Curbing base camps' appetites for fuel, water

U.S. Army

NATICK, Mass. (Oct. 1, 2012) -- Base camps in Afghanistan consume vast amounts of fuel and water. To keep them running, resupply convoys must hit the road, putting Soldiers in danger.

In an effort to curb those voracious appetites -- and keep Soldiers safe -- Product Manager Force Sustainment Systems has combined with Research, Development and Engineering Command's Field Assistance in Science and Technology Center, and the 10th Sustainment Brigade of Task Force Muleskinner to establish a 450-person Force Provider base camp at Bagram Airfield, Afghanistan, that demonstrate energy- and water-saving technologies.

PM FSS is looking at tent insulation, solar shades, rigid doors, LED lighting, new environmental control units and generators that help camps sip, rather than guzzle, fuel.

"Anyone that's worn this uniform that's been deployed and been on combat patrol understands that taking trucks off the road is very, very important," said Maj. John Pires of PM FSS at Natick Soldier Systems Center. "At what point does this take a truck off the road for both water and fuel? Those are the types of things that resonate, I believe, better with the warfighter."

The TF Muleskinner camps accommodate transient service members. They have housed as few as 34 and as many as 250 troops since they were finished in May.

"Because we had fluctuations in troops, we really revealed some important aspects of how we consume fuel and water," said Pires, adding that per occupant consumption went down dramatically when the number of Soldiers increased in the camps.

"It can't just be the material solution," Pires said. "We have to change behaviors. This shouldn't be a burden to the troops. It should become second nature. The intent of this is really to keep trucks off the road and potentially save lives."

The technologies were evaluated at the Army's Base Camp Integration Laboratory at Fort Devens, Mass., before being sent to Afghanistan, where harsher conditions posed more challenges.

"We're seeing certain faults with some of our systems, and this gives us an opportunity to further improve these systems," Pires said. "We've taken that information and we've given it back to the subject matter experts here, and they've started to address some of these issues."

Shawn Homer, a PM FSS electrical engineer who helped set up the camps, said the

idea was to demonstrate that these technologies can be used without affecting Soldiers' quality of life.

"They can help save energy, reduce fuel convoys," Homer said. "It's also a place for us to bring other commanders in so they can see these technologies and start requesting them. It helps us matriculate this out into the other camps."

Data are being collected from the three camps, each of which each employs different environmental control unit systems for billet tents.

"Now we're comparing the three camps against each other," Pires said.

PM FSS will continue to add new systems for future demonstration and evaluation.

"Technology is always evolving," Pires said. "It's always changing."

Source URL (retrieved on *07/23/2014 - 7:27pm*):
http://www.ecnmag.com/news/2012/10/curbing-base-camps-appetites-fuel-water?qt-recent_content=0