

Training for Subterranean Operations in the KTO

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With a high around 15 degrees Fahrenheit, it was a cold, clear day on Camp Stanley in the Republic of Korea (ROK), as Soldiers from A Company, 1st Battalion, 5th Cavalry Regiment, 2nd Armored Brigade Combat Team, 1st Cavalry Division, prepared to clear Objective Rams, a medium-sized underground facility (UGF) used for subterranean (SubT) training.

The company's mission was part of the battalion's training objectives to conduct counter weapons of mass destruction (CWMD) operations as part of the 2nd Infantry Division's Micro Experiment, a primary facet of our operational deployment to the ROK. An attached chemical, biological, radiological, nuclear, explosives (CBRNE) response team (CRT) from the 23rd CBRNE Battalion also participated to confirm threats on the objective and to help with initial assessment of the threat on site. Additionally, we were there to validate a range of equipment unique to the SubT mission set, which includes radio systems, shields, additional white lights, and robots.

Due to the weather, all Soldiers wore varying layers of the Extreme Cold Weather Clothing System (ECWCS) beneath their mission-oriented protective posture (MOPP) level 2 uniforms. Blue Platoon's Soldiers wore the most as they were tasked with securing the SubT portal and establishing the entry control point. White Platoon's Soldiers wore the least cold weather gear as they were moving into the underground objective once the conditions were set. With two to three inches of snow still on the ground, the Soldiers wanted to keep moving to stay warm as they established their platoon objective rally points (ORPs) and prepared their equipment for the assault.

Blue Platoon stepped from its ORP once the conditions (some of which were constructive) had been met across the battalion — ROLE I was established, the decontamination assets were en route, and the CRT and other platoons in the operation were in their ORPs. The lead squad established an overwatch position with fields of fire into the portal while another squad secured the high ground behind it to complete isolation of the objective. With the portal isolated, the final elements of the platoon established a hasty entry control point (ECP) to control traffic into and out of the UGF as well as check for CBRN contamination of personnel moving into or out of the tunnel.



**Soldiers from Able Company, 1st Battalion, 5th Cavalry Regiment, enter an underground facility used for subterranean training on Camp Stanley in the Republic of Korea.
(Photos courtesy of author)**



Soldiers from Able Company, 1st Battalion, 5th Cavalry Regiment, conduct training in a barracks utility hallway to simulate subterranean conditions.

During Blue Platoon's movements, CRT personnel were establishing their own conditions — preparing their own equipment and personnel decontamination line, establishing their systems, and preparing their specialty equipment. With the ECP established, White Platoon began its movement. The Soldiers had elevated to MOPP 4 prior to entering the tunnel, and per the plan, the lead two squads had left behind their Army Combat Helmets (ACHs) with their night vision devices (NVDs) and had instead equipped their lead elements with ballistic shields with lights and at least two white lights per fire team. The entire platoon was operating with a new radio system it had been fielded, the MPU5, which provided a self-healing FM network to allow Soldiers to continue to communicate in a SubT environment. The platoon also had two small robots that could be sent ahead of the lead squad to provide early warning as the platoon progressed. Once at the tunnel mouth, the platoon deployed a robot and began bounding fire teams into the UGF.

Ten meters into the tunnel, several shots rang out when the lead squad made contact with a team of the opposing force (OPFOR) defending the facility. Due to the use of white lights, the OPFOR's NVDs were whited-out and ineffective, greatly limiting the OPFOR's ability to react. Using the lead squad, White Platoon assaulted through the initial defensive position. Continuing to bound through, the platoon cleared the first alcove in the tunnel and firmly established a foothold in the UGF.

With a foothold established, the lead elements of the CRT, including confirmatory equipment, moved forward through the portal to begin their initial analysis to confirm the threat in the portions of the SubT facility that had already been cleared.

Given the threat on the objective (one squad of infantry from Red Platoon), White Platoon's platoon leader bounded his second squad forward to give him greater flexibility as he cleared into the SubT environment. At this point in the tunnel, there was no more ambient light so the OPFOR was limited to using either infrared (IR) floodlights or their PEQ15 lasers to see anything or simply listening to the advancing platoon. The lead squad continued clearing down

the tunnel, and about 50 meters deeper underground, past the first alcove, the Soldiers encountered the second alcove with a series of rooms in it. It was pitch black, but the white lights allowed the platoon to check for booby traps, visible CBRN contaminants, and identify threats. While one team with the ballistic shields provided security down the tunnel, the other lead fire team cleared the building complex, encountering several additional OPFOR.

With two squads in the tunnel that were likely to make contact again, the platoon had to execute its PACE (primary, alternate, contingency, and emergency) plan. With all of the concrete, metal, dirt, and other materials disrupting the signal, the platoon had no choice but to execute the next step of the PACE plan. White Platoon sent its RTO back to the trail squad at the mouth of the tunnel to maintain communications with company headquarters. The platoon was able to continue to use the MPU5s to communicate within the tunnel with no issues. Even with platoon-internal communications, it was extremely dark past the second alcove — no ambient light at this point — which forced the operation to slow down some. The lead squad then bounded its fire teams forward to the next alcove and once again came into contact. Two more OPFOR, moving in and out of another set of rooms, provided the final defense in the tunnel. The lead squad bounded forward, suppressing the OPFOR, and continued down to secure the length of the tunnel. The same battle drill as before: one fire team securing the tunnel, the other clearing the room complex. At last, the third alcove, more than 100 meters underground, had been cleared. With the objective cleared, the CRT moved in to complete its confirmatory analysis and initial assessment of the site.

