



THE PICATINNY VOICE

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Picatinny develops next generation of hand grenade

The first new lethal grenade in more than 40 years provides greater flexibility

BY ERIC KOWAL

Picatinny Arsenal Public Affairs

Engineers at Picatinny Arsenal are working on the first new lethal hand grenade in more than 40 years, which is designed to give greater flexibility to the warfighter.

The multi-purpose hand grenade design will provide both fragmentation and blast overpressure more effectively and safely than its legacy counterparts. Once fielded, Soldiers will be able to select and use a hand grenade with different effects simply by flipping a switch.

Over the past five years, Picatinny engineers have been collaborating with Infantry School representatives, hand grenade cadre, as well as active duty Soldiers and Marines, to determine warfighter needs regarding hand grenades.

Our warfighter lost the capability of using an alternate lethal hand grenade

when the MK3A2 concussion grenade was taken out of service in 1975 due to an asbestos hazard, leaving the M67 fragmentation grenade.

The grenade development at Picatinny is being performed by engineers with the U.S. Army Armament Research, Development and Engineering Center, or ARDEC.

Science and technology funding has allowed ARDEC to spearhead the design effort to develop the Enhanced Tactical Multi-Purpose (ET-MP) hand grenade, the Army's next generation lethal hand grenade. The grenade will be designed to meet performance requirements required for close combat engagements in which the effects must be lethal.

ARDEC is working in cooperation with the Maneuver Center of Excellence at Fort Benning, and the Program Manager for Close Combat Systems, to insert

critical technologies with Soldier-centric designs to improve safety and ease of use.

According to Jessica Perciballi, ARDEC Project Officer for ET-MP, U.S. Army, Grenades & Demolitions Division, ET-MP represents the first hand grenade that can be tailored to the mission.

"Soldiers will not need to carry as many types of hand grenades," she said.

"They are currently carrying one M67 grenade that provides lethal fragmentation effects. With the new multi-purpose grenade, they can carry one

ET-MP grenade and have the ability to choose either fragmentation or concussive effects desired for the situation," Perciballi said.



The first new lethal hand grenade in more than 40 years is designed to give greater flexibility to the warfighter.

Another feature is that the grenades are designed for ambidextrous use, meaning that they can be thrown with either See GRENADE, Page 3



Connie M. Lusto, a physicist at Picatinny Arsenal, captured video of the 21-gun howitzer salute on Sept. 9, during the Arsenal's commemoration of the attacks on the United States on Sept. 11,2001. Lusto extracted this still photo from the video, which was taken at about the time of the 16th or 17th salute, by which time lingering smoke from earlier howitzer firings is evident in the background. Copyright photo published with permission. For more photos of the ceremony turn to page 3.

Castellano named METC director

Picatinny Arsenal Public Affairs

The U.S. Army has appointed David R. Castellano to the position of Executive Director, Munitions Engineering Technology Center, effective Sept. 18. The center is part of the U.S. Army Armament Research, Development and Engineering Center, or ARDEC, the largest organization at Picatinny Arsenal.

In his most current position, Castello served as Executive Director, Weapons and Software Engineering Center or WSEC, also a part of ARDEC.

"Please join me in congratulating Dave Castellano on his reassignment as Executive Director of METC," said ARDEC Director



John Hedderich in an email message to the workforce. "I would like thank Dave for the many years of excellent leadership that he provided to WSEC.

"I also want to thank Tony Sebasto, Ross Benjamin, Bill Smith, Brian Bosworth and Joe Brescia for their outstanding service and support as Acting METC Executive Director," Hedderich added.

Castellano has been Executive Director of WSEC since February 2008. His responsibilities included leading a large research, development and engineering center with a team of more than 1,100 government employees and 300 contractors.

With more than 37 years of experience in technical leadership, engineering excellence, and project/organizational management, Castellano directed his core efforts at WSEC toward systems integration and rapid development/fielding of systems in direct support to the warfighter, as well as fielding advanced and weapon systems to the Army, Navy and Marines. Castellano was appointed to the Senior Executive Service in December 2003.

Armament Graduate School holds second commencement

BY CASSANDRA MAINIERO

Picatinny Arsenal Public Affairs

Turning their tassels, four Picatinny Arsenal employees graduated from the Arsenal's Armament Graduate School on Sept. 1 at the Cannon Gate Catering Center.

