



The Bullet'n



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"Supporting the Warfighter"

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They gave all for freedom

Memorial service honors lives lost while working at Iowa Army Ammunition Plant

By Angela Hamerlinck
Joint Munitions Command Public Affairs

MIDDLETOWN, Iowa -- Hundreds of family members and co-workers gathered for the unveiling of a monument at Iowa Army Ammunition Plant and faced 64 empty chairs -- reminders of their loved ones and coworkers who made the ultimate sacrifice for their country.

The memorial they dedicated Nov. 8 "will serve as a lasting tribute to those who sacrificed everything for our nation," according to Lt. Col. Benjamin Nutt, plant commander.

Since the plant's establishment in 1940, 64 employees have lost their



U.S. Army photo by Angela Hamerlinck

Lt. Col. Benjamin Nutt, IAAAP commander, addresses the crowd during a memorial service, Nov. 8

"Iowa" continued on page 4

Picatinny has mission to defeat IEDs

JM&L LCMC Public Affairs News Release

PICATINNY ARSENAL, N.J. -- The most recent product management office to stand up under the Joint Munitions and Lethality Life Cycle Management Command could be considered just what the warfighter ordered.

As service members face daily encounters with improvised explosive devices, JM&L LCMC personnel support them from a new organization that deals specifically with that ever-changing terrorism threat.

The leader of that organization, Lt. Col. Karl W. Borjes, assumed management as the product manager, Improvised Explosive Device Defeat/Protect Force, during an assumption-of-charter ceremony officiated by Col. Raymond Nulk, project manager for Close Combat Systems, Sept. 14.

The mission of Borjes and his staff is to provide IED defeat/protect force capabilities based on accelerated acquisition strategies; provide the warfighter the capability to win the war on the IED system and other global threats against an adaptive asymmetrical enemy; and provide the warfighter with force protection capabilities.

One product Borjes and his team are currently working

on is the Self Protective Adaptive Roller Kit, or SPARKS system, which has already been credited with saving the lives of many Soldiers fighting in the war on terror. The system, which looks similar to a steam roller, is a pressure-activated device that goes on wheeled vehicles and attaches to the front of warfighters' vehicles to set off pressure-related IEDs.

Borjes has served at Picatinny since 2004. He first served as an assistant product manager for Large Caliber Ammunition.

In September 2006, Borjes was selected to determine the potential of standing up a product office focusing on IED defeat technologies, developing an IED defeat program portfolio with external organizations and fielding the rapid acquisition of these capabilities to the warfighter.

As the product manager of the IED Defeat/Protect Force office of PM CCS, Borjes continues expanding integration of IED defeat capabilities into a systems package for the warfighter while providing American forces with the flexibility to apply measured military force while minimizing collateral damage and casualties.

From the Commanding General

One-on-One with Brig. Gen. Phillips



U.S. Army photo by Erin Usawicz

Brig. Gen. William N. Phillips, commanding general, Joint Munitions & Lethality Life Cycle Management Command, discusses a wide range of topics during a recent interview.

By Darryl Howlett
JMC Public Affairs

PICATINNY ARSENAL, N.J. -- Brig. Gen. William N. Phillips, commanding general of the Joint Munitions & Lethality Life Cycle Management Command, has been on the job since June 1.

With more than five months under his belt, Phillips recently sat down in his office to discuss leading the JM&L LCMC and his goals.

“My first opinion of the JM&L LCMC is that people are doing extraordinary work for our Soldiers,” he said. “Over the course of several years, beginning with the

leadership of Maj. Gen. (Paul) Izzo, we have improved our products and systems. Systems and products like small, medium, and large caliber ammunition and grenades. And not just in our war reserves, but in every aspect.”

The Armament Research, Development and Engineering Center, Program Executive Office-Ammunition, and the Joint Munitions Command, all are providing outstanding support to the warfighter, according to Phillips.

“We’re bringing a holistic, a complete approach in providing munitions to the joint warfighter wherever they may go,” he said. “The LCMC is bringing together the key elements of ARDEC, creating munitions — both lethal and non-lethal systems. Our science and technology engineers work to fix capability gaps through

our programs and deliver the products into the hands of Soldiers where they can watch Soldiers use them.

