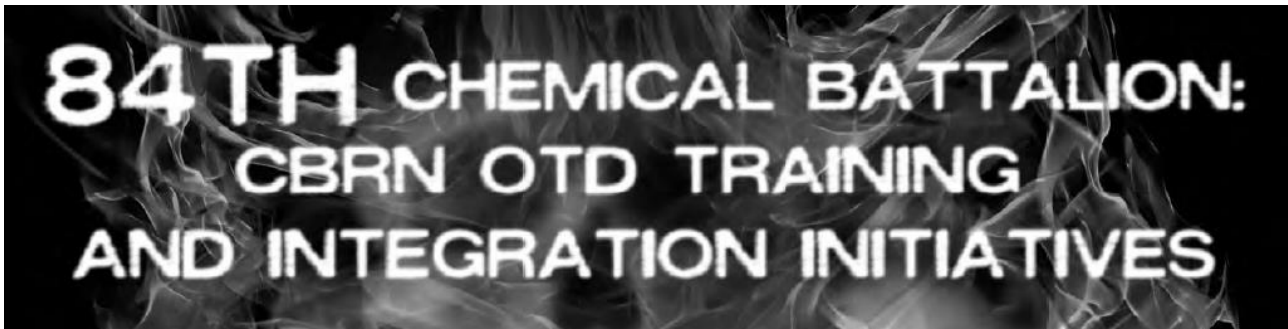




84 化學兵營：化生放核軍官訓練及發展整合計畫

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In October 2017, the Chemical, Biological, Radiological, and Nuclear (CBRN) Officer Training and Development (OTD) Chief, at the U.S. Army Chemical, Biological, Radiological, and Nuclear School (USACBRNS), Fort Leonard Wood, Missouri, was charged by the 84th Chemical Battalion; the 3d Chemical Brigade; and USACBRNS leadership to undertake a monumental challenge. The challenge was to review, rewrite, design, integrate, and incorporate lesson plans, training events, and leader development opportunities that would provide CBRN officers with the skills and knowledge needed to plan, integrate, and advise all types of commanders - specifically, combat arms commanders – on how to fight, survive, and win in peer-on-peer, large-scale combat operations, all while possibly in a CBRN environment. It is key for our officers to understand maneuver so that they can integrate CBRN

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capabilities and be effective maneuver supporters.

西元 2017 年 10 月，美軍第 3 化學兵旅 84 化學兵營及密蘇里州李奧納伍德堡的美國陸軍化生放核學校(U.S. Army Chemical, Biological, Radiological, and Nuclear School, USACBRNS)領導階層將一項艱鉅的挑戰任務指派該校化生放核軍官訓練及發展處處長(Officer Training and Development Chief, 英文簡稱為 OTD Chief)。這項挑戰任務是重審、重寫、設計、整併且融合現有化學兵課程基準、訓練項目及領導發展機會，使化生放核軍官們具有足夠技能與知識去計劃、整合，及建議各級指揮官(特別是戰鬥部隊指揮官)，如何在化生放核環境下戰鬥、存活，並在大規模對稱作戰中贏得勝利。畢竟化生放核軍官要能有效支援戰鬥部隊的重要關鍵為知悉所屬戰鬥部隊，才能整合化生放核能量並達成任務。

The challenge began with the Chief of Chemical and USACBRNS Commandant's 90-day assessment and way-ahead leader professional development and a week-long trip to Fort Benning, Georgia. The 84th Chemical Battalion Commander and the OTD Chief met with leaders from Fort Benning, Georgia (from the Ranger Training Assessment Course, Army National Guard Warrior Training Center; the 3-16th Calvary Squadron; the Department of Training for the Maneuver Captain's Career Course [MCCC]; and the 199th Infantry Brigade), who are responsible for instructing the Infantry Basic Officer Leader's Course (IBOLC) and the Armor Basic Officer Leader's Course (ABOLC). The 90-day assessment was capped off with a week-long trip to the National Training Center, Fort Irwin, California, to observe the 83d Chemical Battalion integration with a brigade combat team (BCT). The 90-day assessment and those two trips set the foundation for the many initiatives on which the OTD embarked over the last 9 months. This article highlights the initiatives that OTD is, has, and will continue to plan, resource, integrate, and establish in order to produce technically sound CBRN officers who are better prepared to enable maneuver, counter weapons of mass destruction, and defend the homeland.

