Vol. 64, No. 2

Arnold AFB, Tenn.

US POSTAGE PAID TULLAHOMATN

January 23, 2017

Edward Kraft, pioneer of Integrated Testing and Evaluation, retiring from AEDC

By Deidre Ortiz

AEDC Public Affairs

Dr. Edward Kraft, a senior level executive for the Department of Defense and one of the pioneers for integrating modeling and simulation into testing and evaluation for the DOD, is retiring as AEDC chief technologist.

During his time as chief technologist at AEDC, Kraft has served as the principal technical advisor to the commander and top technical expert for the Complex in aerodynamic, propulsion and space ground test facilities that simulate flight conditions; and in developing advanced test techniques, see Space Institute. instrumentation and facilities by exploiting current portunity to expand on what research and applying new I've worked on at AEDC

technologies. He has pro- and enable me to support the identifying future technical needs and innovative strattest facilities, systems and equipment.

Kraft is a widely recognized authority on the integration of modeling and simulation into test and evaluation processes. He is also a leader in the application of systems dynamics and lean the University of Cincinthinking to enterprise pro-

Though leaving AEDC, in the testing of hardware Kraft doesn't plan to end his legacy here. He will be starting a new opportunity as asat the University of Tennes-

"This will give me the op-

vided technical leadership in Complex in a different capacity," he said.

AEDC is the place Kraft egies to support advanced first started his career as an engineer, and the number of projects that Kraft has been involved in while at AEDC is a lengthy list.

"I started as a co-op student in June 1964 when I finished my bachelor's degree in aerospace engineering at nati," Kraft said. "I was finishing my master's at UTSI and started full-time in 1969 working in the Propulsion Wind Tunnels."

At that time, as a contract sociate director of research employee, Kraft worked mainly in the 16-foot transonic tunnel at AEDC before moving into the field

See **RETIRING**, page 2



of technology and analysis. Dr. Edward Kraft, AEDC Chief Technologist (U.S. Air Force photo/Jacqueline Cowan)



New partners, new missions

By AEDC Public Affairs

Editorial Note: This is a series of articles to provide information about the 704th TG, the Squadrons, units and missions under the Air Force Test Center realignment for AEDC.

McKinley Climatic Laboratory

The McKinley Climatic Laboratory, an AEDC facility located at Eglin Air Force Base, Florida, has chambers where any climatic environment in the world can be simulated.

The capabilities available at the Climatic Laboratory help engineers ensure maximum reliability and operational capability of complex systems as global operational theaters continue to impose harsh environments.

Tests at the facility for the Department of Defense, other government agencies and private industry have included items such as large aircraft, tanks, missile

See **NEW PARTNERS**, page 4



An F-35 endures freezing temperatures in the AEDC McKinley Climatic Laboratory at Eglin Air Force Base, Florida, Jan. 27, 2015. The joint strike fighter underwent four months of climate testing in the lab to certify the fleet to deploy to any corner of the world. (U.S. Air Force photo/Samuel King Jr.)

Nominations for 2017 AEDC Fellows open

By Claude Morse

Arnold Community Council

The Arnold Community Council (ACC) is currently accepting nominations for the 2017 AEDC Fellows Program with submissions due no later than March 25.

Established in 1989, the Fellows program recognizes AEDC individuals who have made substantial and exceptionally distinguished technical contributions to the nation's aerospace ground testing capability at AEDC or at any of AEDC's remote operating locations.

Since the inception of

Fellows, Craftsmen Fellows, Lifetime Achievement Fellows and been inducted as AEDC

Fellows. ment rules and regulations tractor or subcontractor in 2016 on awards to nongovernment employees ACC has assumed responsibility for continuing the AEDC Fellows program.

The achievements of Technical, Lifetime or Craftsman Fellows should have had a disproportionately positive effect on AE-DC's capacities to perform its missions while enhanc-

tal of 91 individuals (Tech- ees, customers, suppliers and stakeholders to sup-

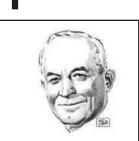
port AEDC's operations. **AEDC Technical Fel-**Honorary Fellows) have low nominations may be submitted by any present or former AEDC govern-Due to changed govern- ment or operating conemployee. All current or retired military, civilian and operating contractor and subcontractor personnel assigned or previously assigned to AEDC can be considered candidates for selection as an AEDC Technical Fellow. Candidates qualified for consideration as an AEDC Fellow must personally have

the Fellows program, a to- ing the ability of employ- made sustained, long-term, and respond with susnotable and valuable contributions in aerospace

ground testing at AEDC. **AEDC Craftsmen Fel**low nominations may also dedicated their careers to be submitted in the same the success of the AEDC manner as the AEDC Fel- mission. They must have low nominations. All current or retired military, civilian and operating contractor or subcontractor personnel assigned, or previously assigned, to AEDC can be considered candidates for selection as an AEDC Craftsmen Fellow. The Craftsmen Fellow category recognizes

tained technical innovations, working effectively and efficiently as part of technical teams and have personally made notable and valuable lifetime contributions to AEDC in any area relevant to the AEDC mission.

Lifetime **AEDC Achievement Fellow** nominations may be submitted by any present or former AEDC government or operating contractor/ exceptional craftsmen who subcontractor employee. possess the ability to iden- AEDC Lifetime Achievetify customer requirements ment Fellows are reserved



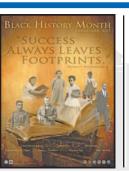
for exceptional candidates and are not necessarily selected each year. All current or retired military, civilian and operating contractor or subcontractor personnel assigned or previously assigned to AEDC can be considered candidates for selection as an AEDC Lifetime Achievement Fellow.

See **FELLOWS**, page 3





...Page 3







...Page 3



Arnold Engineering Development Complex An Air Force Test Center Test Complex

Col. Rodney Todaro Commander

> **Jason Austin** Chief, **Public Affairs**



General Manager, **National Aerospace** Solutions

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The High Mach office is located at 100 Kindel Drive, Suite A236, Arnold AFB, Tenn. 37389-1236. Editorial content is edited and prepared by NAS. Deadline for copy is Wednesday at close of business one week before publication.

This commercial enterprise newspaper is an allowable NAS contractor publication for personnel at AEDC.

