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●取材/美軍野戰手冊-城鎮地區協同作戰

(COMBINED ARMS OPERATIONS IN URBAN TERRAIN F.M.3-06.11 February 2002)

軍事英文文摘-攻擊作戰(攻擊考慮事項)

OFFENSIVE OPERATIONS--OFFENSIVE CONSIDERATIONS

提要：

- 一、城鎮戰因為不同於其他戰場狀況，所以有以下諸般要求，例如兵種間協同作戰、火力運用、部隊運動以及特殊裝備之利用。
- 二、如果在城鎮地區內沒有實質存在的威脅足以阻斷指揮官及其部隊完成任務的能力，則指揮官可以決定繞越。
- 三、一般而言，城鎮戰的特性，較其他戰鬥狀況下還需要更多的部隊。這種情況乃端視單位所需裝備的屯置、士兵疲勞狀況、百姓掌控，與因為疏散所造成的傷亡。
- 四、由於考量城鎮中密集的環境，及對武器系統發揮的效果，所以在戰場上要具備同步處置(指揮運動與射擊)的戰鬥力，乃成為指揮者最重要的挑戰。
- 五、指揮官在攻擊城市時，必須對某些可利用資源的重大限制因素有所認知，例如，間接火力、非戰鬥人員、夜視裝置與通信能力。

關鍵詞：城鎮攻擊、協同作戰、火力支援、直接射擊、間接射擊

壹、前言：

基於各城鎮地形不同，或境內政治考量與戰略的需求，未來戰爭發生於城鎮地區的機率大幅提高，當然裝甲部隊也必將更頻繁地從事城鎮複雜地形環境中的作戰行動。綜觀各裝甲部隊城鎮戰史，戰車在城鎮作戰中並非毫無用武之地，只要能夠採取靈活之戰術運用，依然能夠發揮舉足輕重之強大戰力。另「城鎮作戰」的複雜性，早已在各國境內、外的戰史例證中得以了解，只是目前我國軍，特別是裝甲兵似乎尚未發展一套有效率的訓練標準與模式來因應。此次，藉由配合陸軍 100 年至 104 年所訂定之「城

鎮作戰訓練年」，除參考我軍準則「城鎮戰教範第二版」，並在國內城鎮訓練環境考量下，本校預計於 101 年底完成「裝甲兵城鎮戰教範」之編纂，期間為配合作業順利，希望汲取外軍(美軍)訓練依據，藉由翻譯相關準則篇章，了解其中意含，以利準則研編，進而達成部隊訓練與實況相符之作戰要求。

貳、本文：

"From 1942 to the present, shock units or special assault teams have been used by attackers (and often by

defenders) with great success. These assault teams are characterized by integration of combined arms. Assault teams typically contain Infantry with variable combinations of armor, artillery, or engineers."

"從 1942 年至今，在城鎮戰中運用突擊組或是特攻組來擔任攻擊者抑或防禦者，都能獲得極大的成效。這樣的突擊部隊有著結合多種武器的特性。通常包含不同的裝甲、砲兵或是由工兵所組成的步兵部隊。"

Section I.

OFFENSIVE CONSIDERATIONS :

第一節、攻擊的考量因素：

Offensive operations in urban areas are based on offensive doctrine modified to conform to the urban terrain. Urban combat also imposes a number of demands that are different from other field conditions such as combined arms integration, fires, maneuver, and use of special equipment.

在城鎮中的攻勢作戰，乃依據攻勢準則修改後之行動以結合城市之地形。城鎮戰因為不同於其他戰場狀況，所以有以下諸般要求，例如兵種間的協同作戰、火力運用、部隊運動以及特殊裝備之利用。

As with all offensive operations, the commander must retain his ability to fix the enemy and maneuver against him. Offensive UO normally have a slower pace and tempo than operations in other environments.

Unlike open terrain, units cannot maneuver quickly, even when mounted. Missions are more methodical.

