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Rolls-Royce continues testing latest Trent engine at AEDC

By Deidre Ortiz
ATA Public Affairs

The Rolls-Royce Trent 1000-TEN (Thrust, Efficiency and New Technology) engine was recently tested for performance, operability and icing certification at the Aeropropulsion Systems Test Facility (ASTF) C-2 engine test cell at AEDC.

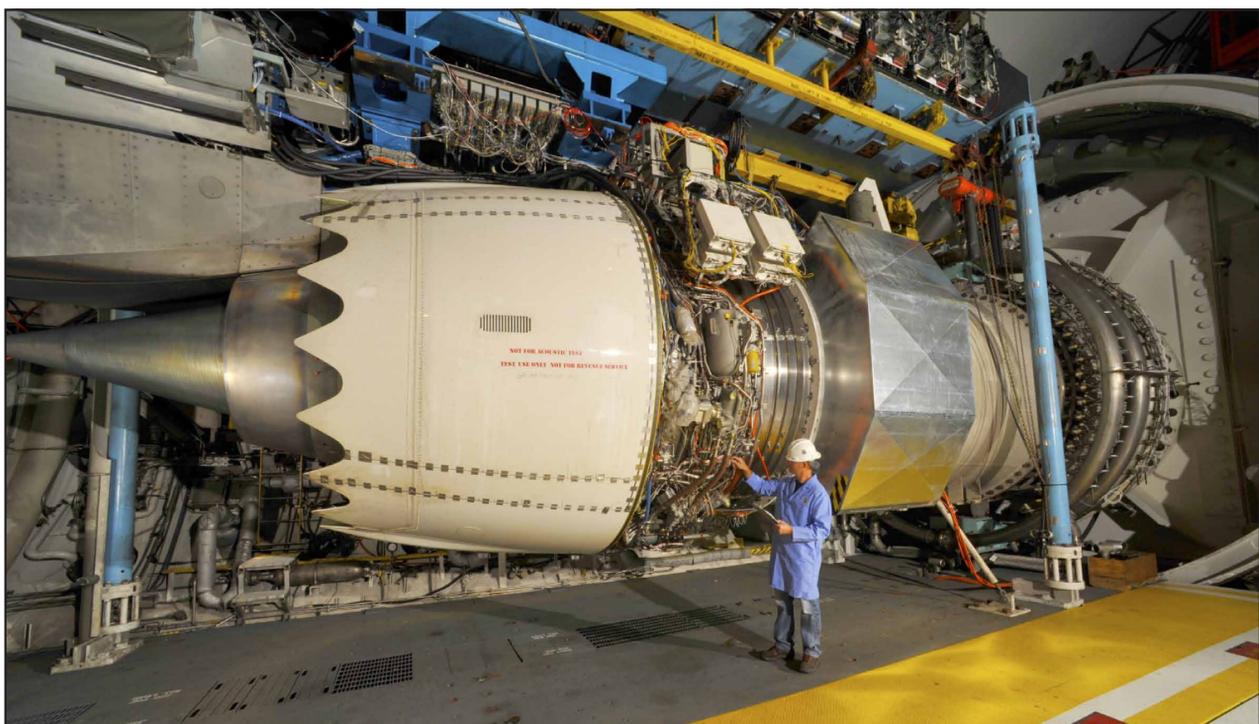
Prior to the end of the test program, Jit Sahota, Rolls-Royce engine owner, stated he was pleased with the effort put forth by both Rolls-Royce and AEDC personnel.

“So far to date more has been achieved on this engine than any other previous AEDC engine,” he said. “The team is close to delivering all of the test objectives set and the results thus far are in line with predictions and in some cases far better than expected.”

Tom Schmidt, ATA project manager, explained some of the objectives for this test.

“The first part of the test program verified the expected improvements in thrust and fuel efficiency, operability such as stall margins during fast accelerations and decelerations, plus verifying the start envelopes,” he said.

“The C-2 icing system was



Performance testing on the Rolls-Royce Trent 1000-TEN engine was recently completed in the Aeropropulsion Systems Test Facility (ASTF) C-2 engine test cell at AEDC. Pictured is Eric Brumley, ATA outside machinist, inspecting the engine prior to the test. (Photo by Rick Goodfriend)

then installed to run the prescribed icing condition and to demonstrate the engine’s anti-ice systems and engine ice shedding characteristics.”

Icing tests simulate various flight conditions that the engine may be exposed to during flight.

They are required for Federal Aviation Administration and European Aviation Safety Agency certifications.

“These [icing] could occur during an aircraft descent for landing, while in a holding pattern, or while waiting for

take-off on a cold, foggy day,” Schmidt said.

During the test, an intensive schedule was implemented to ensure requirements were achieved.

“The test team faced many obstacles to complete this test

before a planned summer maintenance outage,” said Melissa Tate, AEDC project manager for the Aeropropulsion Branch. “The team, both AEDC and Rolls-Royce, has triumphed and

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2,500 solid rocket motors tested at AEDC

By Deidre Ortiz
ATA Public Affairs

With the recent Minuteman III Intercontinental Ballistic Missile (ICBM) test at the J-6 Large Rocket Motor Test Facility, the 2,500th solid rocket motor has been tested at AEDC.

Joe Migliaccio, ATA Lead Rocket Propulsion Test Operations, stated this achievement is worth noting.

“It is exciting to reach new milestones for numbers of solid rocket motors tested at AEDC,” he said. “AEDC’s first altitude test of a solid rocket motor occurred in 1958. It happened in AEDC’s T4 test cell and it is believed to be the first full-scale solid rocket motor tested at altitude conditions anywhere in the United States.”

Migliaccio added that through the years AEDC has played a major role in the development of the Minuteman and Peacekeeper solid rocket motor ICBMs for the U.S. Air Force.

“AEDC was uniquely qualified for the task because it has test cells large enough to accommodate these full scale ICBM rocket motor stages and provide a stable altitude environment before, during and after the full rocket motor burn time,” he said. “This stable altitude environment is possible because AEDC rocket test cells are connected to the large Engine Test Facility exhaust plant compressors. Other test facilities [elsewhere] do not have these large compressors.”

Randy Quinn, AEDC test manager, stated that Minuteman, a land-based missile com-



James Brooks, ATA rocket test manager, pictured, starts the final countdown for the 2,500th solid rocket motor test and last test he will be a part of at J-6 before retiring from AEDC. (Photo by Rick Goodfriend)

ponent of America’s three-part nuclear defense, is one of the programs that AEDC has been involved in since its beginning.

“We test one motor of each Minuteman second and third stage annually,” he said.

Quinn explained that as part of the test, the team checks performance requirements of the motor to evaluate the thrust, thrust termination, impulse and other specifications.

“We make sure that it’s performing within the requirements,” he said.

A database has been established at AEDC to compare aging motor test data to production test data to ensure requirements are correct.