The content of High Mach does not necessarily reflect the views of the Air Force, AEDC or NAS. The appearance of advertising in this publication does not constitute endorsement of the products or services advertised by the Department of Defense, the Department of the Air Force, AEDC, NAS or Lakeway Publishers, Inc.

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Core Values

- Integrity first Service before self
- Excellence in all we do



Vision

"NAS will be integral to the success of AEDC, the U. S. Air Force's premier aerospace testing facilities, while applying the highest safety, security, and quality to daily operations."

Values

- Ethics. We are uncompromising in our integrity, honesty, and fairness.
- Safety & Health. We are relentless in keeping people safe from harm, and we provide a safe and healthy work environment.
- · Excellence. We thrive on challenge, accomplishment, and mission succe · Quality. We are passionate about doing our work right the first time
- People. We have a mission-focused, inclusive workforce who have a diverse skill set, are committed to success, demonstrate innovation and have a can do attitude
- Culture. Our team is proud of our diversity, inclusiveness, and collaborative work environment. We are proud of what we do and how we do it.
- · Relationships. We build positive, longterm business relationships through trust, respect, and collaboration.
- Innovation. We overcome challenges through creativity, perseverance, technology, and flexibility. We actively seek
- to continually improve. Sustainability. We plan and act for the long term benefit of our communities and our environment

Eric Lagier becomes director of 704th Test **Support Squadron**

Col. Andrew Allen, commander of the 704th Test Group, appoints the command responsibility of the 704th Test Support Squadron to Eric Lagier during a Change of Responsibility ceremony Dec. 19, 2016, at Holloman Air Force Base, New Mexico. The 704th TG is an AEDC organization. The 704th TSS oversees operational support to the 704th TG missions which is to operate world-class test facilities for high speed sled track testing, navigation and guidance system testing, radar signature measurements, weapon systems flight testing, and acts as the Air Force liaison for all Air Force programs tested at White Sands Missile Range. (U.S. Air Force photo/Capt. Michael

Base Legal Office offers tax help

By Leslie McGowan

AEDC Legal Office

The 2016 income tax season has arrived and the Arnold Air Force Base Legal Office is offering free Volunteer Income Tax Assistance (VITA) for eligible personnel.

All service members on active duty and retirees and their dependents are eligible to receive these free services. This year IRS must hold refunds the legal office will also claiming the Earned Inbe able to provide tax services to other categories of filers including Department of Defense civilians \$64,000.

IRS-trained



Leslie McGowan

come Tax Credit and/or the Additional Child Tax should access and print Credit until Feb. 15.

Tax assistance appointwhose income is less than ments are available and continue until the yearly volun- tax filing deadline of April teers assist tax-filers in 18. Eligible personnel may preparing, reviewing and call the Arnold AFB Leelectronically filing their gal Office at 454-4657 to income tax returns. Most schedule an appointment. customers receive their VITA volunteers can prorefund within two weeks. vide tax preparation up Please note, by law the to advanced and military

ing and certification, with Block tool. complicated returns such assistance.

Military members their W2s from the MyPay website at https://mypay. fore arriving for their apsultant at 1-800-242-9647. pointment.

it-yourself tax returns," es using the paper forms, 1-800-829-1040. Military One Source has a these forms are now availfree federal and up to three able online for download state tax forms tax prepa- and printing at www.irs. ration and e-filing program gov or through the indiavailable to military mem- vidual state tax websites.

certification levels which bers and their dependents include rental properties through their website at and Schedule A itemiza- www.militaryonesource. tions. However, taxpayers com. The website allows filing taxes that are beyond tax filers to utilize a free the VITA scope of train- online version of the H&R

The software is a simas non-deductible IRAs, ple question and answer businesses involving em- program that is a quick and ployees and inventory, and easy way to complete and complicated capital gains e-file your federal tax reand losses, will need as- turns. The program also alfessional preparer for tax option to e-file their state returns for a small fee. You can also receive military specific advice regarding tax questions at no cost by speaking to a trained Milidfas.mil/mypay.aspx be- tary OneSource tax con-

If you prefer to file If you prefer to "do- your federal and state tax-

The IRS also offers a free tax program, Free File, at www.irs.gov where individuals who make less than \$64,000 can e-file for free. For more information, call the legal office at 454-4657.

For those who are not eligible for the military tax assistance programs, the IRS VITA program is offered at the Coffee sistance from a paid pro- lows military members the County Lannom Memorial Library in Tullahoma by appointment only. For a tax appointment at Tullahoma, please call (931) 433-0075.

> If you live outside the Tullahoma area and wish to locate your nearest VITA site, call the IRS information VITA line at

If you are interested in assisting taxpayers with tax preparation at the Arnold Legal Office, call

RETIRING from page 1

He worked as contract employee from 1969 until 1995, and during this time became general manager of one of the operating contracts.

In 1995, he left to work in industry but later came back to AEDC in September 2001 as a federal employee.

"Starting here as a young engineer in the 1960s, I was able to see a lot of these facilities come out of the ground," Kraft said, who even assisted in the design of the 4-foot propulsion wind tunnel at AEDC.

Throughout his time at AEDC, he has seen many an engineer begin his or her journey at the Complex, and has no doubt served as mentor for many. A piece of advice he leaves with the present and future engineers that set foot inside the facilities at AEDC is that networking is key to growing and learning within their chosen career field.

"It's beneficial for young engineers to be involved in conferences and write papers on their area of expertise," he said.

Out of all he has been a part of at AEDC over the years, Kraft's most memorable accomplishment is the successful development of the F-22 Raptor program using the integrated modeling and computational fluid dynam-

"The only place we could have done this is here at AEDC because of our team of experts in testing, flight and technology," he said.

