Rapid Equipping Force Soldiers pose Nov. 14 in front of solar panels and a trailer with batteries used for generators, in the Pentagon courtyard during an Army energy-efficient technologies display, hosted by the G-4 Operational Energy team. From left is, Maj. Shawn Langford, a requirements officer; Maj. Jennifer Zais, a product director; and Sgt. 1st Class Brian Pessink, operations requirements noncommissioned officer-in-charge. (Photo by David Vergun, Army News Service)

NCO Tells How Rapid Equipping Force Helps Soldiers

By David Vergun

Army News Service

WASHINGTON — Today's high-tech gadgets are often obsolete in just a few years or even months. The same can go for stuff Soldiers deploy with.

Sgt. 1st Class Brian Pessink knows this first-hand.

In 1999, he deployed to Kosovo with gear he said would not be adequate for the rigors he'd later face in deployments — twice in Iraq and once in Afghanistan.

When Pessink arrived in Iraq in 2005, he said he was issued all sorts of new stuff that he didn't have in Kosovo — "a face shield to protect the gunner in a Humvee from improvised explosive device blasts, the latest night-vision optics, thermals and countless other things" — and more would be in the pipeline in the coming months and years.

Pessink said he was surprised by how fast the new stuff was fielded but didn't give it too much thought until about a year ago when he found out that the Rapid Equipping Force, or REF, was the unit responsible for "filling the capability gap so Soldiers could get a lot of things they need quickly."

He discovered REF was behind the rapid pace of procurement because he's now the operations requirements noncommissioned officer-in-charge at REF, lo-

cated on Fort Belvoir, Va. He spoke during an Army energy-efficient technologies display in the Pentagon courtyard Nov. 14, hosted by the G-4 Operational Energy team.

Pessink and others were eager to tell their stories to others and show off all the new equipment being fielded to Soldiers — and helping to save lives.

Take a simple generator.

Well, they're actually not that simple, said REF support contractor Bill Garland who has been with the team two years.

If they were easy to use, there wouldn't be so many that are broken, he said, adding that it's common to see more generators broken in the field than working.

"Soldiers are not used to working on them and when they deploy, they often see them for the first time," he explained, adding that "the way they work is counterintuitive."

He used the example of an automobile. Driving it at 45 mph will make it run more efficiently than at 90 mph.

With a generator, the reverse is the case, he said. It runs more efficiently at 80 percent load than at 20. Running it at 20 percent will tax it and cause it to eventually break down since none of the Army's generators are variable speed.

Army researchers came up with a hybrid solution, which not only prevented generators from breaking down, but also saved fuel — a heavy, expensive commodity to transport over hundreds of miles of rugged terrain like that in Afghanistan, he said.

And REF got that hybrid gear out to the field quickly, he added.

They call it hybrid, he said, because it utilizes solar panels. A small trailer with batteries and an inverter are part of the package. These are attached to existing generators and a computer in the package directs generators to run at the correct load. If the load decreases too much, the computer commands it to shut down.

So if there are three generators and low power requirements, then only one might be running full load while the others are stopped. All the while, the solar panels are collecting energy and storing it in the batteries for when they're needed, he said.

As of today, there are 57 of these "hybrid solutions" in Afghanistan, 20 in Tran-Sahara Africa with U.S. Army Africa Command, 12 in Honduras with U.S. Army South, and several in the Philippines with U.S. Army Pacific.

REF got those and many other systems out to Soldiers in the field at speeds undreamed of 15 years ago, he said, explaining that "we work with the program managers to get stuff pushed out. Our strength is understanding the requirements and finding the right people and solutions to help solve those problems. That's our core competency."

Though the Army doesn't yet have variable-speed generators, that too may change someday.

Army engineers at the Research, Development & Engineering Command and private enterprise are working on more efficient, state-of-the-art generators. If funding becomes available, it is likely REF will be involved, he said.

"When a 10-liner comes in from a unit, we immediately go into action to determine if it fills a critical capability gap," Pessink said. A 10-liner refers an urgent operational needs request form.

"If it's not already in the Army's system, we look to see who can develop it or it might already be a commercial off-the-shelf item," he said.

But not all 10-liners are fulfilled, he said. "Sometimes Soldiers just want some cool piece of gear. In those cases, we tell them 'no.'"

The litmus test, he said, is whether or not "it's really going to save a Soldier's life and get them safely home." ■

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