June 22, 2015

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HIGH MACH

Serving the World’s Premier Flight Simulation Test Complex

Arnold AFB, Tenn.

June 22, 2015

Concept and design beneficial to modernization

By Deidre Ortiz

ATA Public Affairs

Skilled personnel at AEDC led the concept and design of the recent modernization of the Complex’s 4-foot transonic wind tunnel (HTF4). As a result of extensive planning and assistance provided throughout the project, the existing equipment and parts making up HTF4 were successfully replaced. The major portions that were upgraded included the flexible nozzle control actuators, Automatic Model Attitude Positioning roll mechanism, seal flaps, Captive Trajectory Support (CTS) system and new data acquisition systems. Overall the project took seven years to complete. Groups from concept, design, manufacturing, installation, testing and checkout, and analysis and reporting each played a part in the upgrades.

Greg Fox, ATA section manager of the Propulsion Wind Tunnel Operations Group, explained that unless you were one of the team members involved in the project from start to finish, you likely wouldn’t realize the magnitude of work that went into it. “These systems are all very complicated,” he said. “They’re basically one-of-a-kind systems, and it takes people with different skills [to achieve something like this].”

See DESIGN, page 4

By Laquell March

ATA Public Affairs

Manchester Police recognize Arnold Police for bomb threat assistance

Arnold Police Officer Aaron Cherry, a K-9 handler, Officer Jason Layne and K-9 Officer Bo were recognized by the Manchester Police Department (MPD) for their assistance with two bomb threats in Manchester at the Coffee County Central High School on April 25 and the Coffee County Rural Jail Academy on May 12.

Due to the officers’ bomb detection training and the coordination of AEDC Emergency Services Manager Rick Trull and AEDC Test Support Division Director Col. James Krajewski, they were able to expedite the search for bombs in both incidents which was valued by the MPD.

“The quick response and professionalism in handling these matters are very much appreciated by the Manchester Police Department, the Coffee County School System and our community,” said Mark Yother, MPD Chief of Police. “Trull’s willingness to help and the great work of Officers Layne, Cherry and Bo are a great asset and comfort to the Manchester Police Department and our community.”

Yother remarked that a bomb threat situation for children in a school setting can be “scary” and that it is important to have an asset like the Arnold Police in the local area. “In the past we have used the state’s dogs and wait four hours,” said Yother. “Just to have that resource here, friends here, and partners here makes it so much better here makes it so much better for us as the Manchester Police Department.”

Yother presented certificates of appreciation to the officers and AEDC Commander Col. Raymond Toth spoke about AEDC’s support of the partnerships within the community.

“We value our partnerships with the local communities and local police departments and anything we can do to help out when we have that opportunity know that our police department and the Arnold Police can do what we can,” Toth said.

AEDC, celebrating 64 years on June 25

By Lauren Gjernes

ATA Public Affairs

On June 25, 2015, Arnold AFB, Tenn., will observes its 64th Birthday. Since its establishment in 1951, the Arnold Engineering Development Center (AEDC) has provided critical wind tunnel testing to the Department of Defense and NASA, offering valuable data for the development of advanced aerodynamic, propulsion, and control technologies.

President Harry Truman delivers the dedication speech at the Arnold Engineering Development Complex on June 25, 1951. The President dedicated the new Air Engineering Development Center as the then Arnold Engineering Development Center in memory of General of the Air Force H.H. “Hap” Arnold, General Arnold pushed for the establishment of the test complex so that America would never lag behind in aerospace testing again. President Truman said in his address that “here men would explore flight beyond the speed of sound.”

The US Air Force celebrated the 64th Birthday of the Arnold Engineering Development Center on June 25, 2015.

In This Issue...