Kraft is also largely known for work he's done outside of AEDC within the aerospace industry. Industry positions he has held over the years include vice president and chief technical officer of Allied Aerospace Indus-



Dr. Edward Kraft, second from right, retiring this month from his position as AEDC Chief Technologist, assists in the ribbon cutting ceremony marking the official debut of the Complex's Dedicated High Performance Computing lab in 2009. During his time at AEDC, Kraft has seen the Complex and facilities grow and been a part of many technological advances. Pictured from left are AEDC team members Lance Baxter, Mark Rigney, then Col. Robert Bender, Michael Glennon, James Brock, Kraft and then Col. Eugene Mittuch. (U.S. Air Force photo/ David Househ)

tries, Inc.; executive vice president and chief tute of Aeronautics and Astronautics, as well operating officer and vice president for Enter- as Fellow of AEDC. He has also been preprise Development, Micro Craft, Inc. and gen-sented with the General H. H. Arnold Award eral manager, Micro Craft Technology.

findings benefitting the Air Force and DOD, see Section. he was named a Fellow of the American Insti-

from the AIAA Tennessee Section and Special In recognition of his endless research and Achievement Award from the AIAA Tennes-

Smoking Policy

- The following revised Arnold AFB smoking policy is effective immediately and applies to all individuals on Arnold AFB.
- Traditional Tobacco products (e.g. cigars and cigarettes):
 - a. 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. Tobacco use on the Arnold AFB Golf Course is permitted, but discouraged based on the health hazards of tobacco use and secondhand smoke. No smoking is permitted within 50 feet of golf course buildings except in the approved DTA.
 - c. Smoking in government-owned/leased vehicles is strictly prohibited. Personnel are allowed to smoke in their personal vehicles at any time; however, at no time will personnel discard cigarette butts outside their vehicle.
 - d. For government employees, the fact that a person smokes has no bearing on the number of breaks they may take. Breaks should be taken in accordance with the current supervisory and personnel policies that afford all employees the same break opportunities consistent with good work practices and accomplishment of the mission.
- Smokeless Tobacco products (e.g. snuff and dip): Smokeless tobacco products are not to be restricted to DTAs. Smokeless tobacco use will be permitted in all
- workplace areas (inside and out) subject to reasonable safety and sanitary conditions. Specifically, 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.
- Electronic Cigarettes (also known as "e-cigs"): Pursuant to Air Force Instruction (AFI) 40-102, Tobacco Free Living, e-cigs are considered to be equivalent to tobacco products; however, e-cigs are not restricted to DTAs and are allowed to be used outdoors at a minimum distance of 25 feet from building entry/egress points. (This policy is dated July 27, 2016)

Action Line

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 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. Rodney Todaro **AEDC Commander**

AEDC African American Heritage Committee hosts Black History Luncheon

By Raquel March AEDC Public Affairs

The African American hold a Black History lunthe Arnold Lakeside Center where they will reflect Education.

for the Study of African American Life and History, of education in the history of African Americans.

has accomplished as much books. good as any other race, he well the implications asso- versity. ciated with the denial of accalled attention to the crisis tionally for his leadership

that resulted from persistently imposed racial barriers to equal education."

The luncheon speaker Heritage Committee will is Dr. Andrew Hugine Jr., president of Alabama A&M cheon Feb. 16, 12 p.m., at University, Huntsville, Ala-

Hugine earned a bachon the 2017 Black History elor's and master's degree theme, The Crisis of Black in mathematics from South Carolina State University The 2017 theme, estab- and a doctorate in higher lished by the Association education/institutional research from Michigan State University. He has prefocuses on the crucial role sented at numerous professional meetings on strategies for increasing the The ASALH executive number of minorities in the in education and adminissummary regarding the science, technology, engitheme states, "Carter G. neering and mathematics Woodson once wrote that 'if disciplines and is the author or check payment for the you teach the Negro that he of three mathematics text-

will aspire to equality and at Alabama A&M Universijustice without regard to ty he served as president of race.' Woodson understood South Carolina State Uni-

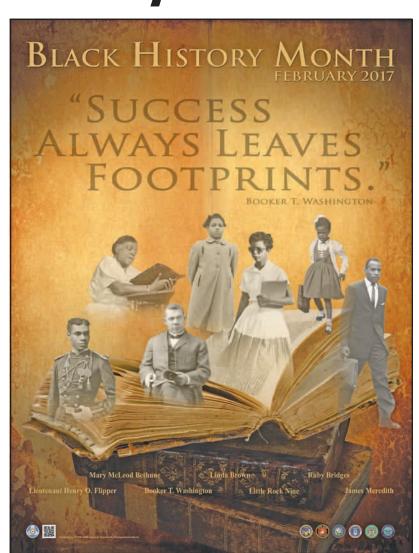
He has been recognized cess to knowledge, and he both nationally and interna-



Dr. Andrew Hugine Jr., president of Alabama A&M University, Huntsville, is the speaker for the AEDC Black History Luncheon. (Courtesy photo)

trative skills.

Reservations and cash luncheon must be made no later than Feb. 8. The cost Prior to his appointment of the luncheon is \$16 for non-Services members and \$15 for Services members. Make reservations by AEDC.AAHC. emailing AAHC@us.af.mil or by calling 454-5434 or 454-



(Defense Equal Opportunity Management Institute)

AEDC to host students during National Engineers Week

By Deidre Ortiz

AEDC Public Affairs

teaming up with AEDC engineers to experience work environments and participate in weeklong competitions during National Engineers Week, Feb. 19-25.

Engineers from AEDC and throughout the local region volunteer their time to assist with Week Banquet on Feb. 23 at the Motlow House, mentoring opportunities and activities geared toward engineering concepts.

Engineers Week will begin with the Math-Counts® competition Jan. 28 at the University of Tennessee Space Institute. The competition is a local event where the winners were combined into a team that will compete at the with Engineers Week include the Tullahoma state level and possibly at the national level. Chapter of the Tennessee Society of Profes-Bedford, Coffee, Franklin and Lincoln coun- of the American Society of Mechanical Engities compete in these events, which challenge neers, the Tennessee section of the American mathletes to solve problems.

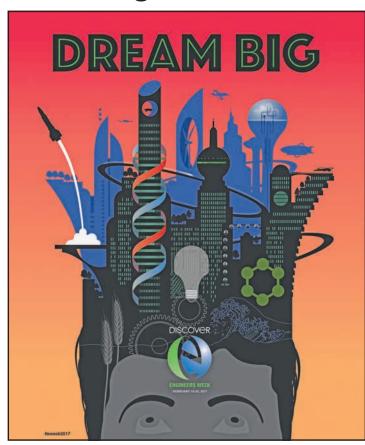
Feb. 21 at UTSI for high school students in fessionals, the Project Management Institute tenth through twelfth grades from seven coun- and the AEDC Science Technical Engineering ties. Teams consist of two people and prizes and Math Program.

are awarded to the top three highest scoring

Engineer for a Day is scheduled for Feb. 22 Students from the area will once again be at AEDC, which will give high school eleventh and twelfth grade students the opportunity to tour the Complex and some of its facilities, as well as spend time with an engineer mentor in an area of their particular interest.

