The Chemical Corps of the Future—From Apprentice to CBRN Expert

By Major John Shank

The Chemical Corps "Center of Gravity" is the education we provide our officers, noncommissioned officers (NCOs), and enlisted personnel. The education system at the U.S. Army Chemical School, Fort Leonard Wood, Missouri, is effective in training the Chemical Soldiers of today, but improvements must be made to further implement Brigadier General Spoehr's Chemical Corps Vision (see inside back cover) and transform today's Chemical Soldiers into the chemical, biological, radiological, and nuclear (CBRN) warriors of tomorrow. The Chemical Corps needs a document that defines the Vision and provides detailed ways of moving the Corps forward to total Vision implementation. This implementation document would focus Corps efforts and help transform Soldiers into the CBRN warriors that our field commanders need to complete missions. To develop a branch of highly trained CBRN experts, the Chemical Corps must provide professional military education (PME) opportunities and an online CBRN resource center. Offering training and resource opportunities would accomplish three objectives:

- *Maintain the CBRN band of excellence throughout the Army.*
- *Increase the level of expertise that Chemical Soldiers provide to commanders and staffs at all levels in the Department of Defense (DOD).*
- *Provide standardized and certified CBRN information and resources.*

This access to timely and accurate information will empower our Chemical leaders to overcome the systemic challenges of the past and provide a vital and relevant capability for combatant commanders, the joint warfight, and homeland defense missions.

When Brigadier General Thomas Spoehr became the Chief of Chemical, the U.S. Army Training and Doctrine Command (TRADOC) Commander, General William Wallace, provided him with a certificate of charter. The charter appointed Brigadier General Spoehr as Chief and provided him with focus and direction to "lead amidst change and uncertainty and provide a steady course for the Soldiers and families entrusted to your care." General Wallace laid out three main directives in the charter:

- Provide trained and ready forces to combatant commanders to sustain global operations.
- Foster a culture of innovation that significantly increases Army institutional agility.
- Adapt the institutional Army to meet the needs of the future force.

Brigadier General Spoehr was challenged to improve the current system to support commanders in the field and to aggressively mold the Chemical Corps to fill a critical role for the Army and DOD. A key part of the Chemical Corps mission is providing the Army with highly trained CBRN experts that can advise commanders and staffs at all levels in DOD. The challenge for Corps leadership is identifying how to accomplish this mission in the fluid environment that the Army faces. If the Corps can find a more effective way to accomplish this mission, it will truly have provided a valuable service to our Nation.

The Chief of Chemical envisions "a Corps and Army capable now of countering the entire range of CBRN threats and effects to protect our Nation, operating seamlessly with military and civilian partners, while

conducting simultaneous operations from civil support to war." The Chief of Chemical wants all Dragon Soldiers—from offices to foxholes—to help implement the Vision. The ultimate measure of success will be future battlefield assessments—where quality training and resources enable Dragon Soldiers to provide accurate CBRN assessments and recommendations when needed the most.

After taking command in October 2005, General Wallace sent a memorandum to all Soldiers in TRADOC. In the letter, he said that TRADOC was "admired for its imaginative, innovative solutions to tough problems" and that ". . . we should preserve our focus on Soldiers, the centerpiece of our formations." General Wallace encouraged us to "continue to grow leaders who are innovative and adaptive—leaders who deserve the Soldiers they are blessed to lead." He went on to say that "we will continue to surround the centerpiece of our formations, our Soldiers and leaders, with the best doctrine, organizations, training, and materiel that we can find." And we need to "listen to the deployed formations when they tell us what they need from us, for those are the formations that we serve."

I believe that the Chemical Corps needs a paradigm shift to fully implement the Chemical Corps Vision and meet General Wallace's challenges. This shift will change how we train, educate, and resource our Corps. By changing the education and resources for our Chemical leaders, we can help them meet the needs of the combatant commander and our deployed formations. A Chemical Soldier doesn't become a CBRN expert on his own. It takes a formalized and deliberate training program and the availability of professional materials to help a Soldier grow and develop from the apprentice level, through the journeyman level, to become a true subject matter expert (SME).

Challenge: Establish an Implementation Document

The Chemical Corps needs a detailed implementation document that supports the Vision and elevates the Corps to a tactically and technically unsurpassed CBRN force. Many Chemical leaders don't understand their personal roles in helping implement the Vision. They are missing the critical details. There are many intermediate objectives along the way, and it will take many people, working from their individual fighting positions, to ensure mission success. The implementation document must articulate intermediate objectives; specify the task, purpose, and end state for each subordinate unit or organization; and provide a common operational picture. All Chemical Soldiers must understand their role in the Vision and how they are building on the foundation set by the expertise of Dragon Soldiers before them.