Thoughts

The exercise was a success for the company. Even though the training circular (TC) for SubT operations was published only a few months before the exercise, my squad and platoon leaders dove into the doctrine and did what they could to familiarize themselves with and train on the new tactics, techniques, and procedures (TTPs) particular to these operations. In addition to providing specific feedback for the TC, we had a few key points to highlight for units conducting this training. This training is a supplement to, rather than a replacement for, the mobile training team (MTT) that will be rotating out from the Maneuver Center of Excellence (MCOE) to train U.S. Army Forces Command units.

First, assuming the SubT facility is large enough to maneuver more than two Soldiers across, the most fundamental concepts are very similar to traditional military operations on urban terrain (MOUT). Training in complex urban terrain — focusing on SubT terrain considerations and how to modify traditional MOUT TTPs — pays the largest dividends with limited resources. While this can start with the traditional “Battle Drill 6,” it has to expand out to include hallways, buildings, building complexes, and passing forces throughout. With very limited true SubT facilities to train in, we focused on turning off lights inside buildings, using utility hallways and rooms, and moving through several buildings under limited visibility conditions to simulate the nearest conditions. And it generally worked.

As a related consideration, given the mission set in the Korean Theater of Operations (KTO), we also focused extensively on CBRN tasks. This was an absolute necessity. While this may not always be a required component of SubT operations, given the ideal conditions for CBRN threats underground, there are many reasons to consider it. Our organization had allowed some CBRN individual and collective tasks to atrophy, and so it took several iterations of training at every level of leader to reenergize the perspective and basic skills associated with CBRN operations.

Second, deliberate and repeated rehearsals for communication are paramount. While most understand the basics of hand-and-arm signals, training and developing in-depth TTPs to allow fire team, squad, and platoon leadership to communicate quickly and quietly is critical. When operating in complete darkness, the OPFOR could hear every word our leaders used from more than 100 meters away, and so despite not being able to clearly see my lead platoon, the OPFOR knew their plan. Given the ideal sound propagation conditions underground and limited visibility, an individual’s ability to hear is sharpened.

Communication is also severely limited by the ground itself. As discussed in doctrine, radio communications do not work well underground. We had been fielded a set of radios that each operated as a self-retransmitting node, which helped greatly — but they were new and we did not have many. An alternative solution would be to use hard-line wires and phones, but our unit had long ago turned in all of our DR8 reel and associated equipment. We had to exercise our PACE plan and rehearse hand-and-arm signals and how we employ runners.

The final point we would like to highlight is the necessity to develop detailed standard operating procedures (SOPs) for operating in complete darkness. While most platoons and companies have basic TTPs to operate under NVDs,

in complete darkness that becomes much harder. While PSQ-20s have a thermal lens that in some ways mitigates the issue, it does not completely solve the problem.

Another solution to the complete darkness was using IR light to illuminate the terrain while only remaining visible under NVDs. Again, this worked to an extent, but with the monochromatic output of the NVDs and the complexity of the situation, it was still an imperfect solution. The best technique we found was to alternate between white and IR light, between using NVDs and bare eyes, to ensure we were able to identify threats and maintain momentum without completely giving away our position. But the TTPs to operate back and forth, including room marking, leader identification in MOPP under limited visibilities, as well as marking the path back to the original portal, were all very difficult. If we had taken the time to develop those SOPs beforehand, it would have paid dividends moving into the SubT facility.

There are a variety of additional considerations, but aside from the MTT program of instruction (POI) and units taking the time to deliberately teach and work through vignettes in the TC, Army Techniques Publication (ATP), and Army Tactics, Techniques, and Procedures (ATTP) (as they are published), these are the “lowest hanging fruit” to help units prepare for SubT operations.

In closing, we felt obliged to say that while SubT operations may pose a significant threat in the next major conflict, they are not a threat fundamentally different from those in any other operating environment (OE). It is just another layer of complexity, with TTPs to help us overcome it. And for all of the differences, at their core, those TTPs will still rely on Infantrymen and our ability to close with and destroy the enemy.

At the time this article was written, **CPT Devon Zillmer** commanded Able Company, 1st Battalion, 5th Cavalry Regiment, 2nd Armored Brigade Combat Team (ABCT), 1st Cavalry Division, at Fort Hood, Texas. He currently commands the Brigade Headquarters Company, 2nd ABCT, 1st Cavalry Division. His previous assignments include serving as brigade maneuver planner for the 2nd ABCT, 1st Cavalry Division; division G3 operations officer for the 2nd Infantry Division/Republic of Korea - U.S. Combined Division, Camp Red Cloud; and executive officer of B Company, 2nd Battalion, 501st Parachute Infantry Regiment, 1st Brigade Combat Team, 82nd Airborne Division, Fort Bragg, NC. He earned a bachelor’s degree in Mathematics from the U.S. Military Academy at West Point, NY, in 2010.