

Generating Enhanced CBRN Readiness at JPMRC

在聯合太平洋多國戰備能力中強化化生放核戰備整備

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In today's complex national security environment, the threat of near-peer adversaries possessing weapons of mass destruction (WMD) continues to increase. Future conflict in the Indo-Pacific theater will likely involve the use of chemical, biological, radiological, and nuclear (CBRN) WMD. However, while U.S. adversaries are substantially fortifying their WMD development and posture, U.S. Army readiness to conduct operations in a CBRN-contaminated environment has severely atrophied.

在當今複雜的國家安全環境中，對同樣擁有大規模殺傷性武器對手的威脅持續增加。未來在印太戰區的軍事衝突中，極有可能運用到化生放核大規模殺傷性武器。然而，儘管美國對手正在大幅加強其大規模殺傷性武器的發展和態勢，但美國陸軍在化生放核污染環境中開展行動的準備已經嚴重萎縮。

At all echelons, the U.S. Army deficiency in CBRN-focused training has caused a deterioration of basic CBRN capabilities, proficiency, and readiness. By remastering CBRN fundamentals, revitalizing CBRN equipment sets, and conducting training for large-scale combat operations (LSCO) in simulated CBRN environments, the U.S. Army of 2030 will be better prepared to fight and win the Nation's wars.

美軍陸軍所有層級部隊在化生放核防護訓練上的不足，導致部隊基本的化生放核防護能力、熟稔程度及備戰狀態逐漸惡化。美國陸軍透過重新定義化生放核基礎知識，更新化生放核各項裝備，並在模擬化生放核的戰場環境中進行

大規模作戰(LSCO)訓練，使其在 2030 年時，能戮力做好戰備整備工作以利在國際戰爭中取得勝利。

The U.S. Indo-Pacific Command (USINDOPACOM) area of operations (AOR) is the world's largest and most consequential theater of operations, with pacing threats posed by the People's Republic of China, the Democratic People's Republic of Korea, and Russia. These adversaries are well known to possess ever-growing arsenals of CBRN agents and WMD. Under the steadfast leadership of General Charles A. Flynn, the U.S. Army Pacific (USARPAC) has dedicated significant effort and resources to the expansion and development of the Joint Pacific Multinational Readiness Center (JPMRC) as a top priority to retain combat power and generate readiness within the USINDOPACOM AOR. The JPMRC is the first Army regional combat training center (CTC) to be located within the Indo-Pacific theater of operations. It will play a significant role in preparing the Army of 2030 for LSCO in CBRN-contaminated environments.

美國印太司令部(USINDOPACOM)的作戰區(AOR)是世界上規模最大、最重要的戰區，其存在目的是為了面對中華人民共和國、朝鮮民主主義人民共和國及俄羅斯等國家所構成的威脅，眾所周知，這些國家擁有不斷增長的化生放核武器和大規模殺傷性武器庫。在查理斯•弗林(Charles A. Flynn)將軍的堅定領導下，美國太平洋陸軍(USARPAC)投入了大量精力和資源來擴大和發展太平洋聯合多國戰備中心(JPMRC)，作為保持戰鬥力和在美國印太司令部 AOR 內建立戰備狀態的首要任務。JPMRC 是第一個位於印太戰區內的陸軍區域作戰訓練中心(CTC)。它將在 2030 年陸軍在 CBRN 污染環境中為大規模作戰行動(LSCO)做準備方面發揮重要作用。

The JPMRC is an innovative CTC that allows the retention of trained forces in the Indo-Pacific theater so that they are continuously available to the combatant commander. The unique capabilities of the JPMRC allow for joint and combined partner operations to be executed with allies at locations throughout the USINDOPACOM AOR.

聯合太平洋多國戰備中心(JPMRC) 是一個新興的戰鬥訓練中心，允許在印太戰區保留訓練有素的部隊，以便戰鬥指揮官能夠持續使用這些部隊。夏威夷聯

合太平洋多國戰備中心獨特的戰力，使其能與在印太司令部作戰區內的盟軍於各個據點執行聯合作戰任務。

The JPMRC conducts three training rotations each year—one in the Hawaiian Islands, one in Alaska, and one in an allied or partner nation. The diversity of locale and the resultant versatility provide incredible opportunities for U.S. military forces to train in the same physical environments in which they will be expected to fight. A complex doctrinal simulation provides the foundation for each exercise and allows for honest feedback, with virtual and constructive effects throughout the battlefield and across multiple echelons.

