RDECOM magazine
A publication of the U.S. Army Research, Development and Engineering Command (Provisional)
December 2003

Contents

RDECOM magazine
A publication of the U.S. Army Research, Development and Engineering Command (Provisional)
December 2003

Annual AUSA meeting includes RDECOM participants

By Karen Jolley Drewen, U.S. Army Research, Development and Engineering Command Public Affairs Office

Sgt. SirVantis Dennis was impressed by the U.S. Army Research, Development and Engineering Command systems on display at the Association of the United States Army annual meeting Oct. 6-8. But the Interceptor Body Armor remains his favorite. After all, it saved his life.

Dennis joined representatives from Natick Soldier Center in Natick, Mass., and the U.S. Army Research Laboratory at Adelphi, Md., at the AUSA meeting to discuss how an unexploded rocket-propelled grenade struck him squarely in the front of his IBA vest during an ambush in Iraq April 3.

"Not too many people have been hit center mass with an RPG and survived," he said. "Before that, I might hear the guys complain about the vest being heavy. But after that happened, you couldn't get me to take it off. I'd want one if I was going back."

His only injury was a bruise the size of the Small Arms Protective Insert tucked inside the vest, a thinner, lighter plate credited with saving the lives of dozens of Soldiers and Marines in Afghanistan and Iraq. That includes Dennis, who since has returned to Fort Stewart, Ga., where he's assigned to 3rd Infantry Division's 3rd Battalion, 69th Armor Regiment.

The Interceptor was just one RDECOM system on display at the U.S. Army Materiel Command's AUSA exhibit. Maj. Gen. John C. Doesburg, commander of RDECOM, attended the conference, and visited with personnel from across his command.

Barry Napp of Aberdeen Proving Ground's Guardian Brigade takes a look at the Well-Cam, a combination light and 360-degree camera used to inspect wells for weapons, as electronics engineer Zeke Topolosky explains how it works. The quick turnaround project went from request to prototype in two weeks, due to work by the Quick Response Branch of the Night Vision and Electronic Sensors Directorate in Fort Belvoir, Va.

Photo by KAREN JOLLEY DREWEN

He also spoke at a press conference Oct. 7 to discuss how the Mobile Parts Hospital, developed by the Tank Automotive Research, Development and Engineering Center in Warren, Mich., is changing the face of the battlefield.

The MPH, developed by TARDEC's National Automotive Center, is the automotive equivalent of the Mobile Army Surgical Hospital used to stabilize Soldiers before sending them out of theater for more complex care. This mini-manufacturing center, a 20-foot-long, 27,000-pound container, can create both standard and unique parts, and can be up and running in less than an hour.

"RDECOM is leading the way in bringing new technology to Soldiers more quickly, and the Mobile Parts Hospital is part of that effort," he said.

During the press conference, he spoke with Col. Gerald Bates, commander of via live teleconference from Camp Arifjan, Kuwait, who explained that the MPH is working well for them.

"Before, I'd be waiting for two weeks, minimum, to get a part. Now we can make it," Bates said. "Thank you for sending us this equipment. We're happy to have it."

Another RDECOM project was born from a need to inspect wells for weapons. The Well-Cam, a combination light and 360-degree camera, went from request to prototype in two weeks, and in less than two months was in the hands of Soldiers in Afghanistan, said Zeke Topolosky, an electronics engineer in the Quick Response Branch of the Night Vision and Electronic Sensors Directorate in Fort Belvoir, Va.

Part of RDECOM's Communications-Electronics Research, Development and Engineering Center, headquartered at Fort Monmouth, N.J., the branch specializes in further accelerating the time from request to finished product. Topolosky said the Well-Cam was a hit with Soldiers deployed in Operation Enduring Freedom.

"We build something and hand it over to a Soldier, who takes it to the battlefield, and, it saves lives," he added. "It's very rewarding."

Around the corner from the Well-Cam, Staff Sgt. Dan Ditzler from Natick Soldier Center modeled the prototype Objective Force Warrior, an evolving concept that incorporates advances in technology to provide Soldiers with high-tech, lightweight protection and equipment.

AUSA attendees also had a chance to try out America's Army, an alternative recruiting tool that uses the advanced graphics capabilities of today's video games. ARDEC is working with the management team at West Point and the game developers at the MOVES Institute/Naval Postgraduate School to take the game to the next level, for use in training and simulation and in weapon system development. The game capabilities can be directly translated into a Homeland Security tool, allowing local law enforcement agencies to practice maneuvers in virtual versions of real-world locations.

Other RDECOM projects featured around the Washington Convention Center included the Laser Multipurpose Arcade Combat Simulator, developed by the Aviation and Missile Research, Development and Engineering Center. The exhibit included an M16, IR laser tracker and a PC with a detector array. The MACS trainer is an interactive hands-on training device that teaches the Soldier the fundamentals of marksmanship. The PC simulates a 300-meter pop-up range using real digital imagery of the range while incorporating virtual targets. MACS was developed for the Army Training Support Center, Ft. Eustis, Va., and to support small arms training. The Laser MACS can be used in conjunction with a commercial product from AirMunition, for realist recoil of the simulated M9 and M16.

The U.S. Army Armaments Research, Development and Engineering Center demonstrated projects that will use technology to both protect and train Soldiers. ARDEC, located at Picatinny Arsenal, N.J., provided an Armed Talon robot display that allowed visitors to operate robotic platforms and simulate employing armament systems. In Military Operation in Urban Terrain environments or restricted terrain as seen in Afghanistan, these armed robots can be used to root out hidden enemy without putting Soldiers at risk.

The Mobile Parts Hospital wasn't the only TARDEC display at AUSA. The Advanced Collaborative Environments Lab was in TARDEC's National Automotive Center's booth to explain how they are helping Army program managers compress the acquisition cycle with virtual reality and other collaboration tools.

TARDEC also showed off Future Force enabling technologies, including hybrid electric technologies that are revolutionizing how ground systems are developed, built, fought and sustained; Vetronics Technology Integration, which will make unmanned ground vehicles and vehicles with two-man crews battlefield realities; and, Ballistic Protection for Integrated Survivability, exhibited for the first time on the FCS X-2 test hull fitted with a promising new armor composite for FCS and other Future Force vehicle platforms.

Researchers also demonstrated water generation technology, including a new system that can generate potable water from the exhaust from a High Mobility Multi-Purpose Wheeled Vehicle. Other efforts in water generation will reduce the size and weight of current desalinization, disinfection and water recovery capabilities.

Natick Soldier Center also demonstrated projects that will significantly reduce the logistics footprint while increasing quality of life for the warfighter. For example, the Remote Unit Self Heating Meal, a "kitchen in a carton" that demonstrated how to activate the chemical heater to heat the meal. A small scale model of the Field Feeding and Advanced Sustainment Technology Foodservice illustrated the technology under development for the future Battlefield Kitchen. The latest innovations in combat rations also were on display, including the Meal, Ready-to-Eat; the Compressed Meal, a component of the Future Combat Vehicle Crew Sustainment effort; and the First Strike Ration, a prototype early entry assault ration. Also demonstrated was Self Hydration, which uses a semipermeable membrane to generate potable water

from non potable sources. An interactive demo also featured Global Asset Visibility, answering the need for real time logistics tracking. Ultimately, this will allow the military to track every item anywhere in the supply chain in real time.

