrians on the roadway? What makes them visible?** Imagine yourself in the driver's seat then take steps to be seen. This is particularly true at night when you may need a light, reflective clothing or both. Sun glare or shadows can hamper visibility during daylight hours.

• **Is it OK to walk or jog in the roadway?** Use sidewalks when available. The AEDC Integrated Defense Plan (IDP 31-101) states pedestrians (including joggers) "must use sidewalks and crosswalk where provided." It adds that "when it is necessary to walk on the street [pedestrians must] yield the right-of-way to all vehicles when cross-

ing a roadway at any point other than within a marked crosswalk or at a traffic controlled intersection." That's one reason walkers and joggers are encouraged to use the fitness trail or track behind the A&E. It's a safer choice rather than roadways or shoulders.

• **What's my best defense?** In addition to being visible, be attentive. Stay alert and ready to move out of the way in case a driver does not see you. Stay within three feet of the curb. When crossing intersections, make eye contact with any vehicles before advancing across. Avoid wearing headphones. You may miss important traffic sounds that would help you avoid potential dangers. Even cell phone use can be distracting. Except in high noise areas, base regulations prohibit jogging or walking along roadways while wearing headphones. This also applies to bicyclists.

OPERATING A VEHICLE

• **What are the basic rules of the road?** Be courteous. Obey traffic signals and speed limits, observe following distances, give proper turn signals, etc. Even bicyclists must ride single file in traffic lanes, obey speed limits and stop signs, and

give proper signals when changing direction or stopping.

• **What PPE do I need?** Whether it's a seat-belt, proper motorcycle attire, or a bicycle helmet; know what is required. A *hard hat is not an acceptable substitute for an approved bicycle helmet.*

• **What else is going on around me?** Slow down and move over whenever possible for emergency vehicles. Inside the industrial area, drivers can expect to see forklifts, aerial work platforms, cranes and other slow moving vehicles normally not encountered on "outside" roadways. Drivers may also encounter vehicles carrying explosives or construction zones.

• **When do I share the road?** Pedestrians have the right-of-way in crosswalks. If a sidewalk is unavailable and a pedestrian must walk/jog on the roadway near the curb or shoulder, allow room to pass safely or slow down until you can. When passing a bicycle; State law requires drivers to slow down until it's safe to pass, then yield three feet.

• **Watch for wildlife.** AEDC has a variety of "critters" large enough to damage a vehicle. Even a wild turkey or goose can do serious damage. Be alert and ready to brake.

AEDC Services Office hosts NAF Sale

By Tanya Haggard
AEDC Contributing Writer

Services is reorganizing and cleaning out storage and a large quantity of items is now eligible for a Nonappropriated Funds (NAF) Sale.

The sale, open to the public, will be at 8 a.m. on Sept. 26 and 27 at the Arnold Golf Course. All items will be displayed on site and sold cash and carry. Only cash or checks will be accepted – no credit cards.

All items will need to be removed at the time of purchase and are sold as is; no returns. Larger items such as vehicles and boats will be sold by sealed bid. There will be a minimum bid value set

on these items. Those interested will place their bid in a sealed envelope to be opened at a later date/time. The highest bidder will be notified and then has 48 hours to pay for and pick up the item(s).

Over 1,500 items will be sold including board games, billiard cue sticks, bar lights, poker tables, furniture, televisions, home décor and accessories, chocolate fountain, candle holders, projector screen, wireless security system, HP printer, coffee makers, cash register, shelves, silverware, plates, glasses, barware, bowls, soufflé cups, salt and pepper shakers, menu board, pitchers, floor

safe, hot buffet cabinet, reach in cooler, refrigerator, micro-fridge, restaurant chairs, bar chairs, patio chairs, miscellaneous chairs, tables, sofa, ping pong table, foosball table, pool table, picnic tables, water skis, life jackets, weedeater, chainsaw, leaf blower, mountain bicycles, shade structures, canopies, tents, mowers, truck, boats, dance floor, kerosene heaters and much more.

All cash and carry sales are first come, first served. Sealed bid sales will be accepted through 2 p.m. on Sept. 27. Bids will be opened Sept. 29 and winners notified. For more information call 454-3128.