如同所有的攻勢作戰，指揮官必須保存戰力以殲滅敵人及任何危害他的行動。城鎮中攻勢作戰的速度和節奏通常較其他作戰環境來的緩慢。不同於開闊地形，即使是乘車戰鬥，部隊也不見得能夠快速機動。所以任務更需要有條不紊。

Brigades must be prepared to operate independently or within a division or joint task force (TF). The brigade and its subordinate battalion TFs must also be prepared to conduct different mission simultaneously. For example, a battalion may establish checkpoints in one section of a city and clear enemy in another section simultaneously.

旅必須獨立完成作戰準備或在師級架構下組成一個聯合特遣隊。旅和下轄之營特遣隊也必須要完成能同時執行不同任務之準備。例如，營要能在市區之一個路段設置檢查點(站)，並且要能在同時間於另一個路段殲滅敵軍。

4-1. REASONS FOR ATTACKING URBAN AREAS :

攻擊城鎮地區的理由：

Reasons for attacking urban areas include the following:

攻擊城鎮區域的原因包含以下內容：

a.: The results of the commander and staff's estimate may preclude

bypassing as an option. The mission itself may dictate an attack of an urban area.

(一) 指揮官和參謀作業人員經評估後有排除繞越之選擇。或者，任務本身可能會影響攻擊城鎮行動。

b. Cities control key routes of commerce and provide a tactical advantage to the commander who controls them. Control of features, such as bridges, railways, and road networks, can have a significant outcome on future operations. The requirement for a logistics base, especially a port or airfield, may play a pivotal role during a campaign.

(二) 城市本身為重要商業樞紐，且對於未來控管此城市的指揮官，能提供戰略上的優勢。所能控制的要點，例如橋樑，鐵路和道路網絡，均能夠對未來的作戰行動結果產生重大影響。所以，對後勤基地的需求，特別是港口或機場，便在戰時扮演著舉足輕重的角色。

c. The political importance of some urban areas may justify the use of time and resources to liberate it. Capturing the city could deal the threat a decisive psychological blow and or lift the moral of the people within the city. The tactical situation may require the enemy force to be contained. The urban

area itself may sit on dominating terrain that would hinder bypassing for combat support (CS) and combat service support (CSS) elements. The enemy within that urban area may be able to interdict lines of communications even though the terrain around an urban area may facilitate its bypass.

(三) 某些城鎮地區在政治上的重要性，是值得用時間和資源換取的。而佔領城市可能對城市內居民造成在心理上重大的威脅，與士氣上關鍵性的振奮。所以在戰術情況下可能需要包圍敵軍。另外，城鎮地區本身可能座落在阻礙戰鬥支援單位與戰鬥勤務支援單位能繞越之重要地形。不過，即使是城鎮外圍之地形要點有利於繞越，而城鎮內之敵軍會阻斷連絡線，亦需實施攻擊作戰。

4-2. REASONS FOR NOT ATTACKING URBAN AREAS :

不攻擊城鎮地區的理由：

Conversely, reasons for not attacking urban areas include the following:

a. The commander may decide to bypass if he determines no substantial threat exists in the urban area that could interdict his unit's ability to accomplish its mission. The commander's intent may dictate speed as essential to the mission. Since combat in an urban

area is time consuming, the commander may choose to bypass the urban area to save time.

反言之，不攻擊城鎮地區的原因包括以下內容：

(一) 如果在城鎮地區內沒有實質存在的威脅足以阻斷指揮官及其部隊完成任務的能力，則指揮官可以決定繞越。再者，指揮官的意圖乃將任務完成之時限視為首要之務。所以，當身處城鎮中戰鬥是耗時之際，指揮官可以為了節省時間而選擇繞越。

b. During the estimate process, the commander and staff may realize a sufficient force is not available to seize and clear the urban area, or enough forces are available to accomplish the mission but cannot be logistically supported. If the tactical situation allows, the commander should avoid attacks on urban areas.

