

Rapid Equipping Force's NCOs Keep Soldiers in the Fight

By Martha C. Koester - NCO Journal

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Sgt. 1st Class Justin Rotti, a combat developer for the U.S. Army Training and Doctrine Command Fire Cell, tests a developmental handheld precision targeting device for the Rapid Equipping Force in July 2014 at White Sands Missile Range, New Mexico. The device allows Soldiers to engage targets with precision munitions and provide digital connectivity to related units. (Photo by John Hamilton / White Sands Missile Range Public Affairs)

During the initial stages of conflict in Afghanistan in 2002 as U.S. Soldiers were clearing caves used by foreign and insurgent forces, the Army found itself in dire need of materiel technology to help thwart IEDs and victim-borne explosive devices. Soldiers were using unsophisticated technologies to search caves and bunkers rigged with booby traps and grenades, resulting in multiple casualties. Urgent solutions were needed to keep Soldiers in the fight. A task force was formed, and the PackBot tactical robot soon followed, giving Soldiers visual confirmation of obstacles on the frontlines.

The successful project led to the establishment of the U.S. Army Rapid Equipping Force, which would quickly procure and deliver nonstandard, specific solutions with a goal of 180 days or less to ease the urgent challenges that Soldiers were facing.

NCOs have a key role

Having direct access to Soldiers is critical to the REF so it can maintain a quick turnaround, which at 180 days is a faster timeline than the ones traditional acquisition systems and organizations face. Whether reaching out to Soldiers in an expeditionary lab in the field or gathering feedback from deploying or returning units, outreach programs are essential to the mission. The REF, which is headquartered at Fort Belvoir, Virginia, canvasses the commercial and government realm of technology to mitigate capability gaps. Noncommissioned officers are vital to its process.





Sgt. 1st Class Michael Wayne Dessecker, an operational advisor for the Rapid Equipping Force's outreach team, says Ex Lab projects are often first developed into a working plastic version from 3D printers in order to cut down costs and to check its form, fit and function. (Photo by Martha C. Koester / NCO Journal)

"An NCO brings knowledge and experience with him to individuals who have not had that type of experience before," said Sgt. 1st Class Michael Wayne Dessecker, an operational advisor for the outreach team. "A majority of the acquisition career field is fielded by officers at field-grade level. They have either not been in the fight for several years or have never been in combat arms MOS's. NCOs bring that firsthand knowledge and experience, so we can give them appropriate feedback and collaborate with them to find the best piece of equipment to fill those capability gaps."

The REF draws on NCOs' skills heavily because combat experience comes in handy when collaborating on technology.

"For any NCO to come work at the REF, he or she must have been a combat leader, which means you must have done time as a platoon sergeant and you must have met your minimum requirements for the next position," Dessecker said. "Most of us have two or three years of combat experience as platoon sergeants, not to mention that we did our staff sergeant time in combat arms positions. So we bring all of the information from the squad level to the platoon level to the company level."

"As an infantry NCO, being at the REF is a significant change from what NCOs are used to," said Sgt. 1st Class Justin Fulk, an outreach and assessments team member. "This assignment requires tact, cohesion and a level of collaboration with civilian peers, vendors, high-level leadership and academia, which the typical infantryman would normally never have to worry about. That being said, it's an excellent broadening opportunity, which requires a lot of on-the-job learning, and I'm glad I've had the opportunity."

Equal partners

The NCOs may be of lesser rank than the officers they work with, but they are considered peers because of their technical and tactical experience, Dessecker said.

"When we say something on a strategic or tactical level that is necessary to consider [for project development], everybody in the room listens to us," Dessecker said. "Additionally we have the flexibility to perform just about any mission because of the way that we were brought up in the Army."

NCOs who are part of the REF are afforded the opportunity to form productive working relationships with academia, other Army organizations and civilians, Fulk said.

"It's rewarding because infantry NCOs rarely get the opportunity ... to develop a prototype piece of equipment and become a part of the solution," Fulk said. "It's amazing how quickly an NCO who works side-by-side with an engineer can create a solution that works from both an engineering and a Soldier perspective. Most Soldiers do not have the background to create a complete product from scratch, and most engineers do not have the background to create a Soldier-proof product that will work in the environments faced today. Together, though, we can create finished prototypes and help mitigate a capability gap."





A contractor with the Rapid Equipping Force, left, shows Capt. Steven Caldwell how to adjust solar panels to increase solar energy collection in September 2014 in Afghanistan. (Photo by Sgt. William White / U.S. Army)

“Working with scientists and engineers was a challenge at first, because we had to learn from one another,” said Sgt. 1st Class Brian Pessink, the REF forward team’s NCO in charge. “The NCO helps them understand how the military functions. Most NCOs who come into the organization have never worked in an environment with scientists or engineers, or really, any civilians. They provide us with a plethora of knowledge to take back with us when we, the NCOs, have to transition back into a regular Army unit and lead troops.”

