

The Queen of Battle

A Case for True Light Infantry Capability

地形任縱橫? 反思輕裝步兵作戰之運用

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Pfc. Jordon Kirby (left), an M249 light machine gunner, and Spc. Isaiah Fernandez, a team leader, both with 1st Battalion, 506th Infantry Regiment “Red Currahee,” 1st Infantry Brigade Combat Team, 101st Airborne Division (Air Assault), supporting 3rd Infantry Division, hold their position during a force-on-force situational training exercise with Latvian and Polish armed forces at

Camp Adazi, Latvia, 16 September 2023. (Photo by Staff Sgt. Oscar Gollaz, U.S. Army)

2023 年 9 月 16 日，來自美軍第 101 空降師（空中突擊）步兵 1 旅戰鬥隊「紅色科拉其」¹第 506 步兵團第 1 營的 M249 輕機槍射手二兵喬登科比（左），以及伍長以亞費爾南德茲(右)，在拉脫維亞的阿達奇營區(Camp Adazi)多國部隊攻防對抗演訓中，和拉脫維亞、波蘭的武裝部隊一起固守 3 步兵師陣地。（圖片來源：美國陸軍 / Oscar Gollaz）

Light infantry units become the masters of their environment. Light infantrymen do not fight, fear, or resist the environment; they embrace it as shelter, protection, provider, and home. They learn to be comfortable and secure in any terrain and climate, be it jungle, mountain, desert, swamp, or arctic tundra. Exceptionally adaptable, light infantry units dominate terrain in which they operate and use it to their advantage against their enemies.

「不論把輕裝步兵置於什麼環境，他們都游刃有餘。輕裝步兵不會逆天而行、或和大自然硬碰硬，但更不會畏懼或受限於任何地形；他們會巧妙運用各種環境，把環境當成他們的掩護、戰術運用空間，甚至駐點。在輕裝步兵的訓練中，他們學會從各種地形和氣候中，找到最舒適且安全的生存方式，不論是在叢林、山地、沙漠，沼澤或極地凍原。憑藉著卓越的適應力，輕裝步兵部隊在作戰行動中迅速掌握地形，並形塑有利我軍、不利敵軍的態勢。」——史考特·克邁克爾《歷史上的輕裝步兵》

This article calls to action the reawakening for true light infantry, the “Queen of Battle,” for all eventualities of war. The U.S. Army will rely on light infantry divisions to fight and win in rugged and inhospitable terrain and in small and potentially isolated formations during large-scale combat operations (LSCO). This article is designed to generate dialogue within the force to understand the origins of true light infantry and articulate a need to rediscover its inherent advantages. Additionally, this article presents considerations for how to operationalize emerging doctrine and transform the light infantry within the Army's modernization priorities into the lighter, more self-sufficient and lethal formation that the modern battlefield demands.

本文旨在呼籲美國陸軍重新評估輕裝步兵部隊的用兵理念，以應對未來戰爭的各種可能。研究指出，在未來地面作戰中，美國陸軍將非常仰賴輕裝步兵師，在險峻、不宜人居的險惡地形，或在大規模作戰行動（Large Scale Combat Operation，LSCO）等戰力，容易被分割的環境中取勝。藉著本文，我們希望能拋磚引玉，引領各級部隊幹部，回顧輕裝步兵的起源，並重新發掘輕裝步兵固有的優勢及必要性。另外，本文也將探討如何把近年新興的作戰理論付諸實戰，並在陸軍現代化的革新趨勢下，將輕裝步兵轉型成為現代戰場所需，以一個更輕巧、更能自給自足，且更具殺傷力的部隊來遂行作戰。

¹「Currahee」，美洲印地安民族語，意思為「屹立不搖」。

The infantry is as old as warfare. Whether you call them grunts, foot soldiers, riflemen, or dismounts, they are the close-combat force. The infantry is the Queen of Battle because, like the queen in chess, infantry go anywhere they are required. Mountains, jungles, arctic plains, or rubbled cities.

在人類最早的戰爭中，就出現了步兵的身影。無論我們稱之為傳統士兵、徒步步兵、步槍兵，還是須下車戰鬥的兵員，都屬於深入戰線的近戰部隊。步兵之所以在美國陸軍中被稱為「戰場之后（The Queen of Battle）」，是因他像西洋棋中的皇后，可在棋盤上沒有格數限制的直、斜行，吃掉任何對手的棋子。在實戰中，步兵亦是如此：有道是「天候不能限，地形任縱橫」，步兵的身影可以遍布在任何角落，不論是山地、叢林、北極平原，甚至是都會區的斷垣殘壁，都阻擋不了步兵。

There are certainly tradeoffs and limitations to light infantry forces. Living and fighting out of your rucksack makes you agile and responsive. But once delivered to the battlefield, dismounted elements will be limited to the ground they can cover by foot or reliant on external air and ground lift assets for repositioning. Heavier forces will be able to organically cover more ground, exploit penetrations, and add a level of lethality that light infantry will not match on their own.

當然，把步兵部隊輕量化確實會有些缺點或限制。輕量化後的徒步步兵，背個戰術背包就可以上戰場，顯得無比敏捷靈活，但也因其行軍速度和機動能力的限制，在戰術運用上可能會需要依賴空中、地面載具來重新部署。相較之下，重裝部隊較能在戰場上快速移動，突穿敵軍防線、擴大突破口，並形塑輕裝步兵無法獨立達到的殲敵效果。

Therefore, light infantry serves as an essential—but just complementary—element of the combined arms team. When properly led, trained, and equipped, they become the most versatile piece on the chessboard, especially in restrictive, austere, and isolated environments. The future need for light infantry awaits in alpine regions, urban landscapes, contested islands in the Pacific, and across arctic plains. This article is a call to reinvigorate or perhaps rediscover one crucial part of our combined arms maneuver arsenal in our next war: true light infantry forces.

也就是說，輕裝步兵雖然功能不可取代，但通常僅作為協同作戰中協力的角色。輕裝步兵部隊若搭配適當的指揮、訓練與裝備，將會是棋盤上一枚活棋，特別是在限制重重、資源匱乏、孤立無援的環境中。可預見未來不論在高聳深山領域、城鎮地形、太平洋上具爭議之島嶼，甚至可跨越北極圈平原戰場的周邊要域，都將須要輕裝步兵。這也正是我們撰寫本文的動機，希望能呼籲我們重新重視、發掘未來協同作戰中不可或缺的一環：真正的輕裝步兵部隊。

The U.S. Army claims to have entire light infantry divisions, but those original designations diminished over the years. Mission requirements just short of conflict and fielding initiatives slowly but steadily eroded the essence of light infantry's identity and made our light infantry divisions heavy with armored vehicles and metric tons of excess equipment. The light infantry has

digressed from its true purpose and become anchored to logistical tails, ground lines of communication, and Tricon shipping containers full of gear. Fleets of vehicles and trailers still crowd their motor pools, even after the recent reduction of motorized infantry formations under the “Army Force Structure Transformation” announcement in February 2024. Stacks of mission command equipment clutter command posts. Individual soldier loads cresting triple digits on the scale have eroded what used to be light infantry formations.

美國陸軍號稱擁有最完整的師級輕裝步兵部隊，但其實隨著時代變遷，這些單位多已逐漸失去原先的編制、架構和設立理念了。各種任務需求，和部隊部署的方式，逐漸抹煞了輕裝步兵原本的優勢，使我們的輕裝步兵師體制，如今充斥著太多裝甲車輛和累贅的裝備。現在的輕裝步兵，已經偏離了它原有的屬性，變得過於依賴後勤補給、地面交通線（ground lines of communication）以及那些載運裝備用的貨櫃。即使 2024 年 2 月，美國陸軍在〈陸軍部隊結構轉型〉的政策架構下，裁撤了一些摩托化步兵編制，各單位車庫中目前仍然擠滿了各式載運用車和拖車，各單位指揮所中也還是擺滿各種指揮工具。更誇張的是，有些單兵的裝備負重早已超過百磅，這大大違背了原本的步兵就應該盡可能輕量化的初衷。

The physical architecture for light infantry already exists in the form of incredible infantry units like the 10th Mountain Division, the 11th Infantry Division, the 25th Infantry Division, the 82nd Airborne Division, and 101st Airborne Division. These divisions have a storied history from World War II, Korea, Vietnam, and modern conflicts in Iraq and Afghanistan. They are among the best infantry divisions in the world. However, none of them are truly light infantry divisions as originally intended. No one is necessarily at fault, we just lost the meaning of what a veritable light infantry division represents, what makes light infantry truly light, and what the role of light infantry has always been and will be in future conflicts.