挑戰任務始自化學兵指揮官和美國陸軍化生放核學校校長為期 90 天的評估與前瞻領導專業培訓計畫案，以及幹部前往喬治亞州本寧堡(Fort Benning)為期一週的觀察行程。該觀察行程主要是讓 84 化學兵營營長及化生放核軍官訓練及發展處處長與本寧堡負責教學步兵軍官分科班(Infantry Basic Officer Leader's Course, IBOLC)以及裝甲軍官分科班(Armor Basic Officer Leader's Course, ABOLC)的各級幹部會面(上述幹部分別來自於突擊兵訓練評估班隊、美國陸軍國民兵戰士訓練中心、3-16 騎兵中隊、199 步兵旅與負責戰鬥部隊軍官正規班[Maneuver Captain's Career Course, MCCC]的訓練部門)。接下來人員更前往加利福尼亞州艾爾文堡的國家訓練中心，觀察 83 化學兵營與旅級戰鬥小組(brigade combat team, BCT)之協同訓練，此觀察行程將挑戰任務帶至高潮。而這 90 天的評估及兩趟觀察行程，為過去九個月軍官訓練及發展處開始的多項計

畫奠下基礎。本篇文章強調軍官訓練及發展處的計畫不僅止於現在，爾後未來仍會持續規劃、調度與整合各式資源，以建立一個技術上堅實、可支援戰鬥部隊作戰及反大規模毀滅性武器任務，並保衛國土的化生放核軍官。

Instructor Exchange and Assistance Program 教官交流及互助計畫

OTD has worked, and continues to work, with the tremendous team of the 199th Infantry Brigade. We have built a strong partnership to share feedback, suggestions, and opportunities to enhance our respective officer training. The partnership started in September 2017, with site visits to the U.S. Army Maneuver Center of Excellence (MCoE), Fort Benning. During this visit, it was agreed that CBRN training must be incorporated into IBOLC, ABOLC, and MCCC, while a better understanding of large-scale combat operations, the military decision-making process, and tactical training must be incorporated into the CBRN Basic Officer Leader's Course (BOLC), CBRN Captain's Career Course, and warrant officer courses. In December 2017, OTD sent a CBRN small-group instructor to Fort Benning to observe the IBOLC and ABOLC capstone field training exercises to facilitate creation and possible implementation of CBRN scenarios into future training events. The trip was very successful; the small-group instructor established communication with IBOLC and ABOLC commanders and battalion command teams. Everyone was excited with the CBRN presence and looked forward to incorporating CBRN into their programs of instruction and, ultimately, their capstone field training exercises. MCoE sent one of its MCCC instructors to Fort Leonard Wood, Missouri, to work side-by-side with CBRN small-group instructors in the creation and development of lesson plans, staff exercises, and training exercises that provide CBRN BOLC officers with baseline foundations of movement and maneuver and information about how to integrate CBRN capabilities into maneuver units and how to assist with maneuver planning.

軍官訓練及發展處一直都與 199 步兵旅有堅實的合作關係，彼此互相回饋、提出建議，並提供強化軍官訓練的機會。而此合作關係起始於西元 2017 年 9 月該處前往本寧堡的美國陸軍機動卓越中心(Maneuver Center of Excellence, MCoE)的參訪。參訪期間，雙方均認為步兵軍官分科班、裝甲軍官分科班以及戰鬥部隊軍官正規班等班隊應納入化生放核訓練課程；同樣的，相關大規模作戰行動、指參作業程序及戰術訓練課程也必須整合至化生放核軍官分科班(CBRN Basic Officer's Leader Course, 英文簡稱為 CBRN BOLC)、化生放核軍官正規班(CBRN Captain's Career Course, 英文簡稱為 CBRN CCC)以及准尉課程內。在西元 2017 年 12 月，軍官訓練及發展處派遣化生放核教官小組前至本寧堡觀察步兵軍官分科班和裝甲軍官分科班的期末野戰實兵演練課程，以協助撰擬可行的化生放核想定，並運用在未來訓練課程內。此次成功的觀察使教官小組、兩個班隊的指揮官及營級指揮小組建立起溝通橋樑。所有人員均對訓練加入化生放核的元素這點感到興奮，並引頸期盼化生放核訓練可編入爾後