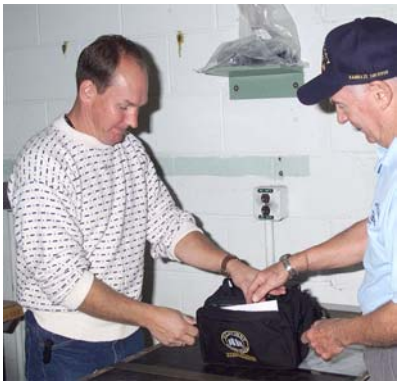
(The Soldier Systems Center Public Affairs Office at Natick, Mass., contributed to this article.)

RDECOM magazine
A publication of the U.S. Army Research, Development and Engineering Command (Provisional)
December 2003

Stryker Brigade to receive new Squad Weapons Maintenance Kit

By Myra Hess, Editor, The Voice

PICATINNY ARSENAL, N.J. – A prototype kit called the Squad Weapons Maintenance Kit was recently developed and assembled here for the 3rd Brigade, 2nd Infantry Division (Stryker Brigade) at Fort Lewis, Wash.



World War II Navy veteran Ken Williams, right, of Rockaway Township, former captain of the Tin Can Sailors of New Jersey, helps assemble one of the kits. Photo by Todd Mozes.

The entire project was completed, from concept, development, procurement, assembly through shipment, in only 30 days.

“This was a unique opportunity to support the soldiers in the field,” said Maj. Jay Ferreira, project manager. “We wanted to look at better and innovative ways to help Soldiers in the field.”

Picatinny personnel and local community volunteers, including a World War II veteran, formed an old-fashioned assembly line on Oct. 9 to assemble 200 kits for shipment and distribution to the brigade at Fort Lewis.

Barbara Mariotti and Ginny Antonelli, supply technicians from Johnson Controls, were among the volunteers assembling the kits. Both wrote personal notes to the Soldiers and placed them in the kits.

“We work in the logistics area and we ordered some of the items that are going in the kit, so we decided to help put it together too,” they said in the notes. “It’s nice to be a part of this.”

Mariotti, whose son was in Desert Storm, said she knew a little of what the Soldiers are going through, so she wanted to help.

The brigade will take the kits along to Southwest Asia, for experimental evaluation, and provide feedback to Picatinny. Each kit will include a survey for the Soldiers to fill out and return or they can respond directly via an e-mail address provided.

The kit is intended to aid Soldiers’ ability to maintain their individual weapons (M-4/M-16) and magazines by providing them with supplemental maintenance technologies.

“The new items won’t replace the Soldiers’ individual kits, but will give Soldiers additional tools to keep their weapons clean, maintained and thus safer,” said Ferreira.

These new kits will be used to supplement the cleaning kit that has been used since the Vietnam War.

“Also included will be an instruction card with contact information, as well as, a magazine inspection card with pictures used to help soldiers’ identify potential magazine defects,” Ferreira explained.

PM Soldier Weapons endorsed and funded this effort at $46,000. The cost of each kit is less than $200. Each kit consists of COTS (Commercial Off-The Shelf) and GOTS (Government Off-The-Shelf) items that include, a durable carrying case, a refillable compressed air can with hand pump, plastic finger sprayer bottles for applying lubricant, magazine speed loaders, Boresnake rifle cleaners, gun cleaning picks, magazine protective bags, protective dust caps, assorted paint brushes and a multi-purpose dry cleaning/lubricant cloth. The entire kit weighs approximately six pounds.

Members of the Picatinny community also wrote personalized letters for the soldiers and enclosed one in each kit.

(Maj. Jay Ferreira, Future Armaments Engineering Center, contributed to this article.)

ARDEC named Laboratory of Excellence

By Frank Misurelli, Picatinny Arsenal Public Affairs Office

PICATINNY ARSENAL, N.J. – The U.S. Army Armament, Research, Development and Engineering Center here has again won a top Army research and development award for the seventh time since 1989.

The award was based on a number of accomplishments during the year including development of advanced warheads for future weapons and application of Lean/Six Sigma management practices to improve its products, resulting in an estimated savings of over $1.3 billion in 2002.

The U.S. Army Research and Development Organization of the Year award program is an annual event in which all 15 Army laboratories are evaluated on vision, strategy, business plans, mission impact, resource impact, technical accomplishments and continuous improvement efforts.
“Being named Organization of Excellence is another in a series of well-deserved recognitions for the ARDEC workforce,” said Michael P. Devine, ARDEC Technical Director. “I am extremely proud to represent this extraordinary group of patriots.”

Presenting the award was the Honorable Claude M. Bolton Jr., U.S. Army Acquisition Executive and Assistant Secretary of the Army for Acquisition, Logistics and Technology, and Lt. Gen. John S. Caldwell Jr., Military Deputy to the Assistant Secretary of the Army for Acquisition, Logistics and Technology, during a recent award ceremony held at Crystal City, Va.

The Research and Development Laboratory of the Year (Small Lab Category) Award was presented to the Natick Soldier Center and to the U.S. Army Aviation and Missile Research Development and Engineering Center (Large Lab Category).

The RDL awards program was established in 1975 to honor Army research and development labs that have made outstanding contributions in science and technology.

Center celebrates 50 years of service to Soldiers

Soldier Systems Center Public Affairs Office

NATICK, Mass. -- The Soldier Systems Center celebrated its 50th anniversary with cake, music and stories from the battlefield at a packed Hunter Auditorium Oct. 21.

Kicked off by the singing of the national anthem by Massachusetts State Trooper Sgt. Dan Clark, a prayer by Chap. (Maj.) John Wheatley, installation chaplain, and a few selections from the Massachusetts State Pipes and Drum Corps, the program was a time to reflect on the past, speak about today and look to the future of what started as the Quartermaster Research Laboratory in 1953.

"All of you remain true to your mission-supporting the warfighter. You make our warfighter more efficient, improve the quality of life and indeed, save their lives by the work you do every day," said Col. David Bongi, acting deputy commanding general for operational readiness, U.S. Army Research, Development and Engineering Command, and installation commander, in his opening remarks.

Lt. Col. Charles Dean, moderator for the event, narrated a brief slide show, highlighting achievements such as food irradiation and improvements made to boots, sprinkled with video clips from former employees discussing their work.

In one video segment, a helicopter pilot in Vietnam recalled how a steel protective plate strapped to his body stopped a .50 caliber bullet, saving his life. In another clip, a former Ranger and SSC employee recounted how his PASGT helmet saved his life while in combat in Panama.

Judging from audience reaction, the stars of the morning were the Soldiers invited to give testimonials of how the equipment developed here affected them. Body armor was the common thread.

