The United States Army remains the preeminent ground force in the world, but potential adversaries have made gains in certain areas that the Army has to address, the commander of the Combat Capabilities Development Command recently told a Picatinny Arsenal audience.

Maj. Gen. Cedric T. Wins made his remarks as part of a presentation on Feb. 25, during which he gave a sweeping overview of the events and circumstances that led to the creation of the Army Futures Command with the intent of a broad unity of effort to meet future challenges.

The general’s talk came against the backdrop of a notable realignment of organizations within the Army to establish the new command. Wins was commander of what was formerly known as the U.S. Army Research, Development and Engineering Command (RDECOM).

The largest organization at Picatinny Arsenal, the former U.S. Army Research, Development and Engineering Center, which reported to RDECOM, was renamed the Combat Capabilities Development Command Armaments Center.

ANTICIPATING FUTURE THREATS

Wins said that while the United States was fighting wars in Iraq and Afghanistan, its potential adversaries were not sitting still. “We had other threats and potential adversaries who were watching us,” Wins said. “They watched how we fight, they watched what equipment we brought to the fight, they watched how our units were trained and equipped.

“They also invested heavily in their own research and development,” Wins added.

The Army had to consider how it would project itself over the next 20 or 30 years, a process that led to the establishment of six modernization priorities.

“To move forward, the Army recognized the need to have better unity, unity of effort in what we were doing, and unity of command in what we were doing,” Wins said in explaining the need for the Army Futures Command.

The general noted that even before the AFC was established, leaders within the former RDECOM were involved in discussions on how the existing organizations would fit into a new structure with a focus on modernization priorities.

“We shifted our effort and our focus from a lot of the work that was being done, that was necessary over the last 15-16 years for the types of fights that we were fighting, to making the adjustment to get out in front and to start going after the technology development and the research that would develop capability for us going forward,” Wins said.

LONG RANGE PRECISION FIRES

The general noted that the Armaments Center at Picatinny is “front and center and leading the effort” in the development of Long Range Precision Fires, one of the Army’s modernization priorities.

Wins said he was impressed with how the Armaments Center was working with other Army organizations to advance the Long Range Precision Fires objective, underscoring how collaboration within the Army and with industry partners is vital.

“Because in order for us to deliver on that capability of a long range strategic cannon it’s going to take us all, and we all have to be in on this effort to lend our expertise, or technical capability,” he said.

Wins noted that research centers are engaged in a broad range of activities that have to continue.

“The work that goes on in the other areas will still need to get done, particularly as it pertains to making sure that we have the right core competencies to do things that need to be done,” Wins said.
Town hall held to discuss Picatinny housing issues

BY TIMOTHY RIDER
Picatinny Arsenal Public Affairs

As part of an ongoing Army-wide effort to resolve unsatisfactory conditions in Army family housing, the garrison commander held a town hall on Feb. 26 at the Choices dining facility.

The Picatinny Arsenal Garrison Commander, Lt. Col. Samuel Morgan, gave a briefing on how Picatinny is part of an Army-wide initiative to improve housing.

He answered questions about the subject, and addressed issues from Soldiers and their Families regarding various housing concerns.

“One-hundred percent of Army installations will address this issue,” said Morgan. “There is a concern that we are not adequately addressing the concerns of our residents, and that is why we are here.”

FIXING HOUSING A PRIORITY

Morgan told the audience that leaders at every level of the Army have made fixing Family housing a priority.

He explained how the urgent mandate that brought residents to the town hall will also work across the Army to improve responsiveness to residents’ concerns and to identify and put remedies in place for persistent issues.

“They want to know your concerns,” said Morgan. “…I want to know your concerns.”

Morgan told residents that within the next 30 days, senior commanders will complete an inspection of Family homes and Soldier barracks—with appropriate notice and consent of our Families—to assess the scale and scope of housing issues.

He also informed residents that an Army Inspector General team will visit the installation in March to meet with residents and to review installation policies and procedures.

Housing Director Richard Karlsson provided detailed information about Picatinny’s reporting systems for work orders, including the standard response times and parameters that define routine, urgent and emergency work orders.

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The Picatinny Arsenal Garrison Commander Lt. Col. Samuel Morgan speaks to housing residents about an Army-wide initiative to improve Army housing. Morgan told residents that within the next 30 days, senior commanders will complete an inspection of Family homes and Soldier barracks—with appropriate notice and consent of our Families—to assess the scale and scope of housing issues.

The Picatinny Voice

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“Their things unacceptable for our families who sacrifice so much to have to endure these hardships in their own homes. Our most sacred obligation as Army leaders is to take care of our people—our Soldiers and our family members.”

“I am your advocate,” said Karlsson. “My job is to address your issues so that you feel you have quality housing.”

The representative from Picatinny’s Residential Communities Initiative Partner, Balfour Beatty, told the residents about a nine-month development plan for residents that is being considered that would begin when the weather improves in April.

The plan includes various repairs and new wood, brick, downspouts, roofing and concrete in driveways and sidewalks, where needed.