In the effort to give Soldiers quick access to technologies while out in the field, the REF deploys expeditionary labs, or Ex Labs, to connect Soldiers with scientists and engineers from the U.S. Army Research, Development and Engineering Command. Ex Labs are containerized engineering hubs designed to be transported to the most remote of bases. They deploy with an NCO, who is ready to meet with Soldiers and clarify equipment issues to the on-site engineers. Ex Labs come equipped with state-of-the-art equipment, such as 3D printers, computer numerical control machines and fabrication tools.

“We help identify the tactical problems and even provide immediate solutions in some locations, using the Ex Labs,” Pessink said. “The NCO can give Soldiers who are deployed equipment and tactical knowledge that will help their organizations be successful on any battlefield. I always feel like I’m making a difference in the development of a REF solution, assessment or event.”

“A Soldier will come in and tell us about a problem with equipment,” Dessecker said of the Ex Lab process. “The NCO can translate that information to the engineer to get the right piece of equipment built or created so that that Soldier’s capability gap will be filled.”

Ready to assist

Though the REF’s NCOs easily can find themselves juggling 20 to 30 projects, the organization wants to get the word out to units and Soldiers that they are ready to handle urgent equipment challenges that may crop up.

“A lot of Soldiers don’t know we exist, and down at the Soldier squad level that can be a big problem for us,” Dessecker said. “Part of our outreach program is to engage with units before they deploy, so that every Soldier knows what’s going on. But in theater, one of the things I like to do is go to lunch and dinner at different dining facilities and pick a table full of Soldiers and tell them what kind of capability I bring so they can engage me. Within a few days, those Soldiers I talked to will tell their buddies or their platoon sergeants [about us] or they, themselves, come in [to tell us about a problem they were having]. Every Soldier has a problem [with equipment]. They just don’t know how to fix it. We are an avenue to help fix those problems.”

The document that kicks off the production process is the submission of a REF 10-liner. The simple document gathers information about the capability gap and operational intent for the equipment solution.

“Any Soldier can write one of these,” Dessecker said. “Basically all Soldiers have to do is tell us who they are, what the tactical problem is, what concept of your operation is this tactical problem representative of, what you see as system characteristics that will define the problem or define the piece of equipment that will help you solve that problem.”

The Army deputy chief of staff gave the REF director the authority to validate requirements in order to ensure that these quick-reaction solutions

get top priority to meet Soldiers' and units' needs. Once the 10-liner is submitted and validated, the REF begins canvassing industry- and government off-the-shelf technologies and working with partners to determine potential solutions. Ex Lab projects are often first developed to get a working plastic version of the prototype. A 3D printer is used because it's cheaper to work with plastic and also to check the form, fit and function of the solution, Dessecker said.

The REF's intent is to address urgent requirements for specific units and create a general solution the entire Army can use. It's a challenge that the REF's NCOs embrace.

"I want NCOs who can come in here with 12 to 14 years of experience in the Army, who have platoon sergeant time," Dessecker said. "They can come in here, influence the piece of equipment that they will use as future platoon sergeants, first sergeants and battalion sergeants major. We want to be able to use their tactical experience here for a little while, get them in the acquisition process, to understand the different realms that are in the Army and then go back to the tactical side of the fight and bring the information forward. It will make them better leaders and middle managers in the Army in the future.

"Prior REF NCOs are our most valuable communication assets because they go back to the Army with the knowledge from here," he said. "Our former NCOs ... can identify the problems now. [Experience with the REF] brings a new perspective. You now have an outlet to request something to fix the problem instead of having to deal with it with what little resources you have."

The REF's NCOs play an integral part in influencing the Army's technology of the future.

"If you [as an NCO] do well in your job, you're smart and you're able to be flexible and adjust your environment, you will move from working with Soldiers to getting them the piece of equipment that will keep them going in the fight," Dessecker said. "If you're an NCO and you want to directly affect the pieces of equipment that Soldiers are using instead of complaining about what Soldiers get, then this is the type of place you need to come to. We have direct influence on what new and emerging technologies Soldiers will get in the future."

The NCOs recognize the value of the skills they have acquired working for the REF, expertise that will keep them relevant in the evolving Army.

"The NCO provides knowledge that helps get the warfighters the best equipment to fill their capability gaps," said Sgt. 1st Class Jose Laboy-Correa, a logistics team member. "In the logistics division, we draw on our deployments and assignments at other unique organizations to ensure that REF solutions make it to the warfighter. NCOs make a difference because they have an understanding of the needs of Soldiers deployed all over the world. All NCOs are able to influence the types of solutions that are equipped to units in theater."

"I will have a huge sense of accomplishment [when I leave], Fulk said. "I feel I am able to make a big impact on Soldiers and the Army through the work accomplished at the REF."