Sgt. SirVantis Dennis, with 3rd Infantry Division, was struck squarely in the front of his Interceptor Body Armor vest by an unexploded rocket-propelled grenade, causing a bruise the size of the ceramic plate insert tucked inside the vest, while caught in an ambush during fighting in Operation Iraqi Freedom. In the same firefight, he was struck again, this time by a rifle round that was stopped by the plate.

"I guarantee you, two strikes, and I'm out," Dennis said. "I'd like to thank the Lord and the people who invented this piece of equipment. I'd like to thank you for all that you've done for us."

As his tank was pounded by Iraqis in a separate battle, Sgt. David Dellenbaugh, a gunner with the 3rd Infantry Division, resorted to leaving the confines of the cabin to return fire.

"There are no right words to say," Dellenbaugh said, who was struck by a rifle round on the outer edge of his protective plate, the vest itself absorbing some of the impact. After discovering he was fine, he kept on firing. "I just want to thank you for saving my life and keeping me in the fight."

Jumping into northern Iraq along with 1,000 fellow Soldiers, Pfc. Christopher Taffoya, 173rd Airborne Brigade, 2nd Infantry, 503rd (Airborne) Battalion, benefited from SSC's airdrop mission. On the ground, his unit was tasked with starting a police force. When a grenade exploded nearby during a patrol, he was wounded in the legs but his body armor caught shrapnel in the lower back that would have severely injured or killed him.

The equipment developed here "got me in safely and got me out," Taffoya said.

1st Sgt. Colin Rich, 504th Parachute Infantry, survived a strike in the rear of his MICH helmet from a sniper rifle. He's still suffering from the effects of the injury, but he said he is amazed at how a helmet not designed to stop a large, high-velocity round protected him.

"This facility has a profound impact on everybody in the military," Rich said. "Continue to increase our odds. Continue to make (our advantage) as lopsided as possible."

Dean showed a few animated clips depicting the future, with new and advanced ways to fuel, protect and equip warfighters to provide an overwhelming edge on the battlefield.

"As with any anniversary celebration, we look ahead to the next half century, and the Soldier Systems Center will continue its tradition of excellence in all of our areas," Dean said.

High Energy Propellant Formulation Facility to be built

By Myra Hess, Editor, The Voice

PICATINNY ARSENAL, N.J. – A $17.7 million contract has been awarded to a small business firm to design and construct a High Energy Propellant Formulation Facility here.

“It’s the biggest project in dollar amount and magnitude awarded to small businesses,” said Vinod Kapoor, engineer, Directorate of Public Works.

The design and construction contract has been awarded to a joint venture between Hirani and MES, Inc., of Brooklyn, N.Y., and Army Corps of Engineers, New York District, N.Y.

“The facility will have the capability of developing precise pilot scale formulations for propellants, propelling charges, igniters and the development of new manufacturing technologies,” Kapoor explained.

Phase 1 will include the demolition of buildings 1301, 1302, 1305, 1306 and 1307 and construction of a 31,000-square-foot energetic building, a 1,400-square-foot administration building, three in-process magazines and one bulk storage magazine.

Phase 2 will include demolition of 13 individual buildings; new construction of seven buildings and renovation of three existing buildings.

The buildings will have numerous propellant and igniter operational bays, reinforced concrete walls and a sophisticated electro-mechanical control room to monitor and control the experimental equipment.

Project design began Oct. 23, and will take about year, followed by one-and-half years of construction. Completion is planned for fiscal year 2006.

Picatinny tests first thermobaric small arms munition

By Jodie Daubert, Office of the Project Manager for Soldier Weapons

PICATINNY ARSENAL, N.J. – Engineers and scientists here have successfully tested the world's first thermobaric small arms munition.

Lt. Col. Robert C. Carpenter, product manager for crew served weapons, Office of the Project Manager for Soldier Weapons, said the new munition was unveiled at the Army infantry commanders conference, Fort Benning, Ga.

"The thermobaric round combines precision airburst technology with thermobaric principles to defeat enemy soldiers," he said.

When the 25mm munition functions, it produces an initial explosion dispersing very fine metal particles that fill the surrounding air. Reacting with oxygen in the atmosphere, these particles self-ignite to create an overpressure, which envelops the surrounding area, attacking a volume of space and the occupants in it. The round is particularly effective inside buildings and caves.

"The demonstration gave us the opportunity to see if it's possible to create a thermobaric event using 25mm crew-served weapons."

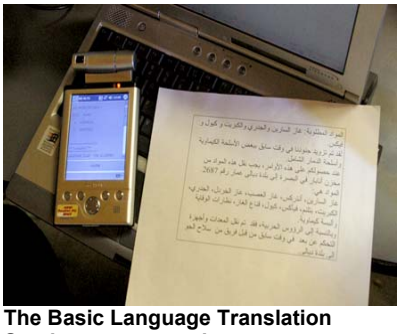
Carpenter said that the thermobaric round was fired from a XM307 Objective Crew Served Weapon. Like the thermobaric round, the XM307 is under development by a team from PM Soldier Weapons and the U.S. Army Armament Research, Development and Engineering Center.

"We still need to determine how effective and reliable a 25mm thermobaric round is," Carpenter said. "If we're successful, we plan to transfer the ammunition to individual weapons as well."

RDECOM magazine
A publication of the U.S. Army Research, Development and Engineering Command (Provisional)
December 2003

ARL technology to protect Soldiers, improve communication

By Tonya Johnson, Army Research Laboratory Public Affairs Office



The Basic Language Translation Services can scan documents written in a foreign language and receive an English translation seconds later.

ADELPHI, Md. – Technology developed by the Army Research Laboratory scientists and engineers will aid Soldiers in post-war efforts in Iraq.

ARL developed two of the 13 technologies that are part of the Horizontal Fusion Portfolio that will be deployed to Iraq. The two technologies chosen were the Basic Language Translation Services and Warrior's Edge.

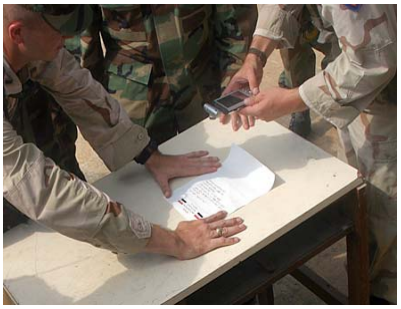
BLTS allows Soldiers to scan documents written in a foreign language and receive an English translation seconds later.

"This is revolutionary," said Randy Woodson, ARL's Horizontal Fusion Program Manager. "The emphasis of both technologies is to simplify information so that the Soldier or commander can understand it and make effective decisions. Both are vital in critical operations."

Warrior's Edge comprises several technologies that will aid Soldiers in Iraq. The PackBot is a robot that can clear caves and compounds, and the M Gator MULE – Multifunction Utility/Logistics Equipment – vehicle contains a fusion of networked computers that can sense data from Soldiers and unmanned aerial vehicles, which can aid in sniper detection.

"Both technologies show that ARL is a leader in research for supporting new thought," Woodson said. "I think we're doing great things at ARL."

