



## ECWCS IMPROVES SURVIVABILITY, COMFORT

DEBI DAWSON

**P**rogram Executive Office (PEO) Soldier's Generation III Extended Cold Weather Clothing System (ECWCS) is now a part of the Rapid Fielding Initiative. The system, which is fielded to all Soldiers deploying to Iraq and Afghanistan, is a 12-piece, seven-layer system that allows the Soldiers to dress up or down to their own comfort levels to accomplish their missions without being cold or overheating.

GEN III ECWCS is rated to perform in weather 40 degrees above to 60 degrees below zero. Lieutenant Colonel Christopher Cavoli, commander of the 10th Mountain Division's 1st Battalion, 32nd Infantry Regiment, has firsthand knowledge of the benefit of having the appropriate clothing for the extreme cold weather conditions in Afghanistan.

"During Operation Mountain Lion I found myself praying for bad weather, the first time in my military career I was actually begging for a cold front to come through. I knew my Soldiers could handle it and the enemy couldn't," said LTC Cavoli. "ECWCS allowed my men to outlast the enemy on their own terrain. When the enemy was forced out of the mountains due to the bitter cold to take shelter, that's when we got them."

If all the Soldiers in a unit are wearing the same layers, then that defeats one of the key features of the system. Soldiers come from across the country. Those growing up in Maine or Alaska might have different needs for comfort than those who grew up in Georgia or Texas. This system meets all those needs. Uniformity is important and is built in through the use of the Universal Camouflage Pattern and Foliage Green throughout the system. Hook and loop tapes for rank, name and U.S. Army also add to uniformity, according to Ron Pollack, the Quality Assurance Analyst for Product Manager Clothing and Individual Equipment (PM CIE).

Guidelines to make the most of the system are included in the technical manual issued with the system. A use and care manual is also provided, along with a period of instruction on the proper wear and fit of the system.

The seven-layer ensemble provides many options for personalization and includes the following 12 pieces:

\* **Lightweight Cold Weather Undershirt/Drawers** are constructed of "silk weight" moisture-wicking polyester.

\* **Midweight Cold Weather Shirt/Drawers** are constructed of polyester "grid" fleece. They will provide light insulation for use in mild climates as well as act as a layer for colder climates, and they provide an increased surface area for transporting moisture away from the Soldier during movement.

\* **Fleece Cold Weather Jacket** acts as the primary insulation layer for use in moderate to cold climate.

\* **Wind Cold Weather Jacket** acts as a low-volume shell

layer, optimizing the performance of moisture wicking along with insulation layers when combined with Interceptor Body Armor (IBA) and/or Army Combat Uniform (ACU) in mild to transitional environments such as desert day to desert evening. It is made of a lightweight, windproof, and water-repellent material. Design features include full-zip front, draw cord at the bottom, shoulder pockets, and a no-hood simple collar.

\* **Soft Shell Cold Weather Jacket and Trousers** replace the ACU in extended cold weather environments. They are made of a highly water-resistant, windproof material that increases moisture vapor permeability over current hard-shell garments. The garments provide a reduction in weight, bulk, and noise signature during movement.

\* **Extreme Cold/Wet Weather Jacket and Trousers** include a waterproof layer for use in prolonged and/or hard rain and wet conditions.

\* **Extreme Cold Weather Parka/Trousers** are used in extreme cold weather. They are highly water-resistant and windproof to provide wind and moderate moisture protection. They provide superior warmth and high compactability, low weight and low volume, and are sized to fit over the body armor during movement or static activities requiring maximum insulation.

Unit feedback should be directed to the Combat Development Directorate at the U.S. Army Infantry School at Fort Benning, GA, according to Pollack, while individual comments can be submitted at PEO's Web site at [www.peosoldier.army.mil](http://www.peosoldier.army.mil).

*(Debi Dawson is the Strategic Communication Officer for PEO Soldier.)*



# 2008 INFANTRY WARFIGHTING CONFERENCE SET

The 2008 Infantry Warfighting Conference will be held September 15-17 at Fort Benning, Georgia. The theme for the conference is "The Infantry: Heart of America's Army in the Contemporary Operational Environment." For more information, go online to [www.benning.army.mil](http://www.benning.army.mil) and click on the Infantry Warfighting Conference link or go to [www.fbcinc.com/infantry](http://www.fbcinc.com/infantry)

For more information, contact the IWC Operations Cell at [BENN.DOT.Confops@conus.army.mil](mailto:BENN.DOT.Confops@conus.army.mil) or (706) 545-4624/5868/0927/8891 (DSN 835-4624/5868/0927/8891)



Specialist Walton Glen Eller III takes his final shot to secure the gold medal in double trap August 12.



Photos by Tim Hipps

Private 1st Class Vincent C. Hancock set two Olympic records while winning the gold medal in men's skeet August 16 in Beijing.

## USAMU SOLDIERS WIN OLYMPIC GOLD MEDALS

Two Soldiers with the U.S. Army Marksmanship Unit (USAMU) at Fort Benning, Georgia, have captured gold medals during the 2008 Olympic Games.