An AEDC Fellow’s Life... Pages 10-11

Revised Change: Commander announces OBXtek, Inc. awarded contract

AEDC Commander Col. Raymond Toth provided an update on AEDC’s Source Selection efforts to the entire workforce via email on June 18 announcing the contractor which was selected to perform the Complex’s Base Communications and Information Technology Services (BCITS) contract. Additionally, Toth’s message and other information can be found online at www.arnold.af.mil/transmision.

Team AEDC,

We were notified on Monday that the Small Business Administra- tion denied the pre-award protest on our Base Communication- and Information Technology Services (BCITS) effort allowing us to begin Congressional negotia- tions that same day.

So, today, the BCITS effort was awarded to OBXtek, Incor- porated. OBXtek will perform base communica- tion and IT services at Arnold Air Force Base and our two geographically separated units in Maryland and California.

This award will be a firm fixed price task order valued at $52.6 million through the GSA Alliant Small Business Government-wide Acquisition Contract. OBXtek will perform base communica- tion and information technology services at Arnold Air Force Base and our two geographically separated units in Maryland and California. OBXtek is subcon- tracting with Atticus Technology Corporation, Chevy Chase, Md.; DKW Communications, Incor- porated, (OBXtek), a service-disabled, veteran-owned small busi- ness located in Tysons Corner, Va. This award will be for a five-year period of performance, with a start of period of perfor- mance on Oct. 1. However, a post-award protest could delay the start of the phase-in period in addi- tion to a 90-day phase-in period. It is still possible for OBXtek to begin their phase-in on July 1 with a start of period of perform- ance on Oct. 1. However, a post-award protest could delay the start of the phase-in period and subsequent start of performance negation an extension of the AEDC contract to ensure mission continuity.

As we move forward, your leadership team will keep you in- formed of new developments as they impact timelines and mile- stones.
**Col. Raymond Toth Retires after a 26-Year Air Force Career**

Col. Raymond Toth, AEDC Commander, recently announced he will retire from the Air Force in May 2024. Colonel Toth’s retirement is an important milestone in the history of this great organization. Colonel Toth has been an outstanding leader and has contributed significantly to the success of AEDC. He has been instrumental in the development of AEDC's capabilities and has played a key role in shaping the future of the nation's defense. His dedication, leadership, and vision have been critical to the success of AEDC and the nation he has served so well.


Team AEDC,

Thank You! When I was told in January 2012 that I would be the first Air Force Test Commander that I had ever heard of, I thought I knew what a skilled leader needed to accomplish. Our mission is to conduct and manage all aspects of our business. We must have a strategy, a plan, and discipline. We must have a vision, a core mission, and a plan to achieve our goals. We must have an understanding of what we are doing and why we are doing it. We must have a clear understanding of the mission and the challenges that we face. We must have a clear understanding of the resources that we have and how we can use them. We must have a clear understanding of the risks that we face and how we can manage them. We must have a clear understanding of the timelines and deadlines that we face. We must have a clear understanding of the metrics that we use to measure our success. We must have a clear understanding of the accountability that we have. We must have a clear understanding of the roles and responsibilities of all the stakeholders involved. We must have a clear understanding of the expectations of all the stakeholders involved. We must have a clear understanding of the expectations of all the stakeholders involved. We must have a clear understanding of the expectations of all the stakeholders involved.

For advertising information, call (454)-6000. For general information about High Mach, call (454)-6000 or visit www.arnold.af.mil.

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**Work Safely During the Summer**

**High Mach**

#### Core Values

- **Integrity** - Always act with honor, truth, and respect.
- **Excellence** - Demonstrate the highest level of performance.
- **Excellence** - Ensure the safety of everyone at AEDC.
- **Excellence** - Use disciplined and ethical decision making.
- **Excellence** - Continually improve in all aspects of our work.

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**Vision**

We're a high-reliability organization dedicated to excellence in research, development, test, and evaluation.