ARL's technologies were tested during DoD's Quantum Leap 1 exercise in August at the Space and Naval Warfare Systems Center in Charleston, S.C., and McKenna Military Operations Urban Terrain Site at Fort Benning, Ga. Quantum Leap 2 will be held in August 2004.



Basic Language Translation Services will simplify information so that the Soldier or commander can understand it and make effective decisions.

Woodson said both technologies will be shipped to Iraq within six months.

> The Horizontal fusion portfolio is a joint military program that uses multiple Web-enabled portlets, on-line foreign language translation and leading edge computing services to provide real-time collaboration, situational awareness and sense-making, which help Soldiers during tactical operations.

The Department of Defense manages the Horizontal Fusion Portfolio, which was started in January 2003, and will continue through 2008. The program focuses on improving intelligence gathering and dissemination of information to Soldiers on the battlefield. Another goal of the program is to implement a Global Information Grid architecture to help establish a worldwide "net-centric" IT infrastructure.

ECBC M12A1 upgrade spreading to Korea

Edgewood Chemical Biological Center

ABERDEEN PROVING GROUND, Md. – Edgewood Chemical Biological Center personnel, with representatives from Tank-automotive and Armaments Command-SBC (TACOM-SBC), went to Korea in early November to hand off 72 units of the upgraded diesel-powered M12A1 decontamination system to the 23rd Chemical Battalion and the 4th Chemical Company.

The expansion of this upgraded decontamination unit to Korea is the latest application of the ECBC-engineered improvements to the 35-year-old system.

In anticipation of recent operations in the Middle East, during fiscal year 2003, ECBC received a short-fuse order to upgrade the M12 Decontamination System for greater reliability, easier operation and maintenance, and greater efficiency. ECBC engineers redesigned the large-area decontamination system, now known as the M12A1, to meet today's battlefield requirements. In partnership with Pine Bluff Arsenal, Ark., for their production capabilities, ECBC completed the retrofit and deployed an initial quantity of 56 units to the Gulf in record time, plus additional units soon after.

ARL employees deploy to Middle East to aid troops

By Tonya Johnson, U.S. Army Research Laboratory Public Affairs Office

Steve Burnett and Dr. Ray Bateman stand in front of the Cross Sabres in Baghdad, during their time with a Field Assistance in Science and Technology team in Iraq.

ADELPHI, Md. – Several U.S. Army Research Laboratory civilian employees have deployed to the Middle East in recent months in support of Operation Iraqi Freedom.

Dr. Ray Bateman, an operations research analyst, and Steve Burnett, a research psychologist, both from the Human Research and Engineering Directorate based at Fort Hood, Texas, returned to the U.S. in October after spending more than five months in Kuwait and Iraq.

“It really was a life changing experience,” said Burnett, a retired command sergeant major. “I thought I knew a lot about the military, but now I’ve had a chance to live with these guys and interact with not only active-duty soldiers, but also those who serve in the Reserves and National Guard. I got to see the intensity all of them brought to the job.”

The pair was on a Field Assistance in Science and Technology (FAST) assignment, which allowed them to serve as a link between soldiers and the U.S. Army Materiel Command, provide technical assistance to the troops and civilians deployed there, and provide logistics support. They also had the opportunity to meet researchers from the Kuwaiti Institute for Scientific Research.

According to Bateman, there was a distinct difference between Kuwait and Iraq.

“When you leave Kuwait and cross the border into Iraq, the rules for personal protection change,” said Bateman, a retired lieutenant colonel. “In Iraq you always wear your Kelvar helmet and body armor and always have a soldier along as a bodyguard. As we traveled through Iraq, children would come up and beg for food. Saddam left Iraq in a mess that will take years to recover.”

While in Iraq, Bateman and Burnett also had to adjust to sand fleas, sand storms, and temperatures which, on several occasions, reached more than 120 degrees.

“The sun is brutal out there,” Bateman said. “It’s very hot.”

Scott Miller, an engineer in the Sensors and Electron Devices Directorate based in Adelphi, Md., also went to Iraq. He went on a three-week assignment in July to lead a training team of people pulled from various organizations, including the Armament Research, Development, and Engineering Center and the Special Operations Command, in support of the Program Executive Office for Ammunition (PEO Ammo) and under sponsorship of the Rapid Equipping Force (REF) office. The REF’s focus is to identify solutions to urgent needs and get supplies and useful technologies to soldiers and commanders as quickly as possible, usually within 60 days.

Miller’s team provided soldiers with technical and operational training on the Gunfire Detection System, an acoustic system that listens for gunfire and determines where it came from. There are two versions of the system—one ground and one vehicle mounted.

“We hope it will increase the survivability and provide a greater chance to locate threats before they can get away,” Miller said.

He added that going to Iraq gave him the opportunity to interact with more soldiers, and as a result get a glimpse at Soldier life in wartime.

“It gave me a greater appreciation and understanding of what some Soldiers go through,” said Miller. “They’re professional and smart, and they learn faster than engineers. When you explain something, they seem to grasp it quickly. Going to Iraq and teaching them how to use the system gave me a sense of pride in being a part of the development team that worked on it.”

Like Miller, Burnett thinks it’s important for scientists and engineers to feel proud of their work, but he also wants them to realize that Soldiers depend on their research and technology.

“(Soldiers) will always do the best they can,” Burnett said. “Is what we’re doing going to help the E4 in a foxhole? They all want to survive, and they all want to come home.”

Izzo, Lodin host grand opening of new Excalibur Joint Program Office

By Maj. Joseph S. Minus Jr., APM, Excalibur

Cutting the ribbon to open the renovated office space for the Excalibur Joint Program Office are, from left, Lt. Col. Jeff Wilson, PM Excalibur; Brig. Gen. Paul Izzo, PEO Ammunition; Lt. Col. Joakim Lewin, Deputy PM Excalibur (Sweden); John Halvey, Raytheon Excalibur PM; Stefan Blomgren, Bofors Defence Excalibur PM and Brig. Gen. Per Lodin, Deputy Chief of the Swedish Joint Materiel Command. Photo by Todd Mozes.

PICATINNY ARSENAL, N.J. – Program Executive Officer for Ammunition Brig. Gen. Paul Izzo recently hosted visitors from Sweden in a continuing effort to maintain an excellent working relationship with Sweden.

Among the visitors was Izzo's Swedish counterpart, Brig. Gen. Per Lodin, deputy chief of the Joint Materiel Command at the Swedish Defence Materiel Administration, (FMV), Ulf Spengler, U.S. desk officer at FMV, and Col. Anders Ek, deputy Army attaché, Swedish Embassy, Washington, D.C.

The visitors spent two days learning more about PEO Ammunition programs and the U.S. Army Research, Development and Engineering Center's capabilities and activities, meeting key personnel and touring several of ARDEC's world-class research facilities.

On Oct. 3, Izzo and Lodin officiated at the grand opening of the new Excalibur Joint Program Office.

"This co-located Joint Program Office is a major step forward for the Excalibur Program," said Lt. Col. Jeff Wilson, Product Manager for Excalibur. "It physically brings together government and contractor representatives from both the U.S. and Sweden in a very effective workspace. This will greatly improve the communication of the Excalibur Team and increase our operational efficiency as we continue to develop this critical weapon system for our soldiers."