“JMC handles the logistics and sustainment end (of ammunition). They answer the question, ‘How do we get it to them?’ ‘By air, ship, or truck?’ and how do we (demilitarized) the munitions as the last piece of the operation?”

Phillips also mentioned some impressive demilitarization techniques he’s seen that were developed by Picatinny and JMC and now are being used at the Hawthorne Army Depot in Hawthorne, Nev.

“We must manage our (ammunition) programs and stockpiles, fixing issues before they become major concerns for the Army,” he said.

“Phillips” continued on page 3

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The editorial content of The Bullet'n is the responsibility of the Public Affairs Office at Joint Munitions Command headquarters. Contributions to The Bullet'n are welcome; contact information follows.

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From the Commanding General

Phillips *Continued from page 2*

The JMC's ammunition plants, munitions centers, and ammunition depots he's seen thus far have impressed Phillips during his visits to the production lines.

"Let me just say I'm impressed with the dedication of the people and their dedication to the mission," he said. "I'm very impressed with the leadership across all of our ammunition plants. That being said, our (government-owned, contractor-operated) plants have a number of challenges.

"The GOCO operations-partnership agreement needs revisiting. We also have to modernize our plants. In a place like Radford, some processes and buildings still operate and look as they did during World War II. We have to get more funding to modernize our facilities.

"Despite those challenges, however, the plants have had extraordinary success," he said. "Look at the partnership between the government and ATK at Lake City; BAE (Systems) and Holston," he said. "I'm extremely impressed with McAlester and (Defense Ammunition Center). I'm very impressed with DAC's training of (Quality Assurance Specialists Ammunition Surveillance) and the ammunition subject matter experts."

Phillips said his four priorities as JM&L LCMC commander are:

1. Sustaining, enhancing and supporting the joint warfighter.
2. Gaining financial resources to execute JM&L LCMC strategies. (In one example, Phillips said he was pleased that at the end of fiscal year 2007, \$18.1 million were allocated for improvements at various ammunition plants.)
3. Improving the industrial base for ammunition based upon efficiency (modernization of ammunition plants) and effectiveness (PEO-AMMO).
4. Solidifying the role of the Single Manager for Conventional Ammunition and working with other services on ammunition issues.

Another mission important to Phillips is that of the new Product Management Office- Improvised Explosive Device Defeat/Protect Force.

"There's a great need to focus on defeating IEDs in a more disciplined and productive manner," he said. "We've been successful, but not successful enough."

Phillips said one project PM-IED/Defeat team is working on is the Self Protective Adaptive Roller Kit, or SPARK system, which already has been credited with saving the lives of some service members.

"We want to provide what technology we can to the



U.S. Army photo by Erin Usawicz

Phillips is dedicated to providing excellent products to the warfighter.

field to protect those in theater," he said.

One of the programs that Phillips said he's staunchly supporting is Lean Six Sigma.

(At this point in the interview, Phillips was joined by Dr. Joseph A. Lannon, director of ARDEC.)

"Lean Six Sigma has provided tremendous cost savings, great efficiency and a systematic approach to making decisions," Lannon said. "There's been a \$3.2 billion cost savings across the JM&L LCMC."

"People from (Research, Development and Engineering Command) and (Army Materiel Command) have said we have a world-class Lean Six Sigma program," Phillips said. "They would like to send people here to see how to properly apply Lean Six Sigma. The JM&L LCMC currently has seven Master Black Belts. What we're doing is teaching ourselves to become self-sufficient. JMC has also embraced and applied Lean Six Sigma."

Phillips said he enjoys having the opportunity to work in four leadership positions at once.

"It's been terrific...awesome," he said. "It's great to have the opportunity to work with extraordinary people everyday. People like Jim Rogers (JMC commanding general), Mr. (James C.) Sutton (deputy, PEO-Ammo), and Dr. Lannon. I truly love this job. I love working with the people that are dedicating themselves in supporting our mission and supporting Soldiers. I'm very proud of the JM&L LCMC support for our Soldiers. We're putting the capability in their hands so they can complete their mission. The goal for our Soldiers is such that at the end of the day they can come home safely to their family and friends."