Hill AFB begins F-22 Raptor depot maintenance consolidation

By Richard W. Essary
75th Air Base Wing Public Affairs

HILL AIR FORCE BASE, Utah – The Air Force's decision to consolidate depot maintenance for the F-22 Raptor at Hill Air Force Base in order to reduce costs and improve efficiencies is coming to fruition. F-22 depot main-

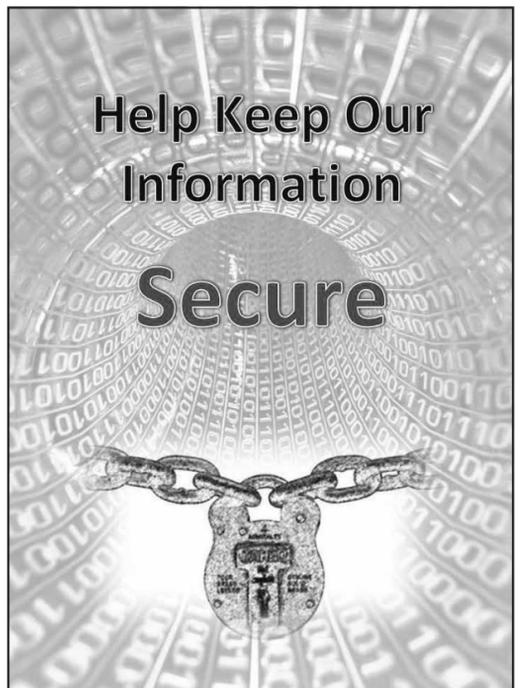
Maj. Gen. H. Brent Baker Sr., Ogden ALC commander. "Consolidation of F-22 depot maintenance at Hill Air Force Base will create greater efficiency in the F-22 program by allowing the Air Force to cost-effectively maintain the F-22, and ensure this critical front-line weapon system is readily available to the warfighter."

The decision to consolidate the Raptor's depot modification and heavy maintenance was made in May 2013 following a comprehensive business case analysis led by the F-22 System Program Office. Air Force analysis determined the consolidation of F-22 work at Hill AFB would result in a minimum cost savings of more than \$300 million during the

program's life cycle.

Jointly, the Program Office, Ogden ALC, and Lockheed Martin Corp. implemented a 21-month incremental transition plan, which included the modification of existing base facilities, movement of specific support equipment, and hiring of additional ALC personnel.

The F-22 System Program Office said the coordinated ramp-down at Palmdale and ramp-up at the Ogden ALC will result in the standup of six additional F-22 depot production lines starting with the first this month, reaching full capability in February 2015. The consolidated depot at Hill AFB will double the current workload, bringing approximately 200 new jobs to the base.



Aerial target QF-16 takes to the sky



The first unmanned QF-16 Viper struck down over the Gulf of Mexico Sept. 5, was part of a joint effort between the Test and Training Division at Eglin Air Force Base, Fla., and the 82nd Aerial Target Squadron at Tyndall AFB, Fla. The test was an important step in the right direction for the program and marked the conclusion of operational and range qualification testing at both the Eglin Test Range and White Sands Missile Range. (U.S. Air Force Photo/Master Sgt. J. Scott Wilcox)

By Ashley M. Wright
325th Fighter Wing Public Affairs

TYNDALL AIR FORCE BASE, Fla. (AFNS) – The Air Force’s newest aerial target took a major step toward preparing warfighters downrange with a realistic fourth-generation replication of what they may face on the battlefield.

The first unmanned QF-16 Viper struck down over the Gulf of Mexico Sept. 5, 2014, was part of a joint effort between the Test and Training Division at Eglin Air Force Base, Florida, and the 82nd Aerial Target Squadron here.

“This test was the culmination of years of planning and aircrew training specifi-

cally tailored to stand up the next generation of full-scale aerial targets,” said Lt. Col. Ryan Inman, the 82nd ATRS commander. “The teamwork between members of Boeing, the systems program office at Eglin (AFB), the 53rd Weapons Evaluation Group and the 82nd ATRS enabled a nearly flawless test.”

Currently, QF-4 Phantoms are used as targets to test pilots, aircraft and weapons before they reach the battlefield.

The unmanned QF-16 performed an auto-takeoff from Tyndall AFB and was targeted by air-to-air missiles launched over the gulf test range. This successful final operational test validated the QF-16’s capability to assess the end game per-

formance of weapons employed against it, and closes out the development phase of the program, according to an official at Eglin AFB’s testing division.

