

From Our CBRN Foxholes: How Do We Support the Fight?

從我們的化生放核(CBRN)避彈坑

探討我們如何支援戰鬥任務(譯)

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譯者簡介



指導翻譯莊孝感先生，國立清華大學化學系(學士)61年、化學研究所(碩士)63年畢業，歷任國家中山科學研究院化學研究所助理研究員、副研究員、研究員、技士、技正、技監、副組長、組長，曾任國家中山科學研究院化學研究所化學戰-防護計畫主持人。專長為軍用毒氣偵檢預警技術與裝備研發、軍用濾毒技術與裝備研發、軍用污染消除技術與裝備研發、有害氣體紅外光遙測技術研發及核生化戰場管理。



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Since the beginning of the Global War on Terrorism in 2001, the chemical, biological, radiological, and nuclear (CBRN) skill set of non-CBRN Soldiers has diminished. With the country fighting multiple wars for an extended period, CBRN training has taken a backseat to other mission-essential tasks in most warfighting units. As a result, the Chemical Regiment will face significant challenges to “re-blue” Army CBRN readiness in the immediate future to ensure preparedness for the next national disaster, or emergency.

自 2001 年全球恐怖主義戰爭開始以來，非化生放核(CBRN)士兵應具備之化學、生物、放射、核子(CBRN)專業技能已逐漸削弱。隨著國家長期戰鬥的多場戰爭，大多數作戰單位已將化生放核(CBRN)訓練在諸多必要任務中歸類為次要位置。因此，化學兵部隊即將面臨一個重大挑戰——如何在不久的將來重振陸軍化生放核(CBRN)整備，以確保下一次全國災難或緊急情況的整備。

At the “How We Support the Fight” Seminar, held 24–25 June 2015 during CBRN Regimental Week at Fort Leonard Wood, Missouri, key leaders within the Chemical Branch assembled to address specific challenges and propose solutions. The group discussed how CBRN assets should support the fight and how the Army CBRN skill set could be returned to a higher level of readiness.

2015 年 6 月 24 日至 25 日在密蘇里州 Leonard Wood 堡舉行的化生放核(CBRN)部隊週期間的“我們如何支援戰鬥”研討會上，化學分組的主要領導人齊聚一

堂，針對具體挑戰提出解決方案。該群組討論了化生放核(CBRN)資產如何支持戰鬥，以及如何將部隊化生放核(CBRN)技能恢復到更高的備便水準。

CBRN commanders and leaders from around the world were invited to the seminar by Brigadier General Maria Gervais, the commandant of the U.S. Army Chemical, Biological, Radiological, and Nuclear School (USACBRNS). The assembled group included Major General Lucas Polakowski, deputy director for the Center for Combating Weapons of Mass Destruction, U.S. Strategic Command; Brigadier General William King, commander of the 20th Chemical, Biological, Radiological, Nuclear, and Explosives (CBRNE) Support Command; Brigadier General James Blankenhorn, deputy commander of the 335th Signal Command; and Mr. Daniel Klippstein, deputy director for the Headquarters, Department of the Army, Deputy Chief of Staff, Operations, Plans, and Training (G-3/5/7).

美國陸軍化生放核學校(USACBRNS)指揮官 Maria Gervais 准將邀請來自世界各地的化生放核(CBRN)指揮官和領導人參加研討會。群組組成包括美國戰略司令部打擊大規模毀滅性武器中心副主任 Lucas Polakowski 少將；第 20 化生放核爆(CBRNE)支援司令部指揮官 William King 准將；第 335 信號司令部副指揮官 James Blankenhorn 准將和陸軍總部副部長兼作戰計畫暨訓練(G-3/5/7)副參謀長 Daniel Klippstein 先生。

Colonel Casey Scott, director of the USACBRNS Department of Training and Leader Development, noted that it had been many years since so many senior CBRN personnel had gathered to discuss the future of the Chemical Corps. The group identified problems that need to be solved to improve CBRN readiness. After considerable debate, the group generated a set of due-outs that must be achieved to reach the regimental mission of protecting the force and the Nation from weapons of mass destruction and CBRN threats and hazards.