Joint Excellence

Army employees honored at joint "Team Crane Command Award Ceremony"

By Tom Peske

Crane Army Ammunition Activity Public Affairs



Crane, Ind. -- With a spotlight on excellence, Crane Army and Navy came together Oct. 11 to recognize the hard work of their employees at the 2007 Team Crane Command Award ceremony.

Crane Army Ammunition Activity, Naval Support Activity Crane and Naval Surface Warfare Center Crane Division each took time during the ceremony to present 350 awards to individuals and groups whose hard work helps to ensure each Crane command is successful.

In his opening remarks, NSWC Crane Division's Technical Director, Duane Embree, explained that the awards were a chance to recognize those employees who "stepped out of the ordinary and have become extraordinary."

Embree added his thanks for their "hard work and dedication in keeping Crane a world-class installation by

ensuring our men and women in uniform have the very best technology and equipment."

CAAA Chief of Staff Norman Thomas presented the Crane Army awards to his employees, highlighting the significance of each person or groups. A total of 93 trophies were awarded to individuals and groups represented by one or two people.

Crane Army awards were in areas of excellence such as advocacy, community service, continuous improvement, environmental, customer support, production, logistics, engineering, service, quality management, safety, security, collaboration and more.

In addition to CAAA, NSWC and NSA Crane, Naval Facilities Engineering Command MW Public Works Department Crane and FISC Norfolk, Supply Management Department MW Crane employees also received awards.

Iowa Continued from page 1

lives in accidents on the installation. The most recent occurrence was on June 12, 2006, when an explosion took the lives of Justin Friedrichsen and Steven Upton. Nutt explained that while struggling with the tragic loss, the plant's employees, managers, and family members bonded together and recognized the need for this memorial.

"The building of a memorial is a time-honored tradition dating back thousands of years. Whatever form they come in – be it a building, the planting of a tree, or a massive stone statue, they mark themselves in our consciousness and are a constant reminder of things that might ordinarily be forgotten in the hustle and bustle of our everyday lives," said Nutt. "Yet today, we still build monuments in tribute to those who have gone before us and the impressive deeds that they have done."

The monument, dedicated 'In honor of the Iowa Army Ammunition plant workers who gave their all,' will serve as a daily, visible reminder of

The Iowa Army Ammunition Plant employees monument. The base of the stone represents strength of the Nation. The vertical section represents the people who rise to serve and protect IAAAP. The eagle represents liberty and the shield represents the protection offered through munitions production at the IAAAP workforce.

U.S. Army photo by Angela Hamerlinck

their sacrifice, said Nutt. "We gather here today not to offer pity to our people who were killed, but to honor them, for as much as any Soldier in any war, they paid the ultimate price while doing their part to ensure our freedom and our continued way of life for future generations."

During his remarks, Nutt asked that those who view the monument remember what it represents. "The base of the stone represents the strength of our nation. The vertical



section of the monument represents the people who rise to serve and protect the base. The eagle represents the liberty under which we live, and the shield, which represents how the Iowa Army Ammunition Plant workforce, protects them all."

IAAAP protects the nation by providing large caliber ammunition to the joint warfighters. The plant manufactures artillery and tank ammunition and warheads.

JMC signs Army Family Covenant



U.S. Army photo by Rhonda Brunning/EL HAMM

JMC Commanding General Brig. Gen. James E. Rogers, right, signs the Army Family Covenant during a ceremony Nov. 7 inside the JMC Headquarters Conference Room, as Family members and Soldiers look on. Next to Rogers is JMC Deputy to the Commander Jyuji Hewitt, center, and JMC Chief of Staff, left, Col. Todd Smith.

