



P5 / SOLDIER MOTION

Determining the effect Soldier motion has on targeting systems



P7 / ADDITIVE MANUFACTURING

Providing alternative methods for embedding electronics and radio frequency structures



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AMRDEC's James Lackey discusses professional development



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Did You Know section, How To section, and additional information



Newsletter

QUARTERLY NEWS FROM AROUND THE CENTER

WINTER 2015/2016 EDITION



Black Hawk Aircrew Trainer-- Success through Enterprise Approach

(Jan. 29, 2016) -- The Army's new Black Hawk Aircrew Trainer was developed using capabilities, resources, and expertise across Team Redstone, reducing costs, creating efficiencies, and streamlining schedules.

The BAT is a highly immersive home-station flight training device for the UH-60M aircraft. To address

the shortcomings of the legacy FTD, the Utility Helicopter Project Office turned to the U.S. Army Aviation and Missile Research, Development, and Engineering Center's System Simulation & Development Directorate to lead the development of a new UH-60M FTD. The effort focused on three objectives: designing the simulator's

architecture such that any changes in the aircraft can be quickly implemented in the FTD; obtaining and maintaining full government purpose rights for all hardware and software designed and developed for this project; and leveraging new technologies to enhance immersive qualities and system RAM, when cost effective.

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US ARMY
RDECOM

AMRDEC has extensive experience in the development of flight simulation and simulators. Much of that experience has been built through a successful partnership with the Program Executive Office, Aviation. Through this collaboration, AMRDEC and PEO Aviation have established both the development and refinement of simulators for several different rotary-wing platforms.

"Great outcomes are not driven by technical excellence alone," said James Lackey, AMRDEC director.

"We must also add enterprise collaboration. One doesn't 'keep in house' or 'stay in their lane.' They instead reach out and recognize where and when certain facts of other organizational technical excellence make sense to pull together, integrate, and derive great outcomes."

Under the oversight of and funding by the UHPO, SSDD assembled a government-led team, augmented with a Systems Engineering and Technical Assistance contractor team from SAIC, to begin the development, design, and prototyping of the BAT. Every aspect of the design flowed from requirements established by the Training and Document Command's Capabilities Manager—Lift of the United States Army Aviation Center of Excellence—through to the UHPO.

"The team truly achieved a monumental accomplishment in the development of the BAT, through the great contributions of several government

organizations and the exceptional support by their many dedicated and committed government and contractor employees," said Kris Strobe, AMRDEC lead engineer for the project.

With a compressed schedule from project start to prototype accreditation, which was less than half required by the legacy UH-60 FTD, many believed the challenges too great for the short time provided.

The BAT Team was required by the UHPO to execute the project in five phases, providing specific deliverables at the end of each phase, before being given the "green light" to transition to the next. Real events and constraints, including sequestration, multiple government shut-downs, and materiel procurement further compressed the time available to complete the project to only three years. Despite the issues, the BAT Team delivered the prototype almost five months ahead of schedule.

"The charter given to the AMRDEC by PEO Aviation was a new FTD design with government full purpose rights of the technical data package, technology enhancements, and the ability to rapidly integrate and field changes that had been made to that actual aircraft," Strobe said.

With these ownership rights, and a departure from a FTD with proprietary software and technical data package, the Army anticipates significant cost savings, both in unit procurement and total fleet lifecycle sustainment.

The AMRDEC team used numerous innovative approaches and concepts, which achieved cost reductions during the development, Strobe said. For example, UH-60 cockpits were taken from decommissioned aircraft and used to fabricate the cockpits of the BAT.

The team also used software interfaces, flight models, and programs that already existed within the AMRDEC enterprise.

BAT is no longer just an idea or concept, it is an operational flight simulator.

In less than three years, the team designed and assembled the first prototype BAT device ready for government accreditation and acceptance. The prototype was set up at Fort Bliss, Texas, in early-December and gained accreditation in mid-December 2015. It will remain at Fort Bliss as a training device for several months before moving to the next unit and installation.

- Bill Crawford



Directorate Highlights



AMRDEC Executive honored by hometown

(Dec. 8, 2015) -- Dignitaries, politicians, volunteers, and community leaders gathered at St. Louis Union Station Dec. 5 to honor 16 recipients for their contributions to members of the local community. AMRDEC's Dr. Juanita Harris, a native of East St. Louis, was among the honorees.

Harris, the AMRDEC Weapons Development and Integration director, received the inaugural Dred Scott Freedom Award for government service.

"By honoring people as we are tonight, we give hope to the next generation that through knowledge, determination, hard work, and sacrifice they, too, can make a difference," said Lynne M. Jackson, President of the Dred Scott

Heritage Foundation and great-great granddaughter of Scott. "We can come together and make our world a better place. My great-great grandparents no doubt had that in mind for future generations."

Honorees in the room included a two-time Olympic medal winning athlete and currently serving Missouri Congressman William "Lacy" Clay. Clay served as the keynote speaker in addition to accepting an award on behalf of his father, former Missouri Congressman William Lacy Clay, Sr.

"Being able to meet and stand in the presence of Lynn M. Jackson, great-great-granddaughter of Dred Scott, was indeed remarkable," Harris said. "Knowing that Mrs. Jackson's ancestor was a prominent stakeholder in establishing the freedoms I am allowed to experience now was truly humbling." Harris attended elementary, middle, and high school in East St. Louis, where

the majority of her family continues to reside. In February 2015 she was inducted into the Army civilian Senior Executive Service and became the first black director at the Center.