班隊課程，甚至納入期末野戰實兵演練課題。另外，美國陸軍機動卓越中心派遣一位戰鬥部隊軍官正規班的教官前往位於密蘇里州李奧納伍德堡的美國陸軍化生放核學校，與多位化生放核教官一同開發課程計畫、人員訓練及訓練演習，以提供化生放核軍官分科班的學員基礎的戰鬥部隊機動作戰概念，進而訓練軍官瞭解如何協助戰鬥部隊產製作戰計畫並於任務執行過程中有效運用化生放核能量。

CBRN BOLC 化生放核軍官分科班

With the rewrite of Field Manual (FM) 3.0, *Operations*, came changes to the CBRN BOLC course flow and lesson plans³. Over the last year, OTD has worked tirelessly with the USACBRNS Department of Training to review, rewrite, recreate, and redesign instruction about how newly appointed CBRN officers are taught so that they receive the skills and knowledge needed to advise commanders on how to integrate CBRN assets and fight; survive; and win large-scale, peer-to-peer conflicts within a CBRN environment.

隨著野戰手冊 3.0(Field Manuel 3.0, 英文簡稱為 FM3.0)這本名為《作戰》準則的修編，改變了化生放核軍官分科班的授課順序及課程內容規畫⁴。過去一年內，軍官訓練及發展處與美國陸軍化生放核學校訓練部門不停地重審、重寫、重製和重新設計可供化生放核軍官學習到如何建議指揮官運用化生放核專業技術與能量，以利化生放核狀況下戰鬥、生存並贏得大規模對稱作戰的新式課程與準據。

Movement and Maneuver/Training Implementation 執行戰鬥部隊機動及訓練

Large-scale combat operations were incorporated into the CBRN BOLC program of instruction with the reintroduction of FM 3.0. CBRN lieutenants receive training on their roles as battalion CBRN officers, understanding, planning, and battle tracking maneuver operations. They learn common battle staff tasks, including how to operate in a tactical operations center and conduct battle captain duties. Additional instruction was created to better enable CBRN lieutenants as platoon leaders operating in support of maneuver by incorporating more tactics such as patrol base operations, movement versus maneuver formations, platoon defense, link-up operations, and integration into an intelligence collection plan.

新版《野戰手冊 3.0：作戰》印頒後，大規模作戰行動的概念被編入化生放核軍官分科班訓練課程內。學校開始以營級化學官的角度訓練尉官學員，使其瞭解、計劃並執行戰鬥部隊作戰的戰場追蹤作業，並讓其學習到作戰時一般參謀業務，包括在戰術作戰中心的作業及履行作戰幹部責任。此外，課程更新增可優化尉級軍官擔任支援戰鬥部隊排長職務的教學準據，例如基地偵察作業、

3. U.S. Army Headquarters, Field Manual 3.0: Operations, Oct. 2017.

4. 美國陸軍司令部，《野戰手冊 3.0：作戰》，西元 2017 年 10 月。

機動或集結作業、排防禦、會銜作戰與情報蒐集計畫整合等課目。

Capstone Field - Training Exercise Redesign 重新設計期末野戰實兵演練

With the shift to prepare for large-scale conflict, there was a need to redesign the CBRN BOLC capstone field-training exercise. Considering how to prepare CBRN BOLC officers, a capstone field-training exercise was developed and five distinct training events were incorporated to train, test, and evaluate CBRN officers' potential to —

