Engineers share what it means to be an engineer

By Bradley Hicks

AEDC Public Affairs

Not job too big or small for the Arnold Chemical and Metallurgical Lab

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By Deidre Ortiz

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Shannon Medley, NDT specialist at Arnold Air Force Base, conducts a magnetic particle inspection of a turbine blade for cracks in the Arnold Chemical and Metallurgical Lab. Magnetic particle inspection is one of the non-destructive testing methods used to detect flaws in metals. (U.S. Air Force photo by Deidre Ortiz)

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Their impact is indelible.

Thanks to the efforts of engineers, everything from the everyday, like preparing dinner and making the morning commute, to the extraordinary, such as the exploration of distant planets and national defense, is possible.

Engineers are the heart of AEDC. They are the ones responsible for the testing and research necessary for AEDC to accomplish its mission, and it is once again time to celebrate those men and women, as well as other engineers across the country, for their effect their work has on daily life and the world around them.

National Engineers Week began on Feb. 17 and continues through Feb. 23. This annual celebration of engineers was established in 1991 by the National Society of Professional Engineers. According to the NSPE website, National Engineers Week was started to raise public awareness of engineers’ positive contributions to quality of life and to promote recognition among parents, teachers and students of the importance of technical education and a high level of math, science and technology literacy while motivating youth to pursue engineering careers in order to provide a diverse and vigorous engineering workforce.

The theme for this year’s National Engineers Week is “Engineers: Invent Amazing,” and those at Arnold Air Force Base have done their part to celebrate the amazing accomplishments and contributions of engineers across the base while encouraging a new generation to further explore their interests in engineering and related fields. National Engineers Week happenings at and around Arnold AFB included the Student Design Competition, which took place on Feb. 19 at the University of Tennessee Space Institute, and are scheduled to include the Engineers-for-a-Day event at Arnold on Feb. 21 and the 2019 Engineers Week Banquet at UTSI on Feb. 21.

Several Arnold engineers recently shared what inspired them to pursue an engineering career and what it means to be among those who invent amazing every day.

Math skills lead Escue to engineering career

Aided from a one-year “sabbatical” during which he worked in business development in Tallahassee, Andy Escue has worked at Arnold AFB since 2006. He is currently section manager of the Facility Technology and Test Methods group, a role he has held since 2016. Similar to the track of others, an early interest in math steered Escue toward a career in engineering.

“I realized in high school that I liked math, calculus and a blonde-headed girl who was already bound for Tennessee Tech,” he said, adding “Yes, I later married her.”

Escue was in the hospital for 17 days and had another 30 days of radiation. He was out of work for months. Although he says he wasn’t in much pain, one of the toughest parts of the whole ordeal was being patient and letting his body heal.

“I think you have to prepare yourself mentally that this is going to take time,” he said. “I couldn’t drive myself anywhere and I had to learn to walk again. I had to get my balance and the confidence to move on my own. Once you start taking the first steps it builds confidence.”

Throughout his absence from work, he talks about all the support he received. His co-workers called to check on him, stopped by to visit, asked for updates and continued telling him they were praying for him. Family and friends were there to help in any way they could.

An instrument technician at Arnold Air Force Base, Gary Bise returns to work after being away from the job for months recovering from a brain tumor. “I’m blessed in so many ways,” he said. “Every day I come to a job I love.” (U.S. Air Force photo by Bradley Hicks)

An instrument technician at Arnold Air Force Base, Gary Bise returns to work after being away from the job for months recovering from a brain tumor. He is currently section manager of the Facility Technology and Test Methods group, a role he has held since 2016. Although he says he wasn’t in much pain, one of the toughest parts of the whole ordeal was being patient and letting his body heal.

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Engineer discusses importance of females in STEM careers

By Kathy Gattis

AEDC Public Affairs

Governor Bill Haslam has expressed interest in increasing the number of females in STEM careers, and Gary Bise believes that more women are needed in the field.

“While working in the lab, the chemists at Arnold will sometimes encounter a liquid they’re unfamiliar with. ‘You never know what will come through the door,’ Forde said. ‘We’ve had on-call chemists looking liquid in a bucket and ask us to determine what it is.’

Though people may bring their items in to the Chem Lab, Arnold chemists can offer guidance before taking a sample of the mysterious liquid or material.

AEDC Team members safe

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The following revised Arnold AFB smoking policy is effective immediately and applies to all individuals on Arnold AFB.