The graduating Class of 2016 were Aaron Michael Benfante, Robin Crownover, Gregory J. Roehrich, and Lt. Col. O'Neal A. Williams Jr.

The Armament Graduate School, or AGS, is an educational program within the Armament University. The university was developed by Picatinny's largest tenant, the U.S. Army Armament Research, Development and Engineering Center or ARDEC, which announced the AGS program in 2013 and graduated the first class in September 2015.

Following a graduate-level curriculum, AGS aims to develop the next generation of armament engineers.

In this curriculum, students concentrate on a combination of chemical, electrical and mechanical engineering disciplines and review rigorous subjects such as statistics, applied mathematics, material science and the scientific method.

EXPERIENCED FACULTY

The program's faculty includes about 55 Picatinny employees, many of which have doctorate degrees, have received patents, and have been published in technical journals.

The school's chancellor is Donald Carlucci, a senior research scientist in computational structural modeling. The provost is Kenneth Short, research scientist in neuroscience and experimental psychology.

"The way that [ARDEC] helps to defend our nation is by making our scientists and engineers the best. It's another

way we don't allow the enemy to have a fair fight," said ARDEC Director John F. Hedderich before turning to the graduates. "You're so brilliant and well-trained, that you invent things that the enemy could never even think of."

The event's keynote speaker was the Deputy Program Executive Officer Ammunition, and Senior Commander of Picatinny Arsenal, Brig. Gen. Patrick W. Burden. Burden explained that the graduates not only demonstrate Picatinny's strong, educated workforce, but are examples of discipline and resilience, two of the foundations of Army leaders.

"If I can leave you with some words of wisdom today, I ask that you always remember this moment and remind yourself: you are a force to be reckoned with," Burden told the graduates. "Never lose that drive that you've shown here through your course work at the Armament Graduate School, and never let your curiosity to know more, and be more, disappear.

"Picatinny wants leaders like you. We thrive with leaders like you within the Army and also within our society. On behalf of everyone from the Picatinny community, we are so thankful to have you as our teammates and for reminding us that hard work and perseverance pay off."

According to AGS's website, classes are offered every fall, spring, and summer. Most classes meet for 10 three-hour sessions throughout the semester.

With the exception of the seminar and orientation, each course equals three credits.

To earn a doctorate degree, students must earn 60 credits, plus a 30-credit capstone project or dissertation. To earn a master's degree, students are required take five core classes and five electives. Often, students are provided eight to 12



Tossing their caps in the air are the graduates of Picatinny Arsenal's Armament Graduate School. Shown from the left are graduates Aaron Michael Benfante and Gregory J. Roehrich. Next are Brig. Gen. Patrick Burden, Senior Commander, Picatinny Arsenal; John Hedderich, Director, U.S. Army Armament Research, Development and Engineering Center; and Col. Richard Hornstein, Military Deputy at the engineering center. The other two students are Robin Crownover and Lt. Col. O'Neal A. Williams Jr. They are the second class to graduate from the unique program that develops a fully skilled scientist in the art of armaments engineering. Photo by Todd Mozes.

hours of homework per week, per course.

"The hardest aspect was getting your mind to engage in a highly technical way after being out of the school environment for 20 years," said Williams, Product Manager GATOR LandMine Replacement. "The first semester was rough. I took two classes and only slept about two hours—just to ensure that homework was complete as well as concepts were understood.

"The best aspect of the class was the instructors," Williams added. "They were demanding, but fair they were also very helpful. They made themselves available

all throughout the week for one-on-one assistance. That in itself was invaluable. That alone made me want to work harder for them and succeed.

"Every class I enrolled in I used that knowledge the next day or the next week in a meeting, engagement with industry partners, or added to a technical discussion," Williams continued.

"In addition, Dr. Florio and Dr. Fischer were phenomenal professors. Their patience, passion, dedication, unbelievable knowledge, and wanting students to succeed, made me want to work that much harder to make them proud."

THE PICATINNY VOICE



Senior Commander Picatinny Arsenal and Deputy Program Executive Officer Ammunition

Brig. Gen. Patrick W. Burden

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All manuscripts, photos or artwork may not be returned without prior coordination. Digital images should be submitted at a resolution of at least 200 pixels per inch.

