

NCO At Forefront of New Army Technology

By Martha C. Koester - NCO Journal

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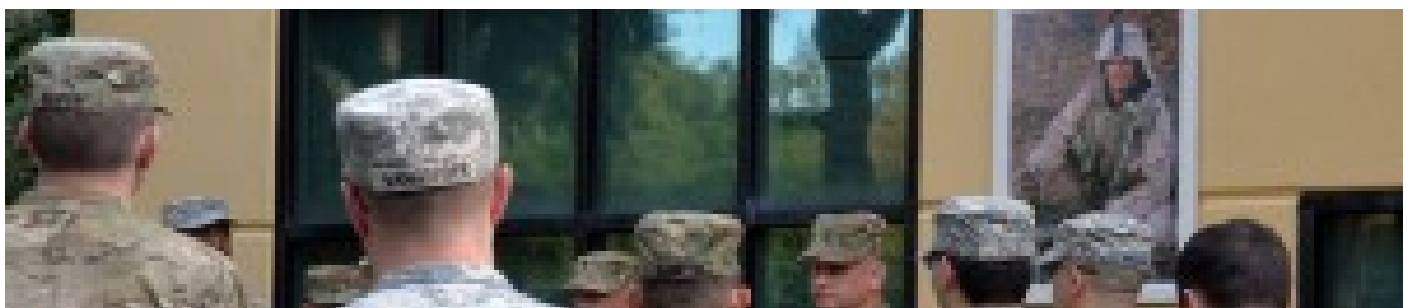


Sgt. 1st Class John C. Hardwick, far right, senior enlisted advisor at the Army Research Laboratory-Human Research and Engineering Directorate Advanced Training and Simulation Division, Sgt. 1st Class Paul Ray Smith Center University of Central Florida, demonstrates an Engagement Skills Trainer prototype for Gen. Dennis Via, commanding general of the U.S. Army Materiel Command during Via's visit in September to the center. The center is working in collaboration with PEO-STRI on adaptive marksmanship research training using the small arms trainer system, donated by Meggitt. (Photo courtesy of Army Research Laboratory-Human Research and Engineering Directorate Advanced Training and Simulation Division, Sgt. 1st Class Paul Ray Smith Center University of Central Florida)

Official visits to the Army Research Laboratory-Human Research and Engineering Directorate Advanced Training and Simulation Division, Sgt. 1st Class Paul Ray Smith Center University of Central Florida begin at the memorial out front for the building's namesake, who was posthumously awarded the Medal of Honor in 2005 for his actions during Operation Iraqi Freedom. Smith's personal artifacts, donated by his family, as well as his Medal of Honor greet visitors who enter the building. The memorial instills the importance of the mission for the center's scientists and engineers – to sustain and enhance the modern Soldier.

Sgt. 1st Class John C. Hardwick, senior enlisted advisor at the center, understands exactly how important developing technologies is to enhancing Soldiers' readiness. As one of the few military personnel at the center, Hardwick works with more than 100 scientists and engineers in Orlando, Florida, advising and offering the Soldier's perspective on projects.

"The scientists and engineers have all been very welcoming and very receptive to any suggestions I might have," Hardwick said. "It doesn't really feel like I'm in the minority here. Everyone has treated me like we're one big team, all working toward the same goals – developing better products for the young Soldiers and the future of the Army."





Sgt. 1st Class John C. Hardwick, center, tells NCOs about Sgt. 1st Class Paul Ray Smith before the start of the Noncommissioned Officer Professional Development System training sessions in October at the Army Research Laboratory-Human Research and Engineering Directorate Advanced Training and Simulation Division, Sgt. 1st Class Paul Ray Smith Center University of Central Florida. (Photo by Martha C. Koester / NCO Journal)

Important role

The ARL-HRED Advanced Training and Simulation Division, Sgt. 1st Class Paul Ray Smith Center is housed under the U.S. Army Research, Development and Engineering Command. NCOs play an integral role within RDECOM to maintain Army readiness.

“[NCOs] provide user-level input to our scientists and engineers so they can develop the best product possible to get to our Soldiers the first time,” said James P. Snyder, command sergeant major and senior enlisted advisor for RDECOM. “Sometimes our civilians are a little bit intimidated by a Soldier coming into the process because they are not used to working with Soldiers. [NCOs] have to show them the benefit that [they] can be to them in that [development] process.”

“It’s the NCOs who train Soldiers and deal with Soldiers on a daily basis,” Hardwick said. “We are the ones who train Soldiers on all the equipment they receive. The NCOs know how Soldiers are going to use a piece of equipment and they can help the scientist in the early stages of development, which in the long run saves money.”