隨著作戰整備重心轉移到大規模衝突戰爭，化生放核軍官分科班期末野戰實兵演練課程就有重新設計的必要性。新式課程設計以如何準備分科班軍官學員的方向考量，從訓練、測驗及評估等角度區分五個訓練階段，以達到下列訓練要項：

- **Conduct CBRN operations in a field environment.**
於野戰環境中執行化生放核作戰。
- **Advise maneuver commanders on how to fight and win large-scale conflict in a CBRN operational environment.**
提供戰鬥部隊指揮官建議：如何在化生放核作戰環境中執行大規模作戰任務或贏得勝利。
- **Battle tract and assist in operational planning.**
執行戰場追蹤作業且支援作戰計畫。
- **Lead squad and platoon size CBRN elements on the battlefield using basic tactical and technical skills.**
在戰場上領導化生放核班、排級以發揮其基本戰術及戰技。

To date, four CBRN BOLC classes have executed the newly redesigned capstone field-training exercise, and we continue to receive tremendous feedback. Our officers are graduating from CBRN BOLC with better skills to operate in a tactical operations center, a better understanding of how to incorporate CBRN capabilities on the battlefield and, most importantly, how to articulate the integration to maneuver commander.

截至今日，已有四期化生放核軍官分科班使用重新設計後的期末野戰實兵演練課程，且均收到良好回饋。受過新式分科班訓練的軍官們，在戰術作戰方面具備了更好的技能，也較能理解如何在戰場上運用化生放核作戰能力。最重要的是，更能去思考如何展示戰鬥部隊指揮官化生放核運用可行性。

USACBRNS and the National Training Center Leader Development Program 美國陸軍化生放核訓練學校和國家訓練中心幹部發展計畫

To date, eight officers have benefited from this leader development program and an additional 12 are scheduled for the remainder of fiscal year (FY) 2018 and FY 19. The battalion has developed a partnership with the commander of the Operations Group, National Training Center; it was

determined that CBRN lieutenants and select captains would benefit greatly from observing specific points of a training rotation in order to prepare for future positions. The program is intended to provide lieutenants and select captains who have recently graduated from CBRN BOLC or the CBRN captain's Career Course with the opportunity to observe a combat training center rotation in order to better prepare for future assignments. The focus is on brigade level operations in a decisive-action or mission-readiness exercise, rather than on highlighting CBRN scenarios. When possible, captains and lieutenants are allowed to observe different task forces and/or support elements. In addition, OTD is actively working with the Joint Readiness Training Center, Fort Polk, Louisiana, to incorporate the same leader development program. If approved, this will benefit an additional eight officers.

截至今日，已有八位軍官因參與幹部發展計畫而受益良多，且另有十二位軍官將在西元 2018、2019 年度加入此計畫。國家訓練中心之作戰群指揮官已經與化學兵營發展成夥伴關係，並深切認為化生放核少、中尉與部份上尉若可親自觀察並學習中心的基地輪調訓練，對日後其職涯發展有絕對的幫助。因此本幹部發展計畫旨在提供化生放核軍官分科班或軍官正規班應屆畢業學員觀察作戰訓練中心的基地輪訓的機會，使學員對未來職位做更好的準備。藉由計畫，能將幹部視野與重點放在旅級作戰演練中的決勝行動或任務整備演習，而非單一化生放核想定演練。將來若還有機會，尉官學員甚至可觀察各式特遣部隊及(或)戰鬥支援單位。除此之外，軍官訓練及發展處正積極與路易斯安那州波克堡的聯合整備訓練中心籌備相同的幹部發展計畫。若計畫通過，將再造福八位軍官。

Army Reconnaissance Course and Reconnaissance Surveillance Leaders Course **陸軍偵察訓練班及監偵幹部培訓班**