輕裝步兵應有的架構和用兵概念，其實早在當初設計一些步兵單位的編裝時，就設計在其中了。像山地第 10 師、步兵第 11 師、步兵第 25 師、空降第 82 師和空降第 101 師這些部隊的編制中，都可以看出一些端倪。這些部隊在二戰、韓戰、越戰到現代伊拉克和阿富汗衝突中都戰績輝煌，可謂是世界頂尖的步兵師，但很可惜，時至今日大多已不再是最初編成時輕裝步兵師的樣子了。當然，這並不能歸咎於任何人，而是我們在不知不覺中遺忘了「輕裝步兵師」的意涵和本質，以及輕裝步兵在過去與未來戰爭中的角色定位。

To appreciate the case for true light infantry capabilities in LSCO, we must first understand what it means to be light infantry and how that distinct style of infantry came about in the U.S. Army. This article begins by looking at the light infantry in retrospect, starting with the establishment of light infantry in the 1980s. Then, we follow the roots of the infantry's core characteristics back from the American Revolution to the infantrymen of World War II. After tracing the characteristics that make American light infantry unique, we look in prospect at the future of the light infantry given observations from contemporary conflicts to potentially inform the U.S.

Army's doctrinal transition toward multidomain operations. Lastly, this article examines how the U.S. Army's six modernization priorities can help enable the Queen of Battle to amplify and enable true light infantry capability that the joint force will undoubtedly need in LSCO.

在探討大規模作戰行動（Large-Scale Combat Operations，LSCO）對典型輕裝步兵能力前，我們必須先理解什麼是輕裝步兵，以及這種獨特的步兵屬性如何在美國陸軍形成的。本文首先回顧輕裝步兵從 1980 年代創立以來的發展；接著，我們會從美國獨立戰爭到二戰時期的步兵屬性，追溯步兵獨特核心價值的根源。之後，本文將針對現代戰爭的觀察，前瞻輕裝步兵的未來，並希冀透過一些研究見解的分享，為美國陸軍未來在未來多領域作戰（Multidomain Operations，MDO）的準則發展及改革過渡有所助益。本文最終也針對美國陸軍六大現代化指導的實用性著墨，探討如何協助「戰場皇后」強化並發揚真正輕裝步兵功能，以滿足聯戰部隊在未來大規模作戰中的重要需求。

A Modern Distinction Separating Regular and Light Infantry 近代步兵與輕裝步兵組織編裝區分規則

The universal idea of light infantry is not new. The U.S. Army certainly did not invent it. However, the modern concept of a light infantry division as a distinct organization from mechanized and regular infantry forces only emerged in the U.S. Army around 1984.

輕裝步兵概念並非新觀念，亦非美陸軍所發明，直到 1984 年左右，美國陸軍才出現了不同於機械化步兵師與傳統正規步兵師的輕裝步兵師組織編裝概念。

The process started when the U.S. Army took stock of what the infantry had become in the decade after Vietnam. Gen. John Wickham was the chief of staff of the Army at the time. The Soviet Union remained the pacing threat as the main Cold War rival, and U.S. maneuver forces were built around defending against anticipated Warsaw Pact armored advances across the Fulda Gap. The infantry was prepared to fight large-scale battles alongside or in support of large-scale tank engagements. For this reason, the Army replaced many of the armored personnel carriers in mechanized infantry units with the new Bradley Fighting Vehicle, and the infantry trained for a supporting dismounted fight, focusing on killing tanks, breaching fortified strongholds, and occupying and holding key terrain. These mission-essential tasks made even standard infantry units reliant on vehicles to “carry the array of heavy equipment it need[ed] to do its job.”⁴ So, like dragoons of the sixteenth century, the weighed-down infantryman of the early 1980s trained to ride into battle, dismount, and fight the enemy on foot.

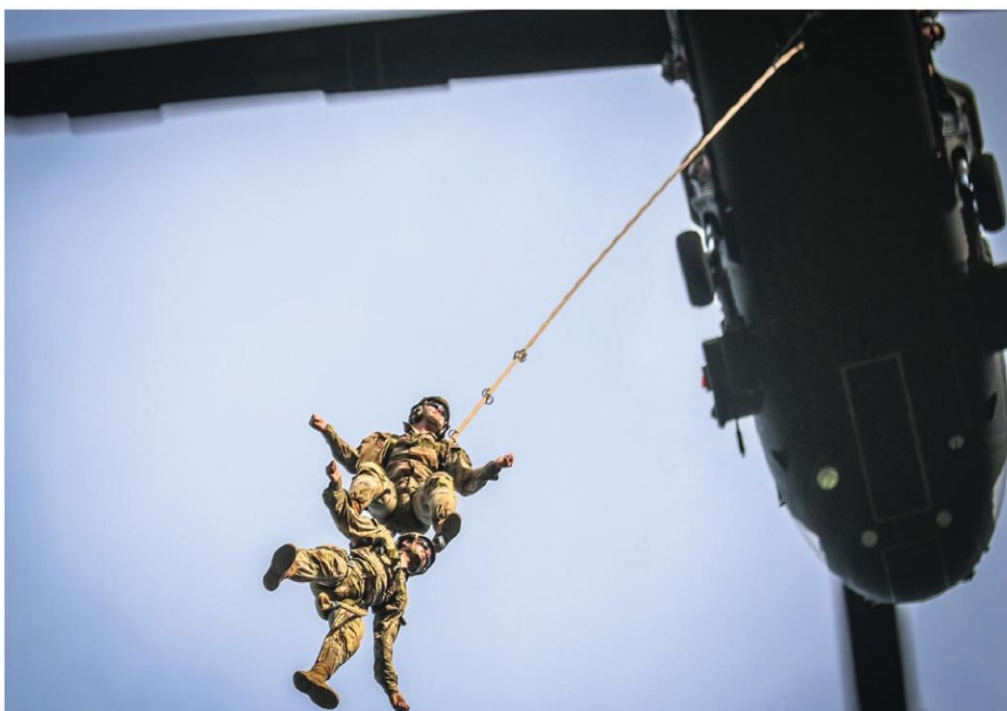
這應從美國陸軍於越戰後 10 年開始發覺美軍步兵部隊的變化談起。面對冷戰後美國的主要威脅是蘇聯，當時美軍堅信蘇聯所領導的華沙公約組織（Warsaw Pact）將派遣裝甲部隊穿越福達缺口（Fulda Gap），²因此，針對敵可能行動，籌備各種機動部

²福達缺口（德語：Fulda-Lücke；英語：Fulda Gap），位於德國中部黑森邦和圖林根邦的交界。在冷

隊的建軍規劃。當時的步兵部隊，已完成各項配合或支援大規模裝甲作戰的準備。基於這一點，陸軍的機步部隊一股腦兒的用最新的布萊德雷戰車（Bradley Fighting Vehicle）取代了許多裝甲運兵車，並且把訓練重點放在輔助支援下車戰鬥等相關任務，尤其是反裝甲、奪佔敵據點及佔領、確保重要地形等。這些關鍵任務行動（Mission-essential Tasks）的制定，導致最後甚至連標準步兵單位，也開始依賴載具來「攜帶他們完成任務所需的重型裝備」。因此，就像 16 世紀的龍騎兵³(dragoons)一樣，1980 年代初期的美國陸軍步兵，搭著車進入戰場，然後下車與敵人戰鬥。

But leaders like Wickham recognized a concerning capability gap: the Queen of Battle could no longer go anywhere it wanted. The infantry had become too heavy and cumbersome. Regular infantry had become fixed to its own logistical needs, which undermined one of the infantry's greatest attributes: its versatility. The U.S. Army relies and will continue to rely on light infantry formations to infiltrate, raid, attack, and ambush the enemy despite the most unforgiving terrain, weather, and circumstances.

時任美國陸軍參謀長約翰·威克姆將軍(Gen. John Wickham)就發現了這令人擔憂的問題，他表示：「步兵身為『戰場皇后』，卻已無法隨心所欲的機動到達所望地區，機動起來變得綁手綁腳。」受制於自身的後勤需求，浪費了步兵靈活性的優勢，這無非形成了一個嚴重的戰力缺口。但美國陸軍未來仍非常需要輕裝步兵在艱難地形、天氣及情況下滲透、突襲、攻擊及伏擊敵人。



戰時期為東德與西德的邊界，並具有重要戰略意義。

³龍騎兵是一種「騎馬步兵」的古代歐洲兵種，同時接受馬術與步兵戰鬥技巧的訓練，以馬匹運輸、步行戰鬥。龍騎兵騎馬至目的地後，隨即下馬進行步戰，如騎兵般移動但如步兵般戰鬥。

25th Infantry Division Lightning Academy air assault instructors conducted a rooftop insertion during a Fast Rope Insertion/Extraction System and Special Patrol Insertion/Extraction System (FRIES/SPIES) Master Course on 5 November 2020 at Schofield Barracks, Hawaii. (Photo by Spc. Jessica Scott, U.S. Army)

2020 年 11 月 5 日，第 25 步兵師閃電叢林訓練中心空中突擊教官在夏威夷斯科菲爾營區的快速繩插入/抽出系統和特種巡邏插入/抽出系統 (FRIES/SPIES) 專業課程期間進行了家屋垂降。（圖片來源：美國陸軍 / Jessica Scott）

What Is Light Infantry?