In addition to the Minuteman program, Star motor variants, Peacekeeper Stage 2 and

See **ROCKET**, page 3

AEDC 28th commander Col. Toth retires



The 28th commander of AEDC, Col. Raymond Toth (right), retires from the Air Force after 26 years of service. At a retirement ceremony on June 26 at the Arnold Lakeside Center, Col. Keith Colmer, the presiding official, is shown presenting a Certificate of Retirement to Toth. (Photo by Jacqueline Cowan)

Revolutionary Change: Col. Toth announces updates to TOS contract award

AEDC Commander, Col. Raymond Toth provided an update on AEDC’s Source Selection efforts to the entire workforce via email on June 24. Additionally, messages and other information can be found online at www.arnold.af.mil/transition.

Team AEDC,

I was informed today that an unsuccessful offeror on the Test Operations and Sustainment contract protested the award to National Aerospace Solutions. The Government Accountability Office (GAO) has 100 days to rule on this protest. Of course, the possibility always exists for extensions and appeals however please do not speculate on the details of the protest; let the process work as it should. As I previously told you, our plan for such a situation is to extend the ATA contract past Oct. 1 to ensure mission continuity. As protests are resolved and the new contracts are awarded, we will remove requirements

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HIGH MACH

Arnold Engineering Development Complex
An Air Force Materiel Command Test Complex

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- Service before self
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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

It can happen to anyone and at any time

By Jim Raabe
AEDC Chief of Safety

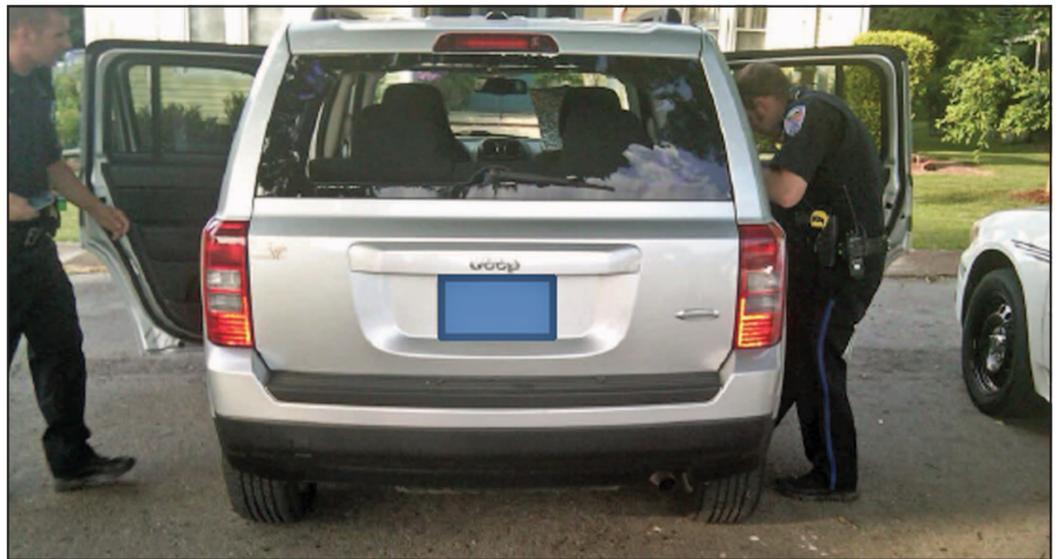
My wife's Jeep was broken into sometime between 3-5 p.m. June 14 by a meth user described by local police as a "known menace to society."

We got home at 5:15 p.m. from a shopping trip and were taking the dogs out when I noticed glass on the ground behind the Jeep. A brick was clearly visible inside the vehicle and was believed to be the tool used to break the window. The police were then called.

At the same time police were investigating the break-in, a call came in to investigate a person acting suspiciously just down the road a few blocks. He was described as under the influence and disoriented. An officer stated he was known to be dangerous, in and out of jail, and an HIV positive meth user.

The initial investigation showed the offender cut himself entering and exiting the vehicle through the busted back window leaving blood throughout the vehicle and contents.

One officer brought the offender to the scene and checked his pockets for petty cash removed from



Police investigate a break-in of a Jeep belonging to the wife of Jim Raabe, AEDC Chief of Safety. (Photo provided)

the vehicle. He appeared confused but had the exact amount we stated was taken from the console plus some papers with my wife's name.

When I asked if he would remember this event, the officer stated the offender would not have any memory of the incident and that his brain was already "mush" due to years of meth use. One of the officers also stated he thought the police were "taking him out for a joyride."

After the police com-

pleted their investigation I traced the path he took from the house to the point where he was picked up and found unwanted contents stolen from the Jeep that were discarded along the way. It was mostly personal information such as vehicle paperwork and receipts.

Amongst the items taken were a Garmin GPS, various cellphone chargers, CDs, prescription glasses, sun glasses, vehicle paperwork, a garage door opener and some petty cash, which were all located out of sight

in the center console and glove box. He had most of the items in his possession when he was arrested.

The material things really don't matter to me but the event reemphasized the need to be aware of my surroundings, and to always lock the car doors and the house. Although we always lock vehicle doors and use the home security system, this event could have ended much differently if he attempted to enter the house when we were home or stumble upon him while he was

breaking into the Jeep.

We are thankful that the event transpired the way it did and no one was seriously injured.

I'm sharing my story with hopes that other people remain aware of their surroundings at home or anywhere, lock vehicle doors and don't leave anything visible in a vehicle to tempt a burglar, and lock house doors at all times.

This proved to me that an event such as this could happen to anyone and at any time, even an overly-cautious safety guy.

So, what are internal stressors?

By AEDC Safety, Health and Environmental

We often think of stress as being an external force. So many forces that cause stress come from the outside – our jobs and demands of our families, for example.

Yet some of the most common forces of stress in life come not from the outside, but from within. We may not be able to free ourselves from our external obligations, but by simply changing certain behaviors, we can reduce internal stress.

Internal stressors are those behaviors that create or amplify stress in our lives. Personality types, habits, self-esteem and attitude are all internal factors that affect how we react to stress in daily life.

The list below identifies some common internal stressors:

- **Procrastination** – We usually associate stress with too much work rather than not doing it. However, procrastinating takes an even larger toll on a person by compounding stress, often in situations where it is too late to get the task done on time.
- **Cynicism** – A poor or generally negative attitude can generate a surprising amount of stress. With a negative worldview, we devalue or ignore good things or "the bright side" of life.
- **Poor diet** – Diets heavy in fatty foods, caffeine, sugars, sodium, alcohol, nicotine and stimulants alter our body chemistry significantly, putting greater strain on our system and magnifying the effects of stress.
- **Poor self-esteem** – Statements like "I am no good at this" or "I am too ugly/fat/stupid to..." compound an already stressful situation. Self-criticism just makes the situation worse.
- **Irritability** – This stressor is two-fold. Irritability affects the way we communicate and handle further stress. By being irritable, we also inadvertently isolate ourselves from others who could help us work through the stress we are feeling.
- **Personality** – Certain personality types are inclined toward more or less stress. A "Type A" personality – an aggressive, high-achieving type who is prone toward perfectionism – is much more subject to stress than a "Type-B" (more laid back and less time concerned).

many Type-A personalities, is a huge stressor. It often raises expectations to a seemingly unachievable goal, making stress even worse.