During FY 18 and FY 19, the 84th Chemical Battalion has the opportunity to send up to six officers to the Army Reconnaissance Course and two officers to the Reconnaissance Surveillance Leaders Course. With the possible shift of the Nuclear Biological Chemical Reconnaissance Vehicle from the brigade engineer battalions back to cavalry squadrons, it is important to ensure that young CBRN lieutenants have the skills and knowledge needed to advise commanders on the integration and employment of Nuclear Biological Chemical Reconnaissance Vehicles. An Agreement with the 3-16th Cavalry allows us to send some of our most-qualified CBRN BOLC officers to the Army Reconnaissance Course and the Reconnaissance Surveillance Leaders Course upon graduation from the CBRN BOLC course. These courses will provide CBRN reconnaissance and surveillance platoon leaders with the enhanced reconnaissance and surveillance skills, tactics, and techniques used by the scouts with which they will be imbedded. These courses will provide the foundation needed to better train, plan, and support scouts and BCTs.

在西元 2018 與 2019 年度期間，84 化學兵營有幸派遣六名及兩名軍官分別參加陸軍偵察訓練班隊及監偵幹部培訓班隊。考量將來核生化偵檢車可能從旅保修營轉回到騎兵中隊，所以甫下部隊的化生放核少、中尉們必須具備專業職能以建議各級指揮官整合及運用核生化偵檢車。因此，84 化學兵營與 3-16 騎兵中隊達成協議，將化生放核軍官分科班應屆畢業軍官選優派訓陸軍偵察班及監偵幹部培訓班。班隊課程除可提供化生放核偵檢排排長們斥侯所使用之進階偵察及監視技能、戰術及戰技知識，甚至可成為排長爾後改進單位訓練、計畫及有效支援偵察斥侯及旅級戰鬥小組的基礎。

U.S. Army Ranger School 美國陸軍突擊兵學校

The U.S. Army Ranger School is the best place for CBRN officers to learn how to think tactically and communicate effectively with maneuver counterparts and commanders. While the U.S. Army Human Resources Command allows only one slot for USACBRNS per CBRN BOLC, we have established an excellent relationship with the Ranger Training Assessment Course, Warrior Training Center. We typically receive two slots to attend the Ranger Training Assessment Course per CBRN BOLC. These two officers get to go on to the Ranger School following graduation from the Ranger Training Assessment Course. In addition, an agreement with the 75th Ranger Regiment allows us to send two of our best candidates to attend the Small-Unit Ranger Tactics Course. Upon completion, these personnel then go on to attend the Ranger School. A memorandum of agreement between the U.S. Army Human Resources Command, the 75th Ranger Regiment, and the 84th Chemical Battalion has been developed to ensure that these officers are given an 18-month assignment upon graduation from the Ranger School and then are returned to the 75th as seasoned first lieutenants.

若化生放核軍官希望學到如何站在戰術角度思考，並與其他友軍及戰鬥部隊指揮官有效溝通，美國陸軍突擊兵學校是最好的選擇。即使美國陸軍人力資源指揮部只給美國陸軍化生放核學校各期軍官分科班一個受訓名額，化學兵營早已先和戰士訓練中心的突擊兵訓練評估班隊建立優良關係。現在各期軍官分科班通常可派訓兩員參加突擊兵訓練評估班隊，而這兩位軍官在結訓後可立即送訓突擊兵學校。另外，75 突擊軍團亦同意再選優派訓兩名軍官參加小部隊突擊兵戰術課程。同樣的，兩位軍官結訓後也可前往突擊兵學校受訓。美國陸軍人力資源指揮部、75 突擊軍團與 84 化學兵營的協議內備忘錄更確保軍官們在突擊兵學校結訓後將受派長達 18 個月的相關職務，並在晉升中尉後回到 75 突擊軍團任官。

CBRN Captain's Career Course 化生放核軍官正規班

CBRN and Infantry/Armor Officer Integration Program 化生放核與步兵/裝甲兵軍官整合計畫

OTD, along with the Infantry and Armor Officer Training Departments,

teamed up to conduct two pilots with integrating Captain's Career Course students for 2 weeks. The first pilot focused on providing CBRN captains with an opportunity to better understand movement and maneuver while providing infantry and armor captains with an opportunity to better understand CBRN planning for movement and maneuver. The second pilot provided CBRN captains with an opportunity to receive classes on offense, defense, and support unit planning for movement and maneuver. At the same time, CBRN OTD provided a CBRN capabilities and planning block of instruction to infantry and armor captains. The instruction gave the MCCC students a better understanding of CBRN hazards they could face on the battlefield, CBRN capabilities within their formations, and the skills and assessments CBRN officers can provide at the battalion and brigade levels.