什麼是「輕裝步兵」？

The essence of the light infantry transcends how they are equipped, what they are required to do, and even where they are asked to operate. The Combat Studies Institute published an extensive research survey in 1987 by Maj. Scott McMichael examining the historical perspectives of what it meant to be light infantry. McMichael concluded, “Light infantry is, first of all, a state of mind, and secondarily, a product of organization.”⁵ This state of mind is best characterized as an attitude of self-reliance and junior leader initiative. Free from the tethers of roadways and mountains of logistics, light infantry learn to live out of their rucksacks. Their proverbial fuel tanks are their stomachs. And whenever feasible, they refill their canteens with water from creeks and surrounding snow.

輕裝步兵帶來的作戰效益，超越了他們所配賦的裝備、執行的任務，甚至是他們被賦予的責任地區。1987 年時，斯科特·麥克邁克爾少校在戰鬥研究中心（Combat Studies Institute）發表的廣泛研究(extensive research)中，就以歷史觀點來檢視輕裝步兵。他歸納出了新的定義：「輕裝步兵是一種思考模式，也是一種組織產物。」這種思考模式，最能展現出自給自足和基層領導幹部的獨立判斷。沒有了道路和後勤輜重的束縛，輕裝步兵背著背包就能上戰場發揚火力，他們吃下肚的就是「燃油」，只要附近有小溪或積雪就可以「水壺裝滿水」。

The men and women of the light infantry embody a “strong confidence that they will survive and succeed in whatever situations they are found. They are undaunted by unfavorable conditions (such as being cut off or outnumbered) … [and] devise schemes to accomplish their missions, no matter how difficult the tasks.”

從每一位輕裝步兵身上，我們都能看到一種「天不怕、地不怕」的堅定信心。他們相信無論什麼情況都能解決，對於不利於我的狀態（例如孤立時被突穿、分割或兵力不足）也毫不畏懼。他們會想方設法研擬方案來完成任務，不論任務多麼艱難。」

Col. Huba Wass de Czege, one of the principal architects of AirLand Battle doctrine, defined light infantry in 1985 as a force “specialized for rapid air transportability, clandestine insertion, very rugged terrain, night operations, infiltration, raids, and ambushes; it lives off only small tactical signatures.” Wass de Czege recognized that light infantry fight where heavy forces cannot, defending “areas of rugged terrain so that they can become the fulcrum for defensive maneuver

and counterattack.” He describes the balance as “lightly but potently equipped” and nimble. Light infantry forces buried in restricted terrain become hard to detect and harder to dislodge. Light infantry was meant to pose unsettling dilemmas for mounted opponents. Tanker crews learned in World War II that one of the greatest threats to armor was light infantrymen off the roads, buried somewhere among the hillsides, with shoulder-fired antitank systems.

編修《空地作戰準則》的哈巴·瓦斯德·塞吉中校，在 1985 年時就將輕裝步兵定義為「專門執行小規模戰術行動，用於快速空中兵力投射、隱密突入、崎嶇地形、夜間作戰、滲透、突襲和伏擊的部隊」。瓦斯德中校也指出，「輕裝步兵輕巧靈活但威力強大」，他們在重型部隊無法前往的崎嶇地區作戰，確保地形要點、成為機動防禦、反擊的攻防支撐。輕裝步兵部隊一旦隱匿困難地形中，就很難被偵查、肅清或驅離，而這也正是運用他到一些特定戰場的目的，專門用來襲擾、牽制敵軍機械化部隊。裝甲兵在二次世界大戰中就學到了慘痛的教訓。當時輕裝步兵總會隱匿在道路周邊的山坡或隘口，用肩射反裝甲系統對裝甲車隊攻擊，構成非常巨大的威脅。

Wass de Czege’s definition suggests we now have a fundamental misunderstanding of light infantry in its true form, which led to equipment-saturated light infantry formations and widespread misunderstanding of their original mission and intent. Anecdotally, the 10th Mountain Division has become a motorized infantry unit with excess equipment from years of fighting a counterinsurgency. The last twenty years conditioned “light” infantry units to become reliant on trucks to move personnel, deliver supplies, and power mission command equipment. Motor pool fleets required upward of 32 percent of a battalion to move their vehicles.¹⁰ Once one-third of the battalion buckled into seatbelts just to operate its organic equipment, it was no longer light. It became motorized. These de facto motorized units became conditioned to remain tied to ground lines of communication; not the hills or swamps or mountains but rather the roads, which are easily targetable. Our “light” formations have lost the true essence of the light infantry required to fight and win during LSCO. The stubborn attitude of self-reliance and unusual versatility is only gained through constant physical and mental conditioning. Fighting out of a rucksack requires more than individual discipline—it requires organizational culture.

從瓦斯德中校的定義中，我們可以發現我們對輕裝步兵運用的方式存在著根本性的誤解。這樣根本性的誤解導致這些步兵單位裝備過量，很多甚至偏離其原本任務和應有的定位。據說，第 10 山地師就是個典型的例子。在歷經多年反叛亂作戰任務後，如今第 10 山地師已經快變成了一支裝備嚴重超編的機步部隊。這 20 年來，他們用車輛來運送人員、補給和指揮工具，單單一個營的車隊要機動，就需要多達 32 % 的人力來操作車機具。也就是說，這將近三分之一的兵力一旦上了車、繫上安全帶，就不再是「地形任縱橫」的輕裝步兵，而成為只能循著那些很容易被鎖定的道路來移動的摩托化部隊了。我們的「輕裝」步兵已經失去了大規模作戰(LSCO)中所需的本質。以前標榜的自給自足、勇猛頑強和機警靈活，如今也只能期待透過不斷的身心訓練來恢復。然而，「盡可能輕量化」這樣的理念，單靠單兵個人紀律和信念來堅持顯然不夠，這是需要整個組織文化來支持和推動的。



Spc. Bradley Porter (left) and Spc. Ceaton Cooper, both paratroopers with 3rd Platoon, Company D, 2nd Battalion, 503rd Infantry Regiment, 173rd Airborne Brigade, clear the upper floor of an abandoned building during a bilateral training event with the Polish 6th Airborne Battalion, 16th Airborne Brigade (not pictured), in an urban operations training facility in Wędrzy, Poland, 21 November 2016. (Photo by Sgt. William Tanner, U.S. Army)

2016 年 11 月 21 日，第 173 空降旅 503 步兵團 2 營 D 連 3 排傘兵布拉德利·波特（左）和西頓·庫珀在波蘭的溫德爾齊城鎮戰訓練訓練場與波蘭第 16 空降旅第 6 航空隊的共同訓練。圖中他們正試圖清理廢棄建物的一個樓層。（圖片來源：美國陸軍 / William Tanner）

The next war will be vicious and unforgiving. If light infantry formations do not align their order of battle and missions toward LSCO requirements, we will suffer costly losses on the battlefield. We potentially risk unnecessary sacrifice and relearning lessons the Nation already knows if cannot reestablish, doctrinally codify, and modernize the true light infantry. The good news is the essence of the light infantry is already well-coded into the DNA of the ethos of the American warfighter mentality and the American way of war, so getting it back is entirely within the realm of the possible.

未來的戰爭只會越來越殘酷而無情。如果不趕緊針對大規模作戰（LSCO）的需求，調整輕裝步兵戰鬥序列和任務，修編準則並將輕裝步兵現代化，我們將在戰場上付出慘痛的代價，甚至會重蹈覆轍犯下一些可以避免的錯誤，造成無謂的犧牲。幸好輕裝步兵這樣的概念，其實已經深植於美國軍人基本素養和作戰模式中，因此，在短時間內可以導正問題並使之回到正軌，並非不可能。

What we need is American light infantry unencumbered by bulky gear and led by junior leaders who own operations, solve tactical problems, and display the cunning, guile, and toughness to fight in small units while isolated. They fight in terrain that can only be accessed on foot, not by

wheels, to complement the joint force. American light infantry fight in small elements not tied to lines of communication. They get into the rear of the enemy formations to create disruption and fear. True light infantry units not only thrive in rugged terrain, harsh conditions, and at night, they leverage their advantages within the environment to help them destroy the enemy.

我們所須要的是美國輕裝步兵不受笨重裝備的阻礙，並讓基層幹部領導部隊時，可以發揮靈敏、機智和堅韌的特性，以克服各種戰術難題獨立作戰。輕裝步兵部隊有很多優勢，他可以到達一些聯戰部隊車輛到不了的地方，他不須要實體通信就能聯絡溝通，他甚至可以深入敵後，打破其心理平衡，造成敵軍混亂和恐懼。他不僅能在崎嶇地形、惡劣條件和夜間作戰，還能形塑優勢的作戰環境來摧毀敵人。

Ultimately, there are two ways to make a fighting element nimble: you can shed weight to make soldiers lighter, and you can allow competent leaders to exercise disciplined initiative, because nimbleness also comes from allowing junior leaders to take prudent risks. Leaders operating in remote corners of the battlefield can realize priceless dividends by making timely decisions in an LSCO fight based on their judgment and understanding of the broader mission. This is when the U.S. Army is at its best.