- **Repressing feelings** – Bottling up strong or difficult emotions

is a common defense mechanism, especially in the workplace. This mechanism can do more harm than good. Internalizing strong emotions makes them "fester," worsening the situation – and the stress.

The United States Air Force Program to

COMBAT HUMAN TRAFFICKING

Sex Slaves • Slave Labor • Child Prostitutes • Persons at Risk

"There's a special evil in the abuse and exploitation of the most innocent and vulnerable. The victims of sex trade see little of life before they see the worst of life - an underground of brutality and lonely fear. Those who patronize this industry debase themselves and deepen the misery of others. And governments that tolerate this trade are tolerating a form of slavery."

President George W. Bush
September 23, 2003

Put Them Out of Business!

Avoid patronizing all establishments that exploit women and children.

REPORT HUMAN TRAFFICKING

If you believe you have witnessed a trafficking operation or believe a person is being trafficked, you should. . .

Report that information to your chain of command, Security Forces, OSI or IG

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

Harris takes command of Air Force Test Center

By 412th Test Wing Public Affairs

EDWARDS AIR FORCE BASE, Calif. – Maj. Gen. David A. Harris assumed command of the Air Force Test Center during a change of command ceremony June 18. The ceremony was attended by local dignitaries along with members of the AFTC workforce in Hangar 1600.

Harris comes to Edwards from within the AFTC enterprise where he was the 96th Test Wing commander at Eglin Air Force Base, Fla.

As AFTC commander, Harris directs a \$31 billion enterprise of more than 18,000 military, civilian and contractor personnel across Edwards, Eglin and Arnold Air Force Base, Tenn. The AFTC provides developmental test and evaluation of experimental and research manned and unmanned air, space and cyber systems for the military, NASA, international partners and Defense Advanced Research Projects Agency.

AFTC also oversees the U.S. Air Force Test Pilot School.

Harris replaces Lt. Gen. Arnold Bunch Jr. who now serves as the Military Deputy, Office of the Assistant Secretary of the Air Force for Acquisition at the Pentagon.



General Ellen Pawlikowski, commander of Air Force Materiel Command, hands the Air Force Test Center guidon to Maj. Gen. David Harris June 18. Harris assumed command from then Maj. Gen. Arnold W. Bunch Jr. (right) during a change of command ceremony held in Hangar 1600 June 18. (U.S. Air Force photo by Rebecca Amber)



Dr. Brown and Maj. Gen. Harris visit AEDC



Dr. C. David Brown, the deputy assistant secretary of defense for Developmental Test and Evaluation and the director of the Test Resource Management Center, pictured at left center, and Maj. Gen. David A. Harris, commander of the Air Force Test Center, far right, recently visited AEDC. While on base they took a tour of the Propulsion Wind Tunnel (PWT) facility. Pictured here in the PWT lobby, Brown speaks with Ed Mickle (second from right), senior manager of AEDC Aerodynamics Test Facility Planning, about the capabilities of the wind tunnels. (Photo by Rick Goodfriend)

Several projects funded through Innovation Grant Program

Technical poster sessions are held regularly to highlight the projects completed at AEDC with the help of funding from the Innovation Grant Program. Recently, the third annual session was held allowing personnel to explain their proposals and answer questions about their work. David Beale, AEDC Fellow and ATA senior engineer, pictured at right, describes his Innovation Grant project to colleagues. (Photo by Deidre Ortiz)

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Stage 3, Small ICBM motors, Orbus motors, Payload Assist Modules (PAM) and many other solid rocket programs have been tested at AEDC.

Another notable accomplishment for this particular Minuteman test is that it was the first test program in which both operations contractor and government rocket test personnel officially per-

formed test execution roles as a Combined Test Force (CTF).

“Randy Quinn served as a test manager and I served as a test engineer, which was our first time under the new CTF,” Richard Kirkpatrick, AEDC test engineer said. “Brandon Dorman was also the lead test conductor on this test for the first time in his career. Brandon did an

outstanding job as the lead test conductor.”

The test was also a milestone for one of the team members. It was the last rocket test to take place before James Brooks, ATA rocket test manager, retires. Brooks has served as both a project engineer and project manager for the rocket test facilities for 43 years.

Kirkpatrick stated

Brooks has been a great person to work alongside.

“James brings a lot of knowledge and experience in the testing of rocket propulsion systems,” Kirkpatrick said. “He will be missed at AEDC but we wish him the best of luck in this new stage of life.”

Migliaccio agreed that James has been a great resource for the team.

“James Brooks has a unique perspective on the testing of large solid rocket motors because of his extensive work experience over many years,” he said. “James played a big part in the development of the Peacekeeper Stage 3, which had many development problems starting with the first test in 1981 and culminating with the destruction of J5 test cell

in November 1985.

“James knows the importance of altitude testing and what that contributes in successful problem solving during the development of rocket motors. He has a corporate memory on the history of solid rocket testing that is truly remarkable. His sense of humor and candor is enjoyed by his coworkers and he will be missed.”

ROLLS-ROYCE from page 1

produced the necessary data to ensure Rolls-Royce can certify the engine and provide their customer with essential information.”

Schmidt added, “It took a lot of personnel and many man hours to achieve the test, and everyone involved should be proud. As on past projects, Rolls-Royce and AEDC worked wonderfully together as a single team with a common goal. Testing an engine of

this size required the combined support, coordination and accommodation of business areas base-wide.”

This is the third Trent 1000 engine tested at the Complex. During the first test in 2007, the engine was tested for performance, operability and starting before it entered into service on the Boeing 787 Dreamliner in 2011.

Last year, AEDC engineers had another opportunity to perform test-

ing on the engine. “We tested an improved version of the Trent 1000 to verify the performance enhancements provided by the Package C upgrades,” Schmidt said.

In part, because of the successful testing performed on the Trent 1000 at AEDC, Rolls-Royce now has a single engine that will power all variants of the Boeing 787 Dreamliner. Currently, there are 450 Trent 1000-powered

Boeing 787 Dreamliners ordered by 27 different customers around the world.

“Overall this was a fantastically successful test program,” Schmidt said. “It took the combined efforts of literally hundreds of people to produce this test program.”

Sahota agreed that the success of the test was “a tremendous team effort from AEDC and Rolls Royce teams; many thanks to all involved.”

CHANGE from page 1

from the ATA contract.