"I reach out in so many forums here in the Huntsville/Madison County areas from a mentoring and leadership perspective, which is indeed important. But it is more important for me to reach back to the grass roots of the community where I was raised to provide an example of hope and the realm of the possible from a professional and personal perspective," Harris said. "Having been raised in a high crime rate and low poverty area, the statistics for my future would have predicted failure; but through God's grace and my desire to continue to diligently push forward for excellence, I was blessed to achieve the numerous significant accomplishments."

Harris was nominated for the award by Monica Boyd, who has known Harris for more than 35 years.

"Because she is so humble, I still don't think I fully understand the magnitude of her accomplishments and responsibilities. But I have known Dr. Juanita Harris for more than 35 years. And in all that time, I do know and understand she has consistently given her best efforts. And because of that mindset and discipline, she has been continuously promoted," Boyd said.

"When someone is successful and they reach back into the community to help someone else become successful, by encouraging them or offering direction, that helps create a cycle of continuous success," Boyd added.

Harris hopes her words of encouragement meet a broad audience

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in her old hometown. "The major message I want to instill and impart to members of St. Louis and East St. Louis are based on words from my mother to not let your environment define your future. **"We must remain diligent to seek areas where our voices can be heard to correct injustices and push for excellence,"**" she said.

The Dred Scott decision of 1857 contributed in great part to changes in U.S. laws. Scott sued for his freedom after he was taken to a territory where slavery was illegal. Although Scott lost his case, the court decision is often viewed as a catalyst for the American Civil War. The court case took place in St. Louis.

- Kelly DeWitt

AMRDEC team supports naval test pilot students

(Jan. 5, 2016) -- Students from the United States Naval Test Pilot School receive technical training and hands-on flight testing from Army aviation pilots twice annually.

The USNTPS provides instruction to experienced pilots, flight officers, and engineers in the processes and techniques of aircraft and systems test and evaluation. AMRDEC's ADD provides aircraft and testing support for two USNTPS course events.

"The Qualitative Evaluation is a one flight-hour event in an aircraft that is not part of the school's curriculum aircraft fleet," said Craig Ernst, AMRDEC AATD Experimental Test Pilot, based at Fort Eustis, Va.

"This is where the testing pilot performs selected test techniques to evaluate an aircraft's handling characteristics, performance, and systems capabilities. Upon completion of the flight, the student writes daily report describing their findings."

The Developmental Test II event is an end-of-course capstone event

where each student test pilot travels somewhere in the world to evaluate an aircraft they have never seen or flown.

"These student must use everything they have learned during the year-long course, and they only have two weeks to prepare and submit a full-up flight test report that must be graded satisfactory before they can graduate," Ernst said.

AATD provides experimental test/instructor pilots, ground crew, and an AH-64E Apache attack helicopter for the rotary wing class. This allows the students the opportunity to evaluate and experience an advanced attack helicopter and train with seasoned AATD test/instructor pilots that bring real-world flight-test experience to the students.

AATD has provided support to the USNTPS for many years including the first live fire QE of an aircraft using the OH-58D 50-caliber machine gun. The AATD's main mission of Apache flight test is to support the Project Manager Apache.

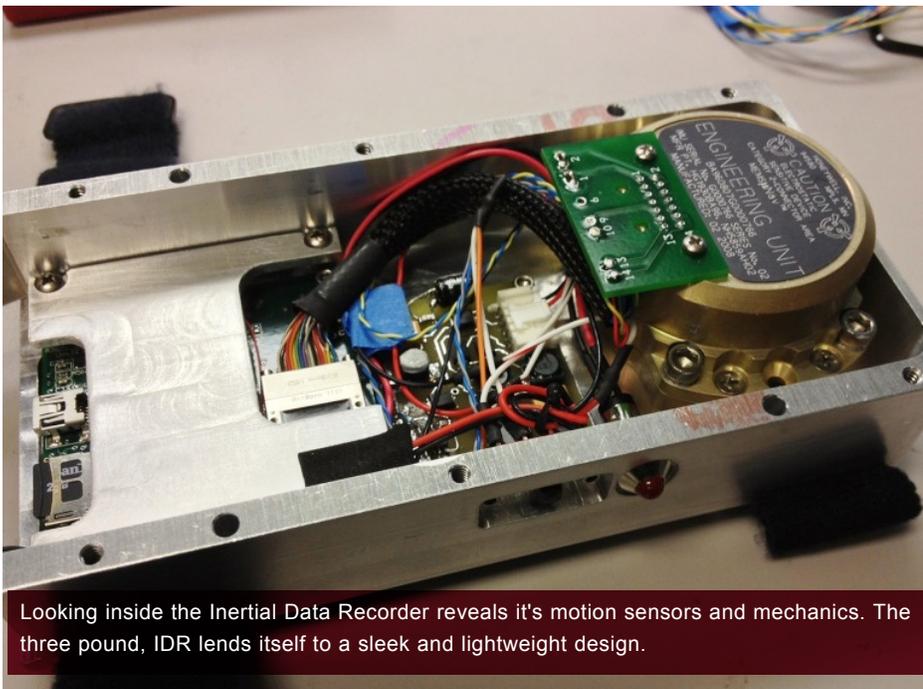
USNTPS provides a variety of aircraft, resources, and environments to its diverse body of pilots, flight officers, and engineers.