The scientists and engineers can handle the technical side of product development, but it’s the NCO who provides his or her input on its usability, Snyder said.

“I bring all the technical and tactical expertise that I have learned over the past 20 years through all my deployments and duty assignments,” Hardwick said. “I bring that end-user expertise. I know what the Soldiers on the ground want. I know what they need. I know what they are going to use things for. I know how they are going to use them. I can translate that to the scientists when they are building their products and their simulators, so they have a better understanding of how stuff is going to be used and by whom.”





Sgt. 1st Class John C. Hardwick, senior enlisted advisor for the Army Research Laboratory-Human Research and Engineering Directorate Advanced Training and Simulation Division, Sgt. 1st Class Paul Ray Smith Center University of Central Florida, explains what ARL and STTC contribute to the U.S. Army's Research, Development and Engineering Command and to the Army during the Noncommissioned Officer Professional Development training sessions in October. (Photo by Martha C. Koester / NCO Journal)

Contributing to the team

Skills gained as a drill instructor as well as training in Germany have served Hardwick well at the center.

"Being on the operational side for most of my career, I learned what the equipment is used for," he said. "In Germany, I learned a lot about training Soldiers, so I also know what tools are good for training and ways to train so that Soldiers get the most out of it.

"A lot of the simulations that we're using [at the center] are going to help reduce costs and training for the Army," Hardwick said. "For example, the Engagement Skills Trainer [virtual skills training system] is a tool to help marksmanship. You can work on a lot of small skills on the computer simulator before you get to an actual range and start using real bullets. The time you save in the simulator working on your skills will translate into less time and fewer bullets wasted out on the range. I think all of those things and my knowledge and experience will translate into building better products for Soldiers."

Hardwick said the scientists and engineers first had to get used to seeing him around the center because they were not accustomed to having a noncommissioned officer on staff.

"The job was created right before I got there, so I am the first one to really do this job on a permanent level," he said. "Before me, they would occasionally get NCOs there on a temporary basis."

Once Hardwick arrived, he quickly got to work, offering project feedback and serving as the liaison between the scientists and engineers and Soldiers during testing. He reached out to nearby Army Reserve units as well as the ROTC department at the University of Central Florida in Orlando when testing subjects were needed at the center.

"I can translate what the Soldiers are trying to say to the scientists and [vice versa]," he said. "Every culture has its own terminology."

Not that he doesn't miss the military environment he is accustomed to. Hardwick sees RDECOM's NCOs during Noncommissioned Officer Professional Development System training sessions, such as the most recent one in October at the center.

"For me, it's good to be around this many NCOs," he said. "It's a familiar culture. It's one of the things that I miss in this job — that I don't have other NCOs and a lot of other Soldiers to hang out or socialize with. With these NCOs, we get to talking and we learn about different projects."

Valuable commodity

It's at the center that scientists and engineers are forging new paths in live and virtual training for the future Army force, and Hardwick has a front-row seat.

"Sgt. 1st Class Hardwick's tactical expertise and operational insight were critical in the development of a next-generation prototype sand table known as the Augmented Reality Sandtable," said retired Lt. Col. Joe Lisella, former military deputy. "ARES integrates the traditional sand table with new, low-cost technologies in image generation and machine vision that will enhance realism and provide a more immersive and interactive experience over the traditional sand table."

During a September visit to the center, Gen. Dennis Via, commanding general of the U.S. Army Materiel Command, said NCOs like Hardwick are an essential component in research to help evaluate and provide no-nonsense feedback for projects that will advance Army readiness.

"As a drill sergeant, you learn to spot the common issues, but you don't see the details, especially when you are monitoring a group of trainees," Hardwick told Via. "This research gives the drill sergeant, instructor or even the trainee immediate feedback ... allowing adjustments to be made rapidly."

The skills learned during his stint at the center have given him an appreciation for RDECOM and a broader understanding of how the Army works, Hardwick said.

"Being on the operational side of the Army meant basically getting the equipment and using it but nothing about how it was developed," he said.

For his successor at the center and NCOs new to RDECOM's units who are unsure of their duties, he has some advice.

"Learn as much as you can about everything that [RDECOM and the ARL-HRED Advanced Training and Simulation Division, Sgt. 1st Class Paul Ray Smith Center] do and to remember that they have connections throughout the Army," Hardwick said. "Reach out to your buddies wherever they are and help educate them on RDECOM and the things that they do. And reach out and ask them for advice."