我們通常用兩種方法來讓作戰隊更為靈活：一則實際減輕單兵所需負重的重量，二則允許基層指揮官適度的獨斷專行，讓他們盡情發揮、承擔風險，展現小部隊術靈活與彈性。幹部可以根據個人分析判斷和對上級任務的理解，在大規模作戰中及時作出決策，從而爭取附加的戰果。這才是美國陸軍的最佳狀態，也是美國陸軍該有的標準。



Soldiers from Company A, 2nd Battalion, 22nd Infantry Regiment, 10th Mountain Division, quickly march to the ramp of the CH-47 Chinook that will return to Kandahar Army Air Field on 4 September 2003. The soldiers were searching in Daychopan District, Afghanistan, for Taliban fighters and illegal weapons caches. (Photo by Staff

Sgt. Kyle Davis, U.S. Army)

第 10 山地師第 22 團 2 營 A 連的士兵們小跑步到 CH-47 契努克直昇機後方準備登機，這架直昇機後將於 2003 年 9 月 4 日返回坎大哈陸軍機場。當時美軍正在阿富汗代喬潘地區搜尋塔利班武裝分子和非法武器藏匿點。（圖片來源：美國陸軍 / Kyle Davis）

American Light Infantry

美國輕裝步兵

Tough training and lighter equipment make any good light infantry unit more lethal. What makes American light infantry distinct is the disciplined initiative and mutual trust fostered among U.S. Army infantryman and their junior leaders. The noncommissioned officers (NCO) in the U.S. Army infantry are remarkable. Our junior leaders make the U.S. Army's light infantry unique. American light infantry fight as decentralized formations in restrictive terrain equipped with their weapons, rucksacks, some shared understanding, the commander's intent, and mission orders.

嚴格的訓練和輕量的裝備，可以讓精銳的輕裝步兵部隊殺傷力更強。而美國輕裝步兵之所以如此突出，在於基層指揮官與部隊官兵之間早已培養出一定的合作默契和相互信任。主官不斷強化戰術思維和素養，而士官則作為部隊的骨幹，展現其專業及貫徹命令的執行效率。如此兩相結合，即使受到地形限制，美國輕裝步兵依然能即時疏散部隊，依照統一的戰術思想、指揮官企圖和任務式命令從容作戰。

Americans have long been masters at using light infantry soldiers to bypass enemy strengths and advantages so they can attack critical vulnerabilities at times of their choosing. The American light infantry, leveraging the principles of patrolling, ambushes, and raids, draws its lineage from Robert Rogers, who introduced in the concept of ranging in the 1700s against the French and Indians.¹¹ As a teenager on the American frontier in the 1740s, Rogers spent much of his childhood with Native American traders and adjoining tribesmen from the Mohawk and Penacook tribes. Native Americans helped Rogers become self-sufficient in the wild New England forests and taught him ways to survive brutal winters on the frontier. Most importantly, Native Americans taught Rogers “not only good hunting practices but how to think about warfare.”

美國長期以來一直擅長利用輕裝步兵繞過敵方的優勢主力，然後選擇至當的攻擊時機迂迴攻擊敵之關鍵弱點。美國輕裝步兵運用的巡邏、伏擊和突襲戰術，可追溯至 18 世紀時期，羅伯特·羅傑斯(Robert Rogers)為了對抗法國和印第安人引入的游擊戰概念。1740 年代羅傑斯的大部分童年都在美國邊疆度過，他與美國印第安商人和莫霍克(Mohawk)及佩納庫克(Penacook)部落的成員們關係十分密切。當時在美國印地安人的幫助和分享下，羅傑斯在新英格蘭的荒野得以學會自給自足，以及在殘酷冬季中生存。最重要的是，美國印地人教會了羅傑斯「專業的狩獵技巧」以及「對戰爭應有的理解」。

Other American light infantry pioneers include Francis Marion, known as the “Swamp Fox,” and Thomas Sumter, who both plagued the British with their light infantry attacks throughout the American Revolutionary War.

當然，還有其他美國輕裝步兵的先驅。其中包括被稱「沼澤狐狸(Swamp Fox)」的弗朗西斯里昂(Francis Marion)，以及馬斯薩姆特(Thomas Sumter)。他在美

國獨立戰爭期間，用輕裝步兵不斷襲擾英國部隊。

You can trace the roots of the American light infantry back to the Revolutionary War, where the British and other European nations did not fully appreciate the lethality that American light infantryman could unleash in rugged terrain. In his Army History article “The Influence of Warfare in Colonial America: On the Development of British Light Infantry,” Jack E. Owen Jr. highlights how the British failed to appreciate this unique facet of the American way of war:

美國輕裝步兵的根源，可以追溯至美國獨立戰爭時期。當時英國和其他歐洲國家，並無法想像美軍輕步兵在崎嶇地形中，所能展現的強大殺傷力。這在查克·歐文（Jack E. Owen Jr.）《陸軍歷史》的文章《殖民美國戰爭的影響:英國輕步兵發展》中確有記載，強調了當時英國人對美國這種獨特戰爭方式充滿著不解：

They neither reduced their emphasis on rigid discipline nor abandoned regular line of battle tactics, even in the American backwoods. They adapted and modified their military tactics and techniques to the French and Indian enemy and to the forested terrain, but this response to the uniqueness of warfare in America constituted neither the British Army’s conversion to light infantry tactics nor an acceptance of independent action on the battlefield by small groups of soldiers.

即使在一些偏遠地區，他們也絲毫不減少對紀律的重視，未曾放棄常規的戰鬥隊形戰術」他們根據法軍、印第安人以及森林地形，調整不同軍事戰術和技術，但這顯然不是英國軍隊的輕裝步兵戰術，亦非默許小部隊在戰場的單獨行動。



The 11th Airborne Division was transferred to the Pacific theater of operations in June 1944. It saw its first action on the island of Leyte (Philippines) in a traditional infantry role. In January 1945, the division took part in the invasion of Luzon. The two glider infantry regiments again operated as conventional infantry, securing a beachhead before fighting their way inland. It later participated in the liberation of Manila. Of particular note, two companies of divisional paratroopers conducted an audacious raid on the Los Baños Internment Camp, liberating

two thousand civilians. Its last combat operation of World War II was north of Luzon around Aparri, in aid of combined American and Philippine forces who were battling to subdue the remaining Japanese resistance on the island. (Photo courtesy of the National Archives)

第 11 空降師在 1944 年 6 月被調派到太平洋戰區參戰，首次作戰時是以傳統步兵角色在雷伊特島（菲律賓）作戰。1945 年 1 月，該師參與了呂宋島的登陸作戰。兩個滑翔機步兵團再次以常規步兵方式作戰，確保登陸灘頭後，繼續向內陸推進。之後，它隨後還參與了馬尼拉的拯救運動。值得注意的是，該師的兩個空降兵連對當時進行了一次大膽的突襲，攻擊了洛斯巴尼奧斯集中營，解救了將近 2000 名平民。第二次世界大戰時，該師的最後一次作戰行動是在呂宋島北部的阿帕里，支援美軍與菲律賓聯軍協同鎮壓島上殘存的日軍。（圖片來源：美國國家檔案館）

The American light infantry mentality was also evident throughout World War II in a wide range of activities from Rudder's Rangers at Pointe du Hoc to the forces that seized the beaches of Normandy by land, sea, and air. From the enemy's perspective, the formidable American light infantry mentality led to several Axis miscalculations. For example, during Operation Cobra, the Allied breakout from Normandy, the Germans attempted to stymie Allied success with an aggressive armored counterattack at the town of Mortain that was unexpectedly parried by American light infantry.

美國輕裝步兵的在二次世界大戰期間廣泛的運用。從盧德(Rudder)突擊隊在霍克角（Pointe du Hoc）的優異表現，到透過陸、海、空三棲登陸佔領諾曼第海灘，都是非常經典的實例。從敵軍的角度來看，強大的美國輕裝步兵思維模式，曾導致軸心國好幾次的錯誤攻擊。例如，在科布拉行動（Operation Cobra）中，德軍曾試圖從莫爾坦鎮（Mortain）發動裝甲部隊來打反擊作戰，企圖阻滯盟軍從諾曼第突圍，但卻意外地被美國輕裝步兵有效的擋了下來。

For six days, 2nd Battalion, 120th Infantry Regiment, held its positions atop Hill 314 overlooking a key German avenue of approach of five German Panzer and Schutzstaffel (SS) divisions. The infantry battalion became isolated from the rest of its regiment on the first day. They fought on. By day three, they were out of water, food, ammunition, and medical supplies. They fought on. A German officer from the SS approached their lines under a white flag with an offer to accept their surrender. The American infantry chose instead to fight more. One airdrop managed to deliver precious ammunition, food, and batteries. Medical supplies, including bandages, dressings, and morphine were shot (unsuccessfully) to the cutoff battalion by artillery in emptied smoke canisters. The 120th Infantry Regiment never abandoned Hill 314 and was eventually relieved by other American infantry units. "Their brilliant defense blunted the Panzer drive and allowed a major triumph for the allies." The 120th Infantry, fighting as a dismounted battalion across Hill 314, proved too difficult to defeat for the German mechanized and armored divisions. The Germans did not fully account for the combat power of light infantry in restricted terrain, backed up by indirect fires, and experts at their craft. In the words of Gen. Omar Bradley, the German decision to attack "was to cost the enemy an Army and gain us France."