Smoking is permitted solely in Designated Tobacco Areas (DTAs) identified by designated signage. If no signage exists, smoking is not permitted in that area. It is the responsibility of all smokers to keep DTAs clean of cigarette butts.

b. Smoking is permitted in designated smoking areas only; no smoking is permitted in work areas or on the workbench, or in bathrooms. In addition, smoking is prohibited in any area where food and beverages are served.

c. Friendship and Family Activities, such as the Child Development Center and Family Housing, are tobacco-free environments.

d. Arnold AFB employees and contractors are required to comply with these smoking restrictions.

The day-to-day focus on our products entails bringing in samples and then summarizing that data in your reports. Forde said. “Samples received..." Delaney said. “We support not only testing, but also maintenance and help come up with a solution to prevent it from happening again. We also support the Hypervelocity Wind Tunnel 9 at White Oak, Maryland, and the National Full-Scale Aeronautics Dynamics Complex at Moffett Field, California.

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Smoking Policy

1. The following revised Arnold AFB smoking policy is effective immediately and applies to all individuals on Arnold AFB.

2. Traditionally, tobacco products (e.g. cigarettes) are considered to be hazardous to health, and their use is discouraged by the Department of Defense (DoD) and the Department of the Air Force (DAF) as part of a comprehensive approach to smoking cessation. Arnold AFB does not restrict smoking in designated smoking areas, except in the approved DTA.

3. Pursuant to Air Force Instruction (AFI) 40-102, Tobacco Free Living, e-cigs are considered to be equivalent to traditional tobacco products; however, e-cigs are not restricted to DTAs. Smokeless tobacco use will be permitted in all work areas and will be subject to maintenance and safety conditions. Specifically, smokeless tobacco products must not be placed in the work area. Arnold AFB does not recommend the use of smokeless tobacco products (e.g., snuff or dip), and such use will be prohibited in the workplace.

4. Arnold AFB has adopted a comprehensive approach to smoking cessation. Arnold AFB’s smoke-free policy is designed to provide a safe and healthy environment for all employees and contractors who choose not to smoke. Arnold AFB will also provide assistance to employees and contractors who wish to quit smoking.

5. Arnold AFB employees and contractors are encouraged to seek assistance from the Tobacco Cessation Program, which offers counseling and referral to smoking cessation programs.

6. Arnold AFB has implemented a comprehensive program to reduce tobacco use on base. The program includes education and support for smokers, as well as efforts to make it easier to quit smoking.

7. Arnold AFB’s smoke-free policy includes both on-base and off-base restrictions. Arnold AFB’s smoke-free policy applies to all areas of the base, including parking lots and public areas.

8. Arnold AFB’s smoke-free policy is enforced by the base’s security forces. Violations of the smoke-free policy will be subject to consequences, which may include progressive discipline, up to and including termination of employment.

9. Arnold AFB encourages all employees and contractors to participate in the smoke-free policy and to support each other in their efforts to quit smoking.

10. Arnold AFB’s smoke-free policy is designed to create a safe and healthy environment for all employees and contractors who choose not to smoke. Arnold AFB is committed to providing a smoke-free workplace and offers assistance to employees and contractors who wish to quit smoking.
Cold and flu season is in full swing

By AEDC Safety

It is cold and flu season, and we each need to do our part to avoid exposure to the diseases.

Prevention starts with an understanding of how germs spread. That means coughing or sneezing a prime culprit in spreading the flu.

When the inside of your nose gets a tickle, a message is sent to your brain’s “sneeze center” which sends a message to your chest muscles, diaphragm, muscles that move your eyelids, and your eyelid muscles: It’s impossible to keep your eyes open when you sneeze.

The sneeze center makes all those muscles work in just the right order, to send that irritating particle out of your nose at speeds up to 100 mph.

So how far does a sneeze travel?
Since they are very small in size, sneezes drop so fast reach terminal velocity and start drifting in air, just like a cloud. Hence, they can travel any distance depending on air current. When they encounter some substance, maybe a co-worker, they settle down to transfer the infection.

These tips can help you avoid coughs, colds, and flu.

Practice good respiratory hygiene:
Cover your mouth and nose by coughing or sneezing into a tissue, not into your hand or into the air. If you don’t have a tissue handy, your upper sleeve will do.

Keep your hands clean:
Wash your hands with antibacterial soap and warm water for 15-20 seconds several times a day. Use alcohol-based hand wipes or gels sanitizers if soap isn’t available.

Don’t touch:
The most common way to catch the flu is to touch your own eyes, nose or mouth with germy hands. So keep your hands clean and away from your face.

Eat, drink, and be healthy:
Eat a well-balanced diet and drink plenty of fluids, especially water. Increase your vitamin C intake.