The final event of the week is the Engineers where students and mentors will celebrate the accomplishments of engineers and students. This year's guest speaker will be Dr. Chris Cotting, staff advisor of the Test Pilot School at Edwards Air Force Base in California.

Local organizations offering assistance Students in seventh and eighth grades from sional Engineers, the Highland Rim Chapter Institute of Aeronautics and Astronautics, the A Student Design Competition will be held Society for Maintenance and Reliability Pro-



Scholarship available to students of NAS, LLC employees

By Deidre Ortiz

AEDC Public Affairs

Students of NAS, LLC employees are eligible to participate in a scholarship program hosted by Bechtel.

The scholarship opportunity, part of the Citizen Scholars Program, is open through March 1. Bechtel awards 25 scholarships of \$3,000 across all companies and projects within its Nuclear, Security and Environmental business.

Who can apply? Children of full-time NAS, LLC employees who are in their last year of high school, pre-college or pre-university study and plan to enroll in a full-time undergraduate program at an accred- online at https://www.scholarsapply. ited college, university or vocationaltechnical school in 2017. NAS, LLC employees must have at least one nseaward@bechtel.com or careers@ year of continuous AEDC service as

of the March 1 deadline. Children are defined as natural or legally adopted children, stepchildren, children of registered domestic partnerships, or legal wards of the NAS, LLC employee.

Children of retired NAS, LLC employees are not eligible. To remain eligible, the NAS, LLC employee must continue to be employed with the company at the time the award check is mailed.

Degree eligibility: All degrees are eligible. A minimum of 70 percent of scholarships are awarded to students declaring science, technology, engineering and math degrees.

Applications must be submitted org/bechtel/ by the March 1 deadline.

For more information, email nas-llc.us.



Team AEDC remembers, celebrates Dr. Martin Luther King Jr.

AEDC team members prepare to participate in the Dr. Martin Luther King Jr. Remembrance Walk hosted by the AEDC African American Heritage Committee Jan. 12. The walk was to remember the sacrifices made by the civil rights leader. (U.S. Air Force photo/Jacqueline Cowan)

FELLOWS from page 1

Candidates who are qualified for consideration as an AEDC Lifetime Achievement Fellow must personally have made notable and valuable lifetime contributions to AEDC in any area relevant to the AEDC mission.

Only AEDC Fellows may submit a nomination for an AEDC Honorary Fellow. AEDC Honorary Fellows are re-

not necessarily selected each year. Candidates qualified for consideration as an AEDC Honorary Fellow must have made sustained, notable, valuable and significant contributions to AEDC. These eminent individuals need not have worked at Arnold AFB.

Newly selected AEDC Fellows will

served for exceptional candidates and are be honored this year during a banquet on AEDC Fellows nomination submissions, Friday June 23 at the Arnold Lakeside Center. The Fellows banquet is held every year on or close to June 25, the birthday of General of the Air Force Henry "Hap" Arnold and the anniversary of the dedication of AEDC by President Harry S. Truman in 1951.

For more information and forms for 37388-0553.

call (931) 308-1923 or email wiedemerm@gmail.com.

Nominations must be submitted in written form with supporting materials to arrive by March 25 to Arnold Community Council, ATTN: AEDC Fellows Committee, P. O. Box 553, Tullahoma, TN

AEDC quarterly award winners announced



2nd Lt. Karlie Madden Company Grade Officer of the Quarter



Tech. Sgt. Shara **Jackson** Non-Commissioned Officer of the Quarter



Capt. Paul Malone Honor Guard of the Quarter



Beau Campbell Civilian of the Quarter Administrative



Adam Fanning Civilian of the Quarter Scientist/Engineer



Melissa Tate William M. Dunne People's Choice Award

Photo unavailable for: Master Sgt. Rodney Clemmons - Senior Non-Commissioned Officer of the Quarter

NEW PARTNERS from page 1

The C-5M Super Galaxy undergoes extreme heat and ultraviolet exposure during the Re-engining and Reliability Program at the McKinley Climactic Laboratory in 2007. The McKinley Climatic Laboratory is an AEDC facility located at Eglin Air Force Base, Florida. (U.S. Air Force photo/ Greg Murry)

launchers, shelters, engines, automobiles and tire manufacturers.

The Climatic Laboratory has five testing chambers which include the Main Chamber; the Equipment Test Chamber; the Sun, Wind, Rain and Dust Chamber; the Salt Fog Chamber; and the Altitude Chamber.

The Main Chamber (MC) is the largest environmental chamber in the world. At approximately 252 feet wide, 260 feet deep and 70 feet high, tests have consisted of large items and systems for aircraft such as the B-2 Bomber and the C-5 Fahrenheit to 165 degrees

rain, wind, sand and dust.

Chamber is 130 feet long, and dust storms can also 30 feet wide and 25 feet be created in this chamber. high. Although it is smaller, it has the same capabili- rosive properties of salt ties of the MC. Tests usu- fog test conditions, the Galaxy. The temperatures ally consist of jet engines, Salt Fog Chamber was

tions including heat, snow, conditions. Wind-blown rain at rates up to 25 inch-The Equipment Test es per hour and heavy sand

Because of the cor-

tion of all climatic condi- duces ambient or hot test has two steam-fed heat exchangers that create the temperature to perform the salt fog test. The chamber is approximately 55 feet long, 16 feet wide and 16 feet high. The chamber doesn't have refrigeration capability.

The Altitude Chamber achieved in the chamber small vehicles and turbine- designed to provide an can create pressure altirange between -65 degrees driven ground power units. ambient test chamber that tudes as high as 80,000 The Sun, Wind, Rain is away from other test feet with a temperature Fahrenheit with a simula- and Dust Chamber pro- chambers. The chamber capability of -80 degrees Fahrenheit to 140 degrees Fahrenheit. The chamber measures 13 by 9 feet and 6 feet high.

Hypersonic Combined Test Force at Edwards **AFB**

Since the 1950s, the Hypersonic Combined Test Force has operated at Edwards Air Force Base, testing the boundaries of speed.