(二) 在評估整個計畫的過程中，指揮官和參謀作業人員認知沒有足夠的兵力來佔領並清除市區，或即使有，但卻沒有足夠的後勤支援。或者，如果戰術情況下允許，則指揮官應避免城鎮的攻擊行動。

c. The urban area may be declared an open city to prevent civilian casualties or to preserve cultural or historical sites. An open city, by the law of land warfare, is a city that

cannot be defended or attacked. The defender must immediately evacuate the open city and cannot distribute weapons to the city's inhabitants. The attacker assumes administrative control of the city and must treat its citizens as noncombatants in an occupied country.

(三) 城鎮地區經宣告後是一個開放的城市，且視為用來防範百姓傷亡、保存文化與歷史遺跡的位置。另外，根據地面交戰法，一個開放的城市，是不得遭受攻擊或實施防禦時。防守的一方必須立即撤離所謂的開放城市，且不得發放武器給城市內的居民。此外，若攻擊的一方控管城市的行政資源，且必須把它的公民視為被佔領國之中的非戰鬥人員。

4-3. TROOP REQUIREMENTS :

部隊要求：

Due to the nature of combat in urban areas, more troops are normally needed than in other combat situations. This situation is due to the number of requirements placed upon units, soldier fatigue, controlling civilians, and evacuation of casualties.

一般而言，城鎮戰的特性，較其他戰鬥狀況下還需要更多的部隊。這種情況乃端視單位所需裝備的屯置、士兵疲勞狀況、掌控百姓與因疏散所造成的傷亡。

a. Because of the need to clear buildings and provide security, the number of troops required to accomplish an offensive mission is much greater. Some forces must be left behind in a building once it has been cleared to prevent enemy forces from repositioning or counterattacking friendly forces. Commanders and staffs need to be keenly aware that attacking units will effectively lose manpower from assault elements as they secure rooms and floors. They must ensure that the proper force ratios exist to conduct the missions assigned to subordinate units.

(一) 由於需要清除建築物以提供安全，所以需要更多的部隊來遂行攻擊任務。有些部隊必須留置在已被清除的建築物中，以防止敵軍重新部署或反攻我友軍。且指揮官和參謀作業人員必須敏銳地了解到，當攻擊部隊佔領家屋之房間與樓層時，會有大量的兵力損耗。所以，他們必須確保有適當比例存在的部隊，才得以遂行分派所屬單位其他之任務。

b. Commanders must also consider soldier fatigue. Fighting in urban areas is physically demanding and quickly tires a force. Commanders must plan for the relief or rotation of their forces before they reach

the point of exhaustion. This situation is facilitated through proper task organization and maintenance of adequate reserves.

(二) 指揮官也必須考量士兵疲勞狀況。因為在城鎮中作戰是需要體能來應付的，而且會迅速耗累部隊戰力。是故，指揮官必須在部隊消耗殆盡之前計畫人員與物資的交換與輪替。而且部隊要經過適當的任務編組，和維持充足的儲備人員狀況下才會有所助益。

c. Additional forces may be needed to deal with noncombatants in the urban area. These forces must protect the noncombatants, provide first aid, and prevent them from interfering with the tactical plan.

(三) 需要更多的部隊兵力來安置那些城鎮戰中的非戰鬥人員。這樣的部隊必須具有保護非戰鬥人員、提供急救及防止敵人干擾我戰術計劃之能力。

d. Fighting in an urban area may result in a greater number of friendly casualties. The greater the restrictions on firepower, the less suppressive fire can be used, and the more the individual soldier is exposed to enemy fire. MEDEVAC /CASEVAC must be planned and subordinate units designated to conduct this.

(四) 因為，在城鎮環境中戰鬥可能會導致更多的友軍傷亡。所以火力限制越大，能運用的火力制壓就更少，而單兵也越容易暴露於敵火之下。因此，醫療後送與傷亡後送必須要事先計畫，且指派所屬單位負責進行這樣的工作。

4-4. FIRES AND MANEUVER :

射擊與運動：

As in other terrain, units conduct penetrations, envelopments, turning movements, and frontal attacks. Unlike open terrain, commanders cannot maneuver their units and attachments quickly due to the close, dense environment. Clearing buildings and looking for anti-armor ambushes, snipers, and booby traps degrade the ability of subordinate units to maneuver.