Other items of interest for commanders were also shared, including upcoming events, how to obtain access to a mass notification system that puts out information such as weather-related delays and road closures, a relocation of the ID card office, and information about how guests can access Picatinny at various hours and how access accommodations can be made for multiple visitors during parties.

In a recent statement, Secretary of the Army Mark Esper stated, “We are deeply troubled by the recent reports highlighting the deficient conditions in some of our family housing.

“It is unacceptable for our families who sacrifice so much to have to endure these hardships in their own homes. Our most sacred obligation as Army leaders is to take care of our people—our Soldiers and our family members.”

Esper added, “We will hold our chain of command and private contractors accountable to ensure they are meeting their obligations to provide safe, high quality family housing.”

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Editor’s Note

The editorial policy of The Picatinny Voice is to accept letters to the editor and commentaries. Submissions must be signed or received via email through your own account to be considered for publication. The Picatinny Voice reserves the right to select, reject or edit letters and articles to meet space constraints, achieve clarity or for suitability considerations.
Ribbon-cutting celebrates renovated collaboration, research hub at tech library

The Picatinny Armaments Technical Library held a ribbon cutting ceremony on Feb. 27 to celebrate its newly renovated hub for collaboration and research.

The library, located in Building 59, has undergone a drastic transformation over the last two years. The aging facilities have been upgraded and consolidated into a modern space designed to foster collaboration and innovation.

But the transition was not an easy one. Several previous attempts to reinvent the library stalled, as concepts and plans would arise but ultimately did not come to fruition.

“This transformation was a long time in coming,” said Scott Miller, chief of the CCDC Armaments Center’s Knowledge Management Office. “The community here values a library that provides both virtual resources and a physical place to visit and work, and I believe we have succeeded in realizing that concept.”

VOICE OF THE CUSTOMER

Working as part of a green belt project, Miller and Lead Librarian Liz Reisman devised a cost effective plan with the help of an extensive “voice of the customer” analysis.

The Picatinny workforce, Armaments University students, and faculty, including Donald Carlucci, Armaments Center Chief Scientist, provided valuable insight as to what would enable better collaboration and research.

“An organizations’ technical library is the heart and soul of its research culture,” Carlucci said. “It encompasses both the corporate memory of the organization and its vision of the future.

“Although the brick and mortar improvements to the Library may seem insignificant to some, the fact that it was completed codifies the commitment between leadership and the workforce that research is not only valued, but essential to innovation.”

The remodeled Technical Library features state-of-the-art facilities, including extensive network connectivity (wireless NIPR, snaps to NIPR and DREN), various collaboration spaces throughout, and “The Fish Bowl”—an enclosed, dedicated space where engineers and scientists can scrawl notes and mathematical formulas on the windows.

“This room is the centerpiece of our vision for the Technical Library,” said Reisman. “It offers the science and technology community a secluded place to share ideas outside of the bustle of a lab or office setting.”

If a certain high-tech solution is a better fit, users can also visually capture their ideas on the new, 75-inch Sharp touch screen, which allows users to save or print their virtual white boards and markups.

In addition to its collaboration features, the Technical Library also provides a wide selection of academic and professional-level books and periodicals in its paper collection, which occupies a significant footprint within the renovated facility.

BROAD DIGITAL COLLECTIONS

Patrons are free to browse or request assistance from the librarians on staff, who are trained to assist with scientific material.

“Our librarians are eager to assist our engineers and scientists in any way possible,” said Miller.

“They can facilitate access to many other technical collections through interlibrary loan, digital archives or comprehensive searches in the Defense Technical Information Center.”

Travis Boyer, a contractor with Joint Program Executive Office for Armaments and Ammunition, lauded the support provided by the staff.

“The Picatinny Armaments Technical Library and on-site librarians provide instrumental support to PEO Ammo, Armaments Center, and associated support staff to identify, consolidate, and deliver ammunition technical information,” Boyer said.

“This use of the technical information supports JPEO A&As mission to reduce ammunition acquisition cycle time and increase efficiency of the ammunition industrial base.”

For patrons who prefer to browse from their desk, the library’s 24/7 digital collection includes several eBook packages, journals and information databases like IEEE, Springer Ebooks, Knovel eBooks, ASM handbooks, and much more. Picatinny and Frankford Arsenal technical reports are digitally archived and available.

“When doing research or simply looking for solutions to the types of aerodynamics and controls problems I encounter, I need to be able to quickly sort through reference materials to determine their usefulness,” said David Hosier, an aerospace engineer with CCDC Armaments Center. “Having access to these journals opens up an enormous wealth of information that I’m literally excited to dive into.”

The Picatinny Armaments Technical Library is open Monday through Friday, 7 a.m. to 4 p.m. After-hours access is being planned in conjunction with Armaments University.
Picatinny Arsenal Public Affairs

The Armament University (AU) is hosting a course titled Modern Trends and Developments in Global Ordnance which will be held at AU on March 26.

During the course, an international weapons expert will share his knowledge about weapons threats and developments from around the world.