All Chemical Soldiers play a part in strengthening the Corps. They may do this by—

- Sharing lessons learned and other information following training events.
- Working with Reserve Officer Training Corps (ROTC) cadets or Soldiers in initial-entry training.
- Working as training developers, doctrine writers, combat developers, or high-level staff officers or NCOs.

Challenge: Establish Sustainment Training

There is currently a lack of CBRN sustainment training and initial training on new doctrinal concepts after an officer completes the Chemical Captains Career Course (CMC3). The Chemical School provides lieutenants and captains with quality training in the Chemical Basic Officer Leader's Course (BOLC) and CMC3 but, over the course of a 20-year military career, does not provide additional branch-specific training. It is incumbent upon individual officers to maintain CBRN warfighting skills and expand expertise levels through self-study initiatives. This method and frequency of training creates problems in obtaining current and new information and skills. For example, consider sensitive-site exploitation (SSE). Current division level Chemical officers and their deputies graduated from CMC3 before the Chemical School began training SSE as part of the approved curriculum. Should we expect these officers to be prepared to properly advise their commanders on SSE? What should we expect them to know about SSE? The Infantry Corps would not require an infantry Soldier to shoot the enemy if it didn't provide a rifle, bullets, and basic instructions on firearm use. Similarly, it is absurd to expect a Chemical Soldier to be an SME in an area where the Corps has not provided him training. We don't even tell him where to go to obtain needed information. There is a lot of information on the World Wide Web—some good but also some incomplete, inadequate, or incorrect. The infantry Soldier's weapon is his rifle; the Chemical Soldier's weapons are his knowledge of and access to accurate CBRN information and his ability to advise his commander. How Chemical Soldiers advise their commanders significantly impacts mission operations.

Organized and certified CBRN information and resources are often not available to Chemical Soldiers. When a Soldier has a question on a CBRN subject, he turns to field manuals (FMs). While FMs offer a good guidance foundation, it is often necessary to obtain additional information from other sources. Chemical officers should have an online location that provides this information. Field commanders rely on Chemical officers and NCOs to properly advise them on responding to CBRN incidents. Are we providing the resources that our Dragon Soldiers need to meet this requirement? Do Chemical officers and NCOs truly grasp the big picture before making recommendations to their commanders?

At the battalion and brigade levels, most Chemical officers and NCOs serve in unit operations centers, where a majority of their time is consumed by nonchemical tasks. If a CBRN event occurs, they must quickly switch their focus from operational matters to advising commanders on response missions. Since speed and accuracy are vital to CBRN response missions, we must provide personnel with the tools necessary to quickly gather information and make educated assessments and recommendations.

The availability of organized and certified CBRN information and resources is evident when we look at after-action reports for units that rotate through the Army's primary training grounds—the combat training centers. Each center provides periodic briefs and updates based on activity trends observed during training rotations. Many of the areas with shortcomings are systemic. The same challenges Chemical leaders faced 15 years ago are still occurring. Do Chemical officers fully understand the trends so they can develop a training program to mitigate the challenges?

Recommendations

We need to draft an implementation operation order (OPORD) that supports the Corps Vision. We write OPORDs for everything that we do in the Army—from conducting battalion runs to participating in major combat operations—so why wouldn't we write an OPORD that supports implementing the Vision? This OPORD would create focus within the Corps and formalize General Wallace's directive to provide a steady course for Soldiers.

The Vision implementation OPORD should address how the Chemical Corps is integrated into DOD's overall national military strategy for combating weapons of mass destruction. What are the links between the Chemical Corps and other CBRN experts within DOD? What other DOD assets and capabilities are out there that can support us? The Chemical Corps is an important piece in a large operation, and our efforts should be synchronized with and supportive of the overall DOD plan. The OPORD should identify where our efforts overlap other DOD programs and where there are gaps. This will educate Chemical Soldiers on other organizations that have CBRN expertise.

We must provide Dragon Soldiers with additional PME to maintain the CBRN band of excellence. Investing in our promotable captains and sergeants first class to prepare them for field grade rank and senior NCO leadership roles is a wise investment. PME for majors—officers who have advanced from the apprentice level of lieutenant and through the journeyman level of captain—would be a giant step forward in building a Corps of CBRN experts. Considering the fiscal and personnel constraints the Corps and the Army face, increased PME may present challenges. But it should not stop us from taking the required actions to provide needed training.[1] CBRN skills are perishable, and we need to keep them sharp and prepared for use.