- Carlotta Maneice

Aviation Development Directorate experimental test pilot Craig Ernst (back seat) instructs U.S. Naval Test Pilot School students before a flight test.

Photo Credit: Christopher Wells, USNTPS Student





Looking inside the Inertial Data Recorder reveals it's motion sensors and mechanics. The three pound, IDR lends itself to a sleek and lightweight design.

Capturing Soldier motion to improve targeting accuracy

(Nov. 24, 2015) -- A simple movement by a Soldier can misdirect even the most precision targeting device. To compensate for this potential, four separate field tests were conducted by AMRDEC and the Army's Fires Center of Excellence, at Fort Sill, Okla.

AMRDEC was selected by the Product Manager-Soldier Precision Targeting Devices to help determine the effect Soldier motion has on the accuracy of targeting systems.

The Soldier motion field testing was designed to provide baseline data to be used in the development of future hand held targeting devices. The motion data is incorporated into the development of the Precision Azimuth and Vertical Angle Module, which is a component of targeting systems that provides a precision azimuth to the Soldier.

Since there was no information on Soldier motion, AMRDEC developed a sensor to capture data that could subsequently be used in laboratory testing of prototype targeting systems.

To meet the objectives, AMRDEC developed an Inertial Data Recorder. The device contains the Honeywell HG1930 Inertial Measurement Unit, a custom power supply, firmware, post-processing software, and an off the shelf Secure Digital data card. The accelerations and angular rates of the Soldier were captured at 100 Hz and 600 Hz rates with an Inertial Data Recorder. The final weight of the IDR was under three pounds.

Dr. Vicki LeFevre, of AMRDEC's WDI, currently leads the collaboration effort with PM-SPTD to improve the ability of the Soldier to quickly acquire, locate, and designate high-value targets.

"We have significant experience with the development, test, and evaluation of North-finding sensors and accepted the challenge," said LeFevre.

Personnel from her function have

been members of the Joint Precision Targeting Working Group since its inception and were an excellent choice to develop a Soldier motion capture device and to test and evaluate candidate targeting system prototypes.

Personnel from PM-SPTD and AMRDEC developed and designed a test that would capture Soldier motion with the Soldier carrying the IDR in many scenarios such as running on level ground, bounding, crawling, running up and down ramps, dropping to the ground rapidly, and targeting.

The IDR was also dropped from various heights, thrown over a wall while in the rucksack, and dragged along the ground. The IDR was mounted to the Soldier in one of five possible configurations: hip mount, chest mount, rucksack carry, handheld, and tripod mount.

Soldiers and civilians of various heights and weights performed tasks while either wearing the IDR affixed to a part of their body or carrying the IDR in a rucksack. The IDR was placed into a 90 degree angle bracket in a particular orientation on a stationary table at the beginning and end of each test to ensure known starting and ending time marks and ending attitude for error determination during any navigation post-processing.

"We measured Soldier motion during activities that are similar to those they may encounter in a real combat situation where they may be required to rapidly re-locate to another position or possibly duck behind a tree to evade hostile fire," said LeFevre.

The results from the four Soldier motion test events demonstrated that, regardless of their size or shape, Soldier motion data was very similar if the Soldier was engaged in the same activity. Laboratory test and evaluation of future targeting devices using Soldier motion profiles will inform Army decisions and

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improve future targeting devices which will then be able to more precisely locate the desired target. Target location error will subsequently be reduced, and both non-precision and precision munitions will be more accurate and deadly.

Dr. LeFevre believes that simulated motion testing at AMRDEC can identify opportunities for improving the prototype devices and can inform performance specifications, with the object of making these targeting systems more robust to Soldier motion. Improved targeting systems will reduce collateral damage, increase lethality, reduce time to engage target, and decrease the number of munitions required to prosecute a target.

-Bill Crawford

AMRDEC employees honored for acquisition excellence

(Dec. 9, 2015) -- Aviation and Missile Research, Development, and Engineering Center personnel were honored with three prestigious awards at the Army Acquisition Executive's Excellence in Leadership Awards ceremony in Orlando, Fla. Dec. 1.

The Army Acquisition Executive and Assistant Secretary of the Army for Acquisition, Logistics and Technology, Hon. Heidi Shyu recognized more than a dozen groups and individuals from the acquisition community as she announced the winners of the AAE awards.

Doubly honored was Dr. James Kirsch, an AMRDEC employee serving as the chief engineer in the Joint Attack Munition Systems Project Office for Program Executive Office, Missiles and Space. In addition to being named



Ms. Shyu presents AMRDEC and the Cruise Missile Defense System Project Office, the Indirect Fire Protection Capability Increment 2-Intercept and MML development team the 2015 05-Level Product Team of the Year. Photo Credit: ASA(ALT)



Ms. Shyu presents AMRDEC employee, Dan Bailey, with the Science and Technology Professional of the Year award. Photo Credit: ASA(ALT)

the AAE Engineering and Systems Integration Professional of the Year, last month Kirsch received the Workforce Achievement Award for Engineering by the Office of the Under Secretary of Defense for Acquisition, Technology and Logistics.