“The aging fleet of the QF-4s and their limited capabilities against modern fighters have rendered the aerial target workhorse, Phantom II, at its technological limit,” Inman said. “The QF-16 initiates the next chapter in advanced aerial targets, predominately in support of more technologically superior air-to-air weapons test and evaluation programs. The QF-16 will enable our leaner and more efficient Air Force to continue operations at maximum mission effectiveness while maintaining air superiority

and global reach for decades to come.”

This test was an important step in the right direction for the program and marked the conclusion of operational and range qualification testing at both the Eglin Test Range and White Sands Missile Range.

“The successful mission is a direct result of the hard work, commitment and synergy between Air Combat Command, the Test and Training Division, the Aerospace Maintenance and Regeneration Group, the Boeing Company and numerous other stakeholders,” said Michele Hafers, the Test and Training Division director. “This test and training asset was born to fly and has flown its final mis-

sion validating our pilots and our weapons can maintain air dominance across the globe.”

The 82nd ATRS is part of the 53rd Weapons Evaluation Group, 53rd Wing at Eglin AFB. The group provides the personnel and infrastructure to test and evaluate weapons utilized by the combat air forces of the U.S. and its allies. It operates the only full-scale aerial targets in the Defense Department.

In accordance with U.S. law, Title 10, Section 2366 of the U.S. Code, a missile system must undergo lethality testing before it can enter full-scale production. The 82 ATRS maintains DOD’s sole capability to execute the Title 10 requirement. There are sub-scale target capabili-

ties in other services, but the Air Force is the only service that has a full-scale aerial target program, Inman said.

“Team Target executes that capability flawlessly every day at Tyndall and Holloman AFB,” Inman said. “This test could not have been accomplished without the unparalleled support of the operations and mission support groups. From the fire and explosive ordnance disposal support, to the airfield management and tower and radar approach control support, to the logistical support, there are countless unrecognized cogs behind the successful mission. We are merely the execution agency that gets to sit at the end of the droneyway and bask in the achievement.”

Recon squadron keeps remotely piloted aircraft flying

By Staff Sgt. Evelyn Chavez
455th Air Expeditionary Wing Public Affairs

KANDAHAR AIRFIELD, Afghanistan (AFNS) – Little more than a decade ago, the skies over Afghanistan looked dramatically different than they do today. Heavy bombing from B-52 Stratofortress’, B-1B Lancers and B-2 Spirit bombers could be seen along with F-16 Fighting Falcons, as well as the Navy’s F-18 Hornet. Today a small reconnaissance squadron from Kandahar Airfield accounts for more than eight out of 10 of the RPA combat air patrols and reconnaissance missions over Afghan skies.

The 62nd Expeditionary Reconnaissance Squadron mission is to provide world-class, full spectrum remotely piloted aircraft operations for the joint forces in Afghanistan. According to squadron leaders, the unit’s Airmen work 24 hours a day to provide 84 percent of U.S. Central Commands’ RPA combat air patrols.

“Here at Kandahar, we support the mission by providing 600 daily hours of intelligence, surveillance and reconnaissance for the Combined Forces Air Component and troops on the ground,” said 1st Lt. Michael, an RPA pilot with the 62nd ERS. “If at any point the troops on the ground need eyes in the sky to back them up and keep over watch, we will deliver that.”

The squadron is responsible for launching and recovering all of the Air Force’s MQ-1 Predator and MQ-9 Reaper combat sorties in Afghanistan that operate from Kandahar and Jalabad. After crew members from the 62 ERS here launch the aircraft, they work with members



Staff Sgt. Nelson Cherry inspects an MQ-9 Reaper with the 62nd Expeditionary Reconnaissance Squadron Aug. 18, 2014, at Kandahar Airfield, Afghanistan. The Reaper is launched, recovered and maintained here. It is also remotely operated by pilots in bases located in the U.S. Cherry is an aircraft armament systems specialist with the 451st Expeditionary Aircraft Maintenance Squadron. (U.S. Air Force photo/Staff Sgt. Evelyn Chavez)

in the U.S. to link with the RPA’s to take over the flying for several hours.

While the RPA’s are primarily used as intelligence-collection assets, they also provide strike capabilities for local joint commanders here.