Specialist Walton Glenn Eller III of the USAMU Shotgun Team captured the gold and set two Olympic records in men's double trap August 12. Shotgun shooter Private 1st Class Vincent C. Hancock set two Olympic records and prevailed in a four-target shoot-off to win the gold in men's skeet August 16.

SPC Eller, who finished 12th at the Sydney Games and 17th in Athens, entered the final round four targets ahead of Italy's Francesco D'Aniello with a qualification

score of 145, setting a new Olympic record.

After missing his first pair in the final, Eller ended up shooting 45 out of 50 targets and finished with a total score of 190 targets, setting another Olympic record and taking home the gold.

"I was so happy after I won, but I didn't know whether to cry, smile or jump up and down," said SPC Eller. "After my performances in the last two Olympics, I really wanted to come here and bring home a medal for the U.S. This is definitely one of the greatest moments of my life so far."

PFC Hancock, 19, shot an Olympic record 121 of a possible 125 targets in five qualification rounds and took a one-target

lead into the final. During the final, Hancock missed his 20th shot and finished regulation tied at 145 with Norway's Tore Brovold, who shot a perfect round to force the shoot-off.

"It made me more determined," PFC Hancock said of missing the low target flying out of the sixth station. "Sometimes I need something to boost my determination to get to that next level, and that's what happened. I would have liked to have shot 25 and won the gold outright, but I couldn't have asked for a better shoot-off."

*(Taken from reports by Tim Hipps of the Family and MWR Command Public Affairs Office and Mary Beth Vorwerk of USA Shooting.)*

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# LOOKING AHEAD TO THE SHORT FIGHT: BAIS GIVES TROOPS EARLY WARNING

DAWN K. KENNEDY

The fog of war has become an overworked phrase to describe the lack of information at the command level during combat. That lack of timely information, however, exists at all echelons and is most acute at the small unit level.

First employed during the Vietnam War, unattended ground sensors (UGS) for intelligence and security were used to address the need for data on enemy movements. The employment of passive electronic defense technology, has its roots along the Ho Chi Minh Trail in Vietnam, Laos, and Cambodia. The first primitive electronic UGS provided military intelligence and local security for missions conducted along what would become known as the McNamara Line, named for then Secretary of Defense Robert McNamara. While the majority of those sensors were air-dropped into position, some very effective sensors required hand emplacement by unconventional forces.

A big challenge facing leaders today is providing force protection for their personnel. The current FM 3-21.8, *The Infantry Rifle Platoon and Squad*, states the second fundamental Tactical Principle of Advantage: "Leaders continuously employ security measures to prevent the enemy from surprising them. Infantry platoons and squads should be especially concerned with their own security."

Force protection has been and will continue to be a priority in any operational environment; Soldiers need to deploy with all the available technology that can increase their protection status.

While there are a variety of UGS systems available for use today, most of those systems are employed for intelligence, surveillance, and reconnaissance over great distances as higher echelon Military Intelligence assets. In contrast, the Battlefield Anti-Intrusion System (BAIS) AN/PRS-9 is an organic asset designed specifically for early warning and force protection for platoons and small detachments. With a nominal two-kilometer standoff radio frequency detection and transmission range, a small unit can detect intruders, classify either as personnel or vehicles, and transmit the alert allowing time to prepare the necessary course of action whether interdiction, surveillance, or engagement. The system can also be used with other unmanned assets, such as a small unmanned aircraft systems for video eyes on the enemy. This capability has been demonstrated at numerous demonstrations, joint experiments, and during actual deployments. More than 700 BAIS systems have been fielded to units to date, and feedback from theater of operations has been uniformly positive from leaders, Soldiers, and force protection officers.

In February 2008, the following feedback was received:



**Battlefield Anti-Intrusion System AN/PRS-9**

"We placed six three-sensor systems on a forward operating base (FOB) that had been taking intermittent rocket fire. Shortly after [e]mplaced, the FOB detected a squad-sized element moving into an area of a previous point of origin (POO). The insurgents were able to launch only two of their five rockets causing no damage to the installation, and the FOB was able to successfully engage the enemy and drive them off leaving unfired rockets behind. Since that engagement, the FOB has not sustained any additional indirect fire attacks."

This feedback demonstrates that the unit used BAIS to provide situational awareness and then responded to the detected threat. Increased situational awareness provides small unit leaders with additional time to develop an appropriate response to detected threats entering their area of responsibility (AOR). Though it was specifically designed for the small unit, up to 63 sensors in range can be monitored on one channel which makes monitoring at company or battalion level possible.

While the current BAIS production system continues to meet the identified needs of the Soldier and small units, there is a modernization plan underway to provide a remote programming capability and a built-in repeater to increase range and standoff capability. This modernization program, which was part of the original requirements, will begin testing a follow-on production system in early 2009. The new system promises to be lighter, more capable, have a greater period of operation on the same power, and still be more user friendly than the current system.

*(Dawn K. Kennedy provides Computer Sciences Corporation support to the U.S. Army Product Manager, Force Protection Systems and to the Combat Developers, Electronics & Special Developments Division, Directorate of Combat Developments, U.S. Army Infantry Center.)*