The Army Family Covenant

- *We recognize the commitment and increasing sacrifices that our Families are making every day.*
- *We recognize the strength of our Soldiers comes from the strength of their Families.*
- *We are committed to providing Soldiers and Families a Quality of Life that is commensurate with their service.*
- *We are committed to providing our Families a strong, supportive environment where they can thrive.*
- *We are committed to building a partnership with Army Families that enhances their strength and resilience.*
- *We are committed to improving Family readiness by:*
 - *Standardizing and funding existing Family programs and services.*
 - *Increasing accessibility and quality of health care.*
 - *Improving Soldier and Family housing.*
 - *Ensuring excellence in schools, youth services, and child care.*



Lean Six Sigma Corner



Project creates streamlined manpower reporting process



U.S. Army photo by Darryl Howlett

Manpower reporting is important for commands such as Joint Munitions Command. A Lean Six Sigma project has reduced the process cycle time and the number of reports completed.

By Jeff Nesbitt
JMC Resource Management

ROCK ISLAND ARSENAL, Ill. -- Thanks to a recent Lean Six Sigma Green Belt project, the manpower strength reporting process is more streamlined and as a result, the Joint Munitions Command will save more than \$35,000.

The goal of the project, besides streamlining the strength reporting process, was to reduce process cycle time and the number of reports completed. This will improve JMC's monetary and workforce resources. The project addressed the reporting process from initiation of the strength request to the completed report.

"This project was invaluable and we were able to reduce workload at our installations," said Brenda Seyller, team leader TDA team, resource management directorate.

The project team utilized the following LSS tools to perform root cause analysis: measurement systems analysis, current state value stream map, individual-moving range



U.S. Army photo by Darryl Howlett

Streamlining manpower strength reports is beneficial at both ammunition plants and at JMC headquarters.



control chart, fish-bone diagrams, cause and effect diagrams, Pareto chart, nominal group technique and cause and effect matrix.

The project team had eight members.

The pilot, which was conducted during the improve phase, allowed verification that the updated process met the project goals. The team created standard operating procedures for the strength reporting processes, which included gathering data from the official system. Additionally the number of reports completed was reduced to 10 from 14.

"Overall, it was a wonderful project," said Ngoc Le, management analyst, manpower division, resource management directorate. "As the manpower strength report point of contact, it has saved me a lot of time and JMC a lot of money."

All goals set in the define phase were exceeded. The project realized \$35,214.09 in cost avoidance, and produced many other benefits such as increased employee morale, enhanced readiness, and improved customer satisfaction.

It's a dirty job, but something has to do it...

Microbes



U.S. Army photo by Darryl Howlett

Radford AAP uses specialized microbes to destroy its solid waste stream in an environmentally safe manner.

Radford AAP using microorganisms to "eat" propellant manufacturing by-products

By Darryl Howlett
JMC Public Affairs

RADFORD, Va. -- Protecting the environment is an important part of the Radford Army Ammunition Plant's mission today.

And they're using living microorganisms to do it.

The use of specialized microbes is a process to biodegrade nitrocellulose (NC) fines, a by-product of NC manufacturing, and allows RFAAP to destroy its largest solid waste stream in an environmentally safe manner.

RFAAP, a subordinate installation of the Joint Munitions Command, is a government-owned, contractor-operated facility operated by Alliant Tech Systems.

RFAAP is the nation's top producer of finished nitrocel-

lulose, which is the key component in propellants and explosives. The twenty million pounds of NC produced each year at Radford creates a large amount of solid waste.

"The elimination of NC fines, which is the chief solid waste stream in nitrocellulose production, is now accomplished through a "green" treatment process. This process utilizes locally-harvested soil microbes paired with spent caustic material in a large tank. The caustic material is recycled from our propellant production screen cleaning operation. The mixture of the caustic liquid with the special soil microbes does an efficient job of "digesting" the NC fines," said Brad Jennings, RFAAP's environmental coordinator. "This solution was conceived by Dr. Sharon Wetzel – who works for ATK at Radford as a process waste engi-

"DIRTY" continued on page 8

Dirty *Continued from page 7**U.S. Army photo by Darryl Howlett*

RFAAP has been able to save money using the less expensive microbe system.

near. This process is the first of its kind in the nation.”

Jennings said Radford previously incinerated the NC fines at great cost. “Although the NC fine material is considered a manufacturing by-product of nitrocellulose production, a small percentage of the material can be recycled back into the NC production process. Before the biodegradable technology, the material was incinerated at \$2 per pound in a gas-fired incinerator,” Jennings said.