Due to space limitations, the editor reserves the right to edit submitted articles. Contributions can be sent by e-mail to picavoice@conus.army.mil.

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http://www.pica.army.mil/Picatinny/voice/voice.pdf



Soldiers, Marines and engineers gather to evaluate and down-select various grenade body and arming designs. Photo by Herbert Wortmann.

GRENADE MORE FLEXIBLE continued from Page 1

hand. Current grenades require a different arming procedure for left-handed users.

"Not only will ET-MP provide additional capabilities and lethality to the warfighter, it will also be the first Army Fuze Safety Review Board and Insensitive Munition-qualified lethal grenade in the Army's portfolio," Perciballi added.

According to Matthew Hall, Grenades Tech Base Development Lead, "The request for a multi-purpose grenade came from the warfighter in 2010. Research began almost immediately. The science and technology funding to move forward with a project came in fiscal year 2013."

"We received direct input from the Army and Marine Corps early on, which was critical in ensuring the new arming and fuzing design was user friendly," Hall said

"With these upgrades in the ET-MP, not only is the fuze timing completely electronic, but the detonation train is also out-of-line," Hall added. "Detonation time can now be narrowed down into milliseconds, and until armed, the hand grenade will not be able to detonate."

According to Hall, the current plan for ET-MP is to transition the new grenades to Project Manager Close Combat Systems in Fiscal Year 2020. That organization is also located at Picatinny Arsenal.



A Soldier at Fort. Benning throws a prototype, inert grenade from the kneeling position. Photo by Herbert Wortmann.



A 21-gun salute with three howitzers was part of a wreath ceremony here on Sept. 9 in remembrance of the Sept. 11, 2001, terror attacks. Marines from Gulf Company, 2nd Battalion, 25th Marine Regiment, fired blank rounds. The ceremony was at the Visitor Center because of a 9/11 memorial marker that is located there. Photos by Todd Mozes.





Col. Jonathan B. Slater, Project Manager Close Combat Systems, at left, explains the M7 Spider Networked Munition to Brig. Gen. Richard B. Dix, Joint Munitions and Lethality Life Cycle Management Command and Joint Munitions Command Commanding General on Aug. 31 at Picatinny Arsenal. The M7 Spider Networked Munition is a hand-emplaced, remotely controlled, Man-In-The-Loop antipersonnel munition system.

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Lt. Col. Steven Power, left, the new Product Manager Individual Weapons, poses with Project Director Soldier Weapons Col. Brian C. Stehle following the organization's Sept. 7 change-of-responsibility cer-

Lt. Col. Power new Product Manager Individual Weapons

BY PETER ROWLAND

PM Soldier Weapons

Project Manager Soldier Weapons welcomed its newest team member on Sept. 7 during a formal change-of-responsibility ceremony for Product Manager Individual Weapons held in the Victor Lindner Conference Center.

More than 75 employees, family members and friends attended the afternoon event. Project Director Soldier Weapons Col Brian C. Stehle presided over the event.

During the ceremony, Acting Product Manager Barbara Muldowney passed a copy of the PM IW charter to her successor, Lt. Col. Steven Power. The act represented Power's assumption of the duties of PM IW, which Muldowney had performed since April.

Before the charter ceremony began, Muldowney was honored for her accomplishments as acting PM IW over the past five months.

Stehle presented her with the Commanders Award for Civilian Service in recognition of her 'outstanding leadership, relentless pursuit of excellence and focused vision."

After the award presentation, Stehle,

Muldowney, Power and Acting Deputy PM IW Dave Ahmad conducted the change-or-responsibility ceremony in front of a colorful background

During his remarks, Stehle thanked Muldowney for her efforts, calling her performance "truly awesome." He also acknowledged the outstanding support of the PM IW team.

He then welcomed Power and his wife, Sara, to the PM SW family and predicted the new PM "will do outstanding things for Soldiers during his assignment as PM IW."

Muldowney and Power also spoke briefly.

Muldowney returns to her permanent job as deputy product manager for the organization, a position she has held since 2002.

Power comes to PM SW from Intel Corp., where he worked as a project manager on the company's business transformation team in Portland under the Army Training with Industry Program.