The Facility Support Services (FSS) pre-award protest is still with the Small Business Administration (SBA). The SBA has until June 29 to issue a ruling, however again there can always be extensions and appeals.

The Base Communications and Information Technology Services (BCITS) contract was awarded to OBXtek, Inc. last week. Transition is expected to begin July 1 and performance is expected to begin Oct. 1.

We will continue to keep you informed of new developments as they arise.

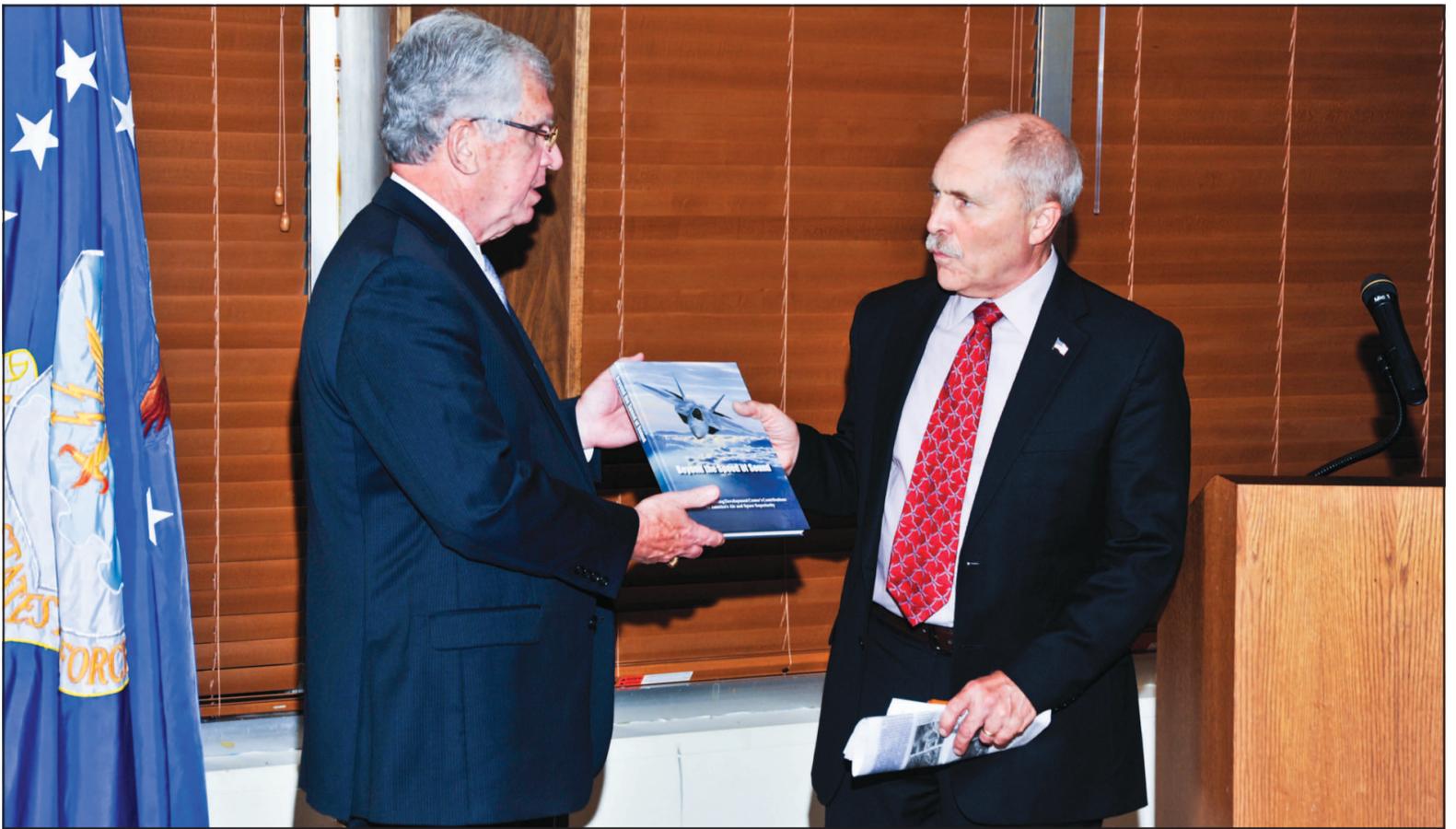
Col. Toth

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Dr. Brown addresses crowd at AEDC Fellows Banquet

Dr. C. David Brown (right), the deputy assistant secretary of defense for Developmental Test and Evaluation and director of the Test Resource Management Center, was the guest speaker at the AEDC Fellows Banquet on June 25 at the Arnold Lakeside Center. The 2015 AEDC Fellows who were inducted included Dr. John Felderman and Dr. Grant Patterson, and the AEDC Lifetime Achievement Fellows, Peggy Gray and Phil Tarver. Dr. Edward Kraft, the AEDC Chief Technologist, presents the "Beyond the Speed of Sound" book to Brown during the banquet. (Photo by Rick Goodfriend)

Keeping Airmen healthy and informed through Operation Supplement Safety

By Air Force Surgeon
General Public Affairs

WASHINGTON (AFNS) – For peak performance, Airmen should eat healthy and exercise regularly. But in the quest to gain an “edge,” many Airmen resort to dietary supplements.

Enter Operation Supplement Safety, or OPSS. This Defense Department educational campaign, accessible at www.hprc-online.org/opss, educates the

warfighter and healthcare provider on responsible dietary supplement use.

While some supplements, such as multivitamins, are generally safe, other supplements can pose a hazard to health and jeopardize careers from adulterants that cause a positive urine drug screen.

“One third of Airmen report using legal body building supplements and one in six report weight loss supplements in the past year,” said Col. (Dr.)

John Oh, the chief of health promotion for the Air Force Medical Support Agency. “Body building and weight loss supplements, as well as sexual enhancement and diabetes supplements, are high-risk categories that should raise red flags.”

Ephedra is a cautionary tale of a problematic dietary supplement. Heavily marketed as a supplement to help improve athletic performance and promote weight loss, serious



health events, including deaths first reported in the military, led the Food and Drug Administration to ban ephedra in 2004.

The OPSS website contains videos, fact sheets, FAQs and briefings to help Airmen make informed, responsible decisions on supplement use, as well as an “Ask the Expert” feature in which Airmen can directly pose a question to a supplement expert.

“The OPSS website is a must-read source for Airmen, commanders, first shirts, superintendents and their healthcare providers,” Oh said. “People think if a dietary supplement is sold on base, it must be safe, but that’s not necessarily true.”

Unlike prescription meds, the FDA does not approve dietary supple-

ments for safety and effectiveness prior to marketing.

“For prescription drugs, the manufacturer must show that the drug works and is safe before putting it on market,” Oh said. “But most supplements are marketed first, and the burden is on the FDA to prove they are unsafe.”