“We work to prosecute nearby targets as well,” said 1st Lt. Michael, an RPA pilot with the squadron. “We protect the friendly convoys that go on local missions.”

The unit enables more than 200,000 hours a year of armed ISR full motion video, airborne surveillance and close air support to combatant commanders. They make 55 percent of the worldwide RPA combat air patrols. As the 62 ERS works around-the-clock, crew members ensure they are ready to respond at a moment’s notice.

“We spend every second on our shift ensuring the aircraft are ready to go,” said

1st Lt. Michael, a 62nd ERS RPA pilot. “We ensure the weapons on the aircraft are safe and that communication links work. This will allow the crews back in the states to accomplish their mission. Once the aircraft lands safely, we ensure the next ones are ready to go.”

The Airmen are accountable for operating RPA as-

sets worth more than \$800 million. With the responsibility comes a sense of pride to support operations in Afghanistan. As many units in Afghanistan are concluding missions, the 62nd ERS Airmen continue to ensure their mission is accomplished day in and day out.

“I haven’t had a day off in over 90 days, but it feels

pretty good to part of the mission here,” said Tech. Sgt. Steve, a sensor operator with the 62nd ERS. “We support the operations and people that are in contact with the bad guys every

day. It is great knowing we are protecting the guys on the ground.”

(Editor’s note: Last names have been withheld to protect the security of Air Force operators.)

Innkeeper shares ghost stories at October AEDC Woman's Club meeting

By Barbara McGuire
AEDC Woman's Club

The AEDC Woman's Club (AWC) Oct. 7 meeting will be presented by Jared Pearson, innkeeper of the Franklin Pearson House.

Each room in the Franklin Pearson House has a unique story about paranormal activity. Sometimes the phone rings and no one responds when the call is answered, and sometimes you overhear conversations when you think you are the only person in the building. And then there's the occasional sound of shattering glass.

It's said the ghost of Mr. Amonette, who lived in the hotel for years and died there, still remains. What a way to celebrate

October and Halloween.

Another special event that will take place is the displays from three Secret Shoppers showing what they were able to purchase with \$50. The ladies attending the meeting will be able to vote on their favorite shopper.

The table donations at the October meeting will be donated to the Blue Monarch, one of the charities of the AWC group.

Anyone can attend the AWC at the Arnold Lakeside Center to get to know the wonderful AWC ladies and be involved with AWC programs. You do not need to have military connections or be involved with Arnold Air Force Base to visit and become a member.

For information about

the AWC contact Susan Harris, the AWC membership chairman, at 455-3569.

The social hour of the meeting starts at 9:30 a.m. at the Lakeside Center, with the business meeting and program beginning at 10 a.m.

Reservations and cancellations for the Oct. 7 meeting must be made no later than noon, Sept. 30. You may make reservations or cancellations by contacting Liz Jolliffe at 393-2552 or jajolliffe@aol.com; or Jane Ricci at 931-636-4152 or dickandjane@comcast.net.

Disclaimer: This is a private organization which is not part of the Department of Defense or any of its components and has no governmental status.



AEDC Woman's Club members Suzanne Rutley (center) and Marilyn Rampy (right) listen to Franklin Pearson House employee Ben Money, explain about the hot spots for ghost activity in the Mary Agnes room. The Franklin Pearson House in Cowan is known for its ghostly activity due to its rich and colorful history of being an old railroad hotel. (Photo provided)



Cookbook signing with Jack Daniel relative

AEDC Woman's Club (AWC) member Jo Todd (far left) and Theresa Toth (second from left), the AWC honorary president and base commander's wife, share a moment with guest speaker Lynne Tolley (third from left) and guest Emily Bedford at the Sept. 2 AWC meeting at the Arnold Lakeside Center. Meeting attendees were able to have Jack Daniel's Cookbooks signed by Tolley. She is the great, great-niece of Jack Daniel and the proprietress of Miss Mary Bobo's Boarding House and Restaurant in Lynchburg. (Photo provided)

Cryogenics: Helping pilots breathe at 10,000 feet

By Airman 1st Class
Michael Stuart
86th Airlift Wing Public
Affairs

RAMSTIEN AIR BASE, Germany (AFNS) – Breathing is one of the most basic, involuntary and often overlooked human actions. At higher altitudes, breathing can quickly become one of the most conscious thoughts

as it becomes harder to do. That's where a small, but vital team of cryogenics experts from the 86th Logistics Readiness Squadron takes over. They help make sure aircrew members can breathe easily at altitudes of 10,000 feet and higher.