Don’t stress out:
Get plenty of sleep and exercise regularly. We are more prone to becoming ill when stressed out.

Get some fresh air or a change of scenery during work breaks for a calming effect.

Learn to recognize flu symptoms:
These include a high fever, head and muscle aches, extreme fatigue, sore throat, dry cough, stuffy nose or stomach symptoms.

Don’t share:
Keep your distance if you are sick or around someone else who is sick. If you get the flu, don’t come to work where there’s a good chance you’ll spread it to co-workers. Stay in bed for a couple of days.

Get the shot:
Check with your health care provider or pharmacies. Many pharmacies offer the vaccine without an appointment. Most insurance policies cover most or all of the cost.

Arnold STEM supports the MathCounts® competition at UTSI

By Debra Ortis

The Arnold Air Force Base Science, Technology, Engineering and Mathematic (STEM) Outreach Program supported the local MathCounts® Competition held Feb. 2 at the University of Tennessee Space Institute.

The competition, which challenges middle school students to solve math problems, is only one of many engineering activities that lead up to the 2019 National Engineers Week, Feb. 17-23. The event is sponsored by the Tullahoma Chapter of the Tennessee Society of Professional Engineers.

Students in sixth, seventh and eighth grades from counties across southern middle Tennessee participated in the competition. Students from the following schools competed in the 2019 event: East Middle School, West Middle School, The Webb School and Highland Rim School.

This year’s winners of the MathCounts® Competition received their awards from AEDC Commander Col. Scott Cain.

2019 MathCounts® winners were: Alex Dixon, Highland Rim School, receiving first place individual; Jackson Banks, East Middle School, receiving second place individual; and Zane Hopf, East Middle School, receiving third place individual.

The team taking first place in the 2019 MathCounts® Regional Competition, held Feb. 2 at the University of Tennessee Space Institute, was East Middle School. Pictured here with AEDC Commander Col. Scott Cain, second from left, are Kevin Barker, Jackson Banks, Zane Hopf, Olivia Thomasson and Trent Stout, team coach. (Courtesy photo)

After the results of the Regional MathCounts® Competition held Feb. 2 at the University of Tennessee Space Institute, this group will be heading to the state-level MathCounts® Competition. Pictured with AEDC Commander Col. Scott Cain, center, are Kevin Barker, Jackson Banks, Zane Hopf, Olivia Thomasson and Trent Stout, team coach. (Courtesy photo)

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Engineer discusses importance of females in STEM careers

By Bradley Hickman

The disparity did not go unnotice- ed by Kassandra Brexel while she attended Synco, the local school, to pursue both her bachelor’s and master’s degrees in aerospace engineering. For our department (mechanical and aerospace engineering), the undertaken program was most certainly the degree thing like chemical or biological engineering,” she said. “Then in my master’s program, the ratio of women to men dropped off the cliff. For example, my aerospace program, of 30 people. We had nine girls in that class, which was the highest number of women I have seen in a solid-engineering class, which was the highest female-to-male ratio ever at Synco. In grad school, our program was 95-students in total, and there were only nine or 10 females. It gets a lot scarier as the degree status goes up.”

But just within the two years since Brexel, a faculty and molding engineer who has been em- ployed at Arnold Air Force Base since April 2018, earned her mas- ter’s degree, efforts to encourage girls toward getting female students in- volved in the study of STEM-related fields was promoted.”

After high school, Davis accepted an entry-level position with Campus Crusade for Christ at its headquarters office where she volunteered and dis- tributed materials. She graduated from National Outreach Bible Institute in 1985. Davis rose in the acceptance of a position with the campus to pursue both her bachelor’s and master’s degrees in National Engineers Week Foundation, according to the website developed its help “to give a focus of the idea that you can work in engineering, and so they have the same path as engineers. We also want to encourage women to know their truth and experience and engineering things.”

Brexel said that during the study of STEM-related fields was promoted within the high school in New York. There were several after-school clubs and classes dedicated to STEM outside of those in the regular curriculum. These included a course called Science Research, in which students selected a topic of their choice in a scientific field and performed research, conducted experiments or completed research projects. A school-wide focused-promoters competition, such as Science Olympiad and Mathletes.

Along with the Science Research, Brexel also participated in her high school’s engi- neering club, a group of girls that gathered weekly to solve prob-lems.

While Brexel is one of a num- ber of women engineers employed at Arnold, she said she wanted to encourage female en- gineers employed at the base and entering the field.