美國陸軍化生放核學校(USACBRNS)訓練暨領導發展部主任 Casey Scott 上校指出，許多高級化生放核(CBRN)人員聚集在一起討論化學兵的未來，已經持續了許多年。該群組確認需要解決的問題以精進化生放核(CBRN)的整備。在經過一番激烈的討論後，這些領導者們終於達成了以下共識：化學兵的責任在於必須有效保護部隊和國家，免於大規模毀滅與化生放核(CBRN)威脅及危害。

One of the more imposing tasks identified by the group was that of educating and influencing maneuver commanders. CBRN personnel must educate maneuver commanders on their organic CBRN capabilities (and other CBRN units and resources) within their task organization and operational environment that are available to assist during their training or mission set. CBRN personnel must also maneuver commanders to train CBRN tasks throughout the year and during validation training at combat training centers. For most seasoned CBRN professionals, the lack of CBRN emphasis among non-CBRN commanders is an old problem that has been alleviated, only to return many times throughout the years. Now, this problem must be solved during an era of no growth and reduced personnel and funding — a considerable challenge.

該群組確定更加繁重的任務之一是教育和影響機動指揮官。化生放核(CBRN)人員必須在其任務組織和操作環境中向機動指揮官教授其有組織性的化生放核(CBRN)專業能力(以及其他 CBRN 單位和資源)，以便在他們的訓練或任務設置期間提供幫助。化生放核(CBRN)人員還必須操縱指揮官在整個一年內訓練化生放核(CBRN)任務以及在戰鬥訓練中心進行驗證訓練。對於大多數經驗豐富的化生放核(CBRN)專業人員來說，非化生放核(CBRN)指揮官缺乏化生放核(CBRN)重點是一個已經緩解的老問題，這些年來只有多次回歸。現在，這個問題必須在沒有增加和減少人員與資金的時代解決—這是一個相當大的挑戰。

Determining the long-term future of the remaining Biological Integrated Detection System units is another significant task that was identified during the seminar. There are Biological Integrated Detection System platoons and companies in the Army National Guard and U.S. Army Reserve. The Chemical Regiment must determine if it should maintain the M31A2 Biological Integrated Detection System platform (since the Nuclear, Biological, and Chemical Reconnaissance Vehicle now has the same biodetection capabilities) or discontinue the equipment and repurpose the units to more relevant or probable mission sets.

確認未來於部隊中如何長期維持生物偵測整合系統，是研討會期間確認的另一項重要任務。目前在陸軍國家自衛隊與美國陸軍後備隊均有排級及連級的生物偵測整合系統編成。化學兵部隊必須確定是否應該維持 M31A2 生物綜合檢測系統平台(因為核生化偵檢車早有相同的生物偵測能力)或停止使用此設備，並將單位重新用於更相關或可能的任務群組。

Also, Army reductions have systemically affected the ability of the Chemical Regiment to provide decontamination to the overall force. Since the Cold War, Army maneuver units have been manned, equipped, and trained to conduct operational decontamination for their own elements, as needed. This intrinsic capability enhances freedom of maneuver by enabling a contaminated unit to decontaminate itself and get back into the fight faster than if it needs to coordinate with outside assets for decontamination. This was primarily accomplished by assigning one CBRN sergeant to each maneuver company. Within the last 6 years, the CBRN sergeant position was downgraded to an entry-level position; then shortly thereafter, the CBRN position was eliminated and replaced with a Soldier from another military occupational specialty.