Also present were the Excalibur Program Managers from Raytheon Missile Systems (RMS, Excalibur Prime Contractor) and Bofors Defence (principle subcontractor and partner to RMS) as well as Lt. Col. Joakim Lewin, deputy PM Excalibur for Sweden, who lives here with his family and represents FMV in the Excalibur JPO.

The XM982 Excalibur is a joint cooperative development program between the U.S. and the Kingdom of Sweden. The two countries are jointly funding the development of Excalibur, a 155mm precision-guided, extended-range artillery projectile.

Excalibur uses GPS and an Inertial Navigation System to achieve 10-20m circular error probable accuracies at ranges up to 40 km. Excalibur will be fielded in FY06 to support the M777E1 Joint Light Weight 155mm howitzer and will also support the Future Force's Non-Line of Sight Cannon. Excalibur will provide the first precision strike capability for cannon artillery in support of Current and Future Forces, including the Stryker Brigade Combat Teams.

Picatinny, Liberty Science Center announce educational partnership

By Peter Rowland, Office of Administrative Operations, Picatinny Arsenal

PICATINNY ARSENAL, N.J. – Picatinny and Liberty Science Center have agreed to join forces and pool educational resources to expand Picatinny-sponsored math and science outreach programs.

The partnership was formalized at a signing ceremony held at Liberty Science Center in Liberty State Park, Jersey City.

Under the agreement, the two parties will work to expand Picatinny math and science education initiatives in areas adjacent to the installation, particularly in Morris County. This partnership also will provide Liberty Science Center guests with a detailed look at the extraordinary devices used to help preserve public safety.

Picatinny's top scientist, ARDEC Technical Director Michael P. Devine, said the partnership will help both organizations meet an important mutual goal – promoting the study of mathematics and the sciences among today's youth.

"Picatinny and the Army recognize that the defense of America is dependent on our ability to grow a new generation of technologists. The Armed Services will need top scientists and engineers who can develop the tools that the military will use to keep America free," he said.

Devine hailed the agreement as a wonderful opportunity for Picatinny and Liberty Science Center.

"Liberty Science Center maintains a deep commitment to ensuring that young people throughout New Jersey have access to high quality educational programming," said Emlyn Koster, president, Liberty Science Center. "The creation of a joint partnership with Picatinny presents a great opportunity for children of all ages and diverse cultures to learn about the unique technologies used to help defend our country. We are proud to be aligned with such an important military organization."

Under the agreement, Liberty Science Center will create a display about Army breakthrough technologies that will be displayed in the Jersey City facility for six months. It then will be relocated to the 6,500-acre military base in Rockaway Twp.

This display will highlight a variety of Army breakthrough technologies under development at Picatinny by the installation's Public-Private Partnership Office.

Dedicated to inspiring imagination and creativity through adventures in interactive discovery, Liberty Science Center is the NJ-NY area's preeminent not-for-profit science education center. The center is celebrating its 10th anniversary and has welcomed over 7 million guests since opening in 1993. For more information, call 201-200-1000 or visit www.lsc.org.

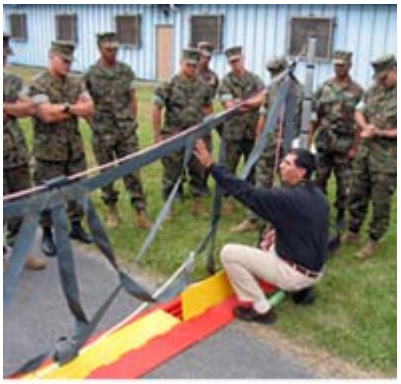
Marines learn about ARDEC munitions

By Catherine Bobinyec-Stallings, Chief, Munitions NET Office

PICATINNY ARSENAL, N.J. – The Munitions New Equipment Training Office hosted Company G, 2nd Battalion, 25th Marines in October for a day of briefings on numerous munitions and force protection systems developed by the U.S. Army Armament Research, Development and Engineering Center.

Briefings included the Anti-Personnel Obstacle Breaching System, Modular Artillery Charge System, Portable Vehicle Arresting Barrier System, Gunfire Detection System, Ground Mobility Enhanced Navigation System and several non-lethal ammunition items.

During initial fielding of items developed at Picatinny Arsenal, training instructors from the MNET Office provide operator and maintenance training to selected military occupational specialty qualified personnel in fielded units of active, National Guard and Reserve major commands.



Mike Pellegrino provides hands-on training for the Portable Vehicle Arresting Barrier System to a group of Marines at Picatinny Arsenal, N.J. Photo by Dietz Wortmann.

Company G recently returned from a deployment in Kuwait and Iraq. Several Marines noted that some of the items presented could have been useful to them in both offensive and force protection operations.

AMC's Quality Federation, NASA sign MOA

By Marc Saperstein, U.S. Army Armament Research, Development and Engineering Center

PICATINNY ARSENAL, N.J. – The National Aeronautics and Space Administration and the U.S. Army Armament Research, Development and Engineering Center will exchange information and will collaborate on projects under a memorandum of agreement signed in October.

Bryan O'Connor, NASA's associate administrator for Safety and Mission Assurance, and ARDEC's Paul Chiodo, chairman of the U.S. Army Materiel Command's Quality Federation, signed the MOA during a ceremony held at NASA Headquarters.

The agreement provides for the exchange of quality information between the two parties including data, assessments, studies, and analyses and the sharing of quality resources and capabilities that impact all phases of the product life cycle. Possible areas for collaboration include, but are not limited to, competency standards, quality system standards, acquisition practices, assessments and supplier risk management.

"This agreement with the Army Materiel Command gives NASA access to a unique set of resources that will go a long way toward enhancing our mission assurance programs," O'Connor said.

This MOA reaffirms the Army's on-going quality partnership with NASA that has already proven mutually beneficial, including NASA benchmarking of the Army's recapitalization initiative in support of their Space Shuttle Life Extension Program, AQF membership on the Space Shuttle Independent Assessment Team, planning in support of joint supplier assessments, and benchmarking of best quality practices.

Most importantly, the NASA partnership provides the AQF with an invaluable resource as it develops its strategies for Quality & System Assurance within AMC and the U.S. Army Research, Development and Engineering Command. ARDEC's Quality Engineering and System Assurance Directorate provide AQF leadership and administration.

DOCA members get a glimpse of night vision developments

Communications-Electronics Research, Development and Engineering Center

FORT BELVOIR, Va. — Members of the Defense Orientation Conference Association recently visited the Communications-Electronics Research, Development and Engineering Center's Night Vision and Electronic Sensors Directorate for tours and hands-on demonstrations of night vision equipment in use and prototypes in development.

DOCA, an official program of the Secretary of Defense's Joint Civilian Orientation Conference, consists of retired military, CEOs, and other businessmen and women who are interested in maintaining national security.

They come from all over the United States, and NVSED was but one of five trips taken during a year as a part of their objectives. This non-political, non-partisan, non-profit association is directed toward the interest of national defense without special advocacy of any particular military service or defense concept.