Since supplements can be adulterated with prescription and illegal drugs, Airmen may put their careers at risk with a positive drug screen. Service members who chose to use supplements are encouraged to stick with brands that have undergone third party certification by independent companies such as USP, Informed Choice, NSF International and ConsumerLab.com. Third

party certification does not guarantee that the supplement is safe or effective, but it does validate manufacturing practices, purity and/or quality, so that what’s on the label is accurate.

Airmen are encouraged to be strong Wingmen for each other and help spread the word on supplement safety.

“The aim of Operation Supplement Safety is to not stamp out supplement use,” Oh said. “We want Airmen who use supplements to be informed consumers and choose wisely.”

For more information on dietary supplement safety, visit The Human Performance Resource Center website at www.hprc-online.org. To request OPSS education materials, military members can contact their local Air Force health promotion staff. Civilian employees can contact their local Civilian Health Promotion Services team or visit AFMCwellness.com.

(Air Force Materiel Command Wellness Support Center contributed to this article)

AFTC needs to be 'agile, ready, right'

By Rebecca Amber
Staff Writer

EDWARDS AIR FORCE BASE, Calif. –

The Air Force Test Center added a page to its three-year history June 18 when Maj. Gen. David A. Harris stepped into the role of commander. Gen. Ellen M. Pawlikowski, commander of Air Force Materiel Command, presided as the center transitioned to a new leader for the very first time.

“The mission of the test center is a sacred trust. If we fail, we must face the widows, widowers and the children left fatherless or motherless because of the system’s fail. We are the safety net; we are the warrior’s best friend,” said Harris.

To keep the center guided, the new commander has set three priorities, to be agile, to be ready and to be right.

Agility, he said, is being able to respond to a rapidly changing world. To accomplish this, the test center needs to be organized, trained and equipped for maximum efficiency while eliminating wasteful practices.

To be ready means staying on the leading edge of technological advances. This happens in the areas



Maj. Gen. David A. Harris took command of the Air Force Test Center June 18 during a change of command ceremony. Harris comes to Edwards from the 96th Test Wing at Eglin Air Force Base, Fla., where he served as commander. (U.S. Air Force photo by Rebecca Amber)

of cyber, directed energy and hypersonic flight.

“If you look back over the history of the Air Force and airplanes, you’ll notice it’s on about a 20-year cycle. There’s a war and then there’s a retrenchment where we find out how we’re going to make ourselves better - we are entering that retrenchment

period once again.

“We must be prepared for the offset strategies that are required in fiscally difficult times where we can use our American ingenuity to advance much faster than our potential enemies.”

Harris’s priorities will build onto a long legacy of test at Edwards AFB. Ac-

ording to Pawlikowski, there has not been a single aircraft in the Air Force inventory since WWII that has not come through the Air Force Test Center before becoming operational.

Harris began his career as an electronic warfare officer flying EF-111 combat missions during the first Gulf War. In 1995 he transitioned to the test family as a student at the U.S. Air Force Test Pilot School here at Edwards. After graduation, he was immediately assigned to the 419th Flight Test Squadron as a B-1 experimental flight test navigator and later as the flight commander for the B-1

and unmanned aerial vehicles. During his time at Edwards he also served as project manager for the RS-68 Rocket Engine Test; the last rocket engine to be domestically built in the United States to date.

From there he went to Japan where he was part of a major unified command staff and then spent time on Capitol Hill. In 2002 he returned to Edwards as the 419th FLTS commander and Global Power Bomber Combined Test Force director.

Now, 10 years later, Harris has returned to Edwards again with his wife Valene from within the AFTC enterprise where

he was the 96th Test Wing commander at Eglin Air Force Base, Fla.

As AFTC commander, Harris directs a \$31 billion enterprise of more than 18,000 military, civilian and contractor personnel across Edwards, Eglin and Arnold Air Force Base, Tenn. The AFTC provides developmental test and evaluation of experimental and research manned and unmanned air, space and cyber systems for the military, NASA, international partners and Defense Advanced Research Projects Agency.

AFTC also oversees the U.S. Air Force Test Pilot School.

New acquisition process awards contracts in weeks

By Tech. Sgt.
Candice Page

Headquarters Air Combat Command

JOINT BASE LANGLEY-EUSTIS, Va.

(AFNS) – A new government open architecture acquisition process that can award contracts in weeks instead of years was tested at the Joint Base Langley-Eustis, Va., on June 8-11.

The process, called PlugFest, is an interactive industry event where companies get to “plug-in” to a given open system architecture and test their products for government representatives. Open system architectures are products where multiple vendors can provide their capabilities using common interface.

“This new acquisition process will shrink the acquisition timeline for open architecture systems from multiple years to a few weeks,” said Camron Gorguinpour, the Office of the Assistant Secretary of the Air Force (Acquisitions) director of transformational innovation.

“The Department of Defense is focused on transitioning its systems to open architectures to the greatest extent possible, because doing so reduces costs, expands competition and enables faster adoption of cutting-edge technologies.” Gorguinpour said.

The system for this test was the Distributed Common Ground Station trainer, which is the Air Force’s primary intelligence, surveillance and reconnaissance (ISR) collection, processing, exploitation, analysis and dissemination (CPAD) system.

During the transition

to open architectures, improving the current acquisitions systems will help the Air Force to take full advantage of all opportunities that the open architectures provide, Gorguinpour said.

Plugfest Plus allows the Air Force to make faster acquisitions while providing Airmen with the newest technologies from both traditional and nontraditional defense contractors, he added.

In addition, the Open Acquisition System, using the Plugfest Plus frame-

work, will allow Airmen to receive capabilities faster and allow them to operate systems that are suitable for the 21st century, Gorguinpour said.

“(The) Air Force Research (Laboratory) is working to develop a more permanent acquisition vehicle to take this process beyond the demonstration into regular use,” Gorguinpour said. “The permanent vehicle will be used to formally evolve PlugFest Plus into a more robust Open Acquisition System process.”

This day in espionage history

By AEDC Industrial Security

July 11, 1997 – Robert Chae-gun Kim sentenced to nine years in prison

July 15, 1981 – Joseph George Helmich arrested for sale of

U.S. cryptography to Soviet Union

Joseph George Helmich:

❖ Former U.S. Army warrant officer

❖ Exchanged sensitive

information related to the KL-7 cryptographic system widely used by the U.S. military

❖ Motivated by severe financial problems

❖ Oct. 16 198, sentenced

to life imprisonment

Type of employment when espionage began:

❖ 49 percent were uniformed military

❖ 18 percent were

government civilians

❖ 24 percent were government contractors

❖ 9 percent had already left government service or their job was unrelated to their spying

Patriot Warrior provides realism for Reserve EOD techs

By Senior Airman Daniel Liddicoet
446th Airlift Wing Public Affairs

FORT MCCOY, Wis. (AFNS) – The hazardous nature of a career as an explosive ordnance disposal technician requires continuous training to maintain the mental acuity required to shoulder a daunting and hazardous mission.