此外，陸軍兵力的精簡早已系統化地影響化學兵部隊為整體部隊提供污染消除的能力。自冷戰時期以來，陸軍機動部隊根據需要配置並訓練出自己單位所屬之污染消除能力。這種內在能力使受污染的單位能夠在自我消除完畢後快速返回作戰，此舉甚至比協同其他外在的支援消除來得迅速，從而增強了機動的自由度。主要的作法是在每個機動連配屬一個具化生放核(CBRN)專業能力的士官。在過去 6 年中，化生放核(CBRN)士官的職位被降級為入門級別的職位；在不久的將來，化生放核(CBRN)的職位被取消，並被來自另一個軍事職業專業的士兵所取代。

Consequently, maneuver units have lost the ability to decontaminate themselves. Lieutenant Colonel Jeffrey Lovell, 1st Infantry Division CBRN chief, explains, “Tactical commanders do not understand the scope of responsibility maneuver units are now incurring while conducting decontamination operations. Downsizing and limited resources have forced CBRN subject matter experts out of our formations in lieu of technical reachback capabilities. Tactical commanders have been convinced that a school-trained 11B or 19K has the ability to conduct and organize decontamination operations as proficient as a 74D. Unit decontamination teams are minimally trained and exist more on paper than actual practice. Additionally, tactical units are now expected to perform decontamination operations previously conducted by CBRN decontamination platoons. We must maintain this critical capability to conduct decontamination operations because the CBRN threat has not decreased or diminished.”

因此，機動單位失去了自我消除的能力。第一步兵師化生放核(CBRN)首席 Jeffrey Lovell 中校解釋說：“在進行污染消除作業時，戰術指揮官不明白機動部隊現在承受的責任範圍。而擅自採用縮小規模及限制資源的方式—即使用過往或固有的能力及技術來執行任務，促使化生放核(CBRN)領域專家成了局外人。然許多戰術指揮官仍深信由學校訓練出來的 11B 或 19K 能如 74D 一樣，能訓練有素地去指揮及組織污染消除作業。但事實上各單位的污染消除小組訓練實在有限。此外，事實上戰術部隊希望能由化學兵的消除排來指揮污染消除作業，更因為當前化生放核的威脅至今依然存在，而我們必須長期去維持此重要能力。”

The issues that Lieutenant Colonel Lovell mentions are compounded by the need for maneuver units to include CBRN tasks during combat training center rotations and on their training calendars. USACBRNS is working on one course of action to improve the situation. The program of instruction for the 2-week CBRN Defense Course (offered to non-CBRN Soldiers at most installations to prepare them for CBRN duties) is being rewritten to include more detail. However, regardless of how much the CBRN course is improved, it is highly unlikely that a non-CBRN Soldier would ever be able to provide a company of warfighters with the level of expertise needed to improve CBRN readiness.

Jeffrey Lovell 中校提到的問題，因應機動部隊需要，在戰鬥訓練中心輪調期間以及他們的訓練日曆，均包括化生放核(CBRN)任務。美國陸軍化生放核學校(USACBRNS)正在採取一個行動課程來改善這種狀況。包括更多細節的 2 週化生放核(CBRN)防禦課程(提供非化生放核(CBRN)士兵最多數的裝備設施供化生放核(CBRN)職責的整備)的教學計劃正在重寫。然而，無論化生放核(CBRN)課程有多少改進，非化生放核(CBRN)士兵都不可能為戰鬥連隊提供精進化生放核(CBRN)整備所需的專業水準。

With the changing force structure and the fielding of the dismounted reconnaissance sets, kits, and outfts, the Chemical Regiment needs to clearly identify the roles and capability differences between the hazard response (HR) platoons and the chemical, biological, radiological, nuclear, and explosives response teams

(CRTs). Colonel Thamar Main, the division chief of the Requirements Determination Division, Capabilities Development Integration Directorate, USACBRNS, stated, “TEU [technical escort unit] and HR units need to know what’s expected of them. HR equals site assessment; CRT equals site exploitation. HR platoons have not been trained to be CRTs without EOD [explosive ordnance disposal], [but] that’s not the major difference. If [it was the only major difference], the EOD community could argue that they don’t need to be organic to a CRT and could opt to provide any HR platoon with an EOD slice for a specific mission. That would be a huge mistake based on my observations commanding a TEU battalion. It took a lot of effort to get the EOD teams within CRTs functioning as part of the CRT, especially in exploitation tasks. Once we decide what tasks belong solely to CRTs, we can think about more fully institutionalizing what has previously been contractor-provided training for CRTs.”