當時，第 120 步兵團二營佔據 314 高地編組陣地，俯瞰德軍 5 個裝甲部隊和親衛

隊師的關鍵道路達 6 天之久。該營在第 1 天就與團的其他部隊失去了聯繫，到第 3 天甚至已經沒有水、食物、彈藥和醫療用品也都用完了，但他們仍然繼續奮戰。據說當時甚至有一名德國親衛隊軍官在持白旗下接近他們的陣地，試圖說服該營投降，還被拒之門外。終於，皇天不負苦心人，在一次空投成功後，珍貴的彈藥、食物和電池被送了進來。而醫療用品部分，也包括繃帶、敷料和嗎啡等，被砲兵用煙霧彈、空包彈射送到被分散的部隊手中。第 120 步兵團自始至終從未放棄過 314 高地，最後也順利被其他步兵單位救援而脫離戰場。「他們出色的死守削弱了裝甲部隊的攻勢，並為盟軍贏得了重大勝利。」第 120 步兵團以徒步的方式，據守在 314 高地周遭，對德國機械化和裝甲部隊來說，確實難以應付。德軍未預料到在特殊地形中，輕裝步兵的作戰能力還能發揮得如此淋漓盡致，結合曲射火力支援和單兵武器後，更是令人聞風喪膽。奧馬爾·布拉德利將軍（Gen. Omar Bradley）就說，德國當時攻擊的錯誤決定，「讓他賠上一整支部隊，也把法國拱手讓給了我們。」

During World War II, American light infantrymen of the 10th Mountain Division broke the Gothic Line, which had stymied the 5th Army in Italy for nearly six months. Light mountain troops ascended the fifteen-hundred-foot cliffs of Riva Ridge on fixed ropes at night in the snow and fog of winter and infiltrated one thousand troops to the top undetected by the German defenders. It was their first operation of the war, and it unraveled the Germans, who did not think a maneuver of this type was possible. Following Riva Ridge, the 10th Mountain continued relentless pressure across tough terrain and beat the Germans at Mount Gorgolesco, Mount Belvedere, and Mount della Torraccia. The story of this great offensive is a story of sergeants and lieutenants and physically and mentally tough formations that the Germans had no answer for.

在第二次世界大戰中，第 10 山地師的美國輕裝步兵突破了哥特防線（Gothic Line）。該防線讓第 5 軍困在義大利將近半年。輕型山地部隊在寒冬的夜間雪霧中，沿著固定索登上 500 公尺高的里瓦山脊（Riva Ridge），並在德國防守部隊未察覺的情況下，將 1000 名部隊滲透到山頂。這是他們在戰爭中的首次行動，讓德軍大為吃驚，因為德軍並不認為這樣的機動是可能的。隨後，第 10 山地師在艱困地形中持續奪控要點，並在戈爾戈萊斯科山（Mount Gorgolesco）、貝爾維德雷山（Mount Belvedere）和托拉奇亞山（Mount della Torraccia）擊敗德軍。這場偉大的勝利攻勢，靠的正是讓德軍參不透、想不明白，驍勇善戰、心理素質極佳的美軍基層士官和尉官。

Fighting isolated and cut off for extended periods of time has since become the true essence of the American light infantry mentality. The “Little Groups of Paratroopers” of the 82nd and 101st Airborne Divisions in World War II demonstrated the power of American light infantry units that infiltrate deep into enemy territory, guided only by mission orders and intent. The 506th Infantry Regiment at the Battle of Bastogne verified the tenacity of light infantry forces even when isolated and minimally supplied in the most unremitting conditions. Cut off and surrounded, the American commander captured the spirit of the American light infantry in a single word when the Germans asked for their surrender. He simply replied, “NUTS!” The Americans then clarified to the German negotiators, “If you continue this foolish attack, your losses will be tremendous.” It was no bluff.

在後勤補給被阻斷的情況下，還能繼續獨立作戰，已經成為美國輕步兵的基礎能力。二戰時第 82 和第 101 空降師的「空降小組」就曾展示美國輕裝步兵部隊的威力。這些部隊深入敵軍領土，單靠任務式命令和上級指揮官企圖，就清楚知道自己該做什麼。第 506 步兵團在巴斯托涅戰役（the Battle of Bastogne）中，就展現了輕裝步兵部隊的堅韌，即使他們早已在孤立和供應不足的最惡劣條件下，也不屈不撓。當時德國人要求美國指揮官投降時，這位美國指揮官直接破口大罵：「作夢！」隨後美軍也向德國談判代表警告，「你們繼續這愚蠢的攻擊，損失會非常巨大。」歷史證明，這絕非虛張聲勢。

But the strength of a light infantry force is more than just a strong sense of self-reliance and determination. It must be able to fight as small units in complex environments against a technologically advanced enemy. The empowerment of junior leaders through the principles of mission command is what makes American light infantry unlike any other nation's light infantry force.²⁴ Today, the U.S. Army trains its warfighters to excel under adversity with only mission orders and intent.

然而，輕步兵部隊力量的展現，不僅來自獨立自主和堅毅的決心。他必須能在複雜的環境中，與技術先進的敵軍小部隊戰鬥。透過任務式指揮，賦予基層幹部權力，使美國輕裝步兵與其他國家的輕裝步兵部隊截然不同。美國陸軍訓練其官兵，只需要一份任務式命令和上級指揮官企圖，就能在逆境中追求卓越。

The critical facet of the American light infantry culture is perhaps the most evident in the U.S. Army NCO corps and junior leader formation. Highly skilled soldiers and junior leaders will remain the U.S. Army's strength in upcoming conflicts. Gen. James Rainey and Lt. Gen. Laura Potter wrote about the Army of 2030, stating, "The most important factor to winning on the future battlefield is not a new piece of equipment or concept, but our people." The future fight will rely on junior leaders, and the principles of mission command will be essential. Small American light infantry units *with little more than their weapons, rucksacks, and some disciplined initiative*, will "identify opportunities and act independently to achieve the overall intent without specific orders." If that is what the future fight will require, then truly light formations will be essential to meet the joint force's needs in LSCO. We can leverage this unique aspect of the American way of war by using existing knowledge to update our doctrine and modernizing accordingly to ultimately build a light infantry capability.

美國輕裝步兵文化的發展，在基層軍士官幹部中最為明顯。高專長有豐富作戰經驗的士兵和初階幹部將成為美陸軍在未來戰爭中的主力。詹姆斯·雷尼將軍（Gen. James Rainey）和勞拉·波特中將（Gen. James Rainey）談到 2030 年的陸軍時表示：「未來戰場上勝利的關鍵因素不是新的設備或概念，作戰重心還是回歸到最根本的元素——『人』」。未來戰鬥的勝敗將非常仰賴基層幹部，而任務指揮的原則將至關重要。美國輕裝步兵部隊，領完槍、背上背包、依照已成為習慣的合作經驗和默契，在受領完任務式命令後，將能「洞察先機並獨立分析出關鍵行動來執行，不再需要命

令。」如果這是未來戰鬥的要求，那麼輕量化所有編隊，對聯合部隊在大規模作戰（LSCO）中的需求而言，也是至關重要。我們可以利用美國既有獨特戰爭模式，結合現有知識來更新我們的準則和戰略，現代化並最終建立未來將最需要的輕裝步兵戰力。

Transforming the Light Infantry for the Modern Battlefield 輕裝步兵針對現代戰場的轉型

The U.S. Army formalized the operational concept of multidomain operations (MDO) into doctrine in 2022.²⁷ The transition to MDO, at least for light infantry, is an evolution—not a revolution. As the Army’s role evolves in support the joint force under MDO, the light infantry should adapt with it. Lessons learned from contemporary conflicts, including the war in Ukraine, “have and continue to shape our transformational war fighting concept of multidomain operations.”²⁸ These conflicts offer many useful insights for how to evolve doctrine and transform the light infantry to fight in LSCO as well.

美國陸軍於 2022 年「多領域作戰(Multidomain Operations, MDO)」的概念正式納入準則。隨著美國陸軍在聯合作戰中的定位改變，這樣政策上的調整，對各部隊無非是件好事，對輕裝步兵而言，更是讓其現有作法在準則上有了依據。從當前俄烏戰爭等衝突中，我們獲得的經驗、許多有用的見解，將繼續影響我們轉型成多領域作戰，幫助我們在修編大規模作戰(LSCO)準則的同時，轉型輕裝步兵。

A Royal United Services Institute (RUSI) study on the war in Ukraine concluded, “There is no sanctuary in modern warfare. The enemy can strike throughout operational depth. Survivability depends on dispersing ammunitions stocks, command and control, maintenance areas and aircraft.”²⁹ Dispersion and unencumbered forces were key to survivability. “Ukraine successfully evaded Russia’s initial wave of strikes by dispersing its arsenals, aircraft and air defenses. Conversely, the Russians succeeded in engaging 75% of static defense sites in the first 48 hours of the war.”