During the Patriot Warrior exercise here, Reserve technicians from the 446th Civil Engineer Squadron EOD flight from McChord Field, Washington, recently undertook an exclusive brand of instruction to keep them on their toes in preparation for challenges they could face while serving downrange.

Patriot Warrior is the Air Force Reserve Command portion of an immense joint field exercise involving nearly 6,000 Airmen, Sailors, Soldiers, and multinational forces. Formerly known as Global Medic, the exercise still focuses primarily on aeromedical evacuation training and readiness, but has evolved to become more

multi-faceted.

Four of McChord's EOD technicians traveled to Wisconsin in order to capitalize on the specialized training offered by Fort McCoy's state-of-the-art facilities.

"I've never participated in a training exercise that goes through all the iterations of an actual deployment like we have here," said Tech. Sgt. Michael Blanch, a 446th EOD technician. "We rarely have to simulate at all. All the distances are actual correct distances we would use in the real world. There's nothing you could do at home station that would prepare them as well as this for a deployment."

Blanch, also a designated observer, controller, and trainer for the exercise, was selected to help prepare mounted-dismounted field scenarios for multiple teams of EOD technicians from across the command.

"We're designing problems and implementing them based on scenarios we expect (them to) encounter in places like Afghanistan," he said. "It's about taking the skills they



Master Sgt. Shawn Lundgren, a 446th Civil Engineer Squadron explosive ordnance disposal technician from Joint Base Lewis-McChord, Wash., walks back to safety after dismantling a simulated improvised explosive device during the Patriot Warrior exercise at Fort McCoy, Wis., June 21. Patriot Warrior is a joint exercise designed to demonstrate contingency deployment training ranging from bare base buildup to full operational capabilities. More than 6,000 members from the U.S. service branches and their Reserve components, including Air Force, Army, and Navy participated alongside British and Canadian forces. (U.S. Air Force Reserve photo/Senior Airman Daniel Liddicoet)

learn in the classroom and finding a way for them to apply critical thinking and threat analysis. All of their knowledge serves as tools they can use out here."

The tailored exercises at Patriot Warrior served to foster a mental state

that can allow the participants to completely immerse themselves into the scenarios.

"We had an opportunity to exercise in small towns designed with desert-like appearances made to feel like the Middle East," said Staff Sgt. Stewart Knight, a 446th EOD technician. "It really helped instill a deeper mindset. It let us set aside trying to game the situation, and put more effort in."

For the technicians, Patriot Warrior was less about learning, but more about discovering how to think.

"There is a certain methodology and understanding of how ordnance functions and how terrorists plan to kill us," Knight said. "Once we get that methodology down, it helps us better attack the problem and make a hostile situation safe. There (is) hundreds of years' worth of weapons designed by hundreds of authors. Their functioning can be similar, but it all depends on how it was made. Once you understand the general methodology, you can learn how to approach an improvised (explosive) device and



Master Sgt. Shawn Lundgren, a 446th Civil Engineer Squadron explosive ordnance disposal technician out of Joint Base Lewis-McChord, Wash., unravels detonation cord to neutralize a simulated improvised explosive device during the Patriot Warrior exercise at Fort McCoy, Wis., June 21. Patriot Warrior is a joint exercise designed to demonstrate contingency deployment training ranging from bare base buildup to full operational capabilities. More than 6,000 members from the U.S. service branches and their Reserve components, including Air Force, Army, and Navy participated alongside British and Canadian forces. (U.S. Air Force Reserve photo/Senior Airman Daniel Liddicoet)

understand how its components function, and how they work together. That's the kind of thinking that helps us accomplish our mission."

The ability to work with service members outside their close-knit circle served to elevate their experience.

"We've gotten different skills and tips from around the Air Force working here," Knight explained. "They might have a different type of robot, different tactics or experiences; they might have a way to deal with landmines that we hadn't thought of before. You get used to their rhythm and pattern, and it adds more depth to your understanding of how to deal with these situations."

Hot maintenance progressing

By Airman 1st Class
Zachary Cacia
436th Airlift Wing Public
Affairs

DOVER AIR FORCE BASE, Del. (AFNS) - Carrying out maintenance on Dover Air Force Base's fleet of C-5M Super Galaxies and C-17A Globemaster IIIs can be challenging at times, but extreme heat and humidity can add additional challenges during the summer months.

Throughout the hottest months of the year, Dover AFB Airmen from the 436th and 512th Maintenance Groups regularly spend their work days sweltering through 90-plus degree temperatures, the scorching sun and extreme humidity.

"It's exhausting at times, you have to stay hydrated," said Airman 1st Class Kyle Ahearn, a 436th Aircraft Maintenance Squadron crew chief.

Ahearn and his fel-

low Airmen of the 436th AMXS work maintenance on Dover's C-5Ms, spending most of their time out on the flightline where the aircraft are parked. They are responsible for the everyday maintenance and inspections of the airframes and components. This occasionally requires them to crawl into tight confined spaces to perform this maintenance.

"Confined spaces in a C-5 get really hot," Ahearn said. "Heat rises, so anytime you are upstairs or in any enclosed space without a hatch or door open, the heat can really get to you."

But many Airmen actually prefer the hot weather. Originally from a much warmer part of the country, Airman 1st Class Ryan Forslund, a 436th AMXS crew chief, said he feels this way.

"Me personally, I love it," Forslund said. "I'm from Texas, so I love the heat and I dislike the cold.

I love coming out here and working in the sun."

Forslund takes satisfaction from working in the extreme heat.

"I know it's gross," he said. "But when I work and get all sweaty, it just makes me feel more accomplished."

For the maintenance Airmen, staying safe in the hot weather means that proper hydration is key.

"It's hot," said Senior Airman Shaquille Taylor, a 436th AMXS crew chief. "It's important to hydrate and get as much shade as possible; otherwise it's like working in a microwave."

But even when the heat index rises well about the 100-degree mark, most maintainers prefer it to the subzero temperatures they experience every winter.

"The cold is the worst," Taylor said. "When it's cold your fingers get stiff; when it's hot you can just sweat and get through it."

Master Sgt. William



Maintainers from the 436th and 512th Maintenance Groups take advantage of the shade provided by the tail section of a C-5M Super Galaxy June 22 at Dover Air Force Base, Del. Maintainers regularly have to work outside in excessive heat. (U.S. Air Force photo/Airman 1st Class Zachary Cacia)

Garcia, the 436th AMXS first sergeant, is consistently pleased with the hard work that his Airmen perform, regardless of the working conditions.

"When I see the maintainers out there in environments, whether it be heat, cold, snow, whatever it may be; I'm always amazed by their professionalism and getting the

job done," Garcia said. "They don't complain, they don't moan, they do what they got to do and they do a great job, day in and day out."

