



Sgt. Maj. Jamison L. Johnson, senior enlisted advisor to the director of the U.S. Army Edgewood Chemical Biological Center, tries out the Oculus Rift at ECBC's Advanced Design and Manufacturing division at Aberdeen Proving Ground, Md. The Oculus Rift will be used to help train Soldiers for Chemical, Biological, Radiological, Nuclear and Explosives Command missions.

ECBC Teams Up With Soldiers To Thwart WMD Threats

By Martha C. Koester — NCO Journal

In the mission to protect the homeland from emerging threats, the U.S. Army Edgewood Chemical Biological Center stands ready to help Soldiers adapt to a changing world — one which includes combating weapons of mass destruction.

“In the big Army perspective, weapons of mass destruction is one of our top priorities, and it’s one of the Army’s top 20 warfighter challenges,” said Joseph L. Corriveau, director of ECBC at Aberdeen Proving Ground, Md. “The Army really is putting a lot of energy into making sure we protect Soldiers from the chemical biological threats. That goes beyond that, to the homeland.”

ECBC, an organization of the U.S. Army Research, Development and Engineering Command, has a civilian workforce of about 1,400 and only two military personnel. ECBC’s expertise is in science and technology as well as the Department of Defense’s authority in chemical and biological defense. Sgt. Maj. Jamison L. Johnson, senior enlisted advisor to the director, is right in the middle of it, offering his military expertise in vulnerability assessment.

“Not coming from a chemical background, I had to figure out where I fit in,” Johnson said. “Coming here as a noncommissioned officer, I realized right away what the capabilities were here and how much this place has to offer. It’s quite amazing.”

Johnson quickly found himself accompanying ECBC’s divisions, such as Advanced Design and Manufacturing workers, on project test-runs. He accompanied ADM workers recently to Mississippi, where they flew unmanned aerial vehicles with chemical, biological, radiological and explosives sensors. Johnson helps evaluate projects for the divisions at ECBC, and they keep him busy.

“This is where NCOs are a huge advantage for [ECBC] because they get direct interaction from us [in the military],” he said.

Lessons in collaboration

Developing multimedia and interactive training aids for Soldiers takes a certain level of skills, and ADM team members have backgrounds in computer science as well as art and animation.



Masks are tested by the U.S. Army Edgewood Chemical Biological Center's Protection Factor and Toxic Chamber Group in June at Aberdeen Proving Ground, Md. Army equipment is put through extensive testing before it gets to Soldiers in the field. (Photos by Martha C. Koester / NCO Journal)

"The engineers, the product developers, the warfighters, we are integrated so ... we [can] start using this technology in a specific way to do training for a Chemical, Biological, Radiological, Nuclear and Explosives (CBRNE) missions," said Jeffrey A. Warwick, conceptual modeling and animation team leader. "It's great to train the Soldiers on the things they need to recognize and learn. We can also get into the true operational support where if Soldiers [returning from deployment] have captured data of a [suspect] facility, we can create a model and put it in virtual reality technology. It can be used to post-train Soldiers and explain what other Soldiers saw."

The experts at ADM use video game technology to create realistic projects to help train Soldiers on CBRNE missions. Oculus Rift, a new virtual reality headset, is one of those projects.

"When I put this headset on, it really immerses me into that environment," said Jason Gitlin, ADM animation project manager and 3D artist. "By putting on the Oculus, you start to really understand the spatial constraints [of a building] and what it feels like to be in that environment."

The ADM team gets its project feedback from ECBC trainers and staff members, as well as Soldiers who have taken the training. ADM team members also frequently reach out to consult with Johnson about the technology behind projects.

Other divisions at ECBC, such as the Protection Factor and Toxic Chamber Group, use Soldiers as well as civilians to test projects extensively before the equipment gets to Soldiers in the field.

"I think the most important thing [we provide] with testing is that when a Soldier gets [new] equipment, it gives them the confidence to say, 'My equipment is working right, and I'm safe whenever I go out,'" said Steven Yurechko, Protection Factor and Toxic Chamber Group, ECBC.

On an international stage

Because of its expertise in science and technology, the Army called in ECBC to destroy a stockpile of declared chemical weapons from Syria in 2014. A volunteer team of 50 scientists and engineers got to work and began building the field deployable hydrolysis system, which is used to neutralize bulk amounts of chemical warfare agents. Using the system, more than 600 tons of chemical weapons were destroyed by the workers who deployed to the Mediterranean Sea on the container ship MV Cape Ray. It was a huge achievement for world stability and ECBC.

"We are here to provide support to the Soldier, and to national security in general, to first responders and the homeland security, because weapons of mass destruction are a challenge not only for our Soldiers but for the whole nation," Corriveau said. "We do a lot. [In June 2014,] we were helping not just the United States, but the whole world get rid of Syrian chemical weapons."

For the future force

Johnson believes so strongly in the value of having an NCO at ECBC that he is helping lead an effort to get more NCOs there after he leaves.

“We’re actually working on it right now with Fort Leonard Wood, Mo.,” Johnson said. “There’s a memorandum of agreement that they are trying to process to get a seasoned NCO here for a three-year tour and then rotate them out every three years. I told them optimally to have one in each of the directorates, because they are going to need their input.”

Johnson’s 22 years of experience in the Army helps him provide a strong military perspective to the experts at ECBC, he said. He wishes he had heard of ECBC earlier because it might have changed his plans to retire soon.

“It’s so important that Sgt. Maj. Johnson is here because we are a workforce of Army civilians, and this is



Masks are put through rigorous testing by ECBC’s Protection Factor and Toxic Chamber Group at Aberdeen Proving Ground, Md. Soldiers, as well as civilians, pose as test subjects during equipment testing.

like our ground troop,” Corriveau said. “This is what it’s all about. He is helping our workforce.”

Working at ECBC has not only given Johnson an appreciation for science and technology, but also will ease his eventual transition into the civilian world, he said. Before his time at ECBC, Johnson had never worked with civilians.

“I think it’s good to get in that voice of the military,” Johnson said of his role at ECBC. “I think it offers a lot, especially in this type of environment. It’s just an advantage for everybody. There is no disadvantage.”

“Everything starts with the Soldier and ends with the Soldier,” Corriveau said. “It starts with what they need. We are going to give it to them, and we are going to make sure that when they are out [in the field] they have it, and we are going to help them sustain it. It’s all about the Soldier.”

About Edgewood Chemical Biological Center

- ECBC is the primary Department of Defense technical organization for nonmedical chemical and biological defense.
- ECBC’s contributions include chemical and biological agent detectors and warning systems, decontamination technologies, protective masks, and services in support of the nation’s demilitarization and homeland defense initiatives.
- ECBC is the only “all hazard” laboratory in the nation capable of handling items potentially contaminated with chemical, biological and radiological weapons.

Source: U.S. Army Edgewood Chemical Biological Center; U.S. Army Research, Development and Engineering Command ■

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