部隊在進行滲透、包圍、迂迴和正面攻擊的行動過程，就像在其他地形作戰的要領一樣。不同於開闊地形，指揮官在城鎮封閉且密集的環境中，是無法快速地使其部隊遂行機動與攻擊行動。而清除建築物與尋找反裝甲獵殺人員、狙擊手和詭雷設施，將會降低所屬部隊的機動能力。

Due to the dense environment and its effects on weapon systems, the synchronization of combat power is one of the commander's main challenges. Offensive operations need to be planned in detail, with subordinate elements given specific

instructions and on order missions.

Maintaining situational awareness assist in overcoming the inability to maneuver quickly.

由於考量城鎮中密集的環境，及對武器系統發揮的效果，所以在戰場上要具備同步處置(指揮運動與射擊)的戰鬥力，乃成為指揮者最重要的挑戰。而攻擊作戰須要有詳盡的計劃，並給予所屬單位在任務命令上有具體的指導。保持認清態勢以克服無法迅速機動的窒礙。

a. Indirect Fires :

The fire support plan may require extensive air and artillery bombardment to precede the ground attack on an urban area.

Supporting fire suppresses the defender's fire, restricts his movement, and may destroy his position. However, indirect fire in urban areas with heavily clad construction creates rubble, which can be used for cover but may restrict the movements of attacking troops. For that reason, the artillery preparation should be short and violent. Assaulting troops must follow the artillery fire closely to exploit its effect on the defenders. While the supporting fire suppresses the enemy, maneuver units move near the coordinated fire line (CFL). As the attacking force assaults the objective, fires are lifted or shifted to block enemy

withdrawal or to prevent the enemy from reinforcing their position.

(一) 間接射擊：

火力支援計劃可能需要大量的空軍和砲兵轟炸，以利進行城鎮攻擊之地面戰。以火力支援制壓防守一方的射擊，限制他的運動，而且可以摧毀其陣地。另外，在城鎮地區中以間接火力所造成多數的廢墟與礫石，可用來掩護部隊，但卻也可能限制我攻擊部隊的運動。由於這個原因，所以砲兵的攻擊準備射擊是需要短暫且猛烈的。突擊部隊必須緊密地跟在砲兵火力後方，並且痛擊防守的一方。當支援的火力對敵軍實施制壓時，機動部隊需運動至火力協調線的附近。當攻擊部隊衝鋒時，則需增加火力支援或轉移火力對街區撤退之敵實施射擊，甚至防止敵人陣地增援。

- (1) Prior coordination is critical to determine the techniques and procedures for communication, target identification, and shifting of fires. Consideration must be given to the noncombatants, houses of worship, medical centers, schools, public services, and historical monuments. The fire support plan can include integrating tanks, Infantry weapons, artillery, and dismounted direct and indirect

fires.

- (1) 對於決定運用通信之方法和程序，目標識別和轉移火力，事先協調具有重大的影響力。且必須考慮到非戰鬥人員、宗教場所、醫療中心、學校、公共服務處所和歷史古蹟。另外，火力支援計畫應包含戰車、步兵武器、砲兵火力與徒步人員直接或間接的火力。

- (2) Indirect fire is planned to isolate objectives, to prevent reinforcement and resupply, to neutralize known and suspected command and observation posts, and to suppress enemy defenders. Most indirect fires are high-angle in urban terrain.

- (2) 間接射擊可運用於孤立目標、防止敵重整與再補給、清除已知與未知的敵指揮所和觀測所，甚至可用以壓制防禦之敵。而大部分在城鎮地區的間接火力均屬高角射擊。

- (3) Mortars are the most responsive indirect fires to hit targets of opportunity at the close ranges typical of combat in urban areas. Forward observers move with the forward units to adjust fire on targets as requested by the supported troops.