Dr. Wetzel, a specialist in the use of microbes for degradation of waste streams, understood that NC could be digested by soil microbes or bugs that live naturally in the soil.

“I noticed that the microbes from Radford’s previous storage site had developed an appetite for breaking down propellant waste,” she said. “I knew from past experience that municipalities use a similar technology to treat sewage at waste water treatment plants.”

Radford currently uses a 100,000 gallon tank for the process, which has lowered the cost of disposal to less than \$1 per pound of the wet NC material. RFAAP is currently upgrading another existing facility that will use two 40,000-gallon circular tanks for digestion of the plant’s legacy NC fines. Legacy refers old fines that have been in storage for many years.

Lt. Col. Jon Drushal, installation commander at RFAAP, said the process to eliminate waste is always a priority. “I believe it’s a pretty phenomenal piece of technology to treat the waste streams,” he said. “We are basically a city within a city incorporating complex operations to sustain ourselves. We have a total of six treatment plants on the installation: two drinking water, one biodegradation, one acid treatment, one filtered-water and one for TNT.”

Microbes in Iowa

By Maggie Browne
JMC Public Affairs

MIDDLETON, Iowa -- The Iowa Army Ammunition Plant has embarked on a joint venture with the University of Iowa to clean up its groundwater and soil contaminants found at and near the installation.

The contaminant in question is RDX or “royal demolition explosive,” a compound that has been used for many years and is still used today in the manufacture of ammunition, according to Rodger Allison, environmental project manager, IAAAP.

All RDX releases must meet permit requirements established by the state of Iowa. However, in the past RDX was released directly onto the ground and in drainage, ways that resulted in contaminated soil and groundwater in and around IAAAP.

The technology to abate this environmental hazard was selected by the Oak Ridge, Tennessee, Regional Office of Tetra Tech, Inc., a California-based company. It involves stimulating colonies of tiny microbes living in the soil and the water that ingest the RDX for its oxygen, thus rendering the RDX harmless to the environment. The microbes are encouraged to grow through the use of a food source such as high fructose corn syrup.

The partnership between the Army and the University of Iowa currently centers on the microbes populating the groundwater. “This is the cleanup method of choice because it is non-intrusive and the most effective. It relies on stimulating the activity of the naturally occurring microbes in the groundwater,” said Rick Arnseth of Tetra Tech.

First the groundwater must be tested to assure that the microbes appropriate for this type of environmental remediation are present. This is accomplished by setting “bio traps” to get samples of the microbes.

“The microbes that colonize these bio traps must be evaluated to determine which ones will be effective at destroying the contaminants we are interested in addressing,” said Arnseth. “This research is fairly new and it has never before been used for RDX abatement.”

Microbes are then fed the diet of a high fructose corn syrup or sodium acetate, according to Allison.

“This causes the microbes to eat like crazy, use all the oxygen and look for other sources of oxygen,” said Allison. One of the “other sources” is the RDX in the groundwater. Ideally, that’s what the microbes will go for, he continued.

This is a win-win situation for IAAAP, according to plant commander Lt. Col. Benjamin M. Nutt.

“The bio-remediation technology in use here is extraordinary. Given some early success with RDX cleanup and continual engineering refinements, this microbe-based abatement complements the plant’s comprehensive cleanup efforts. It’s effective, safe, relatively low cost, has no environmental side effects, and doesn’t impact production.”



LOGISTICS SOFTWARE, MUNITIONS, VITAL FOR U.S. PACIFIC COMMAND

U.S. Navy photo by Mass Communication Specialist 3rd Class Daniel A. Barker

The Phalanx close-in weapon system fires during a training exercise aboard amphibious assault ship USS Tarawa (LHA 1). Tarawa, with the embarked 11th Marine Expeditionary Unit, is on a scheduled deployment to the Western Pacific in support of maritime security operations and the Global War on Terrorism.

By Darryl Howlett
JMC Public Affairs

CAMP H. M. SMITH, Hawaii -- Inside the headquarters of the U.S. Pacific Command, logisticians and ammunition experts keep a close eye on events within the Pacific theater.

Air Force Col. Ronald Yakkel, recently began his assignment as Chief, Logistics Readiness Division – a position he’s held since June.