英國皇家聯合研究所（RUSI）對烏克蘭戰爭的研究得出結論：「現代戰爭中不再有收容中心了。戰火遍及整個作戰縱深。在戰場上是否得以存活，取決於彈藥囤儲、指揮管制、後勤維保空間和戰機的分散足夠與否。」疏散和部隊負擔的減少，對生存至關重要。「烏克蘭透過分散彈藥囤儲、軍機和防空系統，成功躲避了俄羅斯的初次攻擊。但另一方面，他們的那些固定設施、防禦陣地，在戰爭的前 48 小時內就被俄國摧毀了 75 %。」

Light infantry units will gain distinct advantages by avoiding detection and targeting on a modern battlefield. Light infantry is uniquely suited for dispersion and maintaining a reduced signature. RUSI’s study on Ukraine noted that “survivability is often afforded by being sufficiently

dispersed to become an uneconomical target, by moving quickly enough to disrupt the enemy's kill chain and thereby evade engagement, or by entering hardened structures.” Concealment and camouflage take on new considerations in the modern battlefield. As combat units contend with hiding within the electromagnetic spectrum and masking easily detectable thermal, acoustic, and seismic signatures, the light infantry will gain the advantage for the joint force.

輕裝步兵部隊透過反偵蒐、反情報，在現代戰場上獲得顯著優勢。輕裝步兵特別擅長和減少訊跡。英國皇家聯合研究所（RUSI）所對烏克蘭的研究即指出，「生存機率通常是透過足夠分散、成為低效益目標、快速移動，來打亂敵人的擊殺鏈，並因此脫離戰鬥，或進入間堅固設施來提高的。」在現代戰場上，隱蔽和偽裝需要全新的思維。隨著訊跡管理方面的進步，作戰部隊已經懂得如何在電磁頻譜中隱藏、掩蔽易於檢測的熱、聲源和震動，而聯合作戰部隊中，輕型步兵將更易獲有優勢，這將為作戰效益大大加分。

Small light infantry units in Ukraine have found success in frustrating the enemy through their ability to disperse, conceal, and then strike on command. One study noted, “Roving bands of marauding light infantry act in a similar manner to German U-boat operations during the Battle of the Atlantic.”³² The author described them “as land-based wolfpacks” that could melt among the countryside only “to concentrate to exploit identified opportunities before dispersing once again.”

烏克蘭的小型輕裝步兵部隊，透過分散、隱蔽、掩蔽和游擊的方式，屢戰屢勝。研究指出，「游離的步兵小隊，很類似德國潛艇在大西洋戰役中的作戰方式。」文中比喻他們如「狼群」一般，融入於鄉野之間，卻能在「發現目標後快速集中，發揚火力，然後再次分散。」

The war in Ukraine also highlights how light infantry can also serve a critical role as first lines of contact to defend against enemy unmanned aircraft systems (UAS). Light infantry units excel in distributed environments that allow them to operate in densities and mass small enough to diminish the likelihood of targeting. The use of man-portable stinger missile systems has played a decisive role in defending Ukrainian critical assets from attacks by Russian close air support. Man-portable air defense systems will become especially effective against enemy close air support and drones once the U.S. Army develops man-portable air defense systems that can integrate into mobile radars.

俄烏戰爭中，輕裝步兵在防禦敵無人機系統(UAS)時表現得也很出色。輕裝步兵隊行分散，小規模的消極防空，就大幅降低了他們被鎖定的機率。配上人攜式刺針飛彈，輕裝步兵在對付俄國近空支援攻擊、保護關鍵設施方面，發揮決定性的作用。在不久的將來，一旦美國陸軍成功開發出能與機動雷達整合在一起的人攜式防空系統，對應處敵空中攻擊和無人載具襲擾，將變得更為有效。

Light infantry thrives in severely restricted terrain, and the modern battlefield is likely to be dominated by cities or among mountains and jungles. Even muddy farm fields can plague mounted operations, as the Russians discovered during the early invasion of Ukraine. Motorized Russian forces quickly found themselves bottlenecked on roads following the thaw in February 2022 as farm fields thawed in Ukraine's Rasputitsa (mud season).³⁷ Tracked vehicles equally struggled across the inundated fields of Europe. Consequently, on the outskirts of battlefields like Bakhmut, one can find where enemy "armored vehicles hurtled along a single, narrow access road, [and passed by] ... hulks of blown-up and burned trucks that didn't make it." ³⁸ Russia's challenges with mobility serve as a cautionary tale for U.S. Army infantry units that have become too reliant and beholden to their motorized fleets. Transitioning back to light infantry will best prepare them to fight in restrictive terrain.

現代戰爭的戰場，很大一部分是城市、山脈和叢林，而輕裝步兵正好在部隊受到地形限制時，特別能嶄露頭角。正如俄國在早期入侵烏克蘭期間所發現的那樣，即使是泥濘的農田，也可能對機械化部隊造成困擾。當時俄羅斯的機動部隊在 2022 年 2 月冰層解凍後，發現自己在道路上受阻，因為烏克蘭的農田正處於拉斯普季（Rasputitsa）（泥季）。履帶式車輛在歐洲的田野中也會發生同樣狀況。因此，在戰場邊陲地帶比方說巴赫穆特（Bakhmut），我們可以看到「敵裝甲車輛沿著一條狹窄的通道快速前進，穿梭在被摧毀和燒毀的假甲車殘骸之中」。俄羅斯在機動性方面的挑戰，對美國陸軍步兵單位而言，無非是一個警示：提醒我們不要過於依賴機動車隊。轉型回輕裝步兵的模式，才是在面對特殊地形作戰時，最好的作戰整備。

One of the most interesting observations to come out of the Ukraine conflict is the dichotomy between Russian and Ukrainian logistics and sustainment systems. RUSI's study assessed, "Ukrainian war stocks survived because they could be rapidly displaced and dispersed. Russian materiel has remained highly vulnerable to long-range fires." ³⁹ The lighter the unit, the less logistics required at the operational level to sustain that fighting element. The study concluded, "The reduction in the logistical tail and therefore reduced vulnerability of precision systems is perhaps as important as their effect in terms of their superiority to non-precision fires." ⁴⁰ Ukraine's reliance on disaggregated lighter units has shown promise for light infantry sustainment being an important factor in future conflict.

從俄烏戰爭中，我們發現俄羅斯和烏克蘭之間，後勤系統的二元對立。英國皇家研究所(RUSI)在研究評估中指出，「烏克蘭的戰爭物資能迅速轉移和分散，因而得以存活。俄羅斯的物資卻不斷受遠程火力的攻擊。」部隊越輕量化，維持作戰部隊所需的後勤輜重就越少。該研究指出，「後勤負擔的減少，降低了精密系統的脆弱性，或許和強化精準火力的效果一樣重要。」烏克蘭在戰爭中如此重視部隊輕型化，顯示出輕裝步兵在持久作戰的重要性，和在未來戰爭中的價值和潛力。

As the Army transforms for LSCO and doctrinally codifies roles, the light infantry will offer a combination of the subordinate forms of the attack (ambush, counterattack, demonstration, feint, raid, and spoiling attack) in the defense and offense to generate a discontinuous battlefield

favorable for subsequent friendly actions. By frustrating enemy tactical activity and creating multiple dilemmas for the adversary, the light infantry can force the enemy to fight piecemealed and in multiple directions, preventing unity of effort and mass against friendly forces. As the Army further operationalizes MDO to fight and win in LSCO, we can leverage the distinct advantages true light infantry offer given the emerging operational environment.

隨著陸軍為大型聯合作戰（LSCO）進行轉型，並在準則上重新確立角色，輕裝步兵將可以在攻防中提供伏擊、反擊、佯攻、突襲與襲擾等攻擊方式，以形塑出一系列不連續，而有利於友軍爾後行動的多個接戰區。在打破敵心理平衡的各種戰術行動中，透過迫使敵戰力分散、為我所分割，從而阻止其形成統一行動或集中力量打擊我軍。當今陸軍日益重視多領域作戰（MDO）以及大規模作戰（LSCO），輕裝步兵在新型作戰環境中提供獨特的優勢應被妥善運用。

A Holistic Approach to Light Infantry Modernization

全面現代化輕裝步兵

The modernization efforts for long-range precision fires, next-generation combat vehicles, future vertical lift, network, and air and missile defense draw the most attention from scholarly articles and academic dialogue on what will matter for survival and victory on the future battlefield. In this last section, we offer some recommendations for how to take a holistic approach to transforming the light infantry under the Army's six modernization priorities.

對於遠距精確打擊、新型作戰車輛、未來垂直運輸、網路以及整體防空的現代化，吸引了學術界在許多文章和對話中關注如何在戰爭中保命和取勝。本文最後這節中，我們將提供一些建議，說明如何在陸軍的六大現代化方針的框架下，全面優化、轉型輕裝步兵。

Of the six categories, “soldier lethality” suggests an emphasis on the criticality of light infantry. According to retired Maj. Gen. Bob Scales, the light infantry “receives less than one percent of the total defense department budget allocated to pay for equipment and small unit training.” The modernization priorities can be viewed holistically with light infantry as a critical component to combined arms maneuver in any restrictive and technologically saturated future battlefield. For the light infantry, modernization efforts are cost effective means to amplify inherent capabilities as opposed to separate ends. Therefore, with relatively low cost, the light infantry can provide the joint force with a high return on investment.