Matrixed to PEO, Missiles and Space from AMRDEC, Kirsch is the senior technical authority for all JAMS products including the Hellfire family of missiles, the Hydra family of rockets, and the Joint Air-to-Ground Missile.

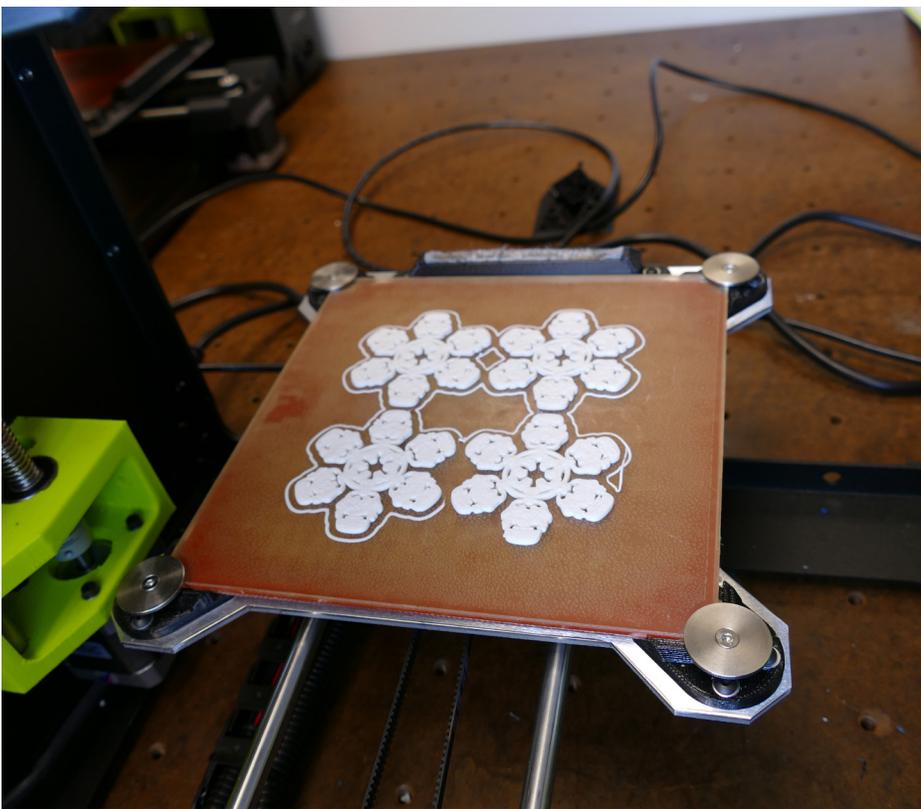
Also representing AMRDEC, ADD's Dan Bailey was recognized as the Science and Technology Professional of the Year. As the program director for the Joint Multi-Role and Future Vertical Lift Aircraft, Bailey developed and implemented a strategic communications plan to underpin all programmatic and technical interactions with industry, the media, and decision authorities including Headquarters Department of the Army, the DoD, and Congressional staff offices.

In a collaborative partnership between AMRDEC and the Cruise Missile Defense System Project Office, the Indirect Fire Protection Capability Increment 2-Intercept and Multi-Mission Launcher development team was named the 2015 05-Level Product Team of the Year.

Present to accept the award were AMRDEC's Lt. Col. Chris Whitmark and CMDS's Lt. Col. Michael Fitzgerald.

The combined team received the award for their excellence in Army acquisition, teamwork, innovation, and their advanced approach to providing cutting-edge capability to the Warfighter by designing and producing two prototype IFPC 2-1 MMLs.

-Nikki Montgomery



Innovative research center collaborates with Ole Miss in additive manufacturing

(Nov. 24, 2015) -- As part of its ongoing partnership, AMRDEC is collaborating with the University of Mississippi in additive manufacturing.

AMRDEC participates in collaborative efforts with domestic partners, including businesses and universities through technology transfer efforts such as Cooperative Research and Development Agreements.

The purpose of this agreement is to establish a cooperative effort between AMRDEC and the Ole Miss School of Engineering that involves alternative manufacturing methods for antennas and radio frequency devices. This is consistent with the military requirements of the AMRDEC and the education research and commercial technology goals of Ole Miss.

"Innovation is central to execution of the AMRDEC mission in service to the Warfighter. Great innovation is, in

part, derived from partnerships and the resultant sharing of ideas. AMRDEC depends on building and sustaining partnerships with both industry and academia to ensure the drive for innovation remains steadfast and strong," said James Lackey, AMRDEC director.

"From their unique perspectives, academia brings energetic, innovative ideas to the forefront. It's amazing what these young men and women can come up with given they are a little more 'unconstrained' from an academic standpoint. As a result, these bright partnership activities provide direct output benefit to execution of our Science and Technology road maps. Additionally, feedback from these projects helps to shape Academic curriculums themselves and thus the talent bench from which we can reciprocally pull into our current and future workforce," he added.

"AMRDEC designed a 2016 Science and Technology program to bring innovative alternative methods for embedding electronics and RF structures using additive manufacturing processes," said Vicki LeFevre, AMRDEC aerospace engineer.

"Running in parallel, the CRADA with Ole Miss will investigate the feasibility of using alternative material and manufacturing techniques such as structural foams and screen printing with conductive inks, 3-D printing or filaments to generate the antennas or radio frequency devices. The two programs will benefit from sharing knowledge and lessons learned."