More than 50 countries will be studied, with discussions on noteworthy weapons information about each country.

U.S. Army veteran and armorer instructor Dan Shea will teach the course. Shea started his foreign weapons instruction for the U.S. military in 1984.

He designed and implemented the 1997 and 1999 Suppressor trials using cutting-edge equipment to quantify the sound results.

Due to this extensive experience, he is frequently contracted to supervise MILSPEC, or military specification, testing of new weapons systems.

The course will cover many new developments in small arms around the world, as well as rocket propelled grenades, "silent" captive piston ammunition, underwater ammunition developments, and grenades. This course does not cover U.S. developments. The focus of the course is international threats.

Shea was the National Defense Industrial Association's 2017 Colonel George M. Chinn Awardee, as well as being the Editor-in-Chief and Technical Editor of Small Arms Defense Journal, Small Arms Review, the old Machine Gun News, and many technical books on firearms.

He has written more than 1,100 technical articles on firearms.

He was the founder and general manager of the now-closed Long Mountain Outfitters for almost 40 years, and is currently the general director of Phoenix Defence, an armorer training and weapons supply company.

His licensing includes the manufacturing and importation of firearms, including machine guns, silencers, and destructive devices, as well as international arms brokering. He has been to more than 80 countries actively dealing in arms and munitions.

The course cost is $400. Potential participants will need to submit a SF182 form. For more information, contact Erin Williams at the Armament University at (973) 724-1929.

Sextortion scams

As part of a continuing campaign to help prevent Soldiers and other members of the Army community from becoming victims of crime, Special Agents from the U.S. Army Criminal Investigation Command, commonly known as Army CID, are once again cautioning the Army community about ongoing Internet based “sextortion” scams.

Sexual extortion, or “sextortion,” is a cybercrime perpetrated against unwitting victims who are often approached in casual conversation via social media platforms and then seduced into engaging in online sexual activities.

Notify the Army CID’s computer crime unit at usarmy.cciuintel@mail.mil to report being a victim if you are a service member or an Army civilian employee.

The Picatinny common access card and identification card office will be closed from April 8-12, as employees move equipment to a new location at Building 3225. Picture above is Liliana Rosario, site security manager.

CAC, ID card office location change coming

BY ERIC KOWAL
Picatinny Arsenal Public Affairs

A significant change is coming to the Picatinny Arsenal Common Access Card and Identification Card office in the coming weeks.

The Picatinny CAC & ID office will be closed from April 8-12, as employees move equipment to a new location at Building 3225.

Services will resume for all on April 15 beginning at 8 a.m.

“We will be moving to a larger facility that will provide for a nicer experience for customer,” said Liliana Rosario, site security manager.

“Not only are we moving, but we are upgrading the machines which should help reduce some of the wait time,” she said.

Customers are asked to either take care of any ID card updates before April 8 or to visit the RAPIDS Appointment Scheduler to set up an appointment at any other RAPIDS/DEERS facility. https://rapids-appointments.dmde.osd.mil/

Below please find a list of RAPID stations that will be open during the closure of the Picatinny office:

Joint Military and Family Assistance Center
1048 US Highway 206 South
Bordentown, N.J. 08505
(609) 324-7027

USCG Training Center Cape May: Bldg. 262
Army News Service

FORT CARSON, Colo. -- Eight Ivy Division snipers with the 2nd Infantry Brigade Combat Team field tested an upgrade to the Army’s sniper rifle in the shadows of the fabled Rocky Mountains.

Engineered as an upgrade to the M110 Semi-Automatic Sniper System, the Compact, Semi-Automatic Sniper Rifle (CSASS) was redesigned to enhance a Sniper’s capability to perform missions with greater lethality and survivability, according to Maj. Mindy Brown, CSASS test officer with the Fort Hood, Texas-based U.S. Army Operational test Command.

Upgrades being tested include increased accuracy, plus other ergonomic features like reduced weight and operations with or without a suppressor.

Brown said the purpose of the operational test is to collect performance data and Soldier feedback to inform the Army’s procurement decision regarding the rifle.

“We do this by having the Snipers employ the system in the manner and the environment they would in combat,” Brown said.

“In doing this, we achieve a twofold benefit for the Army as we test modernization efforts while simultaneously building unit -- or in this case -- Sniper readiness.”

She went on to explain how the 2nd IBCT snipers stressed the rifles as only operators can, during the 10-day record test.

The Snipers fired 8,000 rounds from various positions while wearing individual protective and tactical equipment as well as their Ghillie suits and cold weather gear.

To also test how the CSASS allowed Snipers to shoot, move, and communicate in a realistic combat environment, they also executed Situational Training Exercise (STX) force-on-force missions in what they described as, “the best Sniper training they’d received since attending Sniper School at Fort Benning, Ga.”

The 2nd IBCT Snipers really pushed each other, testing the CSASS in what evolved into a competitive environment on the ranges.