軍官訓練及發展處與步兵及裝甲軍官訓練部門，合力設計兩門為期兩週的軍官正規班試驗協訓課程。第一門試驗協訓課程重點放在提供化生放核上尉學員，進一步瞭解戰鬥部隊機動與作戰的機會，同時使步兵及裝甲兵上尉學員瞭解如何將化生放核融合在部隊機動與作戰計畫內。第二門試驗協訓則提供化生放核上尉學員關於攻擊、防禦及支援戰鬥部隊機動與作戰計畫的學習課程。與此同時，化生放核軍官訓練及發展處則針對步兵及裝甲上尉學員設計化生放核作戰能量及運用計畫課目。這樣的訓練機會可讓戰鬥部隊軍官正規班的學員對戰場上可能面臨的化生放核危害、部隊化生放核作戰能力以及化生放核軍官能提供的旅、營級技術與評估建議均有更好的瞭解。

CBRN Technical Block Redesign 重新設計化生放核專業技術階段課程

Observations and feedback from previous combat training center rotations have indicated that CBRN officers were not doing a very good job of incorporating or articulating CBRN capabilities into the BCT. CBRN officers were well-trained in the technical aspects of their jobs, but that knowledge wasn't being reflected on the battlefield – at least not with any significant reliability. As a result, OTD took a hard look at how to better prepare CBRN officers to perform within BCT staffs. The resulting conclusion was that more military decision-making process training should be incorporated into each technical block of instruction.

自上述觀察戰鬥訓練中心基地輪訓的經驗得知，化生放核軍官在展現或將化生放核作戰能量融入旅級戰鬥小組的能力尚待精進。化生放核軍官們雖然在兵科技術層面上受過良好的訓練，卻不知如何確實運用在戰場上(至少看不出部隊對化生放核的顯著依賴性)。因此軍官訓練及發展處以幫助軍官在旅級戰鬥小組參謀作業上有更好的表現為前提，審慎檢討正規班各課程。檢討後發現改善方法就是在所有化生放核專業技術階段的課程內納入更多指參作業程序訓練。

Civilian and military subject matter experts teach most of the technical blocks of instruction. These blocks cover CBRN aspects of the modern operational environment. Some redundancies and vestigial blocks of

instruction were identified and consolidated or removed. The redesign and approval of the technical block of instruction allows more time for subject matter experts to delve deeper into their respective fields, and course hours were realigned to support a week-long staff exercise in place of four, 3-day tabletop exercises. A week-long exercise allows the students to practice the military decision-making process, develop products that are supported by familiar scenarios presented during the common-core instruction, and exercise the rapid decision-making and synchronization process to adapt to a rapidly changing scenario. This adds stress to student “staffs” and reinforces the aspect of the adult learning model of “learning out of need” to close knowledge gaps that may have occurred during instruction. The second addition is the inclusion of a series of critical-thinking exercises that encompasses every aspect of the CBRN Captain’s Career Course. Students are presented with widely varying, complex scenarios that require integration and synchronization of CBRN officer competencies across echelons and domains.