The AEDC unit has been involved in the test-

Ground crew members of the Hypersonic Combined Test Force make the final checks to the X-51A Waverider scramjet, which is affixed to an Edwards Air Force Base B-52H Stratofortress before being flown over the Pacific Ocean and launched June 13, 2011. The Hypersonic CTF is a unit of AEDC. (Photo by Bob Ferguson/Boeing)

speed aircraft, including X-51 WaveRider.

The X-51 unmanned scramjet aircraft's maiden flight was completed on May 26, 2010. The aircraft remained under powered flight for over 200 seconds at a top speed of Mach 5.

The CTF also supports space-oriented projects,

ing of cutting-edge, high- such as the X-38 Crew Return Vehicle, or CRV, the renowned X-15 pro- in the early 2000s. The gram during the 1960s X-38 project was a series and, most recently, the of five prototype research vehicles developing technology to build and operate a space station CRV. The wingless CRV, when operational, would have been the first reusable human spacecraft to be built in more than two decades.

Some of the unit's projects are research and development oriented, and teams may spend five to seven years working on a project for one or two test flights.

Maj. Dick Wong, director of the Hypersonic CTF, said "Because of the research and development mission of the Hypersonic CTF, the collection and analysis of flight test data - and feeding them back into our models and simulations – is paramount."

CTF partners closely with entities such as NASA, the Air Force Research Laboratory and the Defense Advanced Research Projects Agency.

Information for this news release was taken from a story written by Christopher Ball, 412th Test Wing Public Affairs.

James bids farewell as SecAF

By Tech. Sgt. Robert **Barnett**

Secretary of the Air Force Public Affairs

WASHINGTON

(AFNS) – The men and women of the Air Force bid farewell to the 23rd Secretary of the Air Force Deborah Lee James during a ceremony at Joint Base Andrews, Maryland, Jan. 11.

James led the Air three years after being confirmed in December 2013.

"Because of your leadership, the United States Air Force is better prepared to fly, fight and win than at any time in history," said Secretary of Defense Ash Carter. "Thank you, Debbie James, for your service to this counto our Airmen, to their families, and to the joint force. We're safer today because of you."

Chief of Staff Gen. David L. Goldfein spoke about the impact James tenure left on the service.

"You've inspired us, you took care of us, and you led us well," Golddistinct honor as the 21st chief of staff, on behalf of a grateful nation, and your 660,000 active. Guard and Reserve Airmen, to report that you have completed your obligation to support and defend the constitution against all enemies, for- left leg above the knee. eign and domestic. That you bore true faith and allegiance to the same, and that you well and faithfully discharged your duties of the Office of Secretary of the Air Force."

James was presented with warriors. the Distinguished Public Her husband, Frank Beatty, was presented with an Air Force award for exfrom Goldfein.

"When I took this job ... I knew it would be the honor of my professional lifetime," she said. "I did not fully understand, at the time, what an absolute joy it would be and how much I would learn from all of you."

In her remarks, James shared four stories of Airmen, who she said touched her heart.

Two weeks after James was confirmed, she received a call informing her of a convoy hit by an improvised explosive device near Kabul, Afghanistan. Ten people were killed. Among them was Capt. David Lyon, who had been in the Air Force for five years. He was a logistics specialist, executive officer for his group commander, athlete and volunteer coach for the U.S. Air Force Academy track team, she said.

James attended his dignified transfer where she met his widow, Capt. Dana Lyon, who was also stationed in Afghanistan. The couple had spent Christmas together two days prior to his death.

"In the midst of unspeakable grief, Dana taught me about how much we ask of people," the secretary explained.

Today, she is Maj. Dana Lyon, assistant strength and conditioning coach at the Air Force

Academy - an active mentor in her own right, James declared.

Within days of the call about Capt. Lyon, drug use and cheating on proficiency exams was discovered at Malmstrom Air Force Base, Montana. James joined Gen. Mark Welsh, then chief of staff of the Air Force, as they investigated the situation.

They were joined Force for more than by then Maj. Gen. Jack Weinstein, the 20th Air Force commander. James shared that Weinstein explained the dynamics of the nuclear enterprise, including how Air Force leaders spoke of nuclear as number one, "but no one put their money where their mouth was,' she said.

"He is still the fierctry, for your commitment est advocate for our missileers. security forces, and all the other Airmen who represent our nuclear enterprise," she proclaimed. James then went on to describe Tech. Sgt. Brian Williams, "one of the bravest, most dedicated people I have ever met."

Williams met the secfein said. "It is now my retary when he was competing as a member of the Air Force Wounded Warrior Program. A 16year veteran, he served he deployed six times, including to Afghanistan. He was injured from an IED explosion, losing his

It was a difficult recovery, she said. The Air Force wanted to medically retire him, but he refused, wanting to continue serving. At the time, the service was starting to allow more During the ceremony, exemptions for wounded family, friends and coun-

"I was the one who days a year. Service Award by Carter. signed the paperwork that allowed him to stay cease being a member of in the Air Force," James the Air Force family," she said proudly. "It is an said. "I will always receptional public service honor to serve with Air- main an advocate for Airmen like Tech. Sgt. [Mas- men and the Air Force."



Secretary of the Air Force Deborah Lee James waves to attendees during her farewell ceremony at Joint Base Andrews, Md., Jan. 11. James took office as the 23rd secretary of the Air Force in December 2013. (U.S. Air Force photo/Scott M. Ash)

ter Sgt. select] Brian Williams."

The secretary then highlighted retired Col. Charles McGee and the Tuskegee Airmen who "grew up in a time when 'separate but equal' was the law of the land."

The Tuskegee Airmen in security forces where proved to be exceptional flyers, maintainers, radio operators and support personnel, demonstrating that the Air Force core value of excellence in all we do, has nothing to do with the color of an Airman's skin, she said.

Finally, she shared that as an American, she will be secure in the knowledge that the Air Force is protecting her try 24 hours a day, 365

"I will never ever



Lt. Col. Peter Tritsch, the U.S. Air Force Honor Guard commander, leads Secretary of the Air Force Deborah Lee James into her farewell ceremony at Joint Base Andrews, Md., Jan. 11. James took office as the 23rd secretary of the Air Force in December 2013. (U.S. Air Force photo/Tech. Sgt. Joshua L. DeMotts)

Ready to quit smoking? CHPS offers tobacco cessation program

By Air Force Materiel Command Health & include: **Wellness Team**

WRIGHT-PATTERSON AIR FORCE **BASE**, Ohio – There has never been a better time to quit tobacco. Civilian Health Promotion Services is now offering a new tobacco cessation program to help individuals who are ready to quit smoking.