“Despite single-digit frigid temperatures, gusting winds, and wet snow, the Snipers really impressed me with their levels of motivation and competitive drive to outshoot each other,” said Sgt. 1st Class Isidro Pardo, CSASS Test Team NCOIC with OTC’s Maneuver Test Directorate.

An agreed upon highlight of the test among the Snipers was the force-on-force day and night STX Lanes.

Sniper teams were pitted against one another on tactical lanes in natural environmental and Urban Terrain to see who could infiltrate, detect, and engage whom first.

Staff Sgt. Cameron Canales, from Bravo Company, 1st Battalion, 12th Infantry Regiment said, “The force-on-force STX lanes were an extremely fantastic way for us as Snipers to hone our field craft.”

One other Sniper, Sgt. 1st Class Cecil Sherwood, from Headquarters Troop, 3rd Squadron, 61st Cavalry Regiment said he really enjoyed all the “trigger time” with the CSASS.

Sherwood said he was able to learn from the other test Snipers and improve his field craft.

“In a regular Sniper Section, I would never get this much trigger time with a Sniper rifle or be issued nearly as much ammunition to train with in a fiscal year, let alone a 10-day period,” he said.
Picatinny aims to inspire more females to enter engineering

BY AUDRA CALLOWAY
Picatinny Arsenal Public Affairs

Picatinny Arsenal employees hosted their annual “Introduce a Girl to Engineering” event on Feb. 21 that was attended by almost 80 female students from 22 area schools.

The event has been held on the third Thursday of February for the last seven years at Picatinny to coincide with Introduce a Girl to Engineering Day, and also during National Engineer’s Week.

“Tonight is for you to explore what it’s like to be an engineer or a scientist, and the thrill of discovery and making things,” said John Hedderich, director of the Combat Capabilities Development Command Armaments Center.

Even though many attendees may not know what occupation they will eventually enter, he said that was fine.

“You’re the future of this nation. Here at Picatinny, we serve the flag of liberty by devoting our careers to making equipment for our Soldiers, our sailors, and Marines,” Hedderich said. “And they’re here to defend this nation, and we help them do that.

“And you’re going to make the world a better place because of what you’ll end up doing. We’re just trying to help you make that decision.”

Students had the opportunity to speak with female scientists and engineers at 18 unique stations. Engineers were available to discuss engineering topics related to the Department of Defense mission area that is prominent at Picatinny Arsenal: the development of the armaments and ammunition used by U.S. military personnel.

Salome Kufuor and Eesha Gudoor, both freshmen at Lehigh Valley Academy Regional Charter School, and teammates on a Technical Student Association (TSA) team, attended the event.

TSA is a national organization of students engaged in science, technology, engineering and mathematics (STEM).

“I thought the biotechnology was really interesting,” Gudoor said of one of her favorite stations, the biomedical engineering station. “We actually did a TSA project together and it was focused on biotechnology, and this (station) was about prosthetics and pharmaceuticals and I found that interesting.”

The biomedical station provided an overview of biomedical fields and how they support our Soldiers.

“There were also a couple of activities, like building the most sturdy building for 30 marbles, and that was cool,” she added.

The marble activity, which is meant to explain systems engineering design to the attendees, allowed them think of different ways to solve problems, and to explore different strategies in building a suspended structure that can hold a cup filled with marbles.

Other examples of STEM disciplines included chemistry, virtual reality, engineering, acoustics, optics, nanotechnology, mechanical engineering, and analysis related to experimentation.

“We really enjoy giving students an opportunity to see what STEM is in the real world, outside of the classroom,” said Shahram Dabiri, STEM Manager for the Combat Capabilities Development Command Armaments Center at Picatinny Arsenal. “The value of a STEM education and subsequent STEM careers can be difficult to find relevant at times. This evening, they could see how their problem-solving skills can produce tangible results that solve real problems for Soldiers.”

“I’m really interested in engineering, so I thought it would be a good opportunity to talk with people and learn more about the engineering principles and what I want to go into,” said Erin Fitzgerald, a senior at Montclair High School.

Fitzgerald plans to major in either mechanical or industrial engineering in college. She said she appreciates the opportunity to discuss different engineering genres and to talk with engineers about what to expect from engineering courses in college.

“I just think you get to learn more about what you’re interested in,” Fitzgerald said of the event. “I’ve also met a lot of people here who aren’t going into engineering but wanted to expose themselves more to the engineering world. I actually think that’s great.

“And it also promotes women in STEM, so that’s great in itself,” she added.

Although women fill close to half of all jobs in the U.S. economy, they hold fewer than 25 percent of STEM jobs, according to a report from the U.S. Department of Commerce’s Economics and Statistics Administration.

The CCDC Armaments Center is an element of the U.S. Army Combat Capabilities Development Command within U.S. Army Futures Command.
Army News Service

ABERDEEN PROVING GROUND, Md. -- An Army-funded researcher won the 2018 Nobel Prize in chemistry for research in new enzyme production leading to the commercial, cost-effective synthesis of biofuels.