隨著部隊結構的改變和拆卸式偵檢組套件裝備部署，化學兵部隊需要清楚地確認危害應變(HR)排和化生放核爆應變隊(CRT)的角色及能力的差異。美國陸軍化生放核學校(USACBRNS)能力發展綜合理事會需求決策部首席 Thamar Main 上校表示：“特種護衛單位(TEU)與危害應變(HR)單位需要知道他們所預期的。危害應變(HR)等同現場評估；化生放核爆應變隊(CRT)等同現場搜索與爆破。危害應變(HR)排沒有爆炸軍械處置(EOD)訓練無法成為化生放核爆應變隊(CRT)，但是，這不是主要的區別。如果[這是唯一的主要區別]，爆炸軍械處置(EOD)社團認為他們不需要化生放核爆應變隊(CRT)的組織性，並且可以選擇為任何危害應變(HR)排提供爆炸軍械處置(EOD)一小部分用於特定任務。基於我指揮一個特種護衛(TEU)營的觀察，這將是一個巨大的錯誤。特種護衛(TEU)營花費了大量的努力獲得化生放核爆應變隊(CRT)功能內的爆炸軍械處置(EOD)小組作為化生放核爆應變隊(CRT)的一部分，特別是在爆破任務。一旦我們決定這任務只屬於化生放核爆應變隊(CRT)，我們可以考慮更完全地制定以前合約提供的化生放核爆應變隊(CRT)的訓練。”

This clear delineation between the two CBRN elements would help alleviate the confusion of maneuver commanders who have these assets assigned to their task organization for specific missions. For example, a non-CBRN commander who previously had a CRT assigned for a mission may expect an HR platoon to be able to destroy munitions discovered during reconnaissance or provide site analysis and chain of custody for exploitation. Unlike a CRT, the HR platoon is not equipped to handle munitions or to conduct exploitation operations.

這兩個化生放核(CBRN)要素之間的明確界定，將有助機動指揮官將這些資產分配給其任務組織執行特定任務，減輕機動指揮官的混亂。例如，一個非化生放核(CBRN)指揮官以前有一個化生放核爆應變隊(CRT)被分配到一個任務，可能希望一個危害應變(HR)排能夠摧毀在偵察中發現的彈藥，或提供現場分析和監管鏈進行爆破。與化生放核爆應變隊(CRT)不同，危害應變(HR)排沒有裝備處理彈藥或進行爆破操作。

Although the ability to provide smoke (obscuration) is an Army capability,

given the history of the Chemical Regiment as the primary provider of smoke on the battlefield, the future of obscuration was a key discussion at the seminar. The need for a smoke capability has been voiced at our combat training centers. We need a holistic obscuration strategy to cover the requirements of the entire scope of Army missions. Driven by an operational needs statement from the XVIII Airborne Corps, the 82d Airborne Division is currently fielding smoke vehicles and it has requested training on the use, tactics, and employment of smoke. The 82d Airborne Division used CBRN reconnaissance platoons within the brigade support battalions to conduct a three-tiered M56E2 Coyote Smoke Generator System training program that included new equipment training, training and licensing of the Driver's Vision Enhancement System, and training on doctrine and tactics (provided by the Capabilities Development Integration Directorate, Fort Leonard Wood, Missouri).