One of the components underneath the Logistics Readiness Division is the munitions branch.

“We’re doing a lot here in the munitions branch,” Yakkel, a 25-year-veteran, said. “We’re tracking all the munitions for all our components in the Pacific theater daily.”

Following a recent PACOM J4 reorganization, the Logistics Readiness Division now manages joint petroleum, joint munitions, supply and services, distribution policy, and coordinates with a Defense Logistics Agency liaison officer (LNO) and a Defense Contracting Management Agency LNO.

The munitions branch, according to its mission statement, is charged with

the staffing responsibility for all aspects of USPACOM munitions under the authority of the combatant commander. The branch has three personnel including Neil Wachutka, the Joint Munitions Command’s logistics assistance representative, and Quality Assurance Specialist (Ammunition Surveillance), assigned to PACOM.

“We recently began using a new database called the Global Combat Support System (GCSS),” Yakkel said. “This will be used by everyone as the common operating picture for logistics.

“For our munitions guys, it automatically pulls all the data from multiple systems. In the past, we used to have to pull data more manually. So with this new system, we’ve cut our processing time. It’s been really helpful.”

Wachutka said GCSS gives the command an opportunity to track munitions at both ashore and afloat locations with the ability to see the latest updates. Selected information is then fed into an electronic slideshow for daily update briefings to senior officials at USPACOM.

Navy Capt. Daniel Donovan

serves as the deputy for the Logistics Readiness Division, and is the munitions branch chief.

Donovan said the munitions branch is coming out of a very busy period, starting with the Turbo Containerized Ammunition Distribution Systems (CADS) exercise and ending with implementation and training for GCSS.

“The great thing about GCSS is you can pull from different databases on munitions from different services and (the ammunition) condition codes and serviceability,” he said.

“USPACOM has used the current version since May.

“Our big event this summer was Turbo CADS 2007 (TC07),” Donovan said. “We were able to move 581 containers of ammunition and 551 containers were retrograded back to CONUS. It was great execution from all parties involved.”

Yakkel echoed Donovan’s satisfaction with Turbo CADS and its goals.

“Turbo CADS worked out extremely well this year, Mr. Neil

“USPACOM” continued on page 11

Defense Ammunition Center: a savings machine

DAC leads JM&L LCMC in Value Engineering savings with \$36.8 million

By Bill Gallagher
JMC Value Engineering Team

ROCK ISLAND ARSENAL, Ill. -- The Joint Munitions and Lethality Life Cycle Management Command again led Army Materiel Command's in fiscal year 2007, achieving \$68.847 million in Value Engineering savings, or 346 percent of the savings goal of \$19.9 million. No other AMC command totaled more than 200 percent of its VE savings goal.

The Defense Ammunition Center accounted for more than half of JM&L LCMC savings with \$36.826 million -- an astonishing 9,691 percent of its \$380,000 goal—on two projects.

— The 2 Degree Barricade Rule Project initiated by Explosives Safety Test Project Manager Paul Cummins, and developed in conjunction with the Army Corps of Engineers, successfully proved that shorter barricades between stacks of ammunition explosives could provide adequate protection. Reducing barricade height from 14 feet to 9 feet will save more than \$21 million dollars in FY 2007-2009 in Southwest Asia and the Balkans.

— Adrian Wells was responsible for \$15 million in net three-year savings by developing an Automated Tactical Ammunition Classification System.

ATACS replaces a costly, inefficient manual process that also drained resources from the warfighter.

Other large VE savings projects throughout the JM&L LCMC are:

— Crane Army Ammunition Activity — Magazine Hasp Installation: Replaced an expensive contractor with in-house labor, realizing \$5.3 million savings.

— Blue Grass Army Depot — Constructed a CDE Storage Facility for fast-moving items has freed-up depot storage needed for returns from Southwest Asia and new procurement, thereby increasing revenue, with total savings of \$3.7 million.

— McAlester Army Ammunition Plant — By obtaining a waiver from the Defense Logistics Agency to sell contaminated 3X parts directly to a contractor, MCAAP saved \$4.583 million. The contractor paid \$1.758 million for the parts, while MCAAP did not have to spend an additional \$2.824 million burning the projectiles.