在六大現代化方針中，「單兵的殺傷力」強調了輕裝步兵的重要性。根據退役少將鮑勃·斯凱爾斯（Maj. Gen. Bob Scales）的說法，輕裝步兵「花費不到百分之一的國防預算，就能採購需要的裝備和小部隊訓練。」我們若宏觀地看待六大現代化方針，輕步兵就是在地形受限且充滿最新科技的未來戰場上，負責穿針引線組合聯合火力的重要組成。對於輕裝步兵來說，現代化方針是擴大既有能力的展現，符合成本效益的手段，而非分化現有戰力。因此，輕步兵可以以相對較低的成本，為聯部隊提供高

投資的回報。

Unburdening light infantry tactical formations, redundancy, and simplicity should be part of the Army's mantra for network modernization efforts. By pulling complexity up to higher echelons of command with more advanced electronic warfare and protection mechanisms, the light infantry can utilize more simple systems to blend in and maintain a low electronic signature in a vulnerable environment. It should continue exploring how to modernize the network based on low-earth-orbit satellite constellations, 5G cellular networks, and small apertures for light infantry formations.

陸軍體系在強調和整合現代化的這個當下，我們應該多加呼籲「解除傳統認知的步兵戰術編組結構，保持輕便、簡單」。透過將複雜的軟硬體系統上移至更高司主管單位，並使用更先進的電子戰和電子防護機制，輕步兵將可以利用更簡易的系統來隱蔽，並在緊迫的環境中盡可能減少訊跡。正因如此，我們應繼續探索如何把低軌衛星、5G 網路和戰術小隊這樣的現代化元素，整合到輕裝步兵的組織架構中。

The network should provide intuitive and lightweight soldier-portable radio solutions that are capable of crossbanding. Light infantry should have radios that talk to other formations and coalition partners; bespoke waveforms patented by corporations that deny the light infantry the ability to talk to units outside of their direct command will lead to significant inflexibility.

我們應該提供方便士兵攜帶的無線電網絡，並且需要具備跨波段功能。輕裝步兵應具有能與其他編隊和盟友夥伴通信的無線電；畢竟如果某些波段或頻率戰時因為被占用而導致無法通聯或指揮，將導致很大的干擾和損失。

A widely discontinuous battlefield will require a renewed emphasis on lift capabilities to resupplying light infantry forward or to enable forces to fight while isolated for longer periods of time. Additionally, light infantry casualty evacuation will rely on modernized lift using drone systems because evacuation is anticipated to be more challenging in LSCO while casualty numbers are expected to rise. Without further attention, medical evacuations will become an all-consuming deliberate operation that will prevent light infantry formations from effectively fighting in rugged terrain.

一個廣泛不連續的戰場空間，為確保前線輕裝步兵後勤整補無虞，或支持使其能在長時間孤立的情況下作戰，我們需要重新審慎規劃運輸方式。另外，傷患後送將依賴現代化運輸工具和無人系統，因為在大規模作戰中，傷員撤離將更加困難，而傷亡人數也是預期的會直線上升。如果不進一步關注，這將成為一項特別耗時的工作，將妨礙輕裝步兵隊形在崎嶇地形中有效作戰。

Soldier lethality priorities are generally aligned with light infantry requirements for dismounted capabilities and associated soldier loads. This includes efforts to develop more capable small arms weapons and advancements in the Integrated Visual Augmentation System. However, important

exceptions are notably lagging with respect to the U.S. Army's investment in dismounted antiarmor and counter-UAS missile systems for light infantry soldiers.

提升「單兵殺傷力」的需求，通常與輕裝步兵之近戰能力、負載需求息息相關，這包括開發出更具殺傷力的小型武器和增強整合視覺系統等。然而，美國陸軍在輕裝步兵的反裝甲和反無人機導彈系統上的投資嚴重落後。

Current conflicts in Ukraine, Iraq, Syria, the Balkans, and Israel demonstrate modernizing air and missile defense will be paramount for LSCO, especially in anticipation of offensive maneuver fights by our ground forces. Currently, the modernization focus remains on defeating larger UAS being employed as one-way attack mechanisms. “Shooting down manned aircraft and large UAVs [unmanned aerial vehicles] is relatively simple, as the Ukrainians have demonstrated. Small and micro-UAVs are a different challenge.” Stingers are not the answer for counter-UAS. We must find ways to integrate small, dismounted drone interceptor missile systems with the joint force's radars systems for infantrymen to carry at the edge of battle to help protect the rest of the force.

當前在烏克蘭、伊拉克、敘利亞、巴爾幹半島和以色列的衝突中顯示，現代化的整體防空對於大規模作戰（LSCO）至關重要，特別是在我們地面部隊的攻擊發起、展開與機動攻勢的作戰初期。目前，如何最有效地處置自殺型無人機仍是相當熱門的議題。「正如烏克蘭人所示範的那樣，擊落人員載運的運輸機和大型無人機相對簡單，但小型和微型無人機則就是另一回事了。」反無人機導彈如刺針等並不是解決之道。我們必須找到將小型、步兵可攜帶的無人機攔截導彈系統與聯合部隊雷達系統整合，讓步兵在攜帶這些裝備，能夠有效保護其他部隊。



A 10th Mountain Division soldier descends an ice-covered cliff at Smugglers' Notch in Jeffersonville, Vermont, 28 January 2017. Soldiers enhanced their mountaineering skills in ice climbing, rappelling, and skiing as part of their annual winter training. (Photo by Tech. Sgt. Sarah Mattison, U.S. Air Force)

2017 年 1 月 28 日，一名第 10 山地師士兵從佛蒙特州傑佛遜村莊旁，被冰雪覆蓋著的「走私者」峽谷懸崖下降。作為年度冬季訓練的一部分，讓士兵們能夠提升攀冰、懸崖下降和滑雪等登山技能。（圖片來源：美國陸軍 / Sarah Mattison）

But there is a balance between protection and lethality, and adding equipment often comes at a cost of stalling tempo. U.S. Special Advisory Group-Ukraine advisors caution against the temptation to weigh down infantry soldiers with too many anti drone and small unmanned aircraft assets on top of their basic gear. The Russian army in Ukraine has made up for stalled tempo by sending mass waves of expendable troops. Small teams of American light infantry forces must preserve tempo by remaining agile and lethal, operating in synchronization with one another against the enemy across the battlefield.

然而，防護力與殺傷力之間需要取得平衡，增加裝備就容易導致作戰節奏的減緩。近期美國派駐在烏克蘭的特別顧問團就提出相關的警告，建議不要讓步兵士兵在基本個裝以外，再增加太多反無人機和小型無人機設備。而同時，我們也發現俄軍在進犯烏克蘭時，就是透過派遣大量消耗性的戰力來避免作戰節奏停滯。因此，美國輕裝步兵部隊務必需要保持靈活和殺傷力來維持作戰節奏，以與友軍協同作戰，對抗敵人。

While the U.S. Army doesn't exclusively own the night right now, it still has a distinct

advantage. Russians and Ukrainians are generally not fighting during hours of limited visibility. While there are likely a host of reasons for this, one can reasonably conclude that there is a lack of familiarity and possibly availability of night vision equipment. In stark contrast, the U.S. Army promotes a culture of fighting under limited visibility to train, certify, and validate forces. The U.S. Army's distinct ability to fight at night will remain a competitive advantage against its opponents. Fighting and maneuvering at night will enable American light infantry to mass and create a tempo advantage.

儘管美國陸軍目前並不能完全掌控夜戰，但仍然擁有明顯的優勢。俄羅斯和烏克蘭的部隊通常不會在能見度有限的狀況下作戰。雖然這背後可能有多種原因，但可以合理推斷，缺乏對夜視設備的熟悉程度和可用性是其中之一。相反，美國陸軍則推崇在能見度有限的情況下作戰，以訓練、認證和驗證部隊。美國陸軍在夜間作戰的獨特能力，將繼續成為對其對手的競爭優勢。夜間作戰和機動，將使美國輕步兵更能夠集中力量並創造節奏優勢。

The Army's modernization efforts can help find ways to enable, protect, and amplify the effects of light infantry forces in close combat given LSCO realities. These priorities are not ends but rather means to unleash the full potential of light infantry and what this force can achieve in LSCO. The ability of light infantry moving great distances to seize and strong-point key terrain, conduct ambushes, execute other forms of the attack, and conduct dispersed defensive operations will determine the outcome of a LSCO fight.

美國陸軍在現代化方面的努力，同時對大型聯合作戰（LSCO）中輕裝步兵遂行近戰任務有幫助：這些現代化指導方針不是最終目標，而是盡可能地釋放輕裝步兵全部潛力及可以執行的手段。輕裝步兵各項能力，不論是行軍、佔領、確保關鍵地形、伏擊或是其他方式的攻擊、分散式的區域防禦部署，都將決定大型聯合作戰（LSCO）的勝敗。

Conclusion

結論

To prepare for an impending LSCO fight, the Nation and U.S. Army will rely on light infantry to fight in restrictive, austere, and isolated terrain. In preparation, we should first affirm the true meaning of the light infantry and then reframe accordingly on emerging doctrinal and modernization priorities. At the core of the American warfighter ethos is the essence of light infantry. Contemporary conflicts and history reveal the criticality of the light infantry, and current senior leaders understand this better than most.