According to the Centers for Disease Control and Prevention, cigarette smoking is the leading cause of preventable disease and death in the United States, accounting for more than 480,000 deaths every year, or one of every five deaths. Tobacco users who quit greatly reduce their risk for disease and premature death, improve their health and quality of life, and increase their life expectancy.

The CHPS tobacco cessation program is free for participants. Program components wellness.com.

- Attending the CHPS class on Introduction to Tobacco Cessation
 - o Learn about tobacco cessation counseling services through **Employee Assistance Program**
 - o Awareness of tobacco cessation through benefits the Federal Employees Health Benefits Program. All FEHB plans offer 100% coverage of tobacco cessation treatment
- Signing-up for a telephonic counseling session
- Options available for four weeks of Nicotine Replacement Therapy For more information, visit www.AFMC-



(U.S. Air Force graphic)

Castaway Airman helped map the world

By John Turner 341st Missile Wing Public Affairs

FORCE BASE, Mont. (AFNS) – (This feature is part of the "Through Air-

men's Eyes" series. These stories focus on individual Airmen, highlighting their Air Force story.) For six months in 1956 Bob Cunningham, a former Air Force radar operator, lived on a remote knob approximately

2,000 feet long and 850 feet wide in the Spratly Islands group located midway between the Philippine Islands and Vietnam. a secret Air Force project said jokingly. mapping the earth.

Island.

aerial electronic geodetic survey. Specially equipped aircraft flew grid patterns and triangulated electromagnetic pulses sent between temporary ground stations hundreds of miles apart. The data, computed into highly accurate coordinates, would eventually provide targeting information for inter- was the kid on the island continental ballistic missile development.

His home was a canvas lar experience' that he phistication psychologitent and he manned radio wouldn't give two cents cally, and that was a real and radar equipment for to repeat, Cunningham

Cunningham's

first man team and all their duty station was a tiny, equipment was brought in Class, with just over a oblong blister of land in by helicopter to the island the South China Sea. He from the deck of a Land-MALMSTROM AIR knows it as North Danger ing Ship Tank, along with the drinking water, fuel The mission was an and rations the men would need to survive. Resupply occurred every four to six weeks by helicopter, supplemented by occasional parachute drops. A radio relay team of six Airmen had already established itself on the island and shared the same copse of

> "I was 22 years old. I so it was a real experience," Cunningham said. It was a 'million dol- "I didn't have a lot of sopsychological test for human beings, to be going four- like that."

He was an Airman 2nd year of service in the Air Force and some college education. His sergeants had seen combat during World War II and were wise to what the isolated team would endure. Their ingenuity, humor and direct leadership kept young Cunningham and the others on the island from mentally cracking.

To keep a low profile, the Airmen were ordered to stow their uniforms and wear civilian shorts sneakers, sandals and cowboy hats instead. The men also kept their pistols and M-1 Garand rifles ready, knowing that threats roamed the waters surrounding them.

"The Chinese nationalists came by with a gun But visitors were the excannon on the front on a nity of Airmen. turret, and they swung that baby in toward our kept up morale in other island, and they had some ways. They improved the machine gun turrets, and pretty soon we saw boats come over the edge and some officers got on that They cooked sea turtles and they came in to see for the men, and they imwho we were and what we provised a way to make were doing."

The Airmen placed juice and cake mix. palm fronds along the beach to spell out U-S-A- ningham would F. The gunboat crew was satisfied and the standoff ended.

On another occasion, Okinawan came ashore to trade their fish for drinking water.

dio, and so they were cu- anything. I got so danged

Bob Cunningham points to the camp on 'North Danger Island' where he lived and worked as a radar operator for six months in 1956 during an Air Force project mapping the Earth. His team was resupplied with food, water, medicine, parts and mail every four to six weeks at the remote location in the South China Sea. Cunningham visited the Malmstrom Air Force Base museum Dec. 22, 2016, and showed

photographs he took during his tour of duty on the

island. (U.S. Air Force photo/John Turner)

"They came onboard and they were quite friendly."

The veteran sergeants

camp with funny signs, handmade furniture and a wind-driven water pump. alcohol from coconut

walk around the island and photograph the thousands of birds it attracted. He also tried diving off the reef fishermen once and became terrified by the absolute darkness.

"I opened up my eyes "They saw our 50-foot and it scared the bejeepers antenna that we put up for out of me," he said. "It was our radar set, our pulse ra- total black. I couldn't see not want to be with him

pirates and other possible rious," Cunningham said. scared, I came up and I got off and I got back to that reef and I never went back again."

In the final month, he boat. A big, long vessel," ception. Day after day, and the sergeant were the Cunningham said. "And interaction was limited to only humans left on the isthey had this big 3-inch within the tiny commu- land. Two members of his team were evacuated. The radio relay team was relocated, taking their noisy generator with them. For the two men remaining, the silence at night was now 'spooky' - a lone coconut dropping from a tree was enough to send them scrambling for their weapons.

> Cunningham said his For recreation, Cun- experience on the reef forever changed how he relates to other people.

"I have an expression," he said. "'This guy sounds like a North Danger kind of guy,' meaning somebody compatible, smart, you can get along with him, he's got a good temper. Or this guy, I would on North Danger."



Information subject to change. Please call to verify.