Gen. Larry O. Spencer Innovation Award unveiled



Secretary of the Air Force Deborah Lee James and Air Force Vice Chief of Staff Gen. Larry O. Spencer pull the shroud during the ceremonial unveiling of the Gen. Larry O. Spencer Innovation Award, named in Spencer's honor, June 29 at the Pentagon. The idea was conceived by Air Force Chief of Staff Gen. Mark A. Welsh III to recognize Airmen who share their creative and efficient ways to save money and time. (U.S. Air Force photo/Scott M. Ash)

By Secretary of the Air
Force Public Affairs
Command Information

WASHINGTON (AFNS) – Secretary of the Air Force Deborah Lee James, along with Air Force Vice Chief of Staff Gen. Larry O. Spencer, unveiled the "Innovation Award" named in honor of Spencer during a ceremony in the Airman's Hall at the Pentagon June 29.

The award conceptualized by Air Force Chief of Staff Gen. Mark A. Welsh III, is intended to annually recognize Airmen who come up with creative and efficient ways to save money and time.

"The award is new, but what's not new is the laser focus on innovation and the passion that General Spencer has brought to us in many ways," James said. "General Spencer has put

much of his personal time into innovation and efficiency."

According to James, the programs championed by Spencer, the Every Dollar Counts campaign and the Airman Powered by Innovation website, are working so well that the Air Force is saving more than \$35 million annually.

"As I have traveled the Air Force, I see it working," James said. "I see that Airmen are finding new, innovative and cost-saving ways to get our mission done."

Not only did Spencer champion the ideas of innovation and saving with the programs, he also spent time personally responding to emails and hosting video teleconferences with Airmen around the world.

"The real innovation is out in the field, and we need to cultivate those ideas and encourage those Airmen," Spencer said. "There are great ideas out there and we owe it to our Airmen to listen to them."

The Gen. Larry O. Spencer Innovation Award will be awarded for the first time July 23 at the Pentagon.

US airpower on display in Paris

By Tech. Sgt.
Ryan Crane
U.S. European Command
Public Affairs

PARIS (AFNS) – Defense Department representatives and aircraft were on hand at the 51st International Paris Air Show, the largest aerospace event in the world, at Le Bourget Airport, France, June 15-21.

Secretary of the Air Force Deborah Lee James; Heidi Grant, the deputy under secretary of Air Force, international affairs; Dr. William LaPlante, assistant secretary of the Air Force acquisition; and Gen. Frank Gorenc, the U.S. Air Forces in Europe and Air Forces Africa commander, attended the air show to meet with foreign defense officials, air chiefs and industry CEOs.

The flying demonstrations at the air show are expected to draw a crowd of more than 139,000 over the

three days it's open to the public. However, the main attraction for the DOD is the opportunity to build partnerships with their European allies and reaffirm their commitment to a secure and peaceful Europe.

James spoke with many of those partners during the U.S. pavilion opening ceremony.

"It takes all of us working in a very synchronized fashion to reach our goal," James said. "We in the Air Force like to talk about global vigilance, global reach and global power, but we can't get any of that done without our partners. In fact I would submit that our joint success in the future will depend on those very partnerships."

The air show provides a collaborative opportunity to share and strengthen the U.S. and European strategic partnership that has been forged during the last seven decades and is built on a foundation of shared



Secretary of the Air Force Deborah Lee James speaks to U.S. senators and governors during the U.S. pavilion opening ceremony June 15 at the 51st International Paris Air Show at Le Bourget Airport, France. The air show provided a collaborative opportunity to share and strengthen the U.S. and European strategic partnership that has been forged during the last seven decades and is built on a foundation of shared values, experiences and vision. (U.S. Air Force photo/Tech. Sgt. Ryan Crane)

values, experiences and vision.

"It's important to show American equipment and American Airmen," Gorenc said, "and it's important that we describe how those Airmen and equipment operate together. We need to highlight our ability to

interoperate with our partners."

While these meetings with foreign military officials and industry executives are the main focus for the DOD representatives, the crowd pleasers are the aircraft the U.S. flew in to showcase.

Eleven aircraft make up

the DOD corral of static displays which feature the A-10 Thunderbolt II, F-15E Strike Eagle, F-16C Fighting Falcon, CH-47 Chinook, RQ-7 Shadow Tactical UAV, UH-72 Lakota, UH-60 Black Hawk, AH-64 Apache, WC-130J Super Hercules and the P-8 Poseidon.

Many of the aircraft are vital components supporting Operation Atlantic Resolve, an ongoing mission lead by U.S. European Command. OAR is the all-encompassing mission to demonstrate commitment to NATO allies and partners for peace in light of ongoing Russian intervention in Ukraine. Events like this highlight the importance of working together to take on future challenges.

"Last year the biggest thing on the plate was how are we going to transition in Afghanistan," Gorenc said in a recent interview. "This year, we deal with Russia, we're dealing with (the Islamic State of Iraq and the Levant), and we're dealing with Ebola. So, it reinforces the fact that despite all of our efforts, we cannot predict the future. However, what we can predict is when there are challenges in the world,

airpower will be part of that solution. Oftentimes, airpower is the first to respond."

That responsive airpower is on display at Le Bourget.

Nearly 100 U.S. personnel, who are familiar with these aircraft, were on hand to meet guests, answer questions and give tours. They also had the chance to channel their inner celebrity and strike a pose for their fans.

"Every time we come to an air show the best part is just interacting with the crowds and people," said Col. Dave Pollmiller, the DOD air boss. "To be able to share our story and what our airplanes do, that is always the best part."

For most of the U.S. military here, it is the first time exhibiting their aircraft at an airshow, and it's not a time they will soon forget.

"I like seeing people from other countries and all of their aircraft and the items that they have here," said Chief Warrant Officer Gerry Smith. "They are very friendly and it's great to be able to see things in person that we could normally only see on TV. It has been a great experience here in Paris."