“I think that having more di- versity and inclusion in engineer- ing gives a different perspective on the girls that we hired, and I think it can fit in, too,” it’s a good way to promote the field without pressing them into do- ing it if they don’t want to. “I wish they had it when I was growing up.”

Brexel has attempted to do her part on the outreach front. She was among the small group of Arnold engineers that spoke to lo- cal middle school students during a Career Day event held last October at First Baptist Church in Manchester. In college, she also volunteered to help prepare female students and high school middle schools and helping out with science programs, catalyzing after- wards. Brexel said and inclusion in engineer- ing gives a different perspective on the topics and problems we have.”

“I think it’s good because it gives a different perspective on the girls that we hired, and I think it can fit in, too,” it’s a good way to promote the field without pressing them into do- ing it if they don’t want to. “I wish they had it when I was growing up.”

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“ar was one of the best career days I have ever heard of working at this place like an engineer, it is hard to go back to working on the same piece of equipment every day like you would be in a factory. These people do good work, but at AEDC you have a chance to learn so many different things.”

“I am kind of making this up,” he said. “But I have told many folks I just can’t see myself doing the same job for 40 years. I have long to figure out what they were talking about… what a special way.”

A student who had advice for anyone else who is going through major changes or otherwise, his answer is simple. “Start praying early; turn it over to the Lord and let it lead you.”

He will lift you up and bring you through it… maybe not in the way you expect, but he can help you.”

AEDC Profile: Joy Davis

Joy Davis
Name: Joy Davis
Company: National Aerospace Solutions, LLC
Job: Disbursement Processor for NASA Accounts Payable

Joy Davis was named AEDC Team Profile: Joy Davis team profile. She was given this recognition for her hard work and dedication to her job and the company. She has been working at AEDC for five years and has been an integral part of the team. She is responsible for processing disbursements and ensuring that all invoices are paid on time. She also prepares reports and assists in resolving conflicting issues with invoices.

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By Marisa Alia-Novobilski
AFMC Public Affairs

WRIGHT-PATTERSON AFB, Ohio – With more than one-third of all Air Force civilians employed at the Air Force Materiel Command footing, that’s a good reason for the Air Force Materiel Command’s Civilian Development Education portfolio to focus on helping employees throughout the command to continue to lead and make the best Air Force in the world.

The Air Force Civilian Development Education portfolio is designed to address the developmental needs of the civilian workforce across the AFMC footprint, there’s a need to more closely align development intervention programs to the career path of individuals who are looking to make a positive difference.

The 24th Annual African-Amer-
ciares, chiefs, first sergeants and
division, which includes Ba-

Project HeRO improves squadron health habits

By Peter Holstein
AFMC Public Affairs

FALLS CHURCH, Va. (AFN) – A new Air Force High Performance Optimi-
ization program, or HeRO, seeks to increase employees’ awareness of data to help Airmen improve health habits that impact readiness.

Hello! Project HeRO, the science-focused sleep

By Meghan Morris
UTSI Post-African-American History Celebration

By Tanja Johnson, UTSI guest speaker

CIVILIZATIONAL DEVELOPMENT EDUCATION OFFERS OPPORTUNITIES TO LEARN, GROW

By Tanja Johnson, UTSI guest speaker

USI Hosts African-American History Celebration

By Meghan Morris
UTSI Post-African-American History Celebration Institute

TULLAHOMA, Tenn. – The 24th Annual African-American History Celebration will be held in the auditorium at the University of Tennessee Space Institute Feb. 20 at 10 a.m.

The special guest speaker this year is Tanja Johnson, Ph.D. Johnson is the executive vice president and chief operat-

officer of the University of Tennessee Space Institute. She earned her primary responsibilities in in-3

cluding the UT System’s operating performance and achieving its educational mission.

Johnson, a native of Alaba-

ma, began her career college

fellow at the University of Alabama in 1987 as a New York Times Scholar and earned Bachelor of Science and Master of Science degrees in Mass Commu-

nity from UA between 1991 and 1996, respectively.

She later earned her doctor-

ate in Urban Higher Education from Jackson State Univer-

sity in Jackson, Mississippi, in 2006. She is currently a pro-

fessor of Education for Management at the Harvard Graduate School of Education in 2008 and earned post-baccalaureate certification from Louisiana State Univer-

sity.

Johnson is a member of the University of Tennessee Space Institute for this special occa-

sion. Admission is free and a re-

ception will follow in the UTSI lobby.
Tennessee. He subsequently inducted Technical Fellow, and Test Methods group as that of a “player/coach,” adding the Facility Technology section provides “multi-disciplined engineering services across all mission areas, including facility control systems and facility monitoring and simulation.”