- (3) 在典型的城鎮戰中，以迫砲選定並攻擊近距離的目標是最迅速的間接火力。前觀人員須跟著前衛部隊機動，並透過支援部隊以

調整火力指向所需之目標。

b. Direct Fires. Direct-fire is the most effective fire support in urban areas. Once a target can be located in a building, one or two direct-fire rounds can accomplish what entire salvos of indirect fire cannot. The best direct-fire support is provided by Bradley fighting vehicles (BFVs) but can also be provided by tanks and or howitzers. Tanks and howitzers may create rubble and building and street damage that could restrict movement for the attacking force.

(二) 直接射擊：

直接射擊乃是城鎮戰中最有效的火力。一旦建築物的目標被發現，可以一至二發子彈直接射擊，命中目標，這是間接射擊中全數齊放所辦不到的。最好的直接火力支援是布萊德雷戰鬥車 (BFVs)，但戰車和榴彈砲亦可提供。戰車和榴彈砲射擊會導致廢墟與礫石的形成，且造成建築和街道的損害，而這些損害也會限制攻擊部隊的機動。

(1) Tanks may support by fire when lead units are seizing a foothold.

During the attack of an urban area, tanks overwatch the Infantry's initial assault until an entry into the area has been secured. Tanks are supported by Infantry organic weapons to suppress enemy

strongpoints while they move into overwatch positions. Commander employ tanks to take advantage of the long range of their main gun. This procedure is usually achieved with tanks employed outside the urban area, for the duration of the attack to cover high-speed mounted avenues of approach, especially during the isolation phase. Tanks may also support Infantry in the urban area as an assault and support weapon. In both cases, Infantry must protect tanks.

(1) 戰車可以火力掩護先頭部隊佔領要點。在城鎮地區攻擊期間，戰車要掩護步兵初期的攻擊行動，一直到步兵佔領該區域的某個進出口。當戰車運動至掩護位置時，可透過步兵運用建制武器的掩護，以火力制壓敵堅固陣地。指揮官亦可善用戰車主砲長距離射程的優勢。通常在城鎮地區以外的位置，可以戰車掩護在攻擊期間欲高速機動至接近路線之部隊，特別是在孤立階段。而城鎮中，戰車亦可支援步兵充當突擊或支援的武器。這兩種狀況下，步兵都要能掩護戰車。

(2) In house-to-house and street fighting, tanks and or BFVs move down streets protected by the Infantry, which clears the area of enemy ATGM weapons. Tanks and BFVs in turn support the

Infantry by firing their main guns and machine guns to destroy enemy positions. Tanks are the most effective weapon for heavy fire against structures and may be used to clear rubble with dozer blades (Figure 4-1). The BFV can provide sustained, accurate suppressive fires with its 25-mm gun.

- (2) 在逐屋和街道戰鬥中，步兵掩護戰車與布萊德雷戰鬥車 (BFVs) 於街區運動，並在其火力掩護之下清除任何有敵人反戰車武器存在的範圍。戰車和布萊德雷戰鬥車 (BFVs) 運用其主砲與同軸機槍交互掩護步兵，以摧毀敵人陣地。對於以重砲摧毀建築結構而言，戰車是最有效的武器，而且也可配賦排土雷組來清除礫石。(圖 4-1)。布萊德雷戰鬥車 (BFVs) 可以 25 毫米火砲提供持續且精準的火力制壓。

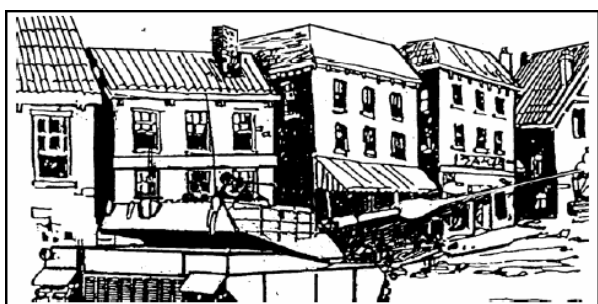


Figure 4-1. 圖 4-1 Tank in direct fire supported by Infantry. 戰車受步兵直接火力的支援

- (3) Large-caliber artillery rounds that are shot by direct fire are effective for destroying targets in buildings. If available, self-propelled 155-mm howitzers can use direct fire to

destroy or neutralize bunkers, heavy fortifications, or enemy positions in reinforced concrete buildings (Figure 4-2). The self-propelled 155-mm can be used to clear or create avenues of approach. The 105-mm artillery can be used in this role but are not the preferred artillery pieces used in offensive UO. When artillery is used in the direct fire role, it must be close to the Infantry for security against enemy ground attack. Prior coordination must be accomplished so the bulk of the field artillery unit's shells are switched to High Explosive (HE).