"My job is to keep planes flying," said Senior Airman Jeffery Halda, 86th Logistics Readiness Squadron cryogenics tech-

nician. "Without us, the mission wouldn't continue because the aircrew members couldn't breathe."

Liquid oxygen can burn right through skin as it is -297 degrees Fahrenheit and liquid nitrogen is -321 degrees Fahrenheit. To ensure their safety, the cryogenics ensure they wear the proper personal protective equipment when on the job.

"If you talk to most people who work on the flightline a common misconception about us is that we don't work," said Halda.

The cryogenics team fills tanks full of liquid oxygen and liquid nitrogen and then transport them onto the flightline to ensure the pilots have enough to accomplish their mission. According to Bruning, in an average month, they fill about 5,000

gallons of liquid oxygen and 8,000 gallons of liquid nitrogen. They fill the tanks, sample the chemicals inside of them then send them off to a lab for a more intensive examination.

"We take a sample, let the pressure build up to about 15 to 19 pounds-per-square inch and turn it into gas," said Senior Airman Seth Bruning, 86th Logistics Readiness Squadron hydrants technician. "Once

it's in a gas state, we ship it to one of our aerial labs and they run tests on the samples."

They see how pure it is and if there are any problems with that oxygen they let us know.

The Air Force standard for liquid oxygen is 99.5 percent purity, however, the cryogenics team consistently maintains a higher level, exceeding the Air Force standard.



Senior Airman Seth Bruning pushes a liquid oxygen tank on Ramstein Air Base, Germany, Sept. 3. The 50-gallon, liquid oxygen tank is used as breathing oxygen for aircrew members during missions when brought to room temperature. Bruning is a hydrants technician with the 86th Logistics Readiness Squadron. (U.S. Air Force photo/Airman 1st Class Michael Stuart)

Airman journeys to top of the world

By Staff Sgt. Robert Cloys
50th Space Wing Public Affairs

SCHRIEVER AIR FORCE BASE, Colo. (AFNS) – The Tibetans call it “Chomolungma,” meaning “mother goddess of the world.” Global Positioning System satellite equipment measures its peak at 29,035 feet, and for Capt. Colin Merrin, Mount Everest will soon be a bullet on his mountaineering resume that can’t be topped.

Merrin, a GPS operator from the 2nd Space Operations Squadron here, will begin the journey of a lifetime. Although, before getting a call from the U.S. Air Force Seven Summits Challenge, reaching the top of Mt. Everest was not something that appealed to him.

“It’s really commercialized,” Merrin said. “Everest also has a bit of a weird stigma to it.”

Had the call come from anyone else, it’s possible he would have declined the invitation, however, after hearing the greater cause, he reconsidered.

The U.S. Air Force Seven Summits Challenge is an independent Air Force team whose vision since its creation in 2005 has been to reach seven famed summits and plant the American and Air Force flags. They climb to promote camaraderie and esprit de corps among Airmen, highlight personal fitness and growth and honor friends and colleagues who have died in the line of service



Capt. Colin Merrin, member of the U.S. Air Force Seven Summits Challenge team, stands at Aconcagua base camp located in the Andes mountain range in Argentina. His trek up Aconcagua helped prepare him for his upcoming goal to climb Mount Everest. (U.S. Air Force Photo/Capt. Colin Merrin)

since 9/11.

The group also supports the Special Operations Warrior Foundation, a charity that provides full scholarship grants as well as educational and family counseling to the surviving children of special operations personnel who have died. The organization also provides financial assistance to those severely wounded

and their families.

“My primary motivation was the foundation,” Merrin said. “Climbing Everest has become a great way to support them as well as the team.”

If successful in their endeavor, Merrin’s crew will become the first team of active-duty American military members to have reached its summit. In addition, the Seven Sum-

mits team will also be the first from any nation to have reached the top of all seven famous mountains that include Mount Elbrus, Mount Kilimanjaro, Mount Aconcagua, Mount McKinley, Mount Vinson and Mount Kosciuszko.

The journey to the top of the tallest peak in the world doesn’t start at the base. It starts months, sometimes even years, before.