“Facility or plant monitoring primarily to support of control system configuration and development has been my focus area since the start of my career at AEDC,” Escue said. “According to seeing our models being used to provide confidence that the facility control systems are ready to go. I hope to one day see facility modeling used in other areas to support AEEDC’s mission, such as air surveillance, health monitoring, training, test planning, utilities scheduling, etcetera.”

The role of an engineer at Arnold can be very different depending on the area in which he or she is working. “[I] had a variety of areas, which range from test and program operations to supply chain technology and design, Arnold is an ideal locale for an engineer to apply his or her trade,” Escue said. “The systems under test and the test facility infrastructure are world-class opportunities for engineers at AEDC to work with.”

In the words of a recently-inducted Technical Fellow, it truly is an “engineering wonder world.”

According to Garrard, being an engineer runs in the family. “Engineering runs in the family. I’m an engineer by trade, but my brother,” she said. “Seeing how she did it, I think the commercial engine program I work on has to do with working with people who are doing the work, it’s fun,” he said.

Years ago, Ritter added, he had limited access to engineering thought process – “the art of thinking and hearing what they did”, Escue said. “The facility control systems are world-class opportunities for engineers at AEDC to work with.”

While military engines can be more interesting and more work has to be done on them at Arnold, I think the commercial engine program I have worked on has to do with the amount of different people involved,” she said. “There are actually a couple of them that are on the same day that I work on,” she said.

Paul Ritter (image has been altered for security purposes)

Paul Ritter has been at Arnold for almost five years. He said he has discovered a greater interest in mechanical engineering, “Mechanical Engineering is about applying the science to the technology and the design aspect of a project. It’s all about putting the science to work.”

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Rachel Garrard (image altered for security purposes)
Pilot training moving at the speed of innovation

By John Ingle

SHEPPARD AIR FORCE BASE, Texas (AFNS) – The 80th Flying Training Wing is moving at the speed of innovation and is bound to only get faster as visionaries incorporate the latest in mixed realities to boost undergraduate pilot training.

Lt. Col. Jason Turner, 80th FTW Strategic Initiatives director, said the implementation of virtual and augmented realities is creating a portfolio of tools that allows instructor and student pilots alike to enhance the learning experience within the Euro-NATO Joint Jet Pilot Training program, the world’s only internationally manned and operated combat pilot training program.

Through the use of 360-degree cameras, skilled pilots and actual images from flights over north Texas and southern Oklahoma, the program is able to build instructional content to train students on items such as local aerial procedures and ground operations.

In short, it’s creating a realistic flying environment in a controlled setting that enables students to learn and make mistakes in a safe setting.

“The solution essentially gives them the ability to visualize some of the things that they’ll experience airborne so that once they do get airborne, they’re able to take those reference pictures that they saw in mixed reality and apply them to their training in the air, hopefully making their air time training more valuable,” he said.

Maj. Steve Briones, the 80th FTW’s director of Wing Innovation, has played an integral role in leading the innovative change to marry traditional simulation training and real flight time with fast-advancing technologies such as virtual and augmented realities. He said it has taken about six months to get from concept to two functional “Innovation Labs” available to ENJJPT instructors and students.

Virtual reality creates an experience where a person is immersed in a virtual world, whereas an augmented reality incorporates digital elements to enhance pictures that they saw in mixed reality environments that they’ll experience air to air, he said.

“It’s the future of learning in the Air Force,” Briones said. “It’s just being able to take different methods of delivering content or just making the learning content accessible in different ways.”

Briones said the innovative training tools will not replace traditional simulators as they provide a physical, hands-on platform to practice instrument familiarity and emergency procedures. However, the newest set up does allow for visuals that can’t be replicated in a simulator such as formation flying because they are able to link individual training stations.

The technology brings pilot training methodologies together in a new and adaptive way, he said, that is a cloud-based and student-focused in such a way that Airmen in the ENJJPT program can access coursework wherever they are and whenever they want to.

“We are seeing how it will continue to enhance the capabilities, they bring others to the experience, who in turn bring more.”

Turner and Briones both lauded Massachusetts Institute of Technology Reserve Officer Training Corps Cadet Ian Palmer guide a T-38C Talon through a mixed reality environment during a training session at Sheppard Air Force Base, Texas. The 80th FTW has been installing and fine tuning virtual and mixed reality training platforms in their Innovation Lab, which allows Euro-NATO Joint Jet Pilot Training program students to further practice their skills outside of an actual aircraft. (U.S. Air Force photo by John Ingle)

If you asked for data six months ago, you’d have to go from concept to two functional “Innovation Labs” available to ENJJPT instructors and students.

