

CUTTING EDGE TECHNIQUES FOR CONDUCTING CHEMICAL LANE TRAINING EXERCISES

By Master Sergeant Russell E. Gehrlein

As a senior NCO, I have seen a variety of approaches to unit chemical, biological, radiological, and nuclear (CBRN) training. There are some good ideas out there, but there are also some not-so-good ideas. A challenge that all chemical trainers face is getting an event on the training schedule, keeping it there, and executing that training to standard. Lane training is a time-tested technique that commanders can use to bring intense training resources together and focus on selected tasks. It is an extremely effective tool when used with CBRN collective tasks at platoon or company level.

As an Active Army chemical observer-controller/trainer (OC/T) assigned to an Army Reserve training support battalion in the 91st Division (Training), I had the opportunity to plan, prepare, and execute more than fifty chemical lane training exercises (LTXs) with a variety of Army Reserve and National Guard combat support (CS) and combat service support (CSS) units. Over a four-year period, I conducted LTXs on platoon smoke and operational decontamination, company level react-to-chemical-attack missions, regimental CBRN staff operations, and chemical company decontamination and reconnaissance. Most of this training was conducted in the spring of 2003, before several Reserve Component (RC) units were mobilized to deploy to support Operation Iraqi Freedom. I also had the opportunity to conduct two react-to-chemical-attack LTXs with my brigade headquarters company the following year. I presented some initial observations and suggestions on planning chemical LTXs in the January 2001 issue of *Army Chemical Review*, "Chemical Lane Training Exercises: Essential Planning Considerations." (See Web site <www.wood.army.mil/chmdsd> to request archived articles.)

However, for this article, I will place more emphasis on mission execution. I will share what our team used to make chemical training realistic, how OC/Ts accomplished their mission with the supported unit, and what lessons were learned along the way so that scenarios can be repeated instead of recreated in future exercises. I hope that chemical trainers will find helpful techniques to carry forward in their training exercises.

Platoon Smoke/Decontamination Operations

One of my first missions during this assignment was to work with the organic chemical platoon (smoke/decontamination) of one of the National Guard's enhanced separate brigades. As an OC/T, I was a trainer and an evaluator during the platoon's annual training (AT). This platoon had just received renovated mechanized smoke generator systems. It had not yet used the new equipment for collective training when it received a mission to provide smoke support for two armor battalions and an infantry battalion during a ten-day field training exercise (FTX) in a harsh desert environment. The platoon's missions included providing on-order, mobile screening smoke during an armored movement and stationary obscuring smoke for task force breaching operations.

The mechanized smoke operations—major multiechelon training events—both went well. It was great to see an armor brigade taking rehearsals seriously. They had CS and CSS elements with them during rehearsals, to include engineer assets and a smoke platoon. Being a part of the planning and preparation process with the supported unit also helped the smoke platoon earn a "thumbs-up" on the mission. As an observer, the only suggestion that I made was to add more in-depth internal rehearsals using terrain models.

The one tricky part of the whole process was the placement of the OC/Ts during the mission. We saw two options: place the OC/Ts inside the smoke track itself or direct the observation from a specific vantage point. In the first option, I was positioned in one track and my partner was positioned in the other. We were able to view the teamwork that took place and take good notes from start to finish. The second option, vantage point observation, was conducted during the lane-breaching demonstration.

After two summers of smoke operations, the chemical platoon had the chance to support decontamination operations. And it excelled in the execution phase as expected. However, the platoon really made its mark in the meticulous planning and preparation phases. The day before mission execution, the platoon sergeant conducted a detailed rehearsal

with his Soldiers. But he also went one step further and arranged a combined rock drill with the armor battalion. He not only talked through the vehicle wash down and mission-oriented protective posture (MOPP) gear exchange from start to finish, but he also had the drivers and vehicle commanders from each vehicle walk through a scaled-down version of the decontamination site, move through each station, and state their actions so that all would know what to do and where to go. This effective rehearsal technique was, no doubt, instrumental to the nearly flawless mission execution conducted at combat speed and in MOPP 4 gear the next day.