"Antennas are designed and used to generate and launch signals wirelessly from one place to another," said Janice Booth, AMRDEC electronics engineer. "RF systems experience large power losses resulting in waste heat and performance degradation due to lossy structures. Using additive manufacturing we hope to reduce the losses associated with those structures."

Ole Miss Simulation capabilities will allow AMRDEC to create, build, and test model structures with just a few strokes on the keyboard.

"Additive manufacturing allows the workflow from design and fabrication of RF devices up through their testing to be more efficient and cost effective," said Elliott

Hutchcraft, Associate Professor of Electrical Engineering at the University of Mississippi.

"Integration of electronics into present additive manufacturing techniques is going to make the manufacturing of novel devices much more cost effective. We are excited to work on this project

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with our new colleagues at AMRDEC."

"By using 3-D printing we anticipate lower costs of the final design and higher efficiency of the product," Booth said. "Both AMRDEC and Ole Miss hope to develop step by step ways to embed electronics and RF into the additive manufacturing process that could be applicable across a broad range of systems."

The CRADA agreement will include scientists and engineers from AMRDEC and services from both graduate students and faculty from Ole Miss Department of Electrical Engineering.

- Carlotta Maneice

Collaboration contributes to millions in cost reductions

(Dec. 8, 2015) -- Collaboration across **Team Redstone led to savings and cost avoidance of \$154.5 million in FY15.**

AMCOM's Value Engineering- Life Cycle Cost Reduction programs held the annual awards ceremony Dec. 7 at Bob Jones Auditorium.

The ceremony, which featured AMCOM deputy to the commanding general William Marriott as the keynote speaker, recognized representatives from the Redstone community for their efforts to both VE and LCCR during fiscal 2015.

"On behalf of the leadership of Team Redstone, but more importantly, on behalf of the Soldiers who fly and fight with our weapons systems, I want to publicly salute and acknowledge our awardees and the entire Value Engineering team for your efforts and contributions to our mission," said Marriott. "Our awardees did not just



accept the status quo and continue to do their jobs, they identified ways to improve things, and they acted on their ideas -their initiative is central to what we're recognizing here today."

Value engineering is an organized effort to analyze the functions of systems, equipment, facilities, services, and supplies for achieving the essential functions at the lowest lifecycles cost consistent with required performance, reliability, quality, and safety.

The program, while managed by AMRDEC, falls under AMCOM's command.

Thomas Reynolds, VE-LCCR manager, explained that using engineering principles have earned AMCOM's VE program national recognition.

"In November I was invited to participate in a VE Workshop with all of the government agencies," Reynolds said. "AMCOM was recognized as a model program and one of only half a dozen institutionalized with consistently good results. This would not be possible without all of you in this room and literally hundreds of others who support you."

AMCOM claimed \$116.7 million in fiscal savings and cost avoidances, 103 percent of the anticipated \$113 million goal. These savings supported

AMCOM's 30th consecutive year of exceeding the VE goal.

AMRDEC achieved 718 percent of the \$5.9 million VE goal with \$42.9 million saved.

The following Redstone organizations received VE award plaques for achieving their fiscal 2015 savings goals: AMRDEC; Aviation Ground Support Equipment; AMCOM Logistics Center; Joint Attack Munition Systems Project Office; Lower Tier Air and Missile Defense Project Office; Precision Fires Rocket and Missile Systems Project Office; Terminal High Altitude Area Defense Project Office; and Utility Helicopters Project Office. Value Engineering certificates were also presented to VE coordinators and contracting personnel for their accomplishments.

In addition, the award ceremony recognized the AMCOM FY15 LCCR efforts. Plaques were distributed to those that completed a LCCR project, and certificates were given to those that received funding and started a project within the fiscal year.

-Nikki Montgomery

AMRDEC News

Staying Connected



5400 undergoes renovations

(Jan. 28, 2016) -- AMRDEC's front entrance officially opened the first week of January after several months of renovations. A facelift for the Science and Engineering Laboratory Annex, commonly referred to as the SELA, included major renovations to the center's main lobby, auditorium, restrooms, and portions of the connecting hallways.

Serving as the entry for AMRDEC leadership and visitors, the SELA lobby now includes an enlarged and relocated receptionist desk helping to improve traffic flow and congestion due to visitors' sign in. The receptionist's visibility also enhances safety and security.

CAC readers have been installed in the center's entrance to improve security and accessibility after hours for cleared employees.

The new auditorium, set to open Spring 2016, will feature enhanced audio and video capabilities with the incorporation of added monitors to improve viewers' visibility, while newly-installed sound doors will help reduce external noise. The seating capacity will increase from approximately 49 seats to 145 new fixed seats including reserved seating for persons with disabilities. The redesign includes a new kitchenette that will cater to assemblies, and also serve as a break room for employees throughout the week.

- Nikki Montgomery

A Note from Facilities

The AMRDEC footprint extends well beyond the Center's Headquarters location here on Redstone Arsenal to several other installations across the United States. On Redstone Arsenal, AMRDEC occupies 222 facilities totaling approximately 2,775,000 square feet. Outside of Redstone, AMRDEC also has facilities located at Joint Base Langley-Eustis (aka Fort Eustis) in Virginia, Moffet Federal Airfield in California and Corpus Christi Army Depot in

Texas. At Fort Eustis, AMRDEC occupies 33 facilities totaling approximately 252,500 square feet. At Moffet Field AMRDEC operates 10 facilities totaling approximately 120,000 square feet, and we have two facilities at Corpus Christi totaling approximately 29,000 square feet. This 3.18 million square feet of building space houses over 9,200 civilian and contract employees that provide support to AMRDEC and the Warfighter.