Their interest was high and enthusiasm obvious throughout the tours, especially when looking through the night vision goggles in the indoor firing range. Members were excited and complimentary of the equipment shown and appreciative of the work done to provide improved technology for the warfighter.

.

Teaming, communication skills taught at pilot workshop

By Myra Hess, Editor, The Voice

PICATINNY ARSENAL, N.J. – "Line up by birth date, no talking and try not to fall off the plank," said Beth Albinson, one of the facilitators at the pilot Leadership Competencies Workshop held for ARDEC employees.

Approximately 20 men and women formed two lines opposite each other on pretend planks (design on the carpet). Using sign language to learn each other's birthdays, they then moved around each other very carefully to get into the right birth order without "falling off the plank."

The two teams, with the emphasis on "teaming," managed to get the order correct and no one "fell off the plank," demonstrating the importance of communication and teamwork.

This was just one exercise in which the class participated to learn about teaming and communicating at this pilot workshop led by Jim Caiazzo, Beth Albinson, Carol Sitroon, Terry Ringwood and Diane Alario, the Leadership Competencies Workshop facilitators.

These facilitators will travel to Benet Labs, Watervliet Arsenal; Rock Island, Ill.; and Aberdeen Proving Ground and Adelphi in Maryland, to instruct off-site ARDEC employees on these important leadership skills.

After the pilot workshop, the ARDEC Total Quality Management Executive Council directed the one-day course be a mandatory one for all ARDEC employees.

The workshop focused on leading, teaming, thinking strategically, communicating, creating organizational structure, focusing on the customer and managing and advancing your career.

To emphasize creating an organization, teamwork and customer focus, a video about the Pike Place Fish Market, located in Seattle, Wash., was shown. The market has become a famous landmark in Seattle with customers flocking there to have fun with the employees and, of course, to buy fish. The employees make jokes, throw fish to each other and enjoy their workday.

The market's employees and boss have chosen to make their work environment a fun place to be, making their workday experience a happy one and, thus, pleasing their customers.

Their guiding philosophies are: "Choose your Attitude," "Play," "Be Present" and "Make their Day."

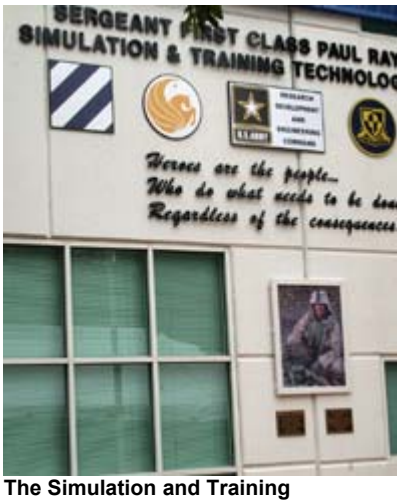
A book is also out about the market, called appropriately, "Fish," and recommended reading by ARDEC Commander Brig. Gen Larry C. Newman and TACOM Commander Maj. Gen. Ross Thompson, III.

The group also played a card game, which focused on the principle of planning and another exercise assembling a beaded bracelet using communication only. Participants could not see one another – they had to describe how to assemble the bracelet with their backs to each other.

The exercises, video and discussions that followed focused on the importance of leadership skills necessary for success in our careers and personal lives.

Technology center dedicated in memory of Iraqi Freedom Hero

By Larry D. McCaskill, RDECOM Public Affairs Office



The Simulation and Training Technology Center in Orlando, Fla., recently was named after Sgt. 1st Class Paul Ray Smith, a Floridian who sacrificed his life to save his fellow soldiers in Iraqi. Photo by Spc. Katherine Robinson, Fort Stewart Public Affairs Office.

On April 4, 2003, Sgt. 1st Class Paul Ray Smith sacrificed his life for the Soldiers he trained and loved.

In honor of this American hero, the U.S. Army Research, Development and Engineering Command's Simulation and Training Technology Center was renamed the Sgt. 1st Class Paul Ray Smith Simulation and Training Technology Center during a ceremony held Nov. 7.

A full day of events began solemnly, as family and friends attended reveille at the center, shedding tears as the flag was raised and the bugler played. The family then toured the facility that would bear Smith's name, and helped to create some of the items that would be on display inside.

In attendance at the afternoon ceremony were Smith's wife, Birgit, and their children, Jessica and David; his parents, Janice and Donald Pvirre; brother, Anthony Wayne Smith; sisters, Lisa DeVane and Cristina Smith; his fellow 3rd infantry Division 11th Engineer Battalion Soldiers, and local political dignitaries.

"There are very small things and very few things we can do to recognize heroes," said Maj. Gen. John C. Doesburg, RDECOM commander, during the ceremony. "Today is not just a day of reflection, but a day for celebration, for the memory of a Soldier who gave his all. A Soldier who cared about the Soldiers who served under him… a celebration of a legacy he left behind."

The idea to rename the facility after a fallen Floridian Soldier grew out of an idea by a retired Army officer. Personnel from STTC, Fort Stewart, Ga., and RDECOM worked closely with Smith's family to ensure the ceremony would reflect the life and legacy of a great American.

DeVane said that naming a training facility after her brother was very appropriate.

"He believed in making sure his Soldiers were trained," she said. "Having this facility named after him is something I know he would be very proud of."

Memorials of Smith around the facility include inscribed paving stones at the foot of the external wall that bears his name, and a personal effects display in the newly named Soldiers Conference Room.

In addition to having the facility named after him, Smith has been nominated for the Medal of Honor, the nation's highest military honor, awarded by Congress for risk of life in combat beyond the call of duty.

Smith was assigned to B Company, 11th Engineer Battalion, 3rd Infantry Division, when his unit was attacked on April 4 by more than 100 enemy soldiers armed with automatic weapons, mortars, rocket-propelled grenades and hand grenades. He organized and directed returned fire, hurled hand grenades and protected the evacuation of three injured Soldiers from an armored personnel carrier. His actions allowed the safe withdrawal of wounded Soldiers, stopped the enemy attack on B Company, and inspired the quickly assembled defending force.

His story will continue to inspire those who work and visit STTC. The center researches and develops training simulations, test and training instrumentations and mission rehearsal programs. The facility's goal is to transition research and development projects into the hands of Soldiers and to enhance Soldier readiness in combat. The center, located in Orlando, Fla., includes the nation's most cutting-edge simulations technologies, and hosts nearly 8,000 visitors per year.

Father and son both proudly serve in Army

By Tonya Johnson, ARL Public Affairs Office

First Sgt. Charles White, Jr., left, and his son, Spc. Charles (Chad) White, both are serving our nation. First Sgt. White is non-commissioned officer in charge of Detachment 1, 1st Battalion, 115th Infantry, Maryland National Guard, which has provided security and force protection at the Army Research Laboratory since June. Spc. White is deployed in Iraq.

ADELPHI, Md. – First Sgt. Charles White, Jr., and his son, Spc. Charles (Chad) White, share another bond stronger than being father and son. They're protecting our country against terrorism.