React-to-Chemical-Attack LTXs

Before I describe in more detail what a good, effective react-to-chemical-attack LTX looks like, here's what it **does not** look like. Near the end of my first AT in the Idaho desert, I was invited to witness the following: Two nonchemical OC/Ts arrived at the support battalion headquarters field site and stated, through their actions, that they would just "throw some CS grenades and see how they do!" There were no training and evaluation outlines (T&EOs), no realistic scenario, no rehearsal, not much of an OC/T coverage plan and, in my opinion, no legitimate LTX. A year later, I offered our services to create a better training event. After executing this type of LTX more than twenty times on weekends and during AT, our team had the standing operating procedures down to a science. Thorough planning is always the key to success!

In a nutshell, here is how our team executed a react-to-chemical-attack LTX. Prior to the event, all coordination with the training unit was complete, the OC/Ts were well trained, a realistic and doctrinal scenario was set, intelligence reports and chemical downwind messages (CDMs) had been forwarded, and a rehearsal was conducted. The time had come to throw the switch on the M22 automatic chemical-agent detector alarm (ACADA). My OC/Ts watched Soldiers and leaders to ensure that they donned their masks properly before giving the signal to go to MOPP 4 status. They assessed a few "casualties," primarily with untrained Soldiers and Soldiers suffering from claustrophobia. I placed myself at the battalion tactical operations center (TOC) and watched for a size, activity, location, unit, time, and equipment (SALUTE) report to go to higher headquarters. I observed teams for the M256 chemical-agent detector perform tasks using real time. OC/Ts took safety precautions by directing Soldiers to drink from their canteens while in MOPP 4 to maintain hydration. After the agent was properly identified, I received the nuclear, biological, and chemical (NBC) 1 report, waited a few minutes, and then forwarded an NBC 3 report. After the expected time of contamination had passed, the unit leaders requested permission to conduct unmasking procedures. When we received the "All clear," we sent the information to higher headquarters with a request to unmask Soldiers. Thirty minutes later, we conducted an after-action review (AAR) with key leaders.

Reflection on Rehearsals

Rehearsals are vital to a successful LTX. Rock drills, sand tables, and talk- and walk-throughs enable leaders and Soldiers to visualize their individual roles and how they must work together as a team. The training unit should conduct its own rehearsals, with the OC/Ts in attendance and providing support. OC/Ts must observe the unit's planning and preparation operations and make suggestions or corrections, coach unit leaders regarding the necessity of a rehearsal, and provide checklists prior to the mission execution. And the rehearsals also serve as a prime time to train the trainer.

The rehearsal can be conducted anywhere from a few hours to a half day before a mission. For a dawn attack, the unit might rehearse in the afternoon of the day before to give supervisors time to conduct precombat inspections on personnel and equipment (especially MOPP gloves and M1 canteen caps). For an LTX, the unit CBRN NCO might want to mention the intelligence reports already received; talk through the required individual actions before, during, and after the attack; and refresh the Soldiers' knowledge on common tasks such as MOPP levels, nerve-agent antidote, self-aid and buddy aid procedures, skin decontamination, and canteen drinking procedures. Hands-on practice is also a good idea.



Lane-breaching demonstration

Additionally, rehearsals are a natural opportunity to focus on the safety and risk management processes. Units need to look at real-world safety issues and potential combat implications. During any training exercise involving Soldiers moving while wearing protective masks, the obvious real-world safety hazard is limited visibility. One control measure is to have the Soldiers remove the gray eye lens outserts and replace them with clear lenses (unless there is a danger of snow blindness). Exposed skin also presents a safety hazard. In a training exercise, there are limited or no consequences; but in an actual chemical environment, casualties could occur.