Director's Corner

HIGHLIGHTS



ACTIVE LISTENER

We physiologically hear or see via sign language what is being said, but at times we are not listening and confirming what is being communicated to us.

We all need to be cognizant

on honing our active listening skills to help our engagements not only at home but just as important in the workplace.

POSITIVE ATTITUDE

Partnerships and teams survive by being constructed of individuals having positive attitudes. Positive attitudes are instrumental for realizing effective outcomes. Only you can set your own positive attitude and help reinforce this notion as an operating environment for others to follow. Everyone on Team AMRDEC plays a key leadership role in this regard.

CAREER GOALS

Are you making time to set personal career goals? Are you monitoring progress and re-adjusting if necessary to achieve these goals? Are you routinely having healthy, constructive conversations with your immediate Supervisor and/or Mentor to keep this dialogue on the forefront of your mind? Overall, career goal setting activities are a healthy practice to routinely act upon every year.

DISCIPLINE IN CONTRACT ACTIONS

AMRDEC is embarking on a quarterly recurring Program Management Review with ACC-Redstone to ensure we better forecast, plan, and monitor conduct of contract action activities across time. By putting focus and discipline into this overall process, AMRDEC will better run its efforts without disruption or issue when it comes to the very wide variety contractor contributions in support of our Mission. This is all about our positive teaming and alignment with ACC.

(The above are excerpts from AMRDEC Director James Lackey's Director's Corner Articles, all of which are archived on the Knowledge Center).



Educating MDA on **mission, way ahead**

(Nov. 13, 2015) -- More than 30 leaders from AMRDEC crossed Martin Road to brief leaders from the MDA about their mutual missions Nov. 4.

“In its mission to develop, test, and field an integrated, layered, ballistic missile defense system to defend the United States, its deployed forces, and allies against all ranges of enemy ballistic missiles in all phases of flight, MDA requires technical and engineering support excellence. This is where AMRDEC plays a key, fundamental role,” said James Lackey, AMRDEC director.

MDA leaders also participated in tours of the SED and SSDD.

“We appreciate Mr. Lackey and his staff hosting MDA senior leaderships’ review and on-site visit to AMRDEC facilities,” said J. Gary Pennett, MDA Director for Operations. “AMRDEC provides MDA with critical in-house engineering services covering a wide range from advanced technology to software IV&V, and they accomplish this with the highest quality at a good value. We look forward to continued partnering with AMRDEC to execute MDA’s mission and explore opportunities to collaborate on the development of the future engineering workforce,” he added.

- Carlotta Maneice

A Note from Security:

Original Classification:

What is it?

- An initial determination that information requires, in the interest of national security, protection against unauthorized disclosure.

Original Classification Authority (OCA)

- An individual authorized in writing, either by the President, or by agency heads or other officials designated by the President, to originally classify information.
- Delegated by position only.

Derivative Classification:

What is it?

- Incorporating, restating, paraphrasing, or generating in new form, information that has already been determined to be classified, and insuring that it is classified and handled at the level that the OCA has already determined will be done.

Who may derivatively classify?

- Any properly cleared personnel.
- Not required to be appointed or designated.
- Marking classified material based on the guidance from a security classification guide or a properly marked source document.
- Personnel must be trained every 2 years.
- Refrain from guesswork!

A Note from Personnel: Employee Assistance Program (EAP)

Redstone EAP: 256-313-6255/256-842-9897
Ft. Eustis EAP: 757-878-1487
CCAD EAP: 361-961-6570

When employees are experiencing on-going or overwhelming problems related to stress, family, emotional, alcohol or drug use, financial or other concerns, the EAP can help. Talking things over with a professional counselor can often provide a step in the right direction to resolve the issues that get in the way of handling a job or coping with day-to-day living.

EAP info:

-**Areas of assistance:** Diagnostic and short-term counseling. Covers emotional/mental stress that employees face, including but not limited to: substance and alcohol use/abuse and financial issues; not limited to work-related stress.

-**Who's eligible:** Employees and dependents, including same sex partners, are eligible for services. Services can differ per location.

-**Restrictions:** Typically, none to few, which encourage employees and dependents to seek help early; covers work- and off-duty related issues.

- **Services:** Includes employee-focused counseling, treatment referral, and actual treatment; client follow-up and aftercare; supervisory consultation; crisis intervention; also includes various tailorable workshops for managers and leaders.

- **Cost:** Typically, no additional cost. Insurance or medical programs can cover most referral options.

Federal and state laws guarantee the confidentiality of client identity and records. The primary concern is that employees receive the assistance they need. The Employee Assistance Program is covered under AR 600-85, The Army Substance Abuse Program. Refer to DA Pam 600-85, Chapter 2 for a discussion of comprehensive EAP services for civilians.



Science, technology center hosts ARCIC director

(Dec. 4, 2015) -- Lt. Gen. H.R. McMaster, the director of the Army Capabilities Integration Center and deputy commanding general for Futures, TRADOC, toured the PIF and SED Dec. 2. He was accompanied by deputy commanding general for the U.S. Army Research, Development, and Engineering Command Brig. Gen. Thomas H. Todd and ARCIC's Command Sergeant Major Stephen J. Travers.