By John Ingle

The 80th Flying Training Wing director of Strategic Initiatives, helps Massachusetts Institute of Technology Reserve Officer Training Corps Cadet Ian Palmer guide a T-38C Talon through a mixed reality environment during a training session at Sheppard Air Force Base, Texas. The 80th FTW has been installing and fine tuning virtual and mixed reality training platforms in their Innovation Lab, which allows Euro-NATO Joint Jet Pilot Training program students to further practice their skills outside of an actual aircraft. (U.S. Air Force photo by John Ingle)

“While that virtual reality or mixed reality won’t replace actual flight time, it’s intended to augment it to make that time more valuable,” he said. “That’s when students will officially be coming here as part of their training experience.”

A group of Reserve Officer Training Corps cadets from the Massachusetts Institute of Technology were in the 10-station lab Feb. 1 trying out the technology as part of a visit to the 80th FTW. Turner said the trio taking a virtual flight had spent about 30 minutes on the mixed reality trainers, but they were already showing a skill ENJJPT students learn over the course of the 55-week program: formation flying.

“They’re still developing,” Turner said of the potential for student pilots as seen by the MIT students. “But this also gives them a place to practice where mistakes don’t cost them their safety.”

There is, admittedly, some hesitation with the new technology as there is exceeding expectations and they are seeing how it will continue to enhance the ENJJPT training curriculum.

In short, it’s creating a realistic flying environment in a controlled setting that enables students to learn and make mistakes in a safe setting.

“The solution essentially gives them the ability to visualize some of the things that they’ll experience airborne so that once they do get airborne, they’re able to take those reference pictures that they saw in mixed reality and apply them to their training in the air, hopefully making their air time training more valuable,” he said.

Maj. Steve Briones, the 80th FTW’s director of Wing Innovation, has played an integral role in leading the innovative change to marry traditional simulation training and real flight time with fast-advancing technologies such as virtual and augmented realities. He said it has taken about six months to get from concept to two functional “Innovation Labs” available to ENJJPT instructors and students.

Virtual reality creates an experience where a person is immersed in a virtual world, whereas an augmented reality incorporates digital elements to enhance pictures that they saw in mixed reality environments that they’ll experience air to air, he said.

“It’s the future of learning in the Air Force,” Briones said. “It’s just being able to take different methods of delivering content or just making the learning content accessible in different ways.”

Briones said the innovative training tools will not replace traditional simulators as they provide a physical, hands-on platform to practice instrument familiarity and emergency procedures. However, the newest set up does allow for visuals that can’t be replicated in a simulator such as formation flying because they are able to link individual training stations.

The technology brings pilot training methodologies together in a new and adaptive way, he said, that is a cloud-based and student-focused in such a way that Airmen in the ENJJPT program can access coursework wherever they are and whenever they want to.

“We are seeing how it will continue to enhance the capabilities, they bring others to the experience, who in turn bring more.”

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Highland Rim Shooters Club elects new officers

By Claude Morse
Highland Rim Shooters Club


Continuing for another term as club president is AEDC Fed- low Claude Morse, a retired Air Force Officer and former manager of ATA Public Affairs and Marketing.

Dr. John Schmisseur, a retired Air Force Civilian and officer and director of the Tennessee Valley Institute was reelected vice president. Wendell Miller, an AEDC contractor employee, was re-lected as treasurer, and Ed Fricker, an AEDC retiree, was elected club secretary.

Club membership open to all base personnel

The Highland Rim Shooters Club (HRSC) is a Tennessee 501(c)(7)-non profit, charitable base private organization. Membership is open to all active and retired personnel (military personnel, government civilian and AEDC contractor employees).

Membership for 2019 costs $30 per member. HRSC is affiliated with the National Rifle Association and the Amateur Trapshooting Association.

Skeet & Trap Clay Target Ranges

HRSC operates a clay target skeet and trap range complex at 125 Horton Blvd. (Tullahoma) (behind the base golf course). The clay target ranges are open year round, usually four days a week. Club members pay $4 for a round of skeet or trap, guests pay $5 per round. HRSC also regularly hosts local high school and youth 4-H skeet and trap teams and practices and events on the clay target ranges.

Rifle Range Operations

HRSC also operates the Gifford Range Complex Wednesday after- noons and Sunday afternoons. The 418th Test and Evaluation Group is responsible for refueling the entire range of aircraft, including the KC-46 Pegasus.