Synchronized Chemical Company Training

My senior chemical OC/T and I were tasked to provide training support to a new National Guard chemical reconnaissance/decontamination company in Montana. We assisted this company during two complete AT cycles. We provided officers and NCOs with guidance during the planning process and prepared and executed a series of chemical LTXs according to the commander's training objectives. That summer, for its first formal training assessment model (TAM) evaluation, the company went from a "U" (untrained) in its mission-essential task list (METL)-related collective tasks to a "T" (trained) in several and a "P" (needs practice) in some, despite the short time to prepare. The company earned assessments by meeting stringent standards. And we gained great satisfaction from watching them succeed!

One of our keys to success for training this unit was obtaining a clear picture of its wartime mission. The chemical company had an organic CBRN staff section capable of providing 24-hour manning to monitor the CBRN Warning and Reporting System (CBRNWRS) at a regimental headquarters. It also had a decontamination platoon, a reconnaissance platoon, and a company headquarters. Each element had its own separate Army training and evaluation program (ARTEP) manual. We used all four manuals to determine which collective tasks were required to accomplish various missions. A chemical attack in sector drives the regimental chemical section to use the CBRNWRS, which would generate an order for the chemical company to conduct a chemical survey (or a decontamination mission) to send the respective platoons into action. We carefully designed a robust, day-by-day scenario, which included a variety of missions to give the entire company purpose, direction, and motivation. All of the events were synchronized and contained the following challenging scenarios:

- Day one—a nontactical move to the staging area.
- Day two—a tactical road march and the set up of a forward assembly area.
- Day three—three days each of operational decontamination and chemical reconnaissance LTXs (following the crawl-walk-run methodology) (there were only enough Soldiers for one line platoon at a time).

Regimental Chemical Staff Operations

After our initial visit in January 2001, we came back three months later, prepared to put the staff element through a CBRN mini exercise to see how well it could accomplish its collective tasks to standard. We asked the regimental CBRN officer to break down his section into two teams—a day shift and a night shift. In four hours, we compressed the activities of two 12-hour shifts. We threw in synchronized realistic challenges (including CDMs, CBRN intelligence reports, and personnel and equipment shortages) and increased the operational tempo by adding multiple NBC reports delivered simultaneously. The staff officer in charge (OIC) (or noncommissioned officer in charge [NCOIC]) was also required to brief the notional regimental commander. The AAR showed that the element met most of its tasks to standard. The exercise proved to be great preparation for the AT that followed a few months later.

Some of the essential training ingredients mentioned in my previous article included:

- ✓ The T&EOs for each battle-focused collective task selected from the unit's ARTEP manual and the supporting individual tasks from the CTT manual must be current. The OC/T team and the training unit must have the same tasks before execution.
- ✓ The scenario OPORD or intelligence annexes must refer to the enemy's NBC weapons capability; the initial MOPP level should be stated in the coordinating instructions.
- ✓ A timeline for a dawn or dusk attack must be realistic and should include designated times for sending NBC intelligence spot reports and CDMs; conducting rehearsals, rock drills, and AARs; and performing retraining exercises (if necessary).

An observation plan should cover the placement of OC/Ts and be designed to observe as many Soldiers and leaders as possible to execute the task and assess casualties or prompt follow-on actions.

There were seven or eight tasks from the ARTEP manual that were trained during the element AT including: maintain the current situation, plan chemical unit employment, process CBRN reports, and prepare contamination predictions. We still used the crawl-walk-run method, but these Soldiers were all fast crawlers, so they picked up the pace quickly. Our job as OC/Ts was a complex one, particularly with scenarios outside the continental United States (OCONUS). Acting as the higher headquarters, we began by sending the element numerous CDMs, intelligence reports, and equipment status reports from notional chemical units to get it focused and prepared. When the time was right, we sent the first NBC 1 report. The first two attacks were out of sector, and we expected the element to initiate a MOPP analysis and then prepare to execute the CBRNWRS. The regimental commander required briefings at set times and whenever the situation changed. After the chemical attacks were plotted in sector on the graphic overlay and the situation map, a decontamination (or reconnaissance) platoon mission was generated. This was repeated for three days (three days for each type of mission). When the element was ready to send a mission operation order (OPORD) to the chemical company, the exercise scenario was substituted with real-world training coordinates so that the company could replace its scenario grid coordinates with those it received. One OC/T observed the company and then observed the platoon to view its planning, preparation, and execution mission; the other OC/T stayed with the regimental chemical section. When the mission was complete, we conducted an AAR with the company headquarters and line platoon, followed by a separate AAR with the regimental chemical section. Although the exercise sounds difficult, it worked well after everyone adjusted to the technique.