PME should not focus solely on technical aspects of chemical missions but also on leader development. An example of great leadership material for Chemical officers is a mini course called "Great Commanders," offered by the Command and General Staff College (CGSC). The course highlights nine great commanders—who they were, what type leadership styles they applied, and what command philosophy they implemented. Some of the men profiled include George Washington, Douglas MacArthur, George Patton, and Dwight Eisenhower. This existing resource is a great information tool for commanders and division Chemical officers as they train the next generation of Chemical leaders. I believe Chemical leaders would readily accept these materials and incorporate them into their professional development training programs.

The Chemical Corps should integrate intermediate-level education (ILE) into its CBRN sustainment training plan.[2] The ILE program (offered at CGSC) provides a CBRN elective course (typically run by a Chemical lieutenant colonel). To ensure that critical CBRN sustainment information is included in the course, the Chemical Corps should provide CGSC with a list of commandant-approved recommendations.

Chemical Soldiers would benefit from an online CBRN resource center. We need something more than the current Blackboard distributed-learning portal. Since the "Center of Gravity" for the Corps is the resources and education we provide our Dragon Soldiers, the Corps must develop and maintain a Web-based information site with consolidated, indexed, and approved information that is current, accurate, and complete. The CBRN resource center could be accessed through the Army Knowledge

Online Web portal to provide a secure repository setting for sustainment training, advanced professional education, and reach-back support. The online CBRN resource center can be the means to help maintain the CBRN band of excellence and transform the "centerpiece of our formations" to CRBN subject matter experts. Chemical Soldiers would benefit from access to the most up-to-date information to help them solve problems and properly advise their commanders. Units in the field would benefit from the availability of training products and the shortened time required to accurately perform CBRN tasks. Commanders don't just need one Chemical officer working for them, they need an Army. With an online CBRN resource center, they have that Army.

Classes from Chemical BOLC (Phase III) and CMC3 should also be available in the online center to provide resources for sustainment training. Having the opportunity to go back and review these classes would afford Chemical officers with a great opportunity to maintain their proficiency.

There are many good CBRN annexes and tactical standing operating procedures (TACSOPs) out there. The best should be consolidated and used as examples in the resource center. Since unit-of-action annexes are interchangeable, the basic information they track should be similar. Standardized formats and a base list of items are good ways to help increase the quality of battle tracking.

Conclusion

We have very dedicated Dragon Soldiers in the Chemical Corps. They are on the front lines and are serving as true combat multipliers for their commanders. We need to continue to look for ways to resource our Soldiers by providing them the education and information necessary to be successful on the battlefield. An online resource center would position the Corps "to meet future challenges" as General Wallace directed, provide Soldiers with the knowledge needed to implement the Chemical Vision, and create an environment where Soldiers could move from apprentices to true CBRN subject matter experts. The efforts that we make today will outlast the current force. We are setting in motion the basis for the battlefield victories of tomorrow.

The online CBRN resource center should be the number one source for Dragon Soldiers to access—

- CBRN instruction taught in resident PME courses.
- Current manuals (such as Army regulations, Department of the Army pamphlets, Army training and evaluation programs, FMs, and graphic training aids).
- Corps and division level TACSOPs and annexes.
- Battalion and brigade level CBRN unit-of-action annexes and standing operating procedures (SOPs).
- Standardized operations center CBRN tracking charts.
- Advanced resources to assist with training for and responding to CBRN incidents.[3]
- Recommended nongovernment Web sites with verified current and reliable CBRN information, including civilian and military CBRN equipment capabilities and limitations.[4]
- Chemical staff military decision-making process instruction and CBRN OPORD annex examples.
- Radiation safety SOPs.
- CBRN logistics information.
- Combat training center lessons learned and recommended corrective-action plans for common problems.
- Battle drills.
- Hazardous material team training and equipment updates.

Endnotes:

[1]The method of training could be determined by using the wargaming process. PME could be crafted in a fashion similar to that of medical departments, where approved lists of civilian and military courses are available onsite or via distributed learning. The training should contain information that could be used by individuals or presented in small group settings to accommodate the multitask environment of Chemical Soldiers.

[2]ILE refers to the third tier of the Officer Education System and is linked directly to Army transformation. Under ILE, officers attend school and subsequently receive assignments based on the needs of their respective career fields, branches, and functional areas.

[3]The Chemical officer is not alone on the battlefield. He is not solely responsible for advising his commander on all the aspects of a CBRN incident. Personnel in preventive medicine, industrial hygiene, environmental preservation, safety, intelligence, and other governmental agencies have various responsibilities (some of which overlap). They also have additional resources that can be used to solve problems.

[4]Deployed units are using military and civilian equipment. The resource center should list equipment capabilities and limitations.

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