“KC-46 hits milestone at Edwards AFB”

By Brig. Gen. E. John Yeazell, 8th Air Force commander

The KC-46 is not perfect. Yet, strategic leaders at Wright-Patterson Air Force Base, Ohio and the 412th Test Wing would not have been in a position to field it now without the knowledge we provided to them to understand and mitigate problems. It was our team who discovered and fixed faults. It was our team who collaborated with the contractors, the program office and the end-users to fix shortcomings. It was our team who observed the best capability possible. As such, it was our team who observed the new aircraft involved in moving and shaping this new aircraft into a fully-effect- ive and capable wartime machine. Along with our operational test program office and contractor partners, it will be our team who verifies it. It will be our team who ensures that requirements are met. It will be our team who reiterated the capability of the KC-46. It will be our team who completed the certifica- tions to refer the entire range of U.S. and allied military receivers. It will be our team who helps create the roadmap for next generation refueling capabilities beyond those currently on the drawing board.

It was the Global Reach Com- mand Test Force and the 418th Flight Test Squadron who played the most significant role in this massive accomplishment. Open- ings, maintenance, engineering and program manager and all the leaders at the forefront of this substantial accomplishment. Yet, we should never lose sight of the fact that our entire team played a critical role. We managed the efforts of defencers, logistics, support planners, medics, firefighters, trainers, inspectors and educators. We ensured proper communi- cations, contingencies, finance, safety, intelligence, facilities, civil engineering, services, security and personnel. It required those who create a safe environment, a posi- tive climate and a trained work- force. Ultimately, it required a complete focus on shaping Amer- ica’s arsenal as we strive together for the warfighter.

The KC-46 will not be the last aircraft whose fielding path comes through our organization, as the U.S. military’s next bomber and next fighter are already on the books to perform the bulk of their testing here. When the time comes for the test and evaluation of America’s next remotely piloted aircraft and newest fighters, they will likely arrive on our doorsteps as well. In that sense, the world knows our team is comprised of capable experts and focused professionals who provide world-class test and evaluation for the warfighter.

The club also hosts or runs long-range high power rifle matches and clinics on the 1,000 yard Known Distance Range in the AEDC Rifle Range Complex. This in- cludes annual MI Garand vin- tage military rifle clinics.

Two-day Project AIM basic rifle clinics with up to 30 participants each are held on the base General Pur- pose and Known Distance Ri- fle Ranges each year.

Membership information

For more information, contact the HRSC by sending an email to inthecornerfield@gmail.com.
AEDC Woman’s Club members getting ready for warmer weather

By Barbara McGuire
AEDC Woman’s Club

At the next meeting March 7, the AEDC Woman’s Club will be welcoming Spring collections with a wonderful style show put on by Dorene Briggs from Dillard’s of Cool Springs.

For the past 11 years, Briggs has created fashion shows for Dillard’s and the ABC breast cancer, United Way, and many other organizations.

She says, “I love it when a lady comes into the store and has no idea what she is looking for, and be able to dress her in a beautiful outfit and see her happy face.”

Briggs also enjoys working with models in fashion shows or with a guest looking for a special outfit. She informed the Woman’s Club members that she also is very supportive of military men and women, as an Army veteran’s daughter.

Donations from the next meeting will be going to the AE DWC, Scholarship Foundation.

The February program for the AEDC Woman’s Club was presented by Jessica Fall Davis, guest speaker for the February meeting of the AEDC Woman’s Club, shown Kelly Doyle her flower arrangements and tablescapes. The next Woman’s Club meeting is March 7.

Kansas Guard Airman innovates superior training method

By Airman Emily Amyoty
TOPEKA, Kansas (AFNS) – With a high deployment tempo and limited aircraft, finding the aircraft available for boom operators to practice to tie down cargo to the floor of the jet was almost always a problem.

Master Sgt. Nathan Neidhardt, 190th Operations Group aircrew training noncommissioned officer in charge, solved this problem by creating a fully functioning cargo loading training simulator which checks all the boxes for improving safety, utilization of man-hours and logistics of cargo loading training.

With their spark the idea to create a simulated KC-135 Stratotanker simulator was born. Neidhardt would continuously modify the training schedule and design a jet for training.

“It came up from a lack of aircraft since we wereagram in boom training,” he said. “Trying to schedule a cargo loading flight with an actual aircraft was just hard. So the next best thing is to create a mock floor and use it.”

Previously, boom operators required an operational jet to perform this training. This caused battles and inconsistencies for different entities around the base.

“While we were on the jet trying to train, the arrow had to sit and twiddle their thumbs waiting,” Neidhardt said. “Whereas with this simulator, it’s on our own time. We don’t need anybody there, it’s just the boom.”