We had predicted that this element would run long completing its AT, so we preplanned a chemical attack on its location the last day of the formal evaluation to force the use of MOPP 4 gear. To assist with the AAR, we had a video camera running when the message traffic was received. When the computer plotter put a dot on the map on the element's location, "It's on us!" could be heard and a scramble could be seen. Needless to say, the element still performed extremely well, despite one "casualty," and briefed the regimental commander before we gave them the anticipated "All clear!"

Moonlight Decontamination

One of the advantages of a summer FTX is the added daylight of the long days and the opportunity to run into the evening hours, if necessary. In all my years of decontamination experience, I cannot remember ever conducting a decontamination operation in the dark. It seemed logical that if there was a dusk chemical attack, a follow-on decontamination operation would need to be conducted long after the sun went down. We scheduled such an event for our second AT with the chemical company and found it to be a unique, positive experience. The simulated chemical attack was on a transportation battalion headquarters that was colocated with the chemical company. "Team Dragon" provided OC/T support on the attack lane and then shifted gears after the AAR to observe the supported operational decontamination mission executed by the decontamination platoon. From our lessons learned earlier that summer, we ensured that the decontamination platoon sergeant conducted a two-pronged approach to rehearsals—with the platoon and the soon-to-be-contaminated unit. Since the operation was to be conducted at night, additional safety and security concerns were also addressed. The training event had some challenges from an OC/T perspective, in that it was hard for the team to observe all of the events. Even with the difficulties, it turned out to be a well-executed event.

Reconnaissance Lanes

Other than a few weeks as an OC/T augmentee with an OCONUS divisional Fox platoon, I had not spent much time around chemical reconnaissance units. But my limited experience did not hinder our team in assisting this chemical company during its first AT; we just needed to study the reconnaissance field manual. However, we were surprised to find that RC units did not have Fox reconnaissance vehicles; they had high-mobility, multipurpose wheeled vehicles (HMMWVs) with M8 paper on a stick. We had to come up with our own technique for evaluating this platoon as it conducted its mission. We definitely had to think outside the box on this one.

To make this training realistic, there were two immediate problems we needed to solve. One was to give the platoon a clearly defined and reasonably sized piece of land to conduct its survey, an area to complete an NBC 4 report, and a means to send information to the regimental command to be plotted on an overlay. We could not use liquid simulants on the ground. After locating a training area that would give the company a chance to train on its mounted, tactical-movement techniques in MOPP 4, we drew a hasty diagram of the contaminated area (about 200 by 300 meters) between easily identifiable terrain features (such as a road junction, tree line, or big rock). When the platoon

arrived at the training location and began to conduct its survey, we faced our second challenge: how to communicate contamination identification to the Soldier holding the M8 paper taped to the stick. Again, there were two options: ride in a vehicle alongside the Soldier or stand in a central location and communicate using a radio or hand signals. We tried both methods with even results. When the platoon executed its area survey on the last day of reconnaissance, it was a sight to behold. They performed a picture-perfect survey using the lane search technique with two vehicles in an open field. It looked just like the diagram in the field manual.

Conclusion

With all the things that chemical Soldiers must do, training must be one of the highest priorities. A chemical LTX is a great idea that really works if done properly. To be effective, there must be a doctrinal, realistic, challenging, and creative plan in place. The OC/T and unit training personnel must be equipped with the tools they need to succeed in earning a “T” in collective CBRN tasks. 🍌🍌

References

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