化生放核專業技術階段的課程主要由軍民事務專家教官實施授課。這些課程目的是將化生放核概念涵蓋在現代作戰環境中，因此有些被視為不合時宜或多餘的訓練將被整併或淘汰。而重新設計及核准後的技術階段課程給予專家們相當的時間與空間去深入鑽研並發揮各自專業領域。課程時數也從為期三天的四次兵棋推演訓練調整成一週的幕僚演訓。這一週的幕僚演訓使學員演練指參作業程序、把共同核心階段課程已學習過的想定發展相關成計畫，並在急遽變化環境下實施快速決策及戰場同步作為。此演訓強調「因需要而學習」的成人學習模式而將壓力加諸在身為幕僚的學員上，以縮短在各式階段課程之間的認知落差。另外課程為了涵蓋正規班所有學習面向，因此納入一系列的批判性思考練習，讓學員必須整合並同步各階層領域的化生放核能量，始能完成非常多樣且複雜的想定演練。

Warrant Officer Courses 准尉班隊

In the fall of FY 17, the warrant officer courses underwent a critical task site selection board analysis. The board was charged with ensuring that the institutional USACBRNS warrant officer training supports the operational force. The tasks vetted by the board ensure the relevance of future Warrant Officer Basic Course (WOBC), Warrant Officer Advanced Course (WOAC), and Warrant Officer Intermediate Level Education programs of instruction. The board recommended greater emphasis on equipment training, particularly on the technology behind CBRN equipment, in WOBC. Based on the outcomes of the critical task site selection board, the OTD warrant officer instructors, along with the USACBRNS Department of Training, completely redesigned the WOBC and WOAC course flow and program of instructions. The first WOAC redesign program of instruction was implemented (with emphasis on intelligence preparation of the battlefield) during Class 01-18, 6 February-3

April 2018, and the WOBC redesign program of instruction was implemented with WOBC Class 01-18, 30 May-6 September 2018. OTD partnered with the U.S. Army Intelligence School to help improve and add more instruction on intelligence preparation of the battlefield. It was determined that there is a need for senior warrant officers to aid in the intelligence preparation of the battlefield process.

西元 2017 秋季，訓練要項遴選委員會著手研究美國陸軍化生放核學校的准尉訓練可否有效支援作戰部隊，並分析其准尉班隊課程內容。委員會為了確保未來准尉初級班(Warrant Officer Basic Course, 英文簡稱為 WOBC)、准尉進階班(Warrant Officer Advanced Course, 英文簡稱為 WOAC)以及准尉中階師資教育計畫之間的關聯性，建議加強准尉初級班的裝備訓練相關課程，尤以裝備使用原理為主。另資深准尉確實必須協助戰場情報整備作業，軍官訓練及發展處與美國陸軍情報學校合作，協力將准尉進階班的戰場情報整備課程加以擴充與增進。因此美國陸軍化生放核學校訓練部門與軍官訓練及發展處內負責准尉班隊的授課教官徹底重新設計准尉初級班與准尉進階班的課程順序及內容。西元 2018 年 2 月 6 日至 4 月 3 日的准尉進階班第 01-18 期，與西元 2018 年 5 月 30 日至 9 月 6 日的准尉初級班第 01-18 期為學校修改課程基準後首次驗證的班隊。

Capstone Field-Training Exercise Observation and CBRN Incorporation 觀察期末野戰實兵演練與整合化生放核能量

During the IBOLC and ABOLC capstone field-training exercises, there were multiple opportunities for CBRN implementation, which had a significant impact on training, ultimately creating more dilemmas and forcing more battlefield decisions for platoon leaders and company commanders on the ground. Implementing CBRN in the capstone field-training exercise benefits IBOLC/ABOLC and effects change in MCCC. The IBOLC/ABOLC field-training exercise incorporates students of the Noncommissioned Officer's Academy Senior Leader Course who take leadership roles as first sergeants, platoon sergeants, and senior leaders throughout operations and MCCC students on the ground as company commanders and battalion leaders. Incorporating CBRN tasks impacts MCoE at all levels.