Frances Arnold is a professor of chemical engineering, bioengineering and biochemistry at the California Institute of Technology, and the fifth woman to win the Nobel Prize in its 117-year history.

Arnold said she’s been interested in how biology can be used in engineering to make everything from diagnostics to medicines to fuels to molecules.

“Biology is a great chemist -- and she’s also a great engineer,” Arnold said. “So I’ve been developing methods where by using biology we can solve problems in the real world. We’ve worked on a number of things that I think could have big impact on the Soldier.”

Arnold said many years ago she looked at how one can make liquid fuels in remote locations from resources collected from the environment. She said they extended that into developing genetically modified organisms that now make jet fuel.

“I know we’ve flown Black Hawk helicopters on jet fuel made from renewable resources,” Arnold said.

The Army provided a single investigator grant in the 1990s. Through this, Arnold demonstrated the ability to modify an enzyme that provided robust native activity but at higher temperatures.

The U.S. Army Combat Capabilities Development Command’s Army Research Laboratory -- through the Army Research Office -- started funding the research in 2003 through the Institute for Collaborative Biotechnologies in Santa Barbara, California.

“Specifically with ARL we’ve been exploring how the chemistry of the biological world can make energetic molecules, how we can make fuels in chemicals in remote locations and mostly exploring the methods that we can use to build better biology,” Arnold said.

Arnold furthered her research with the help of her students. She said these students are eager to work on impossible things -- and they sometimes make them happen.

“We have this collection of brilliant young scientists who are looking for something useful they can do with their ideas and their technologies,” Arnold said.

The Army continues to invest in ground-breaking research, so it can adapt, innovate and integrate technology at speed and scale to maintain what officials call “assured battlefield dominance into the future.”
The Energy Team from Picatinny Arsenal’s Department of Public Works (DPW) presented a check in the amount of $615,000 to Garrison Commander Lt. Col. Samuel Morgan and Command Sergeant Major Anneka Ford.

The check is the first of three incentive payments that will total $2.05 million from the State of New Jersey’s Clean Energy Program, for the installation of a new cogeneration plant at Picatinny.

The plant is under construction and will provide two megawatts of electrical power to Picatinny's electrical grid, as well as generating steam for heating and process uses.

The Energy Team will be displaying information about the cogeneration project at an Earth Day Celebration at Choices Cafeteria on Wednesday, April 17 and Thursday, April 18. Back by popular demand, energy efficient LED light bulbs will also be on sale at the Earth Day event.

Pictured above are, left to right: Stefanie McNaboe, DPW Project Manager; Command Sergeant Major Ford; Lt. Col. Morgan; Ken Wadle, DPW Energy Manager; Helene Ferm, DPW Resource Efficiency Manager; and Frank Langenecker; DPW Engineering Chief.

Winter driving can be hazardous and scary. Below are some winter driving tips:

**PREPARE for the trip; PROTECT yourself; and PREVENT highway accidents.**

**The Three P’s of Safe Winter Driving:**

**PREPARE**
- Maintain Your Car: Check the battery, tire treads, fluids (gas, oil, antifreeze) and windshield wipers.
- Have On Hand: Cell phone, flashlight, jumper cables, shovel, snow brush, ice scraper, water, food, warning devices and blankets.
- Stopped or Stalled? Stay in your car and don’t panic. Put bright markers on antenna or windows and shine dome light. If you run your car, clear the exhaust pipe and run it just enough to stay warm.
- Plan Your route: Be familiar with the directions/map, and let others know your route and arrival time.
- Practice Cold Weather Driving! - During the daylight, rehearse maneuvers slowly on ice or snow in an empty lot.
- Steer into a skid.
- Know what your brakes will do (stomp on antilock brakes and pump on non-antilock brakes).
- Don’t idle for a long time with the windows up or in an enclosed space.

**PROTECT YOURSELF**
- Buckle up and use child safety seats properly.
- Never place a rear-facing infant seat in front of an air bag.

**PREVENT CRASHES**
- Slow down and increase your distances between cars.
- Keep your eyes open for pedestrians.
- Get plenty of rest before the trip, stop at least every three hours, and rotate drivers if possible.
- If you are planning to drink, designate a sober driver.

**DRIVE TO ARRIVE!**

Soldiers in the M1A2 Abrams tank prepare to fire its main weapon at targets while conducting live-fire exercises during Decisive Action Rotation 19-03 at the National Training Center, Fort Irwin, California, earlier this year. Decisive Action Rotations at the NTC ensures Army Brigade Combat Teams remain versatile, responsive, and consistently available for current and future contingencies.
Picatinny Arsenal – mission consistency and name changes since 1880

BY JEFF RANU,
Historian, CCDC Armaments Center

The United States Army is undergoing a historic refocusing of priorities to ensure a decisive advantage in technology over our adversaries.

The relatively new Army Futures Command (AFC) was created to align research and development priorities to address key capabilities necessary to achieve battlefield supremacy.

The Research, Development, and Engineering Command (RDECOM) was realigned from the Army Materiel Command (AMC) to AFC. This realignment prompted a change in name from RDECOM to the US Army Combat Capabilities Command (CCDC).