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**Action Line**

Team AEDC is always open to new ideas and communications with our Team AEDC family. If you have a concern or problem that you would like to discuss, please contact our Action Line. People can call 454-6000, extension 6000, or email ActionLine@aerospacealliance.com. In order to provide the best service possible, we ask that you provide as much information as possible. Please be prepared to provide your name, phone number, and email address. We will do our best to respond to your concerns in a timely manner. We will keep your information confidential and will not share your information with others.

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By Maj. Gen. Bunch. Says farewell to men and women of Air Force Test Center


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**Smoking Policy**

1. The following revised AEDC smoking policy is effective immediately. Smoking is permitted only in designated and approved smoking areas. Smoking is not permitted in any other areas of the AEDC site. Smoking is not permitted in any Karl Tullahoma News, government buildings, or any other buildings on the AEDC site. Smoking is not permitted in any areas designated as no smoking areas.

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**Drinks**

1. Beer, wine, and spirits are permitted in designated areas only.

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Due to the large number of personnel who will require Common Access Card (CAC) renewals during the contract transitions at AEDC, the Visitor Center has opened an additional Real-Time Automated Personnel Identification System (RAPIDS) processing location.

Room B-108 in the Administration and Engineering building (bldg. 100) is the location for the additional RAPIDS which began operations on June 15. To complete the CAC renewal process, personnel must schedule an appointment after they receive an email from the Trusted Agent Sponsorship System (TASS) stating that approval was granted for CAC renewal. The Visitor Center will schedule appointments for the additional location. AEDC personnel must request an appointment by emailing Arnold.VisitorCenter@us.af.mil.

This location will remain operational through Sept. 30 and it is only for AEDC personnel including military, DOD civilians and contractors. If personnel need assistance entering locked entry doors to bldg. 100, they may call 454-7454. All other individuals such as retirees, dependents and persons not assigned to AEDC must report to the Visitor Center located beside the Complex main gate for card issuance.

The American Institute of Aeronautics and Astronautics (AIAA) Tennessee Section recently held an annual awards luncheon where professional engineers were recognized for their significant technical accomplishments, outstanding achievements and support to AIAA Section activities. (Photos by Rick Goodfriend)

The AEDC Large Model Wings Level Yaw Program Team receives an AIAA Tennessee Section Special Award from nominator Corey Rice (far right) for management and manufacturing innovations resulting in rapid project execution. Team members (left to right): Michael Cowan, Norman Smith, Kim Luther, Elijah Minter, Pete Macaluso, Marvin Sellers, Lisa Waddell, Scott Wieland and Carrie McInturff. Team members not pictured: Keith Holt, Mark Andrews, Mike Mashburn and Schmiede Corp. representatives Kevin Oldham and Brad Ferrell.

AEDC employee Taylor Swanson (left) receives an AIAA Tennessee Section Young Professional Award for his development of the Milsatcom Atmospheric Scintillation Simulator project from nominator and AIAA member Dr. Bill Baker.

AEDC employee Brent Bates (left) receives an AIAA Tennessee Section Hep Arnold Award for his analyses of AEDC facilities from nominators and AEDC employees Dr. Joe Sheeley and Dr. Robert Hiers (not pictured).

AEDC employee Dr. Doug Garrard (left) receives an AIAA Tennessee Section Special Award for the use of Design-of-Experiments in the Propulsion Wind Tunnel 4-foot Transonic tunnel calibration from nominator and AEDC employee Dr. Joe Sheeley.

AEDC employee Dr. Joe Sheeley (left) receives an AIAA Tennessee Section Booster Award for his service as Section Chair from nominator and AEDC employee Dr. Robert Howard.

University of Tennessee Space Institute (UTSI) Professor Trevor Mueller (center) receives an AIAA Tennessee Section Special Award for outstanding student advising and mentoring efforts from UTSI nominators (left to right) Lara LaBelle, Densu Atkas, James Rodgers and Nehemiah Williams.