A native of Long Island, he also is a former assistant product manager with both the M1A1 Abrams Tank and Ground Combat Vehicle Programs in Warren, Michigan.



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BORON CARBIDE-BASED ENERGETICTIME DELAY COMPOSITIONS
Inventors: ANTHONY SHAW(ARDEC), JAY PORET(ARDEC) CHRISTOPHER CSERNICA (ARDEC)



Patent No.: 9,255,040 Date of Patent: Feb. 9, 2016

ARDEC employees enhance Army hand-held signal with versatile boron carbide-based energetic time delay compositions

BY LAUREN POINDEXTER

Picatinny Arsenal Public Affairs

Three Picatinny Arsenal employees were recently granted a patent for their work on boron carbide-based pyrotechnic time delays. The employees include Anthony Shaw, a Picatinny chemist, Jay Poret, a physical scientist and Christopher Csernica, a chemical engineer.

The three employees are with the U.S. Army Armament Research, Development and Engineering Center's Pyrotechnics Technology and Prototyping Division at Picatinny Arsenal.

Their patent was for a precise, slow burning, pyrotechnic delay composition that contained three components: 8 to 55 weight percent boron carbide fuel, 35 to 82 weight percent sodium periodate oxidizer, and PTFE (a fluorinated polymer commonly called TEFLON).

The PTFE acted as both a pyrotechnic oxidizer and a lubricant, so that the resulting composition had surprisingly good mechanical properties, said



John Hedderich, director of the Armament Research, development and Engineering Center, Anthony Shaw and Jay Poret receive an award on Feb. 9 for Patent 9,255,040.

Shaw. For example, the pyrotechnic blend could be pressed to a higher consolidated density with ordinary loading force, a more desirable process bringing the benefits of minimal wear on the tooling used for pressing and excellent consistency in powder mixing.

"This project started in 2011, although the patent covers work that occurred mostly in 2012 and 2013," said Shaw.

"The goal was to replace the toxic chemicals in the hand-held

signal delay with benign alternatives. In fact, this is the second patent we received for work on this project."

The first patent received was patent 9,193,638 for condensed phase energetic time delay compositions.

"Unlike the first patent, this one originated from work that occurred entirely at ARDEC," said Shaw. "The inventive delay formulation which contains boron carbide, a hard ceramic material, sodium periodate, an

oxidizing material that is relatively new to pyrotechnics, and PTFE (a fluorinated polymer) has an interesting developmental story.

"Each component, or combinations of the components, were being experimented with for completely different applications in the Pyrotechnics Division at the time," Shaw added. "We were examining boron carbide for use in smoke-producing compositions, as well as in green-light-emitting flares.

"Also in our division, Jared Moretti was developing flash/incendiary compositions containing periodate salts. This inspired us to choose sodium periodate as the main oxidizer for the compositions," Shaw said.

The inventive delay formulations started out as tracer compositions for ammunition.

"Chris Csernica and I observed that certain combinations and ratios of the materials were able to continue burning for long periods of time inside small metal housings, and that's exactly what is needed for a

reliable pyrotechnic delay," said Shaw. "After that, Jay Poret and I spent over a year conducting many tests to prove the concept, culminating with tests at the contractor site in fully assembled hand-held signals, which were successful. We also documented our work in several articles.

"During our experiments we were able to produce delay columns that burned for very long periods of time. Both Tony and I joked that we could go have a cup of coffee and after we came back the delay would still be burning," said Poret.

"There are many aspects of the formulation that provide non-obvious benefits for the intended application," Shaw continued. "We are very fortunate to have managers in the Pyrotechnics Division, Andy Zimmer and Jim Wejsa, who encourage and support our exploratory R&D (research and development) efforts, which lead to new discoveries and inventions in the area of energetic materials."

Commemorating Hispanic Heritage Month: Embracing, Enriching, and Enabling America

U.S. Army Public Affairs

Commemorations such as Hispanic Heritage Month are an excellent opportunity to pause and reflect on our shared history as Americans, and to celebrate the rich mosaic of people and cultures who, together, built and strengthened our Army and our nation.