雖然提供煙霧(遮蔽)的能力是陸軍能力，考慮到化學兵部隊作為戰場上煙霧的主要提供者的史實，遮蔽的未來是研討會的一個關鍵議題。我們的戰鬥訓練中心已經表示需要一種煙霧能力，我們需要一個全面的遮蔽戰略來滿足整個軍隊任務範圍的要求。根據第十八空降兵團的作戰需求說明，第 82 空降師目前正在使用煙霧車，並已要求對煙霧的使用，戰術和使用進行訓練。第 82 空降師使用在旅支援營內化生放核(CBRN)偵察排進行三層級 M56E2 土狼煙霧發生器系統訓練計劃，執行新型煙幕裝備的操作訓練、駕駛員視力增強系統之許可訓練，以及準則與戰術訓練。由能力發展綜合理事會(Leonard Wood Fort, Missouri)提供。

Major Robert Heffner, the 82d Airborne Division CBRN officer, believes that this equipment fielding and training will be a combat multiplier for the division. He stated, "The capability that the M56E2 Coyote Smoke Generator will bring to the 82d Airborne Division and their global response force unique mission set will help achieve positive effects for protection of both forward operating base operations and tactical maneuver when properly synchronized with intelligence data. I believe that, based on the constraints and nature of the operational needs statement, which was fulfilled with the M56E2 fielding, the brigade engineer battalions are best suited to possess the obscuration capability. The brigade engineer battalions are organic units to each of the 82d Airborne Division brigade combat teams that will be tasked with the global response force mission and will conduct the majority of the operations that will require obscuration. I also believe that, given the talent and ingenuity of the paratroopers within the division, there will be many new uses and standard operating procedures developed over the course of the next few years."

第 82 空降師化生放核(CBRN)軍官 Robert Heffner 少校認為，這種裝備的部署和訓練將是對師的作戰有加乘作用。他說：“M56E2 土狼煙幕產生系統帶給第 82 空降師和他們的全球反應部隊獨特的任務能力，當與情報數據正確同步，將有助於實現積極的效果，保護前方作戰基地操作和戰術機動。我認為，根據 M56E2 戰場執行的作戰需求的限制和性質說明的，旅工兵營最適合擁有遮蔽能力。旅工兵營是第 82 空降師旅戰鬥隊的相關部隊，將負責全球反應部隊任務，並將執行需要遮蔽的大多數作業。我還認為，鑑於空降師內傘兵的才能和聰明才智，在未來幾年內將會出現許多新的用途和標準的操作程序。”

The successful “How We Support the Fight” Seminar mostly exposed what we already knew: Difficult challenges lie ahead for the Chemical Regiment. The Chemical Regiment needs to ensure that the Army has an expeditionary CBRN capability covering all aspects of detection, defense, mitigation, exploitation, and elimination across the force. Bringing these challenges to the attention of senior leaders and commanders across the Regiment will assist in codifying solutions for the current CBRN readiness capabilities gaps across the Army. If visibility remains on the due-outs that were generated from the discussions and if resources are committed to the solutions, this seminar could prove to be a monumental success for the Chemical Regiment and a turning point for CBRN readiness across the Army.

成功的“我們如何支援戰鬥”研討會大多暴露了我們已經知道的：化學兵部隊未來的挑戰將會更艱鉅。化學兵部隊需要確保陸軍具有遠征化生放核(CBRN)能力，涵蓋整個部隊所有的偵檢、防禦、減輕、爆破和消滅作為。將這些挑戰提請整個部隊的高級領導和指揮官注意，將有助於編制當前化生放核(CBRN)整備能力差距的解決方案。如果對討論產生的，應保持清晰狀況，並且如果資源致力於解決方案，那麼這次研討會可以證明是化學兵部隊的巨大成功，也是整個陸軍化生放核(CBRN)整備就緒的轉折點。

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Wright 少校擔任密蘇里州 Leonard Wood 堡美國陸軍化生放核學校(USACBRNS)的訓練開發人員。他擁有肯塔基州派克維爾派克維爾大學的教育學士學位。