聯合太平洋多國戰備中心(JPMRC)每年進行三次訓練輪序，一次在夏威夷群島，一次在阿拉斯加，一次在盟軍或戰略夥伴的國境內。藉著訓練位置的地理環境多樣性，為美國陸軍提供一個難能可貴的訓練機會，使他們能在與預期作戰地點相同自然環境條件下進行訓練。複雜的準則模擬為演習建立基準，並允許提供真實的反饋，從而整合戰場上多個層級實質和有建設性的想法。

Since the height of the Cold War, the U.S. Army has dedicated the time and resources needed to adequately prepare ground forces for CBRN employment—and the JPMRC is no exception. Another innovative capability fostered at JPMRC is the integration of enhanced CBRN training scenarios and rigorous assessments by CBRN subject matter experts that increase the value of training and evaluation at this newest Army CTC. By ensuring that CBRN threats and conditions are prevalent throughout the JPMRC training scenario, units will prioritize CBRN readiness at home station before assessments of CBRN readiness are conducted at the CTC.

自冷戰高峰以來，美國陸軍已經投入許多必要的時間及資源，使陸軍地面部隊得以充分運用化生放核防護能力，而聯合太平洋多國戰備中心亦不例外。聯合太平洋多國戰備中心引進一項新的訓練工具，是提供由化生放核相關專業領域權威所評估、強化過的化生放核訓練場域，從而提高美國陸軍戰鬥訓練中心的訓練價值。為確保太平洋多國戰備中心訓練場域所設定的常態性化生放核威脅條件，透過各單位在進行戰鬥訓練中心評估前，優先考慮該單位在原駐地的化生放核戰備整備狀況。

Army force readiness is transient. Readiness naturally dissipates due to

personnel turnover and the need to maintain institutional and organizational memory. Therefore, readiness must be continuously generated through dynamic training. The best way to verify that Army units at the echelon are trained and ready to complete their distinct mission sets in a CBRN-contaminated environment is the employment of CBRN readiness. Unfortunately, Army readiness for conducting LSCO in a CBRN-contaminated environment is nearly depleted.

陸軍部隊的戰備狀態是臨時的。戰備狀態隨時會因為人員更迭以及需要保持編制完整性，戰備狀態隨時可能解除。所以，持續保持戰備狀態必須透過不間斷動態訓練。最佳的方式是實際驗證各層級的陸軍部隊在完成化生放核防護做為後，是否做好在化生放核污染環境下進行訓練的準備。不幸的是，陸軍部隊幾乎耗盡所有在化生放核污染環境下進行大規模作戰的能力。

The execution of more dynamic and vigorous CBRN training and the employment of more agile combat employment in theater can improve the U.S. Army force posture against near-peer adversaries in the Indo-Pacific region. The term “applied readiness” can be used to describe this paradigm. CBRN training focused forward in the Indo-Pacific theater requires expeditionary advanced basing operations and facilitates the execution of maneuver operations in the environment. Forces that achieve recurrent forward presence in theater continuously generate and renew applied readiness, which is easily demonstrated and assessed by the combatant commander.

在印太戰區執行更有效率、強度更大的化生放核訓練，以及更靈活的戰術運用，可以改善美國陸軍面對敵軍的態勢。而「戰備應用」即可以用來表示這種狀態。化生放核訓練置重點於在印太戰區遠征前進基地作戰能力的推進，並提升於此地域進行機動作戰的執行效率。而戰區指揮官即藉由此戰區內長駐的前線部隊持續產生及更新戰備應用狀態，使較容易能得到驗證及評估戰況。

The mechanism for generating applied readiness in the USINDOPACOM AOR is the Operation Pathways series of exercises. Operation Pathways provides the U.S. Army Pacific with multinational and joint training opportunities. It generates readiness, develops interoperability with allies and partners, and contributes to integrated deterrence of regional adversaries. By incorporating enhanced CBRN training into the follow-on rotation of units

through Operation Pathways, the USARPAC commander successfully generates and employs applied readiness throughout the theater.

美國印太司令部作戰區利用路徑行動演習，制定出一套應用戰備機制。路徑行動演習為美國印太司令部戰區的部隊提供了多國聯合作戰訓練的機會，這個戰備機制有助於發展與盟軍的協同作戰能力，並有助於整合盟軍及戰略夥伴的軍事力量聯合威懾地區內的敵軍。美國印太司令部指揮官成功在戰區內建立戰備機制，並透過往後路徑行動演習強化化生放核訓練。

This, in turn, leads to enhanced integrated deterrence, which is the culmination of forward positioning and the forward presence of military units in-theater. Maintaining and exercising ground forces in-theater signals to U.S. adversaries in the region that the United States is dedicated to maintaining more persistent capabilities than can be provided by the potentially transient presence of air and naval forces in the region.