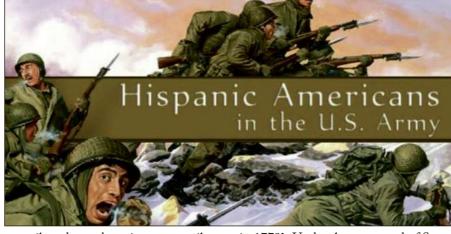
This year's national theme - Embracing, Enriching and Enabling America - aptly captures that spirit as we come together to celebrate all that Hispanic Americans have contributed to our nation and Army.

According to the U.S. Census Bureau, more than 50 million Americans identify as Hispanic. That's sixteen percent of the U.S. population, and a share of the population that is expected to grow.

Through hard work, devotion to family, loyalty to community and country, Hispanic-Americans continue to pursue the American dream and at all times contribute to the strength, protection and diversity of our nation. They do, indeed, *embrace*, *enrich* and *enable* America.

Today, Hispanic Americans make up about 12 percent of the Army's active component—a three-fold increase over the past thirty years, when only four percent of the active Army active was of Hispanic origin.

Each year during Hispanic Heritage Month, we celebrate these Soldiers, Army Civilians, and family members who have



contributed —and continue to contribute —to our force.

Like many commemorations, this is a month-long, but it's unique in its own right because it begins in the middle of one month—September 15—and ends in the middle of another, on October 15.

The reason for the mid-month celebration is because September 15 is the day Costa Rica, El Salvador, Guatemala, Honduras, and Nicaragua celebrate their Independence Day.

Mexico celebrates its independence shortly afterwards on Sept. 16, and Chile Sept. 18. Oct. 12 is significant, too, celebrated across Spain and Latin America as the 'Day of Hispanic Heritage'.

Did you know that Spain officially entered the American Revolutionary War

in 1779? Under the command of Spanish General Bernardo de Gálvez, the colonial governor of Spanish Louisiana, volunteers from Cuba, Puerto Rico and Mexico defeated the British at Natchez and Baton Rouge—clearing the Mississippi River of British forces and putting the lower part of the river under Spanish control.

Baton Rouge remained in Spanish hands for the rest of the war, and Britain ceded both West and East Florida to Spain in 1783 under the Treaty of Paris.

During the Civil War, thousands of Mexican Americans volunteered to fight for the Union Army.

Many of these Soldiers used their wellhoned horsemanship skills to guard Union trains, chase bandits, fight Confederate raiders, and defeat a Confederate invasion of New Mexico.

Since then, forty-five more Hispanic-American Soldiers have been awarded our nation's highest combat honor.

More than a decade ago, Congress directed a review of military records to ensure that acts of heroism deserving of the Medal of Honor were not overlooked or rejected because of prejudice or discrimination.

After years of review of thousands of records, 24 Army veterans—seventeen of Hispanic descent—were identified as having earned the Medal of Honor.

There was evidence to show that these heroes fought for, and sometimes died for, a country that did not always regard them as equal. But that wrong was righted in 2014.

In a ceremony that was unique in scope—and one of the largest in history—President Obama presented our nation's highest award for valor to three of those twenty-four men, and family members for twenty-one receiving the award posthumously.

More than 2,700 Purple Hearts, 600 Bronze Stars, 250 Silver Stars, nine Distinguished Service Crosses, and a Medal of Honor.

More than 740 of them were killed in action and more than 100 remain missing in action.



Plaque unveiled at Picatinny Arsenal's New Jersey Fallen Service Member Tree **Memorial** Ceremony

Picatinny Arsenal Public Affairs

New Jersey service members who have died in support of overseas contingency operations since Sept. 11, 2001 were honored at this year's annual New Jersey Fallen Service Member Tree Memorial Ceremony, Sep. 10.

It marked the second ceremony since its inception in 2007 where no new service members were honored for the previous calendar year, as no New Jersey service members were killed in action in 2014 or 2015.

The ceremony is part of an annual tradition here, where a red oak tree is planted as a memorial to the individual service member and a plaque is placed at the base of each tree. The red oak is the official state tree of New Jersey. In all, 174 red oak trees are now planted in the memorial.