觀察步兵分科班和裝甲分科班期末野戰實兵演練後發現，演練期間有多次可能加入化生放核訓練課題的機會。這些難度較高或迫使幹部必須有所取捨的練習，對演練排長與連長的學員均有重要影響。將化生放核的課題納入步兵及裝甲分科班之期末野戰實兵演練，不僅對分科班學員有所助益，亦能造成戰鬥部隊軍官正規班的改變。因為兩個分科班的野戰實兵演練除加入士官長正規班學員以扮演二等士官長、副排長等資深幹部角色，甚至結合扮演連長及營級長官的戰鬥部隊軍官正規班學員與分科班學員一同訓練。也就是說，負責各班隊的美國陸軍機動卓越中心內所有層級班隊均因化生放核課題的融入而受到影

響。

Currently, CBRN OTD is working with IBOLC and ABOLC course managers to incorporate training that would require IBOLC and ABOLC students to complete and send a CBRN 1 report. MCCC students acting as company commanders will be required to receive the report and send it to higher echelons, ultimately providing lieutenants and captains with valuable training that will save lives on a contaminated battlefield. IBOLC and ABOLC students will be required to clear buildings in a chemically contaminated environment, submit reports, monitor the presence of chemical agents in the air, use chemical agent detector kits, treat casualties in a contaminated location, and complete unmasking procedures upon objective completion.

目前化生放核軍官訓練及發展處正與步兵及裝甲軍官分科班的管理幹部研擬新式訓練課題，而訓練要求是分科班學員須能完成並傳遞化生放核一號報告，且擔任連長的戰鬥部隊軍官正規班學員須在取得報告後再篩選並傳遞上級。這樣具有價值的訓練可培養尉官學員們在遭到污染的戰場中的處置能力，進而拯救官兵性命。除此之外，步兵及裝甲分科班學員亦須在化學污染環境下執行建築物偵察作業、報告傳遞、使用化學戰劑偵檢包實施氣態化學戰劑偵檢、於受污染環境內進行傷患治療，並在任務完成後實施防護裝備卸除等任務。

The 2nd Battalion, 11th Infantry Regiment, and the 199th Infantry Brigade have significant CBRN protective equipment shortfalls that need solutions before implementation and execution. The CBRN OTD and CBRN Joint Program Management Office began identifying sourcing solutions for CBRN equipment that would further enhance training being conducted at MCoE. In a 1-month timeframe, USACBRNS provided little-to-no-cost items that included the Joint Service Lightweight Integrated Suit Technology, Joint Chemical Agent Detectors, M256 chemical agent detector kits, M8/M9 detector paper, and M40 protective masks.

然而 11 步兵團第 2 營及 199 步兵旅都有化生放核防護裝備嚴重短缺的問題，且急需在訓練實施前解決。因此化生放核軍官訓練及發展處與化生放核聯合計畫管理辦公室著手尋找補充美國陸軍機動卓越中心化生放核裝備的可能來源。在一個月內，美國陸軍化生放核學校提供幾乎無成本的裝備。其中包含通用輕型防護服、聯合化學戰劑偵檢器、M256 化學戰劑偵檢包、M8/M9 偵檢紙及 M40 防護面具。

We are working hard to develop leaders with the right skills and training to better enable expeditionary maneuver, the countering of weapons of mass destruction, and defense of the homeland. FM 3.0 was integrated as a fundamental source to change our instruction. Honing technical skills, developing mutually beneficial partnerships with other centers of excellence, obtaining more tactical schools for our officers, and immersing them in a much more maneuver- oriented environment will better enable our officers to

integrate CBRN capabilities and advise maneuver commanders on how to survive and operate on a multi-domain battlefield.

化學兵科刻正努力訓練幹部，使其具備可與戰鬥部隊有效協同作業、對抗大規模毀滅性武器，進而保衛國土的專業職能。而《野戰手冊 3.0：作戰》則為此次化學兵修編準則及教範之基石。磨礪化生放核軍官專業技術、與其他卓越中心發展雙贏的合作關係、為其取得更多戰術學校合作，甚至多讓軍官們置身戰鬥部隊為主的環境中，均能確實幫助我化生放核軍官在多面向戰場上對戰鬥部隊指揮官提出有效整合化生放核能量，以利部隊生存及作戰。

Endnote 尾註

Field Manual 3.0, *Operations*, 6 October 2017.