White, who volunteered for his current deployment, is non-commissioned officer in charge of Detachment 1, 1st Battalion, 115th Infantry, Maryland National Guard, based in Silver Spring, Md. Since June, the unit has been providing security and force protection at Army Research Laboratory in Adelphi, Md.

"I volunteered for this deployment because I felt my country needed me, and the unit also needed me," White said. "Most of the Soldiers from our battalion were trying to settle down from the last deployment when we received orders to activate again. Since most of them didn't want to come back on active duty, I stepped up. Somebody has to do it."

"When he told me he was going to return to active duty, I said 'Not again,'" said Gayla, his wife of 24 years.

In his civilian job, White is a field manager for Dewson Construction Co. in Wilmington, Del. Although he has been with the company four years, he has been deployed two of those years.

"It's been tough leaving the job and family behind," White said. "But I have a strong sense of responsibility. Somebody has to step up and meet the challenge of serving our country. Duty calls."

Following in his family's footsteps

As if the family didn't have enough to worry about, White's oldest son, Chad, 24, deployed to Iraq in February. White and his wife have three other children, Aaron, 20, Wesley, 16, and Lauren, 15.

Both men have followed in their family's footsteps. White's father and Chad's grandfather was an aircraft mechanic in the Air Force, and White's uncle served 23 years in the Army. If Chad makes a career in the Army, he could become a third generation first sergeant.

Chad, an Apache crew chief with the 3rd Battalion Aviation, 101st Airborne Division, based at Fort Campbell, Ky., returned home in October for two weeks of leave after serving seven months in Iraq.

"I missed my family a lot while I was in Iraq," said Chad. "But just being over there seeing how the rest of the people around the world live made me appreciate what I have."

"The kids have grown since I left," added Chad, who has three kids with his wife of five years, DeeAnne. "Being away from everything is strange. It's hard to explain. You miss taking showers and for a while all I had was Baby Wipes and a bucket of water. We finally have chow halls, but it's not like home cooking."

In addition to working 12 or more hours a day on the aircraft, Chad helped build buildings in Iraq and participated in humanitarian efforts.

Chad and some of his buddies from his platoon volunteered several times to go into some of the smaller towns in Iraq to hand out bottles of shampoo, toothpaste and other toiletries to the residents.

“It was interesting to see how they would get excited about toothpaste,” said Chad. “Along the convoys, you saw people everywhere begging for food and water and they would risk being hit by running in the road in front of a truck.”

Deployment brings family closer

“I’m not used to him being deployed. Family separation is not fun,” DeeAnne said. “The highlight of my day is getting e-mail from him.”

To counteract the pain of Chad being deployed, DeeAnne and her children moved in with Gayla and White, although White is usually not there due to his military obligations.

“I’ve gotten to spend more time with my in-laws,” DeeAnne said. “We’ve gotten to really know each other well. There’s never a dull moment.”

Gayla, Chad’s mother, said there was tension in the household when Chad first deployed to Iraq.

“Anytime one of us passed the television or watched CNN, we waited to hear if they would talk about Chad’s unit,” said Gayla. “We were always on the edge of our seats.”

To ease their minds and make extra money, Gayla and DeeAnne started their own business selling Avon products. It’s convenient because the two have taken on additional responsibilities since both of their husbands deployed.

Preparing for future deployments

White said although it is tough to have his son deployed in harm’s way, he is proud of him.

“He’s a good Soldier,” said White. “He’s very dedicated to anything he does, and he harbors a strong sense of family values. Of course I worry about his safety, but I can’t dwell on it.”

White, who has been in the National Guard 16 years, said he and the Soldiers in his unit are also prepared to deployed elsewhere, whether the mission is in the United States or in Afghanistan or Iraq.

“I think we (the unit) will be deployed again in the future,” White said. “And I hope to be redeployed because I don’t mind serving my country.”

As the family wonders if White will be deployed again, the family said goodbye to Chad, who deployed back to Iraq Oct. 22. Now they’ll keep in touch by resorting back to sending e-mail, writing letters and hearing from him with the occasional phone call.

“Going back is harder,” Chad said. “This is our second time and we don’t know when we’re coming back.”

Research center finds gold in green

By Jim Bowne, U.S. Army Aviation and Missile Command Public Affairs Office

How do you get new hires to become more productive sooner and make fewer mistakes? Dr. Bruce Fowler asked himself this question last year, and the answer turned into a "win-win" situation.

Fowler, chief scientist and chief of Information, Advanced Systems Directorate, at the U.S. Army Aviation and Missile Research, Development and Engineering Center at Redstone Arsenal, Ala., wanted to develop a course that would teach new hires about how the Army works, and in particular, how AMRDEC works.

"The world has changed," Fowler said. "I felt we needed to make a positive effort to teach young adults how the Army works. Life used to be simpler—all salaries were paid out of mission accounts, and we all knew we were working for the Soldiers. But it doesn't work that way any more."

Fowler, who began his government career nearly 30 years ago, is passionate about developing the very best materiel for the Soldier in the shortest time possible, and about helping new hires become smarter faster.

"When I first started [working for the government]," Fowler explained, "it used to take us about two years to get productive in the work place. We made a lot of mistakes. We had no real training program."

Although the AMRDEC training program, called the "The Big Picture," was his idea, Fowler credited Michael Schexnayder, AMRDEC's associate director for Aviation and Missile Systems.

"Mike put the resources against it. He set the requirement that all new hires have to take the course," Fowler said. "Without Mike's backing, we wouldn't have the greening course."

Another partner in the project was the University of Alabama at Huntsville.

"UAH has been wonderful to work with," Fowler said. "They are the ones responsible for teaching the curriculum."

Fowler said the training program's keystone is simple—certain people pay for things, and certain people use the product.

"The Big Picture teaches new hires how the Army works and how they, as employees, fit into other components of their environment, for example, Team Redstone. Of course, as things change, and organizations seem to be changing a lot lately, we modify the course," he said.

He added that hundreds of interns pass through the center, two-thirds straight from college, and the rest from private industry.

Two two-week courses have been completed, with the first class graduating Aug. 14. Jo Ann Jones, associate director of professional development in UAH's Continuing Education Department, 56 of 63 students enrolled have received Certificates of Completion.

"The students receive 5.6 Continuing Education Units for successfully completing the course," Jones said. "The topics covered are varied and include the history of the U.S. Army Aviation and Missile Command, the AMRDEC, and the Research, Development and Engineering Command. We also spend time on why RDECOM exists—its mission, vision,

and values. And we talk about identification of the 'customer,' as well as other directorates and centers with whom we interface; military and civilian personnel organization; R&D funding and other topics."

The classes also cover technology transition, the labs, matrix assignments, sustainment, retirement, and Program Executive Office relationships and processes.

"We also try to let students know where they fit in," Jones said. "We also give them a lot of information on the acquisition process for a product, contractor interaction, legal issues, security, and what lies ahead. Of course, we also have team projects and presentations, and special guests."

Fowler and Jones agreed that course topics change to reflect changes in organizations, missions and visions.