- (3) 透過大口徑火砲行直接火力射擊，用以摧毀建築物內的目標，能達到預期的效果。如果可以，155 毫米自走榴彈砲也可以行直接火力的支援，以摧毀並清除敵指揮所、工事，或敵混凝土建築之陣地。(圖 4-2)。另外，155 毫米自走榴彈砲，亦可用於清除或開闢敵接近路線。在城鎮攻擊作戰中，105 毫米火砲可擔任上述的角色，但並不是最佳選擇。當砲兵有直接射擊的任務，且為



Figure 4-2. 圖 4-2

Artillery in direct-fire role. 砲兵在直接火力的作用

了考量步兵的安全性，它必須貼近步兵，以反制敵之地面攻擊。此外，因為需要事先完成協調，所以多數野戰砲兵部隊的彈藥可改為高爆彈藥（HE）。

(4) Tanks, self-propelled artillery, and BFVs are vulnerable in urban areas because streets and alleys provide ready-made fire lanes for defenders. Motorized traffic is restricted, canalized, and vulnerable to ambush and close-range fire. Tanks are at a further disadvantage because their main guns cannot be depressed sufficiently to fire into basements or elevated to fire into upper floors of buildings at close range (Figure 4-3).

(4) 戰車、自走砲與布萊德雷戰鬥車（BFVs）在城鎮地區是很脆弱的，因為任何街道巷弄都可能被防禦的一方當成的射擊通道。而當摩托化運輸受到限制與拘束時，便容易遭受伏擊和近距離射擊。另外，戰車還有其他的劣勢，因為他們的主砲不能有效地對地

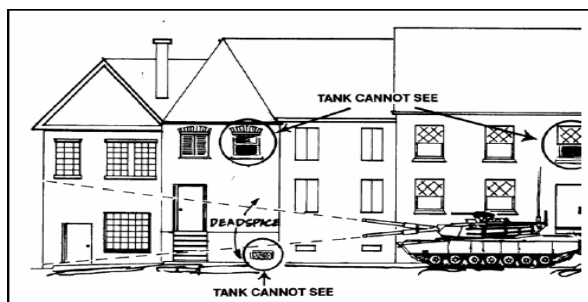


Figure 4-3. 圖 4-3 Tank dead space. 戰車死角擊（圖 4-3）。

下室射擊，也無法在近距離之下對較高建築物之樓層實施高角射擊。

(5) Direct-fire systems organic to Infantry battalions mainly ATGMs and recoilless weapons, such as the AT4, are initially employed to support the seizure of a foothold. Then, if necessary, they are brought forward to fight enemy armor within the town. Antitank weapons are not as effective as tank rounds for neutralizing targets behind walls. They neutralize a target only if that target is located directly behind the point of impact. ATGMs are at a greater disadvantage because of their 65-meter arming distance and the possibility of their guiding wires becoming caught on ground clutter. These factors limit employment in close engagements like those in urban areas.

(5) 直接火力系統建制在步兵營中，主要有反戰車導彈和無後座力武器。這類武器初期是用來佔領要點的，例如 AT4。因此，在城鎮中如果有必要，這些會被用來攻擊敵裝甲部隊。再者，為摧毀建築物後方目標，使用反戰車武器其實並不如戰車砲來的有效。反戰車武器用來摧毀目標僅止於當目標剛好在射程內。而反坦克導彈比較嚴重的缺點是因為在 65 米的距離內，其導引線會遭受地面干擾波干擾。也因為

這些因素，所以形成了城鎮戰中進接戰鬥的運用限制了。

- (6) Snipers are a valuable asset during urban operations. They must be equipped with effective observation devices and placed in a key area to be effective. In situations where the ROE permit the use of destructive force, snipers can be used as part of the support element to provide accurate, long-range fires. Depending on the commander's concept, snipers can be employed in the counter-sniper role or assigned priority targets. If a restrictive ROE is in effect, snipers may be used to prevent collateral damage. Snipers can also overwatch breaching operations and call for indirect artillery fires.