“Everest isn’t a mountain you can just go (climb),” Merrin said. “I started training hard three months before the trip to Mount Everest. I try to keep my training as specific as possible. If you want to get better at bench-pressing, you bench-press. If you want to get better at climbing mountains, you climb.”

For Merrin, Colorado Springs is a perfect training ground. With the base camp of Everest sitting at

17,500 feet, Pikes Peak serves as a good starting point for getting acclimated to higher elevations.

Because of the dangers associated with Mount Everest, climbers are encouraged to have glaciated mountain experience as well as high altitude mountain climbs. In February 2011, Merrin was able to test his body’s response to extremely high altitudes when he reached the 22,841 foot summit of Aconcagua, located in the Andes mountain range in Argentina.

“The human body is not designed to endure the sort of conditions you find past 18,000 feet. There’s about 40 percent of the normal amount of oxygen, but my body did well,” said Merrin. “Knowing that reassures me for Everest.”

There are still dangers that are out of Merrin’s control, but he feels reassured about those as well.

“The team I’m going with is a strong group of elite climbers,” he said. “There’s a strong focus on risk management and safety.”

Each one of the members has a skill they bring with them, said Merrin, including a paratrooper that will be with them the entire time.

“We want to summit, but we want to do it safely,” he said.

Additionally, officials with the 50th Space Wing are extending their support to Merrin and the Seven Summits team.

“I am extremely proud of Capt. Merrin. It’s a mind-bending prospect if you think about it – to have a team of Airmen standing on the top of the world’s tallest mountain,” said Lt. Col. Thomas Ste. Marie, the 2nd SOPS commander. “The fact that Colin is a GPS operator is even more fitting.”

Critical Days of Summer ends; focus on risk management heightens

By Natalie Eslinger
AF Safety Center Public Affairs

KIRTLAND AIR FORCE BASE, N.M. (AFNS) – During the last holiday weekend of CDS, the Air Force lost two Airmen, one in a private aircraft mishap and the other in a motor vehicle-pedestrian mishap. There were 17 fatalities during the entire CDS period, May 23 through Labor Day weekend, down from 20 for the same period last year.

“Fortunately, losses were lower this year, but

that’s not good enough,” said Bill Parsons, the Air Force Chief of Ground Safety. “We have to be unrelenting in our ‘Quest for Zero.’”

“As we move into fiscal year 2015, our focus will continue to be on our Airmen. We intend to help every Airman understand how risk management factors into everything they do – on and off duty,” Parsons continued.

According to safety professionals, most fatalities are preventable. Air Force Ground Safety initiatives for fiscal 2015 in-

clude an increased awareness of risk management.

“When we all concentrate on every task at hand and consciously consider every risk associated with each task, every one of us becomes central to saving lives and preventing injuries,” Parsons said. “Supervisors should continue to stress the use of the risk management tools and the guidance available for every activity.”

“We need every Airman to weigh every risk before they act, and remember: my job, my life, my choice,” Parsons said.



C-17 crew gets Army Strykers into the 'fight'

By Senior Airman Damon Kasberg
86th Airlift Wing Public Affairs

RAMSTEIN AIR BASE, Germany (AFNS) – Air Mobility Command's mission is to provide rapid, global mobility and sustainment for America's armed forces, a capability demonstrated during Steadfast Javelin II, a large-scale, joint, multinational exercise held on Ramstein Air Base, Germany, from Aug. 31 through Sept. 11.

The exercise further focuses U.S., NATO and partner forces on concepts such as decisive and sustainable land operations.

Aircrew from Joint Base Lewis-McChord, Washington, boasted AMC's airlift abilities when they loaded Strykers and Soldiers from the 2nd Cavalry Brigade into their C-17 Globemaster IIIs and rapidly deployed them to Latvia as part of the exercise.

"I absolutely love flying the C-17," said U.S. Air Force 1st Lt. Brian Dunlap, 7th Airlift Squadron C-17 co-pilot. "We can transport cargo, Soldiers and equipment anywhere in the world and our missions can vary from airlift and airdrops to medical evacuations. For Steadfast Javelin II, each of our aircraft airlifted three Strykers along with vehicle crew members from Ramstein to Latvia, allowing the Army to accomplish their objectives."

U.S. Army Strykers are vehicles designed to quickly and safely transport Soldiers throughout their area of responsibility. They also provide vehicle-borne weapon systems, enabling them to engage a wide variety of threats. Unlike heavy armored vehicles, Strykers have low logistic requirements, allowing them and their crew to rapidly deploy in great numbers.