This year a plaque was unveiled that brought a close to the memorial 15 years after the attacks on our nation on September 11, 2001. The plaque reads as follows:

"New Jersey Fallen Service Member Tree Memorial - Never Forgotten ----- In response to the 11 September 2001 terrorist attacks on the United States, Picatinny Arsenal is proud to honor the New Jersey Service Members who have made the ultimate sacrifice in support of the Overseas Contingency Operations beginning 7 October 2001 and ending on 31 December 2014. Dedicated 10 September 2016 Picatinny Arsenal."

As part of honoring all of the fallen New Jersey fallen service members, the ceremony included a reading of all their names, followed by a 21-gun salute, and a bagpipe rendition of "Amazing Grace" and "Taps," musical pieces which are typically played at military ceremonies to honor fallen service members.

Brig. Gen. Patrick Burden, Picatinny Arsenal Senior Commander told families and ceremony attendees: "For the most fitting memorial we can truly leave for the 174 brave Americans are not words etched on a plaque but memories etched in our hearts, in our souls. As we continue to move forward in the defense of liberty and freedom for all, may God look over the families of the men and women we honor here today."

After the ceremony ended, families and loved ones were transported to the area, where the trees planted in honor of their fallen service members are located.

Photos By Todd Mozes









Army returns life-saving helmet to engineering sergeant

Army News Service

WASHINGTON -- Staff Sgt. Frankie Hernandez might not be around today were it not for his Army-issued advanced combat helmet.

On Saturday, Sept. 10, Hernandez was reunited with the helmet that saved his life as part of Program Executive Office - Soldier's "Personal Protective Equipment Returns" program. Hernandez, an Army Reservist, is a platoon sergeant with the 668th Engineer Company out of Orangeburg, New York.

Four years ago, on May 18, 2012, while on deployment to Afghanistan, Hernandez was driving an up-armored D7 bull-dozer in Afghanistan during an operation to build a road that would serve a U.S. Army infantry unit.

"It was in the afternoon, closer to the end of the evening," Hernandez remembered. "It was towards the end of the mission when we came to a point where we needed to adjust the direction we were going."



During a ceremony on Sept. 10 at the Orangeburg, New York, Reserve Center, Col. Dean Hoffman, right, presents Staff Sgt. Frankie Hernandez with the Advanced Combat Helmet that saved his life while he served in Afghanistan.

Hernandez stepped out of his uparmored bulldozer to consult with two Army infantry officers who were leading the way on how to proceed with the construction mission. They had come to a swampy area and were trying to determine the best route of approach to continue building the road.

While he was consulting the map with

the infantry captains, they heard a loud noise coming from the engine compartment of the bulldozer. All three turned to look.

"The captain that was on my right asked me what it was," Hernandez said. "As I turned to answer -- I don't remember what I was going to say to him -- I felt the impact on my helmet, and on my head."

Hernandez had been fired upon, but his advanced combat helmet had stopped the bullet from hitting his head.

"I was kind of numb. I didn't know what had happened," Hernandez said. "So I told the captain to my right, I told him, 'I think I got hit."

The captain confirmed for Hernandez that he'd been hit on the helmet. At that point, the men dropped to the ground and sought cover on the other side of the bulldozer. Hernandez called for the other bulldozer to pull up to provide additional cover. An infantry captain called for gun support.

Today, Hernandez finds it hard to describe exactly what was going through his mind after being hit by gunfire.

"One second you're talking normal," he said. "And then the next your whole body goes numb. You get like a ringing sensation in your ear. . . . I thought about a lot of things: family, friends, my Soldiers. Everything was going through my head at the same time."

One thing Hernandez knows for sure about the moments immediately after being fired upon is that his battle buddies were there for him when he needed them most.

"It felt like I was alone," he said. "Then all of a sudden, out of everywhere, I had back up. They came and they had my back and they helped me. That was such a relief."

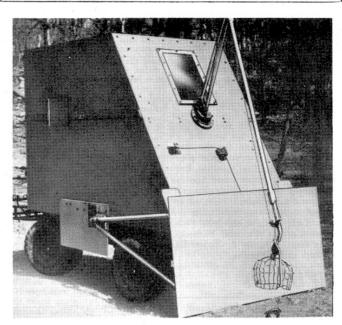
He remembers feeling angry at being shot, but concerned for the other troops and concerned for his own welfare, because he had no idea of the degree of seriousness of his injury.