Milestones

25 YEARS

David Ferrell, ATA
William Sudberry, ATA
Mitchell Turrentine, ATA

20 YEARS

Brian Baggett, ATA
Jerry Bailey, ATA
Joane Cassady, ATA
Jason Daugherty, ATA

15 YEARS

Amber Bowen, ATA
Deborah Myers, ATA

10 YEARS

Tony Buchanan, ATA
Nikolas Galyen, ATA
James Harding, ATA
Michael Key, ATA
Kip Luttrell, ATA
Jack Murdock Jr., ATA
Charles Powers, ATA
Erin Robinson, ATA
George Vandagriff, ATA

5 YEARS

David Schlykov, ATA

RETIREMENTS

Kemp Brooks, AF
Connie Crow, ATA
David Lanham, ATA
Richard Miller, ATA
Roger Taylor, ATA

INBOUND MILITARY

Lt. Col. Jason Armstrong
Maj. Eric Trad
Col. Rodney Todaro
Maj. Daniel Watson

OUTBOUND MILITARY

Capt. Joshua Coughenour
Lt. Col. Jay Orson
Capt. Akshay Tripathi

NEW HIRES

Yancee Burchett, AF
Daniel Crowley, AF
Joseph Giuffrida, AF

Gary Hammock, AF
Kevin Holst, AF
Benjamin Holton, AF
Andrew Hughes, AF
Adam Moon, AF
Nolan Murray, AF
Kory O'Brien, AF
William Overcast, AF
Vaughn Pangelinan, AF
Kim Pfender, AF
Paul Ritter, AF
Rebecca Rought, AF
LaLonnice Saltzman, AF
David Schwer, AF
Ben Smith, AF
Ryan Tatro, AF
Sarah Toll, AF
Albert Velazquez, AF

PROMOTIONS

1st Lt. Joseph Achenbach to captain
2nd Lt. Zahi Abi Chaker to first lieutenant
Tech. Sgt. James Key to master sergeant
1st Lt. Harrison Payne to captain



John Jordan

40 YEARS

John Jordan, ATA

30 YEARS

Laverne Cox, ATA
Dennis Eggert, ATA
Janet Feller, ATA
Frank Hayworth, ATA
Jeffrey Henderson, ATA
Rita Perry, ATA
William Scott, ATA

Silent Sentry meets a decade of interstellar combat support



The 379th Expeditionary Operations Support Squadron operates through an antenna 'farm' of two weapons systems named Rapid Attack Identification Detection Reporting System Deployable Ground Segment and Bounty Hunter, which provide the only Defense Space Control mission throughout the entire area of responsibility. (U.S. Air Force photo/Staff Sgt. Alexandre Montes)

By Staff Sgt. Alexandre Montes
379th Air Expeditionary Wing Public Affairs

AL UDEID AIR BASE, Qatar (AFNS) – Nearly 29 years ago, as a form of protest against cable companies charging fees to satellite dish owners, a man by the alias of Captain Midnight intruded

into a live HBO telecast of 'The Falcon and the Snowman' utilizing equipment from where he worked. Using a form of satellite communications (SATCOM) jamming, Captain Midnight was able to insert his propaganda and briefly stop HBO programming.

Midnight's actions highlighted a vulnerability to SATCOM communi-

cations, which the military rely upon heavily to meet global communications needs. This vulnerability generated the need to establish Defensive Space Control systems to monitor and protect SATCOM assets. One of the missions is at Al Udeid Air Base and goes by the name of Operation Silent Sentry (OSS).

OSS was part of a proof

of concept system in 2005. Back then, several Airmen were deployed to Al Udeid AB for 120 days. The mission was to test the capabilities of a new defensive counter-space system in support of joint warfighters in the area of responsibility (AOR) and then leave once testing was complete. The capability was proven to be valuable in the protection of U.S. Central Command's satellite networks, and 10 years

later, OSS is still in business, and business is good.

"What we do is provide CENTCOM with defensive space control capabilities," said Master Sgt. Brian Popham, the 379th Expeditionary Operations Support Squadron. "We monitor, detect, characterize and geographically locate sources of electromagnetic interference on high priority signals."

OSS is able to find a signal that is causing inter-

ference with satellite communications, characterize the signal environment and locate its origin. That information is then forwarded to support command and control of air, naval and ground forces to complete a full spectrum of situational knowledge. Two weapon systems, the Rapid Attack, Identification, Detection, and Reporting System Deployable Ground Segment

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Master Sgt. Brian Popham, assigned to the 379th Expeditionary Operations Support Squadron, monitors and adjusts signal strength from an antenna during routine maintenance checks May 27 at Al Udeid Air Base, Qatar. The Operation Silent Sentry team monitors high priority satellite communication signals, detects electromagnetic interference on those signals and geo locates the source of that interference along with other signals of interest. (U.S. Air Force photo/Staff Sgt. Alexandre Montes)

Ribbon Cutting held for Wingo Inn guest lobby renovation completion



Col. James Krajewski (far right), Director of the AEDC Test Support Division, cuts a ribbon commemorating the renovation completion of the Wingo Inn guest lobby on June 17. The guest lobby has been undergoing construction since December 8, 2014. Wingo Inn is located on the shores of Woods Reservoir at Arnold Air Force Base and offers lodging for all military ranks. Pictured left to right are the AEDC team members who helped in the renovation process, Robert Greene and David Wilhite; and Chris Anderson, contractor over the renovation project with Warden Construction Co. (Photo by Jacqueline Cowan)

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Senior Airman Casey Jones, assigned to the 379th Expeditionary Operations Support Squadron, is an operator for the Rapid Attack Identification Detection Reporting System Deployable Ground Segment, for which he routinely completes maintenance checks to ensure accuracy of signal strength and functionality. The Operation Silent Sentry team monitors high priority satellite communication signals, detects electromagnetic interference on those signals and geo locates the source of that interference along with other signals of interest. (U.S. Air Force photo/Staff Sgt. Alexandre Montes)

and Bounty Hunter provide the only Defensive Space Control mission in the AOR.

“Communication is key to our entire joint and coalition forces’ ability to effectively and efficiently conduct our missions each and every day,” said Master Sgt. Jason Childers. “Our dependencies on SATCOM technologies have grown tremendously over the years to meet our operational needs. While military users benefit from these newer technologies, they also need additional protection and situational awareness into the electromagnetic spectrum in order to ensure robust communications.”

With upgrades in 2013, the primary focus was to improve response time to mission partners. Since then, OSS operators have created more elaborate geolocation capabilities to troubleshoot counter satellite communication electromagnetic interference situa-

tions.

“It’s like solving a math problem, the more known variables you have, the easier and faster it is to solve the equation,” Childers said. “The recent upgrades just filled in some of those variables to allow for faster and more accurate geolocations.”

OSS also employs the total package; Airmen deploy from several different career fields within Air Force Space Command. Total force integration is not an uncommon phrase among these warriors. Airmen are deployed here from both the 16th and the 380th Space Control Squadrons located at Peterson Air Force Base, Colorado, as well as several other squadrons. With having knowledge from across the spectrum, they were able to help the program evolve and become a more technical and valuable asset to CENTCOM.

“The majority of the reserve and active duty personnel that support this

mission also work side by side at home station,” Childers said. “This allows the benefit of already having the inter-workings of professional relationships in-place and the team is ready to hit the ground running when they arrive to Al Udeid AB.”

Childers also said that the current OSS architecture will provide the foundation for future defensive space control systems. The lessons learned and tactics, techniques and procedures documented by current crews will continue to be used and refined to shape the future of the defensive space control mission area.

After 10 years of Defensive Space Control operations here at Al Udeid, there are no immediate plans to replace the systems here. OSS will continue to defend our space-based communications through an open, decentralized, fast, performance-based environment and close with the adversary.