AMRDEC Director James Lackey explained that these organizational exchanges are not only beneficial at the command level, but the DoD level as well. As AMRDEC continues to adapt to Army needs and evolving requirements specified by ARCIC, the ultimate impact is felt by the Warfighter.

"This was a great opportunity for AMRDEC value and our work products to be highlighted and shown to a very critical stakeholder within the Army Enterprise," Lackey stated. "We team very closely with the requirements community to ensure everything we do is user informed for a deliberate purpose and effective outcome."

- Nikki Montgomery

A Note from Safety:

Hoverboard — part toy, part transportation. These self-balancing scooters have quickly become the latest fad. However, fire incidents associated with hoverboards have been reported.

The U.S. Consumer Product Safety Commission (CPSC) [HTTP://WWW.CPSC.GOV](http://www.cpsc.gov) is working to find the root cause of the fire hazard, how much of a risk it might present, and to provide consumers with answers as soon as possible. Their challenge is to move quickly but also thoroughly and carefully to find out why certain hoverboards caught fire.

CPSC field investigators are actively investigating hoverboard-related fires across the country. They have purchased boards in the marketplace and have taken possession of boards that caught fire.

CPSC engineers have tested and will continue to test new and damaged boards in search of an answer for why some models caught fire during the charging stage and others caught fire while in use. They are looking particularly closely at the configuration of the battery packs and compatibility with the chargers.

While the fire hazard has generated significant attention, the CPSC does not want to downplay the fall hazard. The CPSC has received dozens of reports of injuries from hospital emergency rooms. Some of these injuries have been serious, including concussions, fractures, contusions/abrasions, and internal organ injuries. Always wear a proper helmet and padding while using this product.

Currently, there is not a safety standard for hoverboards.

>>CONT. A Note from Safety:

For those who are using a hoverboard (or what some companies are calling a smart board or balance board), here are some tips from the CPSC, based on what we know so far, to help reduce the risk of an incident:

- Avoid buying the product at a location (like a mall kiosk) or on a website that does not have information about who is selling the product and how they can be contacted if there is a problem. If you do not think you could find the seller again, were a problem to arise with your board, it should be a warning to you not to do business with them.
- Read and follow all product manufacturer instructions (Owner's Manual).
- Do not charge a hoverboard overnight or when you are not able to observe the board.
- Charge and store in an open dry area away from combustibles (meaning items that can catch fire).
- Do not charge directly after riding. Let the device cool for an hour before charging.
- If giving a hoverboard to someone as a gift, leave it in its partially charged state. Do not take it out of the package to bring it to a full charge and then wrap it back up. Often, the product comes partially charged. Leave it in that state until it is ready to be used.
- Look for the mark of a certified national testing laboratory. While this does not rule out counterfeits, the absence of such a mark means your safety is likely not a priority for that manufacturer.
- Do not ride near vehicular traffic.
- This tip needs to be reiterated: It is important to wear safety gear when using a hoverboard. The CPSC recommends the same safety gear that you would wear when riding a skateboard -- a skateboard helmet, and knee and elbow pads, and wrist guards for protection from falls.



Hiring strategy **proves successful**

(Nov. 20, 2015) -- Budget cuts, hiring restraints and a retiring older workforce have led to a shortage of experienced workers across the federal government.

With the support of ED, the Quality Management Division requested and received Defense Acquisition Workforce Development Funds also known as Section 852 training funds. Section 852 funding allows the Department of Defense to recruit, hire, develop, train, recognize and retain its acquisition workforce.

“In an effort to transfer experience and knowledge from our more seasoned employees to our new employees, the QM Division created a deliberate and targeted QAS indoctrination program,” said Paul Anderson, acting chief, Aviation Systems Quality Branch. “The program consists of an academic phase and a hands on application phase. A sustainment phase is currently being developed.”

The newly hired QAS employees will be cross trained across the division and capable of providing support to both aviation and missile platforms.

-Carlotta Maneice

AMRDEC Veterans honored for service



In observance of Veteran's Day, we honored employees on social media, November 1- November 11, for their dedication and service to our country. To see photos of your coworkers and friends, check out www.flickr.com/amrdec.

Upcoming Events

1-3 MARCH 15 - AMRDEC MISSILE AND AVIATION INDUSTRY DAYS

Community Action Center, RSA // 7:30AM

AMRDEC will host multiple Industry Days to cover both Missile and Aviation research and technology. Missile S&T will be held Tuesday, March 1- Wednesday, March 2 and the Aviation Development Directorate segment will begin immediately after the Missile S&T concludes on March 2 and continue through Thursday, March 3.

**Registration Required

<https://www.amrdec.army.mil/amrdec/id2016/Default.aspx>

8-9 MARCH 16 - TEAM REDSTONE CENTER OF EXCELLENCE- APBI

Bob Jones Auditorium, RSA // 8AM

AMCOM will host the Team Redstone Center of Excellence - Advanced Planning Briefings for Industry at the Bob Jones Auditorium, Sparkman Complex, Building 5304, Redstone Arsenal, Alabama. A No-Host Meet and Greet Social will be held at The Overlook, 130 Golf Course Road, Redstone Arsenal, Alabama on 8 March 2016 from 5PM- 7PM. This year's theme is "Teaming for Global Collaboration to Enable Responsive, Sustained Readiness".