在未來的大規模作戰（LSCO）中，陸軍將依賴輕裝步兵在艱困的地形中作戰。

我們應首先確認輕步兵的真正意義，然後根據新學理和現代化方針來進行重新定調。在美國軍人讀訓的核心精神，其實就是輕裝步兵的本質和標準。當代戰爭和歷史顯示出輕裝步兵的重要性，而當前在位的諸位上級長官也都對此有著非常深刻的理解。

Gen. Randy A. George, the chief of staff of the Army (CSA), has outlined his four priorities for the force: warfighting, delivering ready combat formations, continuous transformation, and strengthening the profession.⁴⁶ Light infantry is inherently suited to adjust to meet the Army's priorities and must remain a key component to the U.S. Army's operational design. But the role of light infantry should be reimagined for LSCO. Our doctrine and equipment should transform to enable the dismounted soldiers fighting in the next war—the small units infiltrating through swamps and climbing up ridgelines. The ones that will bedevil a larger enemy force and hold key terrain, no matter the conditions. Embracing the importance and versatility of American light infantry operationalizes the CSA's vision.

美國陸軍參謀長蘭迪·喬治將軍（Gen. Randy A. George）前不久為部隊確定了四大工作重點：「軍事作戰」、「保持戰備」、「持續轉型」和「強化專業」。美國輕步兵的重要性和多樣性，與參謀長的願景不謀而合。輕裝步兵天生適應力強、可以因應陸軍的各種改革方向，他始終是美國陸軍作戰中不可缺席的組成，以佔據關鍵地形、設法讓更大的敵軍深陷困境。當然，隨著時代變遷、準則和裝備不斷更新轉型，我們也應該開始重新思考輕裝步兵在大規模作戰中扮演的角色，以支持未來戰爭中步兵可能要執行的任務—不論是穿越沼澤或甚至「登峰造極」。

Warfighting is to prepare the force for the LSCO fight in any terrain. The light infantry trains for both the operational environments the U.S. Army will inevitably face and ones that cannot be foreseen. As this article has outlined, the essence of the American warfighter mentality is the tenacity, ingenuity, and disciplined initiative that have long been the hallmarks of our light infantry formations. For the joint force, these light infantry formations become the rapidly deployable forces able to guard key weapon systems, protect critical infrastructure, and secure support zones. For the Army's combined arms team, light infantry will go where other formations cannot go. American light infantry will fight through extreme weather, in the most rugged terrain, and isolated from their logistics. Warfighting means leveraging the strengths of the Nation's light infantry on the battlefields of the next major conflict.

「軍事作戰」：準備針對任何地形的大規模作戰（LSCO）的部隊。輕裝步兵應針對美國陸軍不可避免以及無法預見的作戰環境實施不斷訓練。如前所述，美軍在基本軍人素養中強調堅韌、創新和紀律的主動，這些長久以來也一直是我們輕裝步兵部隊所標榜的。對於聯戰部隊而言，這些輕裝步兵編隊可以迅速部署，能夠保護關鍵武器系統、保護重要基礎設施並確保區域安全；而對於陸軍聯合兵種部隊而言，輕裝步兵將前往其他部隊無法到達的地方，可以克服極端氣候，在最崎嶇的地形中作戰，並遠離其後勤支援。

Delivering ready combat formations means training light infantry for the fight we will have in the

future as opposed to the one we had in the past. Light infantry formations must train for the realities of close combat against near-peer adversaries and project, enable, and sustain their forces in LSCO. Delivering ready combat formations is a twofold objective for the light infantry. First, readiness means the light infantry can effectively employ modern technology to achieve its traditional purpose on a modern battlefield. Second, readiness implies true light infantry are prepared to operate in austere environments, on a discontinuous battlefield, and away from traditional lines of communication. Light infantry soldiers must do more than survive in complex terrain; they must be ready to thrive in it and master the terrain for their advantage.

「保持戰備」：這意味著要訓練輕裝步兵為未來的戰鬥做好準備，而不是為已經結束的戰鬥做準備。輕裝步兵編隊必須訓練近戰技能，並在大規模作戰中投送，支援和維持其部隊。對於輕裝步兵而言，提供隨時戰備的戰鬥編隊有兩個目標。首先~隨時保持戰備，意味著能夠有效利用現代技術來實現其在現代戰場生存的傳統目標。其次，這也表示輕裝步兵已準備好在艱苦的環境中作戰，遠離傳統的通信線路。輕裝步兵不僅必須在複雜地形中生存；他們甚至必須蓬勃發展準備建立一個立足之地，並掌握有利於我軍的地形。

Continuous transformation means finding ways to modernize the Army's ability to maneuver dismounted through rugged and inhospitable terrain. Each modernization objective cannot become an independent end in and of itself or exist to address discreet symptoms or challenges posed by LSCO. Continuous transformation also means aligning emerging doctrine and operationalizing MDO in a manner that leverages true light infantry in a manner that enables the force to fight and win in LSCO.

「持續轉型」：持續探詢能讓陸軍在崎嶇惡劣地形中機動的現代化方法。每一項現代化目標都不能獨立存在，或僅用來解決大規模作戰所帶來的具體問題與挑戰。

「持續轉型」還意味著調整新的學理，並以能夠發揮真正輕裝步兵性能的方式遂行多領域作戰（MDO），使部隊能夠在大規模作戰中獲勝。

Strengthen the profession includes continued junior leader development, especially our NCOs, to generate competent, clever, and cunning American light infantry. Empowered and trusted junior leaders build cohesive, autonomous, and lethal formations. Unlike any other army in the world, the NCOs and junior leaders of the U.S. Army drive American light infantry to be capable of operating with only mission orders and intent. The American light infantry mentality creates effective cohesion through shared hardships in training and in combat when units operate independently and isolated.

「強化專業」包括持續發展基層幹部，特別是我們的士官，以培養出有能力、機智和靈敏的美國輕裝步兵。賦予相當的權力並信任基層幹部能夠建立凝聚力強、自主且殺傷精準、破壞力強的編隊。與其他國家軍隊不同的是，美國陸軍的軍、士官使美國輕步兵能夠僅依照任務式命令和指揮官企圖即能遂行作戰。美國輕裝步兵的精神，即建立在共體時艱及患難與共的訓練方式和獨立作戰，來創造有效的凝聚力。



California Army National Guard soldiers with Bravo Company, 1st Battalion, 185th Armor Regiment, 81st Brigade Combat Team, 40th Infantry Division, prepare to move into the home of suspected insurgents living near Anaconda, Balad Air Base, Salah Ad Din Province, Iraq, 20 August 2004. (Photo by Tech. Sgt. Steve Faulisi, U.S. Air Force)

加州陸軍國民兵第 185 裝甲團 1 營 B 連的士兵們，於 2004 年 8 月 20 日在伊拉克的薩拉赫丁省巴拉德空軍基地附近的阿康達，準備進入涉嫌叛亂分子的住所。（圖片來源：美國空軍 / Steve Faulisi）

American light infantry must continue to empower and trust junior leaders to train for radical autonomy. Small formations become highly lethal, disciplined, and aggressive because of the ownership, autonomy, and dominance of the NCOs that lead them. These NCOs are experts in the technical and tactical application of violence. Furthermore, NCOs train the fit, tough, and cohesive teams modern warfighting requires. These teams are driven by the precept that light infantry isn't just a force structure but a foundational mentality that has assured the Nation's victories throughout history.

美國輕裝步兵必須繼續賦予並信任基層幹部，以培養激進的自主性。由於士官的擁有權、自主性和主導性，小部隊變得高度致命、紀律嚴明且攻擊性強。這些士官在作戰技術層面、戰術應用方面，都是經驗老到。另外，士官還能訓練出現代戰鬥所需的高適應力、堅韌且有向心力的團隊。這樣的部隊對步兵而言，不僅是部隊的編裝架構，而是軍人武德的信條的落實，爭取國家的勝利和榮譽。

Preparing light infantry in the context of the CSA's guidance is not just about each priority in isolation. Rather, it is about providing a pathway to address much of what the U.S. Army wants for the force writ large. Inculcating a true light infantry mentality, foundational to the essence of the American warfighter, will poise the Queen of Battle to support the joint force under all

conditions, across any terrain. Most importantly, a true light infantry will be an irreplaceable component to the Army's combined arms team that will fight and win the next major war.

要能達到陸軍參謀長以上指導的重點，以持續強化輕裝步兵部隊，不僅要考量部隊獨立作戰的優先需求，更要為整體部隊所需提供解決方案。強加宣導真正的輕裝步兵對美軍的至關重要，這將使「戰場皇后」能在任何條件下、任何地形上支持聯合作戰部隊。最重要的是，真正的輕裝步兵，將成為陸軍多兵種部隊不可取代的元素，將在未來戰爭中奪勝。

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