The Program Executive Office-Ammunition and the

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Army Research, Development and Engineering Center collaborated on seven projects for \$13.9 million in savings.

PEO-AMMO and ARDEC's most notable project replaced the electrical initiation system of the M18A1 Claymore Mine with a single component, non-electrical system that will save \$4.4 million.

Below is a break out by installation/ activity:

<u>INSTALLATION/ ACTIVITY</u>	<u>SAVINGS GOAL</u>	<u>ACTUAL SAVINGS</u>	<u>PERCENT SAVINGS</u>
		(MILLIONS)	(MILLIONS)
o BGAD	\$1.660	\$5.121	320%
o CAAA	2.760	6.487	235
o DAC	.380	36.826	9,691
o MCAAP	2.670	4.842	181
o TEAD	1.360	1.673	123
o PEO-AMMO/ ARDEC	10.000	13.398	139
o OTHER*	1.130	0	0
<u>TOTAL</u>	<u>\$19.990</u>	<u>\$68.847</u>	<u>346%</u>

* Other includes undistributed savings goals based on original budget figures for fiscal year 2007 then later reduced.

Lethality at its best

M110 SASS set to help Army snipers complete mission

By Maj. Mark Meeker
Special to the Bullet'n

PICATINNY ARSENAL, N.J. -- U.S. Army snipers have played a vital role in the wars in Iraq and Afghanistan and the new M110 Semi-Automatic Sniper System will make these specially trained Soldiers even more effective in battle.

The M110, which was approved for full material release in August, may prove to be the most effective anti-personnel weapon in history. Fielding begins this month with the 4th Brigade of the 10th Mountain Division based at Fort Polk, La.

The need for a semi-automatic sniper rifle was identified by lessons learned from theater as well as input from Soldiers at Fort Benning's Sniper School.

"The schools at Fort Benning were involved in this program from its inception and it was developed with input from snipers in training and in the field," said Lt. Col. Michael Ascura, product manager for Crew Served Weapons. "That is what makes this a shooter's gun."

The M110 is comparable in size and weight to the weapon it will replace, the M24 Sniper Weapon System, and fires the same 7.62 mm round. But that's where the similarities end. After-action reports from Afghanistan and Iraq showed that the M24's five-round internal magazine and bolt action were inadequate for the target-rich environments of today's battlefields, so the M110 was designed as a magazine-fed semi-automatic rifle.



The SASS provides rapid-fire precision lethality against personnel and light materiel targets out to 800 meters with high-capacity, quick-change magazines. The M110 SASS allows the sniper to stay on the scope and engage multiple targets by not having to manually operate the bolt to chamber and extract rounds. This capability is critical in close urban combat situations.

"Operational testing showed that the SASS provides a 50 percent improvement in a sniper's rate of engagement versus the M24 at distances up to and including the 800 meter mark," explained Joshua Semick, the lead engineer for the M110.

Bob Galeazzi, product director for the M110, echoed that statement. "It is designed to shoot accurately, quickly, and from far away.

Rapid semi-automatic fire can also benefit the sniper if he ends up being ambushed," said Galeazzi, referring to instances where a sniper's spotter has had to fight off attackers with his M4 while the sniper was preoccupied with reloading loose rounds into his M24.

In addition to its rapid-fire capability, the M110 is the first Army weapon to be issued with its own suppressor, allowing it to be fired with minimal sound and visual signatures.

The M110 has already been tested in a combat environment. "Soldiers of the 82nd Airborne Division in Afghanistan absolutely loved the weapon," Ascura said. "We'll have to add the newest enhancements when the 82nd redeploys because they want to keep the M110 with them in the war zone."

USPACOM *Continued from page 9*

Wachutka, a seasoned munitions expert, was our PACOM lead action officer for TC07 and contributed immeasurably to its success. Additionally, he ram rodded much of the After Action Review planning to ensure lessons learned were captured for future planning refinement. His dedi-

cated efforts and initiative have focused our planning efforts to help justify TC09 and assure we get the biggest bang for the buck with respect to training and movement of munitions," he said.