In addition to wanted time, the previous method of training inside a KC-135 was often a safety hazard to personnel and the aircraft. The indoor simulator also addresses these issues.

“We’re not in the jet where it’s dark, cold, wet and everything else,” he said. “It’s a controlled room where people can make mistakes and different areas. It’s a better learning environment that allows them to make mistakes without the fear of damaging the floor.”

A training instructor properly simulates the floor of a KC-135, minus the materials used to construct it. Using references from his cargo loading handbook and knowledge of the jet he works with on a daily ba-sis, Neidhardt was able to create a blueprint for the floor simulator, illustrating support beams and tie-down points in a grid-like pattern.

After one weekend and just under $3,000 in supplies, Neidhardt, his son and another Airman from the 190th Operations Group, Maj. Wesley Strossen- rath had built a collapsible, indoor simulator that would eliminate the need for a jet during cargo loading train- ing.

This is helpful because it provides boom operators at the 190th Aircraft Refueling Wing with more adequate training and en- sures the safety of Airman and valuable equipment on board.

“At the end of the day, the boom operator is in charge of loading the cargo safely.” Neidhardt said. “If the cargo doesn’t get loaded safely, then there’s a chance of that airplane being damaged or crashing. So it’s up to our boomers to load cargo safely and properly because if he doesn’t, it affects the whole crew.”

Neidhardt believes that the cargo loading simulator has been a valuable investment for the Wing and the boom opera-tors who will receive enhanced, innovative training.

“As an instructor and train- ing NCOIC, my goal is to make every boom operator better than me,” he explained. “I want each boom operator to not settle for ‘just good’, but ‘the best.’ So when I train, I push them and I want them to be better than me because it’s a legacy thing. I did it for the present and future boomers.”

For information about the AEDCWC, call the membership chairman at 911-455-3569.

of the Department of Defense or any of its components and has no governmental status.

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AETC launches podcast focused on “Developing Mach-21 Airmen”

By Dan Hawkins
Air Education and Training Command Public Affairs

JOINT BASE SAN ANTONIO-RANDOLPH, Texas (AFNS) – Air Education and Training Command has launched a new professional development podcast to help communicate and inform Total Force Airmen across the globe on relevant, timely topics related to the recruiting, training, education and development fields.

The “Developing Mach-21 Airmen” podcast will provide visibility on emerging issues, as well as impactful insight on leadership and lessons learned from the field through conversations with subject matter experts and leaders, in an easy-to-listen to format available on demand.

“This is a great way for us to connect with big ‘A’ Airmen across the Air Force enterprise in a modern, relatable way,” said Chief Master Sgt. Juliet Gudgel, AETC command chief. “Providing content that is both engaging and useful to the audience, as well as accessible to listeners anywhere, at any time, to foster that enable them as lifelong learners is the goal.”

While there will be interviews with senior leaders, much of the content will come from Airmen working out in the field, allowing them to share their experiences and lessons learned with other Airmen.

“This effort is part of the continuum of learning and helps develop the force,” Gudgel said. “Connecting the Airmen who are accomplishing the day-to-day business of making the AETC mission happen, like our recruiters, our technical training school instructors, instructor pilots, etc., with Airmen out in the operational Air Force is a top priority.”

The first episode features a conversation with Chief Master Sgt. Lee Hoover, 737th Training Group and Air Force Basic Military Training superintendent at Bisa-Lackland, Texas, who goes in-depth on the recent changes to the BMT curriculum designed to improve the lethality and readiness of graduates, a top focus area for Air Force Chief of Staff Gen. David L. Goldfein. Tech. Sgt. Erik Garza, BMT’s Military Training Instructor of the Year from the 322d Training Squadron, joins the conversation, providing insight from the MTI perspective on the changes, what leaders can expect from the service’s newest Airmen, and how rewarding it is to inspire and develop Airmen at BMT.

Future episodes are set to cover a wide range of topics, including recruiting and why Airmen should consider it; innovation; Pilot Training Next, which is the Air Force’s experimental approach to learning; how virtual reality, augmented reality and mixed-reality are changing the landscape of technical training; and much more.

New episodes are scheduled for release each month.

The podcasts are available across a variety of mobile digital platforms, including subscription through Apple Podcasts. For Android or Google mobile users, the podcast can be found on their favorite third-party podcast phone application. Additionally, the podcasts can also be accessed on government computers via the “Developing Mach-21 Airmen” page on the AETC website under the “News” tab, as well as on the Defense Visual Information Distribution Service website.

See the February Services calendar on page 9.