To align with the new command structure, ARDEC was designated the U.S. Army Armament Research, Development, and Engineering Center (ARDEC) since 1986.

Aligning with the new command structure, ARDEC was designated the U.S. Army Combat Capabilities Development Command (DCDC) Armaments Center. John Hedderich, director of the center, assured the workforce that while the name and organization logo may be different, the mission of developing decisive armaments for the warfighter remains unaltered.

The organizations at Picatinny Arsenal experienced many name changes and many new logos since its founding in 1880. But the mission of supporting the warfighter has been constant.

The inception of the first installment of Picatinny originated in 1865, with the approval to appropriate a tract of land on the Eastern seaboard for the purposes of storing gunpowder, at a location not less than three miles from the railroad and between 30 and 50 miles from New York City.

THE ORDNANCE DEPARTMENT YEARS

The commission selected the site presently occupied (with several subsequent expansions) on March 1, 1880. Army Special Order 189 established the Dover Powder Depot on Sept. 6, 1880.

The first logo for the mission was the U.S. Army Ordnance logo, the flaming bomb and crossed cannons. The first name change occurred on September 10, 1880, four days after creation. The name was changed to Picatinny Powder Depot.

“Picatinny Powder Depot,” a variation on the name the installation has carried for most of its history.

The name “Picatinny” was selected for the prominent peak on the installation, overlooking what was known as “Clifford’s Pond.” This name was a Lenape word meaning, “rugged cliff by the water.” Construction on the Powder Depot included magazines for storage of smokeless powder and ammunition, as well as administrative and technical support buildings.

Construction along the banks of Clifford’s Pond revealed the remnants of a war-related mission, dating back to the American Revolution. A series of three forges were in operation on what are now federal grounds.

John Jacob Faesch owned these forges and a furnace located just east of the current Mt. Hope gate, which produced iron bar, tools, and munitions for the Continental Army. This forging complex was in operation from 1772 until approximately 1810.

The construction crew rediscovered the forge hammer remnant and tools of the Middle Forge while digging foundations for new buildings along the banks of the pond.

The initial mission on the installation was one of simply storage. But the onset of the Spanish-American War in 1898 expanded the mission to include loading propellant into silk bags for artillery.

In 1903, the mission expanded to include small scale loading of explosives into shells. The Fortification Bill of 1906 approved the establishment of a Smokeless Powder Factory on the site of “Picatinny Powder Depot,” and, in October 1907, the name changed to Picatinny Arsenal to reflect the munitions production mission.

By the time of World War I, Picatinny Arsenal was loading TNT and Amatol into shells, bombs, and grenades. That function was also taken up by outside civilian companies. Personnel from Picatinny travelled to those private companies to instruct them in high-rate production of powder and explosives loading. Those trips also involved inspecting products produced by private industry after ramp-up.

The chemistry lab was established just before World War I, initiating Picatinny’s mission in explosives and energetics research and development. The lab for research and development of experimental artillery ammunition was initiated in August of 1919.

Three proving grounds were constructed on the banks of Lake Picatinny to test these experimental shells. Two were located on the East shore, one for static fragmentation testing and another for ballistic tests firing across the lake. The third was on the west shore, at the base of Picatinny Peak.

The chemical labs now began in earnest the characterization of explosives, establishing TNT equivalency in performance for emerging formulations. The chief of ordnance approved the expansion of Picatinny Arsenal in 1920, “to provide sufficient capacity to permit complete development of all types of ammunition and the perfection of processes that had been started during the War.”

The Picatinny Arsenal mission under the Ordnance Department continued through World War II, with production load assembly and pack of armaments from hand grenades, mortar cartridges, artillery and tank shells, up to 2,000-pound bombs.

Picatinny Arsenal was featured in the October 18, 1943, issue of Life Magazine as the Army’s Explosives Center. The article focused on the science applied to the research and manufacturing conducted on the Arsenal to support the war effort.

Special research projects were conducted at Picatinny Arsenal during the war, including a self-destruct device for an early friend or foe identification system for aircraft, and a special delay fuze used in bombing submarine pens, and another for skip bombing at low altitude.

One example of the importance of the research and development mission at Picatinny occurred during World War II. A special order for 200 sub-pen bomb fuzes was placed on the day the Saratoga task force departed to its mission in Norway.

Picatinny had two days to construct the fuzes and deliver them to Newark Airport before the Saratoga would be out of range for the delivery plane. Four days after successful delivery to the Saratoga, it was reported that the special bombs were used to destroy the German submarine pens at Bergen, Norway.

An indication of wartime urgency was a letter in the historian archive that grants permission for the Picatinny Arsenal driver to exceed the 35 miles per hour speed limit order to deliver special ammunition and components, an exception deemed crucial to the success of the war effort.

The production, research, and development mission continued into the post World War II years and into the Korean War era. One significant achievement that gave Soldiers an advantage during the Korean War was development of the “super bazooka” rocket, which Picatinny Arsenal had developed between the wars.