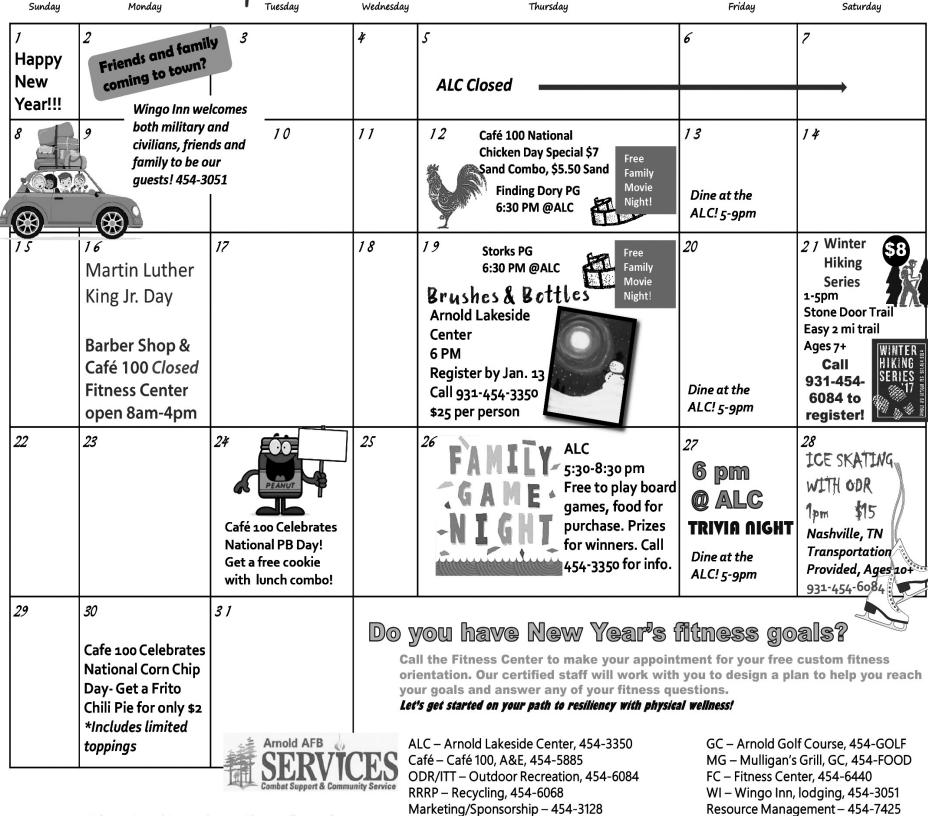
See the February calendar on page 11.

Friday's at **Arnold** Lakeside Center...



Grab an entry in all Services facilities by showing your current club card! Must be present to win! One entry per Club Card per facility per day.





AF looks to ensure cyber resiliency in weapons systems through new office

Admin - 454-7779

By Patty Welsh 66th Air Base Group Public Affairs

Barber Shop - 454-6987

HANSCOM stood up the Cyber Resiliency Office for Weapons system environment.

Systems (CROWS). the Air Force to ensure tiple strategic vectors. weapon systems maintain operating capability Dec. 21, 2016.

ing competent adversar- velopment; also serves as Hanscom including AFB's engineering and management to successful mission as- duce risk, Holtzman said. surance."

Weapon systems have ficiently combat the cyber real-time constraints and threat, we must horizon-

complexities with differing sustainment across our weapon sys-FORCE BASE, Mass. used for traditional infor-(AFNS) – The Air Force, mation technology systhrough its Life Cycle tems require tailoring and Management Center, has adaption to be effective and efficient in a weapon

Miller said Although the office's CROWS will focus on inprimary operating loca- tegration across Air Force tion and senior leadership communities to acquire. will be at Hanscom Air field, operate and sustain Force Base, contributing increased cyber-resilient staff will come from vari- weapon systems. It will ous Air Force organiza- also work to integrate actions and geographic loca- tivities in the Air Force tions. It will focus on in- Cyber Campaign Plan tegrating activities across (CCP) focused on mul-

According to Daniel mission-effective capa- Holtzman, the Air Force bilities, despite cyber ad- cyber technical director, versities. It reached initial achieving the intended mission assurance in a cyber-contested environ-"The Air Force's abil- ment involves a complex ity to fly, fight and win in combination of individual air, space and cyberspace systems acquisition, inis threatened by increas- cluding design and deoperational ies in the cyberspace do- concerns encompassing main," said Dennis Miller, planning and execution; the CROWS director, who and systems sustainment Cyber Campaign Plan, and training.

In addition, when vulassociate director. "The nerabilities, external faccyber threat is more than tors and adversary tactics just network intrusion or are combined, they create ate deputy assistant secretraditional malware – it a set of complex interdealso affects our weapon pendencies that must be systems and presents a worked in a holistic and clear and present danger integrated manner to re-

"To effectively and ef-

coupled tally integrate within and strategies which means tems, working together the same security man- across our Air Force and AIR agement practices that are partnership communities to securely design and operate systems, conduct missions and sustain capabilities," he said. "We must educate and train our Air Force communities to the be vigilant of the cyber risk at all times."

> Some of the ongoing work the CROWS will provide is integrated program management and execution oversight for the lines of action of the CCP including: conducting mission-level cyber risk analysis, integrating cyber into systems engineering, enhancing adaptability and agility via modular design and approaches, developing a cyber-savvy workforce, increasing assurance in fielded systems in a cost effective and efficient manner, increasing the integration of cyber intelligence and enabling cyber operation flights and cyber protection teams.

As part of the Air Force maintenance a senior-level steering group was also formed. The Cyber Resiliency Steering Group, is chaired by Jeff Stanley, the associtary (science, technology and engineering), Office of the Assistant Secretary of the Air Force for Acquisition. The group will provide strategic guidance and cross Air Force integration.

Falcon 9 launches from Vandenberg AFB

By Staff Sgt. Shane **Phipps**

30th Space Wing Public **Affairs**

VANDENBERG AIR FORCE BASE, Calif. (AFNS) – Members of Vandenberg Air Force Base, alongside SpaceX and Iridium partners, recently launched the Iridium NEXT satellite on a SpaceX Falcon 9 rocket from Space Launch Complex-4, Jan. 14.

Iridium NEXT will recommercial satellite netsatellites in what will be one of the largest "tech upgrades" in history. With multiple organizations working toward the same goal of mission success, strong working relationships among organizations are paramount.

"The strong relationship that SpaceX has with the Air Force is incredibly important to shared mission success," said Lars Hoffman, the SpaceX sement sales. "The SpaceX team is made stronger by our partnership with the Air Force. As one of two launch providers certified by the Air Force for national security space missions, SpaceX is greatly appreciative of the confidence that the Air Force has placed in us to support efforts to deliver critical national security payloads to space, and our strong partnership is essential in doing so."

Vandenberg Airmen agreed fostering strong relationships with all partners, including SpaceX, is completed before. critical in the launch busi-

success moving forward, at least 70 Iridium NEXT tion reliably covering 100

beginning with this successful launch," said Lt. Col. Jarod Martin, the 1st Air and Space Test Squadron commander.