The AIAA Large Model Wings Level Yaw Program Team receives an AIAA Tennessee Section Special Award for management and manufacturing innovations resulting in rapid project execution. Team members (left to right): Michael Cowan, Norman Smith, Kim Luther, Elijah Minter, Pete Macaluso, Marvin Sellers, Lisa Waddell, Scott Wieland and Carrie McInturff. Team members not pictured: Keith Holt, Mark Andrews, Mike Mashburn and Schmiede Corp. representatives Kevin Oldham and Brad Ferrell.
**AEDC military members promoted**

Five members of the Air Force at AEDC were recently promoted in multiple ceremonies. (Photos by Rick Goodfriend)

**DESIGN from page 1**

For mentioned the project was such a success because of the cooperation of everyone on base and also because requirements were written by the groups that own and use the equipment.

“The test engineers, project engineers and system engineers were involved early on and stayed involved throughout the whole project,” he said. “They worked with the design group, such as the controls engineers who had to design the controls and the programmers who programmed the software we’re using. Probably every craft skill here at AEDC has been used: ironworkers, plumbers, electricians, instrument technicians, machinists, multiengineers, mechanical engineers… We pretty much hit every skill we have out here.”

Tom Hartvigsen, AEDC’s design engineer involved in the CTS upgrade, stated that early on in the planning process, it wasn’t certain that AEDC’s own personnel would be overseeing the project.

“We didn’t know who would design and build the system; we thought it might be contracted out, so we approached it from that point of view when writing the system requirements document,” he said. After writing up requirements, the CTS design team began to study how they would execute the plans and first visited the Nissan plant in Smyrna to learn about industrial robotics.

“Basically how the CTS six-degrees of freedom operates is like a robot,” Hartvigsen explained. “They work with the model shop, so we had the idea that we needed to strengthen the machine,” he said. “When the modernization effort started up, the CTS came up as one of the key features of the overall 4T modernization effort.”

According to John Wright, AEDC project manager, store separation testing of the new CTS has been successful so far. “Hopefully it’ll be an asset to the AEDC for the next 25-plus years.”

In addition to increasing the load-carrying capabilities, the CTS modernization improved the range of movement and the system’s reliability and maintainability.

“The changes to CTS maintenance and less man hours when performing tests in 4T. For example, it once took an entire shift, close to eight hours, to perform a calibration of the CTS, whereas now it takes just two hours. Woody McFarlane, test system engineers, told us what they did change, whereas now it takes just two hours. Woody McFarlane, test system engineers, told us which they did change. According to John Wright, AEDC project manager, store separation testing of the new CTS has been successful so far. “Hopefully it’ll be an asset to the AEDC for the next 25-plus years.”

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The Weapons Amateur Radio Club (ARC) at AEDC will participate in the upcoming Amateur Radio Field Day June 27-28 at Old Stone Fort, Manchester. The event is open to the public, who will have an opportunity to see on-air demonstration and learn about the amateur radio hobby.

Amateur Radio, as defined by the Federal Communications Commission (FCC), is an organization of individuals (aka “hams”) who use various frequencies of electromagnetic energy for purpose of mutual enjoyment and personal enrichment. Hams operate under the supervision of the FCC and abide by regulations set forth by the agency.

The primary goal of the ARC is to promote the exchange of technical information and the improvement of communications techniques through public service. All hams are encouraged to participate in the event regardless of their age, gender or nationality.

“Field Day is one of the best ways of people learning about electronics, physics, meteorology and numerous other scientific disciplines, and is a huge asset to any community during disasters if the standard communication infrastructures go down,” said one ham radio operator.

“Field Day demonstrates ham radio’s ability to work remote and communicate from almost any location and create an independent communications network,” he said.