The standard, World War II-era anti-tank bazooka rockets could not defeat the armor of North Korean T-34 tanks.

Picatinny had the design and pilot plant for the rocket upgrade already established. With some modification, the plant was at full rate production within 24 hours of Gen. Douglas MacArthur’s call for a better bazooka. Seven days later, the “super bazooka” was in the hands of American troops fighting in Korea.

THE COLD WAR AND A NEW COMMAND

In 1959, the U.S Army Ordnance Special Weapons Ammunition Command (OSWAC) was established at Picatinny Arsenal. The origins of this new command can be traced back nearly a decade earlier, with the development of the “Atomic Annie,” artillery shell.

1880-1893: Picatinny Powder Depot (Ordnance)

The idea was conceived by Picatinny engineer Robert Schwartz over the course of 15 days. Samuel Feltman, chief of the Ballistics Section of Ordnance Research and Development, persuaded the Pentagon that the concept would work. Development thus started at Picatinny Arsenal.

On May 25, 1953, history was made with the successful test of the "Atomic Annie," at Frenchman Flat, Nevada. OSWAC continued the atomic and nuclear munitions research and development by reducing the size of the shell, first to 8-inch, and then to 155mm. Additional special weapon research was conducted in missile technology, both in conventional warhead design and in propulsion. Further research was also conducted for Jet-assisted take-off (JATO) engines for the Matador missile.

OSWAC was short lived, with creation of the Army Materiel Command (AMC) in 1962.

The reorganization formed the Army Munitions Command (MUCOM) at Picatinny Arsenal and the Weapons Command (WECOM) at Rock Island Arsenal.

The MUCOM logo is essentially the AMC shield with the MUCOM acronym. The name of Picatinny’s mission had changed once again, but the heart of the mission remained the same. During the Vietnam War, focus shifted to development of conventional ammunition once again.

Research and development included 40mm Grenades, 2.75” rockets, tank ammunition, mortar cartridges, and artillery shells, and the claymore mine.

Missile warhead research that started under OSWAC continued, with 110 nuclear items developed and fielded by Picatinny between 1960-1972. These items included components for the Honest John, Hercules, Pershing, Sergeant, and Lance missile systems. In 1972, MUCOM and WECOM were combined to form the Armaments Command (ARMCOM). But the mission remained unchanged for Picatinny Arsenal.

**RESEARCH AND DEVELOPMENT FOCUS**

A major change occurred in 1977, with the creation of the US Army Armament Research and Development Command (ARRADCOM), headquarters at Picatinny Arsenal. The overall mission of the Arsenal changed to one purely of research and development.

The full rate production of munitions was transferred to other installations, but the expertise in process and inspection remained at Picatinny Arsenal. The mission of instruction and verification of industry products also continued. In addition, the capability for pilot plant and production of experimental prototypes was also retained.

Research and Development was consolidated under ARRCOM across the Army, with elements of Rock Island, Edgewood, Aberdeen, and Benet Labs joining with the Picatinny mission.

A new logo and sign accompanied the new ARRCOM headquarters Building 1, now the CCDC Armaments Center administrative building (Building 93). This logo, keeping with the enthusiasm of the bicentennial, was a reminder of our heritage dating back to the inception of the United States.

The Middle Forge featured prominently on the new logo. The alternate ARRCOM logo was a modification of the AMC shield to include the ARRCOM acronym. The research and development mission continued, to include demolition and mine clearing technology, flares for helicopters and countermeasures, new mortar systems and accompanying ammunition, more lethal and effective artillery.

**THE ARDEC YEARS**

There was another reorganization in 1983, with the dissolution of ARRCOM. The mission changed names again, first to the US Army Armament Research and Development Center (ARDEC).

The addition of “Engineering” in 1986 changed the name to the Armament Research, Development, and Engineering Center (ARDEC), which it retained until February 2019. The first ARDEC logo was a representation of the now iconic Cannon Gates, constructed in 1884 by Thomas Robinson for $2.75 per day.

The four, eight-inch Columbiad cannons were originally part of the defenses of New York Harbor, and the Ordnance logo is located in the middle of each gate. The ARDEC reputation for excellence in armaments research and development was so strong that it won the Army Center of the Year award in 1986. A special recognition came in 1991 after Desert Storm.

The ARDEC mission continued its legacy by developing the technologies that demonstrated decisive mastery of the battlefield during the Desert Storm. These technologies included the development of the 120mm “Silver Bullet” Kinetic Energy round for the Abrams tank, and sub-systems of the Patriot Missile.

The mission continued into the 1990s and 2000s to develop new explosives and energetic materials, improved lethality of munitions, and the fielding of Inertial Munitions (IM) improved mortar and artillery ammunition.

After Sept. 11, 2001, ARDEC was called upon to support the Global War on Terror. Technology previously mentioned, developed and fielded since Desert Storm, proved its worth on the battlefield. The Picatinny Arsenal workforce responded again to address emerging mission needs, and continued to make significant advances in the era of precision guided and enhanced lethality munitions.