- (6) 狙擊手在城鎮戰中是個重要的資源。他們必須配備有效的觀測設備，並且選定一個關鍵區域以收奇效。在接戰規定中允許使用具破壞性的武力情況下，狙擊手可作為支援單位的一部分，以提供精準且長程的火力。根據指揮官的概念，狙擊手會被派遣擔任反狙擊手的角色。如果在有限的交戰規定奏效時，則狙擊手可用於防範間接的損害。另外，狙擊手也可以掩護相關破壞行動，並要求砲兵實施間接的火力射擊。

c. Maneuver :

The first phase of the attack should be conducted when visibility is poor. Troops can exploit poor visibility to cross open areas, gain access to rooftops, infiltrate enemy areas, and gain a foothold. If the attack must be made when visibility is good, units should consider using smoke to conceal movement.

(三) 機動：

當戰場能見度不良時，可遂行攻擊的第一階段。而部隊可利用能見度不佳時，通過開闊地、進入屋頂、滲透敵區及奪取要點。如果在能見度良好時實施攻擊，則各單位應考慮施放煙霧以隱匿行動。

- (1) The formation used in an attack depends on the width and depth of the zone to be cleared, the character of the area, anticipated enemy resistance, and the formation adopted by the next higher command.

- (1) 攻擊之隊形運用，乃依據欲清掃之戰場橫寬與縱深之區域、該區域的性質、預期敵之抵抗作為與上級指揮官所要求與採用者。

- (2) Lead companies may have engineers attached for immediate support. Tasks given to the engineers may include :

- *Preparing and using explosives to breach walls and obstacles.
- * Finding and exploding mines in place or helping remove them.

- * Clearing barricades and rubble.
- * Cratering roads and other countermobility measures.

(2) 前衛連應有工兵配屬以實施立即的支援。工兵部隊受領之任務包含：

- * 整備並運用炸藥破壞土堤障礙物
- * 找到地雷的位置並引爆，或協助將其移除。
- * 清理路障和瓦礫。
- * 爆破路坑，與其它反機動措施。

(3) When the unit is involved in clearing, bypassing buildings increases the risk of attack from the rear or flank. A single building may be an objective for a rifle squad, or if the building is large, for a rifle platoon or company. When the commander's concept is based on speed or when conducting a hasty attack, a battalion may be directed not to clear its entire zone.

(3) 當部隊執行建築物清掃時，從建築物後面或側面繞越將增加危險性。一間獨立家屋可以是一個步兵班的目標，又或者是一間大型建築物，可以是一個排甚至是一個連的攻擊目標。而當指揮官的企圖是以速度或急迫攻擊為考量，則可以不需要直接清掃所有的範圍。

(4) The reserve should be mobile and prepared for commitment. The reserve can stay close to forward units because of the

available cover in urban areas. Battalion reserves normally follow one to two blocks to the rear of the lead company. A company reserve, if available, follows within the same block so it can immediately influence the attack. A unit with a reserve mission may be called upon to perform one or more of the following tasks :

- * Attacking from another direction.
- * Exploiting an enemy weakness or friendly success.
- * Clearing bypassed enemy positions.
- * Securing the rear or a flank.
- * Maintaining contact with adjacent units.
- * Supporting or counterattacking by fire.