Looking Back ... At Picatinny

Munitions Retriever in Action



Picking up an unexploded hand grenade is the cross country retriever which is used at Picatinny for the safe recovery of "dud" munitions to determine the cause of malfunction.

Cross Country Retriever Enlarges Safety Margin

BY PATRICK J. OWENS, ARDEC HISTORIAN

Testing munitions often leaves duds in test areas. However, duds are not always duds and picking them up has its hazards. The photograph shows how Picatinny dealt with the problem in the early 1960s. The photo is from The Picatinny News of June 14, 1962.

Called officially the cross country retriever, and unofficially the cherry picker, this item was the product of weeks of trial and error by two technicians in the Experimental and Evaluation Section of the Technical Services Laboratory.

The retriever surrounded a small, four-wheel drive vehicle with heavy aluminum, paying special attention to the undercarriage, and a mechanical arm to grasp munitions. The driver looked through a plexiglass window two inches thick. The retriever carried the hopefully inert munition to an armored transport cart, which took it to a special facility for x-rays.

15 years later, Army Pentagon personnel remember 9/11

WASHINGTON -- After 15 years, the number of those injured on 9/11 and still working in the Pentagon is dwindling.

Lt. Col. Brian Birdwell, who suffered third-degree burns on over 60 percent of his body, is now a state senator in Granbury, Texas.

Sgt. 1st Class Chris Braman, who pulled numerous casualties out of the Pentagon's smoldering embers, is now retired in California.

Doctors have told him that his lungs, which were damaged by the toxic smoke on 9/11, would do better in the low humidity out west.

"Most people I know have either retired or gone on," said Carl Mahnken.

Mahnken is one of those deeply affected by 9/11 and still working in the building.

At 9:37 a.m. on Sept. 11, 2001, Mahnken was blown backward in his chair after American Airlines Flight 77 hit the side of the Pentagon just down the hall from where he sat at his computer.

"I got thrown directly backward," he said. Then his computer monitor landed on his head, causing a contusion about the size of a golf ball.

"It happened real quick, in the blink of an eye—it happened that quick,' he said.

Mahnken and co-worker David Theall picked themselves off the floor and grabbed onto wires to guide their



way forward out of the building.

"You could hardly walk, because all the walls were down," Mahnken said.

"Dave kind of found a hole and we all ended up getting out on stairwell 54, and started helping people out and helped with triage."

A major had been badly burned. 'We loosened his shoes, ripped his pants open so they could see the exposed burns and kept talking to him so he wouldn't go into shock.'

An Army nurse by the name of Patricia Horoho, then a lieutenant colonel, showed Mahnken how to set up intravenous needles and bags.

More than a decade later, he met Horoho after she had been promoted several ranks and was serving as the

Army's surgeon general.

"I said 'General Horoho, you don't remember me, but on 9/11 ...

She looked at him closely for a second and then gave him a huge hug.

"It doesn't matter where you are, you connect to people [from] that day," Mahnken said.

DETERMINATION

The day after the 9/11 attack, Mahnken went back to the Pentagon and spent a 12-hour shift in the Army Operations Center as a public affairs representative there.

"I just remember the determination on everyone's face, you know this wasn't going to stop us."

He was extremely busy in the days

and months that followed. Discussions in the AOC focused on the Taliban in Afghanistan. In addition, he was taking graduate courses and serving as an Army Reserve officer when not in the Pentagon.

COPING WITH TRAUMA

Two years later, he realized some people were having coping issues.
"It takes a long time," he said, to

cope with traumatic events like 9/11.

Operation Solace helped counsel some survivors in the months immediately following the attack, Mahnken said, but he feels the dynamics of group sessions would have helped even more.

"When people have these issues, it can't be explained away ... there's a particular process that you have to go through. It's like grieving or anything else.'

Before the attack, Mahnken had been helping train officers in media relations and was in an office adjacent to a new first-floor studio when the plane hit about 100 feet away.

He conducted interviews in the days following 9/11 with the Washington Post, CNN, Fox and People magazine.

Mahnken has continued to work with Army Public Affairs and now functions with a liaison with military service groups and veteran service



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The Army's 2016 Theme: #BeThere

What is it?