For more information about the event, visit www.arrl.org or email kb4jhu@arrl.net or call 931-571-0502 or email mkeagle@arrl.net or visit the website of the AEDC. For more information about Field Day, visit 931-571-0502 or email kb4jhu@arrl.net or visit the website of the AEDC.
This day in espionage history

**By AEDC Industrial Security**

June 23, 1997 – Earl Edwin Pitts sentenced to 27 years in prison

**Earl Edwin Pitts**:
- Senior FBI agent, arrested Dec. 18, 1986, charged with providing classified information to the Russian Intelligence Service from 1987 until 1992
- Turned over Top Secret documents including a list of FBI agents who were providing intelligence on Russia
- FBI was tipped off by a Russian agent that became a double agent for the FBI

June 28, 1985 – Jay Clyde Wolff sentenced to five years in prison for attempting to sell classified documents to a Russian intelligence officer.

June 29, 2001 – Mariano Faget sentenced to five years in prison for disclosing classified information and other charges.

July 1, 2009 – John Renee Rath sentenced to four years in prison for purchasing defense information.

By AEDC Industrial Security

June 23, 1997 – Earl Edwin Pitts sentenced to 27 years in prison

According to the Cyber Security Division within the office of Headquarters Air Force Communications, these emails often contain links to fake websites which ask the potential victim to enter their personal and account information. The site then records the information entered giving phishers all they need to wreak havoc on such things as bank accounts and credit cards.

Banks and other financial institutions do not ask for personal information or account information via email. If you suspect an email or social media post is phishing, contact the company directly using information on a recent billing statement.
The main goal of maintenance is to give quality aircraft to aircrew at all times.

“Staff Sgt. Guillermo Cruz Rodriguez, a member of the 455th Expeditionary Aircraft Maintenance Squadron, inspects the intake of an F-16 Fighting Falcon during a post-flight inspection at Bagram Airfield, Afghanistan, June 8. The 455th EAMXS ensures Fighting Falcons on Bagram are prepared for flight and return them to a mission-ready state once they land.” (U.S. Air Force photo/Tech. Sgt. Joseph Swafford)
Log 250 miles during the month on any bicycle and earn prize.

Register at the Fitness Center by July 15.

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Employee Assistance Program available

ALC – Arnold Lakeside Center, 454-3310
Café – Café 100, A&E, 454-5885
ODR – Outdoor Recreation, 454-6084
FC: 100 Push Up Challenge
Top 2 highest reps at end of month win Fit-Bit
GOAL: Reach 100!
Ask our staff for training advice

ALC: NO First Friday Jam due to holiday weekend

ODR: High Point Rock Climbing
8am-4pm  Age 13+  $40
Bring your lunch
Water provided
Sign up by July 3

ALC: Last Friday Trivia
Dinner 6:30pm
Showtime 7:30pm
"Insurgent"  PG13
On the patio/lawn
Bring chairs/blankets
Choice of hamburger/hot dog with chips, cookie, and drink
$6.50 mbr  $7.50 non

ALC: Outdoor Movie & Cookout
Dinner 6:30pm
Showtime 7:30pm
"Insurgent" PG13
On the patio/lawn
Bring chairs/blankets
Choice of hamburger/hot dog with chips, cookie, and drink
$6.50 mbr  $7.50 non

ALC: Brushes & Bottles 525
6pm  Sign up by July 10

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6pm  Sign up by July 10

ODR: Zip-lining Trip
8am-4pm  age 12+  $60
Bring lunch
Sign up by July 18
Dr. John Felderman and Dr. Grant Patterson will be inducted as AEDC Fellows at the annual AEDC Fellows Banquet at the Arnold Lakeside Center on June 25 at 5:30 p.m. Peggy Gray, the first female selected as a Fellow, and Phil Tarver will be inducted as AEDC Lifetime Achievement Fellows. (Photos provided)

An AEDC Fellow’s life

Dr. John Felderman, AEDC Fellow

Jet Exhaust Acoustic Team
UTSU 1974

Dr. Grant Patterson, AEDC Fellow
An AEDC Fellow’s life

Phil Tarver, AEDC Lifetime Achievement Fellow

Peggy Gray, AEDC Lifetime Achievement Fellow