**CCDC AND CONTINUING THE MISSION**

Picatinny’s steadfast mission continues today. The logo of the AFC is a golden anvil set into a shield of silver and black. The CCDC logo, which is the heart of the new Armaments Center logo, takes the rough shape of a hammer to accompany the AFC anvil.

Adoption of these new icons is perhaps a full circle, retracing of the roots of the mission at Picatinny Arsenal. The Middle Forge and tools still exist as a monument in front of Building 151. They are flanked by two Civil War era cannons and a plaque that reads “Saratoga Park.”

The cannons and plaque are a remnant transferred from Frankford Arsenal when their mission was transferred to Picatinny. But it is also a reminder of the research and development contributions during World War II.

Building 151 itself bears the Ordnance seal above its entrance, a remnant of its former role as Picatinny Arsenal Headquarters.

The centennial celebration of Picatinny Arsenal in 1980 included a time capsule buried in front of the ARRCOM headquarters, now Building 93. Tradition holds that it will be ceremoniously re-opened in 2080, and subsequently re-interred to include mission accomplishments from the second century.

The new materials will include the entire history of the mission accomplishments of ARDEC and the accomplishments to come under the CCDC Armaments Center. The mission and the dedication of the people at Picatinny Arsenal continues its momentum into the future, as it has under various names since 1880.
Big changes coming to the future of Army history

Army News Service
FORT MEADE, Md. -- The Army Center of Military History will realign under Army Training and Doctrine Command April 1 to better promote history at schoolhouses across the force, officials announced Thursday.

The center’s mission will remain the same and its activities will continue at Fort Belvoir, Virginia; and Fort McNair in Washington, D.C.

Under TRADOC, a four-star command, the center will have further access to inspire and educate Soldiers from trainees in basic combat training to officers at staff colleges.

“IT allows us to much more effectively do what we do on behalf of the Army,” said Charles Bowery Jr., the center’s director.

There are currently no plans to physically relocate or eliminate the center’s 250 employees due to the realignment, he added.

The Institute of Heraldry, a CMH directorate for the past three years, however, will remain at the Department of the Army headquarters level under the Office of the Administrative Assistant to the Secretary of the Army.

Other key changes will mainly occur behind the scenes, such as new procedures for reporting and administrative support, funding and lines of accounting, and new rating officials for GS-15 and above employees.

The center’s move is part of reforms being made by the secretary of the Army to ensure the headquarters level is focused on policy and oversight, and commanders at lower levels are properly equipped to carry out their functions.

“We’re kind of the standard bearer of reform for the Army in realigning to TRADOC,” Bowery said.

The modernization of Army historical efforts dates back to World War II as the service sought to record the official history of the war, according to the center’s website.

Over the decades, the center expanded that role into military history education, introduced automated data-retrieval systems, and currently manages the Army’s museum system.

The museum system includes 47 Army museums and 176 other holdings, which have around 500,000 artifacts and over 15,000 works of military art.

The center is also behind the National Museum of the U.S. Army, which is under construction at Fort Belvoir and projected to open in 2020.

With 750,000 visitors expected to visit each year, the museum will serve as a “launch point” for TRADOC to engage the public about the Army.

“We look at the national museum as a premiere platform to advertise the Army to the nation and the world,” Bowery said.

Other Army museums may also see changes as the center plans to look at some management reforms to ensure they run more efficiently.

“It’s all about funding the secretary of the Army’s priorities,” Bowery said, “and we want to make sure we’re good stewards of the money we receive to run the museums.”

In the publishing realm, he added, the center will also embark on a new series telling the histories of the wars in Iraq and Afghanistan.

Balfour Beatty accepting annual scholarship applications

Balfour Beatty

Applications are now being accepted for the Balfour Beatty Communities Foundation scholarship program for the 2019-2020 academic year.

All residents living in Balfour Beatty Communities housing – including spouses and children who are pursuing a degree are eligible to apply.

The Balfour Beatty Communities Foundation Scholarship Program recognizes those residents who are students or aspiring students excelling academically and looking to make a difference both in and out of the classroom.

Scholarship applicants must currently reside in Balfour Beatty Communities housing and plan to attend or already attend an accredited college or university in the fall of 2019, or be enrolled in a program of study designed to transfer directly into a four-year program.

The Balfour Beatty Communities Foundation is a non-profit organization committed to supporting the post-secondary educational goals of residents who live in a Balfour Beatty community.

More than 300 academic scholarships have been awarded to residents, including active duty service members and their dependents, since the program was established in 2009.

Scholarship awards range from $1,000 to $2,500, with the potential for being larger for exceptional submissions. Achievements made by our applicants, both in academics and community participation, consistently inspire us every year.

We’re honored to be able to assist them in their academic endeavors through our scholarship program.

For more details regarding scholarship requirements and to complete an online application, please visit the Foundation’s website, www.bbcounitiedstates.com. Applications must be submitted no later than March 22, 2019.