"We've learned to adjust the time devoted to certain topics either up or down, depending on the content and determined need for less or more exploration," Jones explained. "We've also identified a couple of topics that could be added in brief, which would improve the overall outcome without lengthening the course."

The benefits of the class are both innumerable and persuasive.

"The greatest benefit appears to be that the students have a much better overall grasp of the 'big picture' – no pun intended – of their work environment, and how to quickly become effective members of the overall team," Jones said.

Fowler agreed.

"The big benefit is that the training program provides us with new hires who are more effective sooner," he added. "This is a great advantage to our organization, as well as to others with whom we partner. The result is greater productivity more quickly, and with fewer mistakes made. So, it's truly a win-win situation."

In the final analysis, Fowler's idea for a "greening course" for new hires turned out to be not only a resounding success, but beneficial for new hires and AMRDEC alike.

"I guess one could say that the AMRDEC found gold in green," Fowler said.

First Japanese exchange engineer reports to NVESD

By Dr. Jerry Franck, Communications-Electronics Research, Development and Engineering Center, Night Vision and Electronic Sensors Directorate

Dr. Kei Ota is the first Japanese scientist to come to the United States under the new Japan/U.S. Engineer Scientist Exchange Program Memorandum Of Understanding.

FORT BELVOIR, Va. – In August 2003, Dr. Kei Ota became the first Japanese scientist to come to the United States under the new Japan/U.S. Engineer Scientist Exchange Program Memorandum Of Understanding, at the Communications-Electronics Research, Development and Engineering Center's Night Vision and Electronic Sensors Directorate.

During Dr. Ota's year at NVESD, he will investigate the parameters of solid state laser materials and determine which combination of ion concentrations, host material and laser cavity design will result in high efficiency, eyesafe lasers for U.S. Army applications.

He also will evaluate laser diode pumping techniques, including beam forming optics, to efficiently couple pump light into laser rods and slabs. Ota also will research techniques to obtain high-resolution, high-data rate 3D LADAR images of objects for navigation and identifying targets in clutter.

He is accompanied on this assignment by his wife, Michiko, and their two sons, on their first visit to the United States. The family is looking forward to its first Christmas holiday season in the United States.

ARL engineer leads team, wins R&D award

By Tonya Johnson, ARL Public Affairs Office


Gerald Montague

ADELPHI, Md. – Gerald Montague wants to help Soldiers on the battlefield and save taxpayer money at the same time.

Montague, a mechanical engineer for the U.S. Army Research Laboratory, and his team won a Research and Development Magazine Grant Award for creating a fault-tolerant, high-temperature, high-load radial magnetic bearing, which can be used in unmanned aerial vehicles.

The R&D award is an annual international competition that allows scientists and engineers from private industry, academia, and the public sector to compete for one of 100 awards to recognize the top technologies introduced into the marketplace over the past year.

The technology created by Montague's team incorporates modular C-core stator construction, optimized rotor/lamination assembly and new coil winding and core manufacturing approaches. As a result, the team's research will allow UAVs such as the Drone and Predator to fly longer, higher, faster missions.

"No one has done what we've done," Montague said. "We were pretty honored to win this award. When you're in the trenches developing this stuff, an award like this is significant to us. This award is like a Pulitzer Prize for us engineers."

The motivation for the new magnetic bearing comes from several factors. One goal is to create a more electric gas turbine engine. Second, virtually all engines that power aircraft use oil to lubricate the ball bearings. As a result, the ball bearings in the aircraft are constrained due to lubricant temperature limits, and the aircraft cannot operate above 350 degrees. The high-temperature magnetic bearings, however, do not require lubrication and can operate at 1,000 degrees. The new system, composed of sensors, controllers, and a power amplifier, is lighter because it doesn't need the bulky lubrication system or cooling system.

To help the magnetic bearing withstand the significant increase in temperature, the team developed a high temperature wire insulation that can be used for electromagnetic coils to allow the aircraft to operate at 1,000 degrees.

"There's a lot of savings (to the Army) in durability and maintenance expenses go away because you don't need to use oil," Montague said. "As a result, the engine life is increased because of lower maintenance."

He became interested in this technology five years ago, when he learned that a goal of the Integrated High Performance Turbine Engine Technology was to create a high-temperature, high-speed bearing. Members on his team include colleagues from ARL, the National Aeronautics and Space Administration, the University of Toledo in Ohio, and Texas A&M University.

Montague said he hopes that in the future the technology can be used in pebble-bed nuclear reactors and in helicopter rotorcraft engines, which can result in an increased payload and allow more personnel or weapons aboard the aircraft.

Montague, who has been at ARL eight years, works in the Vehicle Technology Directorate co-located with NASA in Cleveland.

ARL celebrates Ninth Annual Honorary Awards Ceremony

By Tonya Johnson, U.S. Army Research Laboratory Public Affairs Office

ADELPHI, Md. – The U.S. Army Research Laboratory celebrated its ninth Annual Honorary Awards Ceremony Nov. 18.

“Today in Afghanistan and Iraq, ARL and ARL’s technology is making a difference. It’s just fantastic what the Army Research Laboratory has been able to do, especially its people,” said Maj. Gen. John Doesburg, commanding general, U.S. Army Research, Development and Engineering Command. “Thank you for what you’ve done for our Soldiers. Know that our Soldiers depend on you.”

During the ceremony, employees were recognized for federal service of 20 or more years. Employees were also recognized for administrative excellence, analysis, community service, diversity, engineering, laboratory operations, leadership, publication and science.

“We have a lot of exceptional performers,” said John Miller, ARL director. “It was tough making the selections because we had many strong candidates. These (award winners) are a representative of the ARL workforce.”

Angela Acton, a paralegal specialist in the Office of Chief Counsel and 20-year ARL employee, received an ARL Award for Administrative Excellence.

“It was great to receive this award, and it’s nice that ARL recognizes members of its workforce,” Acton said. “It’s been a privilege to work here and I enjoy my job because it’s a pleasure to work with the attorneys. All of them have helped me to develop and grow to where I am today.”

Helen Davis, a contract monitor in the Department of Public Works and 27-year ARL veteran, received the ARL Award for Laboratory Operations.

“It gives me a lot of pride that people think of me to give me an award,” said Davis, whose job involves making sure the facilities are clean and safe. “It’s an honor. This place is like a part of my family.”

ECBC group supports mass fatality management exercise

Edgewood Chemical Biological Center

The Edgewood Chemical Biological Center Military Improved Response Program's Mass Fatality Management functional group supported the NORTHCOM exercise entitled Determined Promise '03.

DP03 was a full-scale tabletop exercise that took place at the local level based on a pneumonic plague epidemic that started in Clark County, Nevada, near Nellis Air Force Base.

This was the first federal exercise to fully incorporate fatality management into the planning and response effort. Members of the functional group provided subject matter expert support to the Clark County Coroner, the Disaster Mortuary Operational Response Team WMD Commander and the Joint Task Force-Civil Support. The team also supported the lessons learned briefing of the DP03 exercise to the medical examiners' office of a large East Coast city. The results of the exercise are being incorporated into current MIRP products.