這將促使部隊將戰區內前進陣地及前進部署的綜合嚇阻，提升至最高層級。美軍不斷向戰區內的敵軍傳遞其維持並持續訓練地面部隊的訊息，是為了表明美軍比起在該地區存在較短暫的海、空軍，將更加致力於提供地面部隊持久的軍力。

The Army of 2030 will be better trained and equipped to conduct LSCO in a CBRN-contaminated environment due to the innovative and enhanced CBRN training available at CTCs like JPMRC. However, enhanced CBRN training may be a misnomer. Much of this training involves remastering the fundamentals of CBRN detection, decontamination, and avoidance.

2030 年，美國陸軍將建立像聯合太平洋多國戰備中心此種形式的戰鬥訓練中心，提供部隊更佳創新的化生放核防護訓練方式及訓練裝備，以利部隊能在化生放核污染環境下進行大規模作戰行動。然而強化化生放核防護訓練可能有點用詞不夠精準，該訓練除了防護之外更涵蓋了化生放核偵檢、消除(除污)及污染避免等基本能力。

This is the same training that U.S. Army units tend to dismiss or deprioritize due to competing and ever-changing requirements. Enhanced CBRN training is, at its core, the reprioritisation of CBRN fundamentals so that they are at the forefront of all training exercises and events. By including

CBRN-related training events and challenges for commanders at all echelons, the U.S. Army can better train and prepare for real-world WMD contingencies.

由於競爭和不斷變化的要求，美國陸軍部隊往往會忽視或取消優先順序，訓練也是如此。強化化生放核訓練的核心是重新確定化生放核基礎的優先次序，使其作為所有訓練演習和活動的基準。透過將與化生放核相關的訓練活動和所有層級指揮官的挑戰納入其中，美國陸軍可以更好地訓練和準備現實世界的大規模殺傷性武器突發事件。

The reprioritisation of CBRN training and evaluation at CTCs like JPMRC is a much-needed course correction for the Army. However, much more must be done to ensure that our forces can fight and win during LSCO in CBRN-contaminated environments. As the current situation in Ukraine has demonstrated, the threat of CBRN WMD posed by our adversaries is persistent. U.S. Army CBRN Soldiers must be trained, equipped, and recognized for the unique challenges inherently posed by their military occupational specialty (MOS).

在 JPMRC 等訓練中心重新確定化生放核訓練和評估的優先次序，是陸軍急需修正的路線。然而，必須做更多的工作來確保我們的部隊能夠在受 CBRN 污染的環境中進行大規模作戰期間的戰鬥並取得勝利。正如烏克蘭目前的局勢所示，我們的對手構成的化生放核大規模殺傷性武器威脅是不斷的。美國陸軍 CBRN 士兵必須接受訓練、裝備和認可，以應對其軍事職業專長(MOS)固有的獨特挑戰。

Commanders at all echelons regularly fail by assigning these specialty Soldiers additional duties and borrowing them for military manpower taskings, such as gate guard duty or headcount duty at the dining facility, rather than utilizing them to train their formations in the complex science of CBRN warfare. The success of the Army of 2030 will depend on the ability of commanders to understand and appreciate the importance of operating within a CBRN environment to generate applied readiness for combatant commanders. The enhanced CBRN training at JPMRC and other Army CTCs is the first step on a much longer journey toward U.S. Army proficiency with LSCO in CBRN-contaminated environments.

各層級指揮官經常分派給這些特種兵一些額外的職責，並借調他們執行人

力相關勤務，如：衛哨勤務或統計餐廳用餐人數，而不是讓它們在複雜性化生放核戰爭的戰場環境下來訓練他的的部隊。2030 年，陸軍的成功與否將取決於指揮官的判斷並認知到部隊在化生放核戰場環境中作戰的重要性，以利指揮官進入戰備狀態。夏威夷聯合太平洋多國戰備中心(JPMRC)和其他陸軍的戰鬥訓練中心(CTC)藉由增強化生放核訓練，使美國陸軍跨出在大規模作戰行動(LSCO)下熟稔化生放核汙染環境中作戰能力的漫長訓練路程的第一步。