Suicide Prevention is a 365-days-a-year effort and a top priority for Army senior leaders. The Army is taking a comprehensive and holistic approach to strengthening its people and mitigating risk by providing education, building protective factors, encouraging engagement, and emphasizing early intervention. The Army is highlighting its message of prevention through the summer months, culminating in September with Suicide Prevention Month. The Army is in support of the Department of Defense, whose 2016 theme is: #BeThere.

What has the Army done?

HOMEWO

The Army sees an increase in suicide events in the summer months. In 2015, the Army saw a 68 percent increase in the number of suicides from June to July. In 2016, the Army stressed suicide prevention by executing a communication campaign beginning in July. The goals of the campaign are to reinforce Army values, beliefs, and attitudes and to inform and educate members of the Army team about the risk factors and warning signs of suicide. This campaign includes Army senior leader messaging, videos and graphics.

What continued efforts are planned for the future?

In the Army, every Soldier counts, which is why messaging about suicide prevention continues and remains embedded in Army culture. The Army will continue to emphasize that it is the responsibility of individual Soldiers to have visibility and take responsibility to sustain their own personal readiness and the personal readiness of their buddy.

In addition, the Army is finalizing a new intervention training module called "Engage," which empowers individuals to engage and do something when a situation is risky or has the potential to escalate. This module redesigns intervention training to meet suicide prevention and substance abuse prevention training requirements. Based on Army values training, the module emphasizes that all members of the Army team have a duty and obligation to intervene when alerted.

Military, Civilian club plans multiple events

The Picatinny Military and Civilians' Club

The Picatinny Military and Civilians' Club (PMCC) will be holding a number of events that include a membership drive, a tricky tray fundraiser, a Thanksgiving luncheon and an '80s Prom.

PMCC is a social organization committed to raising funds to benefit and improve the quality of life of the entire Picatinny community.

Previous years' funds have gone to the Picatinny Tree Memorial, Picatinny Child and Youth Services, The Forge gym, Picatinny Community Day, ARDEC Teams Tournament, as well as local Scout troops, the Rockaway Township library, and the Dennis B. O'Brien school. We have also awarded more \$7,000 in scholarships over the past 6 years.

The organization began in the 1960s as the Officer's Wives Club. Over time, the membership expanded to include both male and female active duty, retired and reserve military members, current and retired DoD civilians and contractors who work on Picatinny, and their spouses. The club as we currently know it, has been in existence for 17 years.

Upcoming events for this year include our

membership drive on Sept. 20 from 11:30 a.m. to 1 p.m. at the home of Rhonda Dring, 100 Farley Avenue. We'll be serving a complementary lunch to returning and new members and their guests. Everyone is invited to find out about the benefits of membership. Members are not required to attend meetings or volunteer.

Other events this year include the Annual Tricky Tray fundraiser. Baskets will be previewed at Choices during lunch time on Oct. 19-20 with the Tricky Tray event at the Cannon Gate Club on the evening of Oct. 20. The cost is \$30 for dinner, with ticket bundles available for purchase in advance. More information is available by emailing pmcc.reservations@gmail.com. If you are interested in donating items for the Tricky Tray, please contact PMCC at the same email address.

We'll also host a Thanksgiving luncheon and food drive in November, an '80s Prom in February, and other activities and events throughout the year.

To find out more about PMCC, check us out our website, www.joinPMCC.org, Facebook: Picatinny Military and Civilians Club, Twitter: @PicatinnyPMCC and Instagram: PicatinnyPMCC.

SECDEF reaches out to high tech community

Defense Media Activity

WASHINGTON — The Defense Department needs to be flexible and more "user-friendly" to attract the very best in the highly competitive tech community, Defense Secretary Ash Carter said Sept. 13 in San Francisco.

"In today's world ... you have to be open in order to be the best. Everybody knows that, and we need to be open, too," Carter told the "TechCrunch Disrupt 2016" innovation and technology conference.

One of the things that has made the United States the "best for a long time" is its great

innovative culture, he said.

Carter said that culture has changed from when he started out in physics in the 1970s and 1980s. "It was a different world," he said. "The bridges between the government and the tech community were bigger and stronger." Back then, the tech community was largely based in the United States and depended on the government for funding, he pointed out.

"Today, it's global, it's vibrant, [and] much of it takes place independent of the government," the secretary said.



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