Col. J. Christopher Moss, the 30th Space Wing commander, acted as the launch decision authority and the Air Force supported and enabled the launch from start to finish.

"From launch scheduling to range support, SpaceX works closely with the Air Force on preparations for the execution place the world's largest of every mission," Hoffman said. "The Air Force work of low-Earth orbit also performs fleet surveillance as part of SpaceX's (Evolved Expendable Launch Vehicle) certifica-

> Working closely with SpaceX during preparation of the launch, Vandenberg's 1st ASTS Airmen witnessed SpaceX personnel's dedication and determination firsthand.

"The tireless efforts of SpaceX culminated in a successful static fire on Jan. 5, demonstrating the nior director of govern- F9-30 rocket's ability to put the Iridium-1 payload into orbit," said Capt. Nathan Snow, the 1st ASTS mission integrator for SpaceX. "The 1st ASTS launch team was highly motivated to support this launch."

Iridium has partnered with Thales Alenia Space for the manufacturing, assembly and testing of 81 Iridium NEXT satellites, at least 70 of which will be launched by SpaceX. The process of replacing the satellites one by one in a constellation of this size and scale has never been

"All launches are important to SpaceX," Hoff-"SpaceX is a valued man said. "The payloads ellite constellation by early partner and we look for- for this return-to-flight 2018. As the world's only ward to their continued launch are the first 10 of global satellite constella-



An Iridium NEXT satellite onboard a SpaceX Falcon 9 rocket launches from Space Launch Complex-4, Jan. 14 at Vandenberg Air Force Base, Calif. Iridium NEXT will replace the world's largest commercial satellite network of low-Earth orbit satellites in what will be one of the largest "tech upgrades" in history. (U.S. Air Force photo/Senior Airman Ian Dudley)

satellites that SpaceX will percent of the Earth's sur- lites will mark a significant SpaceX is looking forward be launching for Iridium's face, the implementation achievement in mobile sat- to helping make it hapnext generation global sat- of the Iridium NEXT satel- ellite communications, and pen."



Launch Complex-4, Jan. 14 at Vandenberg Air Force Base Calif. Iridium NEXT will replace the world's largest commercial satellite network of low-Earth orbit satellites in what will be one of the largest "tech upgrades" in history. (U.S. Air Force photo/Michael Peterson)

AEDC Woman's Club announces Feb. 2 meeting

By Barbara McGuire

AEDC Woman's Club

The AEDC Woman's Club will hold a meeting Feb. 2 at the Arnold Lakeside Center, or ALC, showcasing fashions from a local business.

Table donations collected at the meeting will go to The Blue Monarch.

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

Reservations must be made no later than noon Jan. 26 and are required to gain access to the ALC. Make reservations by calling (931) 393-2552 or (931) 636-4152.

The February meeting is open to the public and provides the opportunity to meet the AEDCWC members and become a member. You don't need to have military connections or be involved with Arnold Air Force Base to visit and become a member.

During the Jan. 5 meeting, Jane Lovett, co-owner of Falls Mill, spoke to the Club about the history of the mill. The AEDCWC members tasted cheese grits that are served at the mill bed and breakfast. They also learned how the water from the creek is used to operate the mill.

Table donations from the January meeting went to The United Way of Tullahoma.

For information about the AEDCWC call 455-3569.

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



Jane Lovett (center), co-owner of Falls Mill, spins yarn while presenting information about the mill at the AEDC Woman's Club meeting Jan. 5 at the Arnold Lakeside Center. Pictured with Lovett are AEDCWC members Kate Canady, left, and Anne Wonder. (Courtesy photo)

New Year, new you: Take control of your own health

By J.D. Levite

Air Force Surgeon General Public Affairs

FALLS CHURCH, Va. (AFNS) – A new year can mean new opportunities, new discoveries and maybe a few new goals. While the New Year's Resolution is a common tradition, many of them get abandoned long before the new year is gone again. Setting goals for a healthier you is something everyone can do, if you do it right.

"Probably the most important thing is setting goals you can achieve," said Col. Thomas Moore, chief of Health Promotion. "Losing five pounds? It's a start. You can do that and build on it. Even small changes in weight can have an impact on improving health."

Setting small, manageable goals, gives you a chance to analyze how you got there.

like fruits and vegetables? Move on that. Build on your successes."

The Air Force Medical Service is setup to provide many resources for helping people achieve their goals during the

"The Health Promotion office can help with tobacco cessation. Many, not all, have a dietician who can either offer weight loss classes or possibly one-onone counselling. If you don't want to go the health promotion route, next time you're seeing your doctor, talk about your goals with them," said Moore.

This new year will also be a great chance to change how Airmen approach their own healthcare, too, as the AFMS tries to get people more engaged during their medical visits.

"I would recommend Airmen and their Moore said, "Once you hit that goal, families resolve to be more active partit might be good to take a step back ners in their care," said Col. John Oh, able."

and say, 'What did I do right?' Was chief of Preventive Medicine. "We Moore said the new year is as good fective partnership between the health- healthier goals. empowered they feel."

Oh and his team created the online Pajust for that reason, to provide specific ways to get patients and their families more involved in their own care. He said their goal is to make care safer and more effective.

"Healthcare is changing," Oh said. "The amount of information freely available to patients and family members is a paradigm shift. We want pa-

it because I was eating healthier stuff know care is safer when we have an ef- a time as any to achieve some new

care team and the patients. That's the "Have a conversation with yourself kind of the cultural change we're try- about what you want to focus on. Maying to promote. The more patients un- be it's important to focus on one small derstand about their conditions, their area, like losing weight or giving up medications, their options - the more smoking," Moore said. "These things can have a negative impact on Airmen performance, whether direct job pertient and Family Engagement Toolkit formance or the ability to bounce back from a setback. The fitter you are, the fewer of those unhealthy behaviors you engage in, the better you'll respond."

One tool to use to set those goals is Comprehensive Airman Fitness, which is one of many ways Airmen can achieve balance in several aspects of their life. Each of the four areas – Mental, Physical, Social, and Spiritual – need attentients to feel more comfortable asking tion throughout the year if you truly questions and getting involved in their want to grow. Start now with a simple care to the extent they are comfort- New Year's Resolution and continue to try new things as 2017 unfolds.