"Our Strykers are very fast and quiet, so they can maneuver stealthier than heavily armored vehicles," said U.S. Army Staff Sgt. David Chadburn, 2nd Cal-



Loadmasters assigned to the 7th Airlift Squadron load an Army Stryker from the 2nd Cavalry Regiment into a C-17 Globemaster III during Steadfast Javelin II, Ramstein Air Base, Germany, Sept. 2. The exercise, Steadfast Javelin II, features a number of dynamic events designed to challenge the multi-national forces in airborne operations, conventional warfare scenarios as well as stability and defensive operations, and support of civil authorities operations. (U.S. Air Force photo/Senior Airman Damon Kasberg)



Staff Sgt. Quan Vu, 7th Airlift Squadron loadmaster, instructs Army Private 1st Class Austin Hurrelbrink, 2nd Cavalry Regiment soldier, on proper procedures of loading a Stryker into a C-17 Globemaster III in support of Steadfast Javelin II on Ramstein Air Base, Germany, Sept. 2. (U.S. Air Force photo/Senior Airman Damon Kasberg)

vary Regiment platoon sergeant. "The Air Force enables us to put our Soldiers where ever we're needed." "It's awe inspiring to see so many Strykers loaded in an aircraft," he add. "It really shows how far we can reach out and put Soldiers on the battlefield."

The success of airlifting Soldiers and equipment to every corner of the world begins long before getting in the air. Training together ensures everyone knows how to safely and properly load cargo into the C-17s. Stryker crew members and C-17 loadmasters spent time prior to takeoff work-

ing together to make sure the vehicle drivers knew exactly how to enter the aircraft.

"It's not just about speed," Dunlap said. "It's about making sure people are safe and equipment doesn't break."

It's during these types of exercises that different

military branches learn to appreciate each other's strengths and come together to accomplish the mission.

"The Air Force has been great," Chadburn said. "They welcomed us with open arms and trained us on what to do. Our unit's mission is to be deployable

anywhere in a short notice; we couldn't do that without the Air Force."

"I learned that there's a lot more than just Air Force during this exercise," Dunlap said. "Working with our allies and the Army is essential when we're executing operations to perfection."

STUDENTS from page 1

are interviewed for aptitude in hands-on test and then placed with Tunnel 9 mentors.

The five college students recently completed their 2014 assignments and gave final briefs at a conference held in August at the Federal Research Center. According to Tunnel 9 director Dan Marren, the students presented on topics they, with guidance from their mentor or mentors, researched throughout the summer-long program.

"These students were among more than 100 other university students from the U.S. Food and Drug Administration," Marren said. "It's a great opportunity because the poster sessions are attended by thousands of health-related science professionals. If you can effectively communicate high-temperature gas dynamics to a cell biologist, you will find aerospace engineers an easy audience. Our students did a really outstanding job and stood their ground."

2014 Tunnel 9 Summer Program Participants

This year's students, their mentors and the topics of their poster sessions are as follows:

John Juliano, junior at the University of Maryland studying Aerospace Engineering. Mentors: Inna Kurits and Joseph Norris. Poster title: Quantifying Sharpness of Imaging System.

Hiroshi Furuya, junior at the University of Maryland studying Aerospace Engineering. Mentors were Inna

Kurits and Joseph Norris. Poster title: Tunnel 9 Imaging Optics System Optimization.

Brian Free, senior at the University of Maryland, studying Aerospace Engineering. Mentors: Inna Kurits and Joseph Norris.

Poster title: Characterizing the Usable Lifetime of Temperature Sensitive Paint.

Jack Draper, junior at the University of Maryland, studying Aerospace Engineering. Mentor: Dr. Eric Marineau. Poster title:

Aerodynamic Force Measurement in Tunnel 9.

Parth Kathrotiya, senior at the University of Maryland, studying Mechanical Engineering. Mentor: Michael Metzger. Poster title: Heater Vessel Seal Redesign Study.



AEDC White Oak summer intern students with the posters they presented for the end of year colloquium review. Pictured left to right are Hiroshi Furuya, Brian Free, Parth Kathrotiya, John Juliano and Jack Draper. (Photo by Mike Smith)