**Registration Required

<https://conference.redstone.army.mil/>

15-17 MARCH 16 - AUSA ILW GLOBAL FORCE SYMPOSIUM & EXPOSITION

Von Braun Center // 7AM

The Association of the United States Army Institute of Land Warfare (AUSA ILW) will return to the Von Braun Center in Huntsville, Alabama, for the 2016 AUSA ILW Global Force Symposium and Exposition. The featured command at the 2016 AUSA Global Force Symposium will be AMC.

**Registration Required

<http://ausameetings.org/globalforce/registration/>

Employees of the **Month** Recognizing accomplishments.



Cathryn Schartung

Cathryn Schartung played an integral role in planning and executing the 2015 AMRDEC Safety Health and Wellness Day. She approached each task positively with a willingness to help for the good of the entire AMRDEC organization, thus truly exemplifying servant leadership values.

Planning and executing a Safety Health and Wellness Day may not seem, at first glance, an achievement important as designing a new aviation platform or missile, but if you look closely at what Cathryn did, her efforts established an informative learning event was key in helping to better enable our Center members to be safer, healthy, and overall holistically well.



Bill Jacobs

Bill Jacobs made a significant impact on the future of Army aviation by leading the development and release of the first version of Joint Common Architecture. He not only led the team who defined what JCA would contain, but also a cadre of model developers and industry subject matter experts who spent the last year building the reference architecture.

Bill developed a plan for the accelerated accomplishment and inherited a design point that will ultimately lead to increased competition and improved affordability across a platform's entire acquisition lifecycle.

DECEMBER

Team of the **Month**

SED's Resource Management Team

The SED RM Team's efforts are especially noteworthy due to the sheer magnitude of actions and dollar value of transactions they process on a daily basis. As the largest processor of customer orders, the team has a significant responsibility entrusted to them. The team has gone beyond the norm to establish an unprecedented consolidated account process.

This process, which uses a mechanism to collect a percentage of contract dollars received by the organization to fund and maintain necessary overhead and infrastructure, helps to reduce budget transactions several hundred-fold. The SED RM Team has endeavored to comprehensively capture this process via extensive customer instructions in order to avoid rework of orders. Furthermore, the team provided training to the entire SED technical community to ensure they could adequately provide resource guidance to the myriad of organizations wanting to do business with SED.

Important Links

U.S. ARMY MATERIAL COMMAND

www.army.mil/amc

The Army's premier provider of materiel readiness – technology, acquisition support, materiel development, logistics power projection, and sustainment – to the total force, across the spectrum of joint military operations.

U.S. ARMY RESEARCH, DEVELOPMENT AND ENGINEERING COMMAND

www.army.mil/rdecom

Parent headquarters of AMRDEC and the preeminent world leader of research, development, and engineering.

PUBLIC RELEASE OF DOCUMENTS

https://knowledgecenter.amrdec.army.mil/Organization/publicaffairs/Public_Release/SitePages/Information_Release_2.aspx

All written and visual information such as photographs, technical papers, journal articles, presentations, and web content submitted to this link for public release or limited release.

AMRDEC SAFE SITE

<https://safe.amrdec.army.mil/safe/Welcome.aspx>

SAFE provides AMRDEC and its customers an alternative way to send files other than email. SAFE supports file sizes up to 2 GB.

CAREER ACQUISITION MANAGEMENT PORTAL

<https://rda.altess.army.mil/camp/>

CAMP houses all United States Army Acquisition Support Center career information in one convenient location.

U.S. DEPARTMENT OF DEFENSE

<https://www.defense.gov>

The Official Homepage of the United States Department of Defense.

Army.mil: SCIENCE AND TECHNOLOGY NEWS

www.army.mil/news/sciencetechnology/

The Official Homepage of the U.S. Army featuring breaking news from the Science and Technology field.



DID YOU KNOW?

NEXT ISSUE

RELEASE: SPRING 2016

LOOK FORWARD TO: Current events and News and **Technology**

SOCIAL MEDIA

Did you know AMRDEC is on social media? Visit our YouTube page to see AMRDEC technology features, and our Flickr page has all the photos from recent events from tours to org days. Like the AMRDEC Facebook page to keep up to date on happenings around the Center and the Redstone community.

HOW TO - **Conduct public release of a document**



AMRDEC documents that are released are done so through an automated SharePoint site on the Knowledge Center. The term “Information Product” is used to encompass all written and visual information such as photographs, technical papers, journal articles, presentations, videos, documents, computer code, and web content.

Information Products are released in various ways—Unlimited (Public Release), Limited, Foreign Disclosure and Intellectual Property. Releasing refers to publishing, presenting, posting and all other means of disseminating and distributing your Information Product to your audience

The originator of the document initiates the submission by going to the Information product review page on the Knowledge Center at this link: https://knowledgecenter.amrdec.army.mil/Organization/publicaffairs/Public_Release/SitePages/Information_Release_2.aspx and answering the “yes” and “no” questions at the bottom of each page. You are automatically guided through the system. You must know who will be conducting the Technical Review of your document before starting this process as the originator will be directed to select AMRDEC government employee to serve as the technical reviewer.

You will receive email notifications as your product moves through the process. Please contact Bill Crawford at 256 313 2408 if you have any questions.



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