(4) 預備隊應保持機動並準備受領其它任務。為了要在城鎮地區內運用可掩蔽處，所以預備隊要緊鄰前衛部隊。營預備隊一般是在前衛連後方一至二個街區跟進。如果可以，連的預備隊為了要能直接誘導攻擊，則可以在與連在同一個街區後方跟進。若單位有配賦預備隊，則會被要求執行一至多個的後續任務，例如：

- * 從另一個方向攻擊。
- * 利用敵人的弱點或友軍的優勢，清掃敵陣地並繞越。
- * 擔任後衛與側衛。
- * 與友軍維持聯繫。
- * 以火力支援或反攻。

(5) The battalion reconnaissance scout platoon is normally employed to reconnoiter the battalion's flanks and rear. Its capability for reconnaissance and security is somewhat reduced in urban areas. The reconnaissance /scout platoon can also help isolate a village or small town. They must be prepared to dismount and enter buildings for reconnaissance or for setting up OPs. Infantry platoons and squads conduct reconnaissance patrols and man OPs to supplement the reconnaissance /scout platoon effort.

(5) 營的偵察排，通常應用在替營實施側翼和後方的偵察。在城鎮地區，它的偵察能力和安全性將有所降低。另外，偵察(斥候)排也可以協助隔離村莊或小鎮。為了能進入建築物實施偵察或是建立觀測所，他們必須完成下車戰鬥之準備。步兵排與步兵班也可擔任監視哨人員或執行偵察、巡邏任務，以彌補偵察(斥候)排的兵力。

(6) Security in an urban area presents special problems. All troops must be alert to an enemy that may appear from the flanks, from above, or from subterranean areas.

(6) 城鎮地區的安全性是個專業的課題。所有的部隊都要針對由城鎮

側方、上方與地下而來的敵人實施警戒。

d. Movement :

Moving from building to building or between buildings present a problem to units conducting offensive operations. Historical examples, recent operations in Somalia, and the Russian experience in Grozny have shown that most casualties can be expected during movement from building to building and down streets. Therefore, during mission analysis, commanders and staffs should plan operations in such a manner that allow subordinate elements to take maximum advantage of covered and concealed routes within the urban area. Additionally, commanders and staffs must carefully analyze which buildings must be isolated, suppressed, and obscured, consistent with the ROE, as well as using armored assets as shields for maneuver elements.

(四) 運動：

對執行攻擊作戰的部隊而言，在建築區內運動，或家屋間移動是個課題。從最近索馬利亞與蘇聯葛洛茲尼作戰經驗的歷史顯示，在家屋內與街道中運動期間，人員傷亡是可預期的。因此，在任務分析時，指揮官與參謀作業人員應計劃作

戰方式，使下級部隊能充分運用城鎮地區隱蔽與掩蔽的最大優勢。此外，指揮官與參謀作業人員必須在符合交戰規定下，認真分析哪些建築物必須被隔離、壓制和掩蔽，就像為了機動單位要善加利用裝甲防護套件一般。

- (1) In movement down narrow streets, or down wider streets with narrow paths through the debris, Infantry should move ahead of the tanks clearing the buildings on each side. Personnel movement across open areas must be planned with a specific destination in mind. Street intersections should be avoided, since they are normally used as engagement areas. Suppression of enemy positions and smoke to cover Infantry movement should also be included in the fire support plan. When needed, tanks move up to places secured by the Infantry to hit suitable targets. When an area is cleared, the Infantry again moves forward to clear the next area. Tanks and Infantry should use the traveling overwatch movement technique and communicate with tank crews by using arm-and-hand signals and radio.

- (1) 在狹窄的街道間運動，或者穿梭在滿是石堆的街道巷弄中，步兵

應該超越戰車並且清除周邊的建築物(以維安全)。而單兵在開闊地區運動，則必須要計劃明確的目標與方向。應避免通過街道交叉路口，因為他們通常會是交戰的位置。壓制敵陣地並以煙霧掩護步兵的運動也要包含在火力支援的計劃中。當必要時，戰車需變換位置至步兵佔領之陣地，以攻擊適當的目標。當清除一個地區後，步兵便向下一個位置移動以肅清敵人。戰車與步兵需運用向前交互掩護之技巧，並且透過手勢與無線電和戰車乘員實施通聯。

- (2) For movement down wider streets, Infantry platoons normally have a section of attached tanks with one tank on each side of the street. Single tanks should not be employed. Other tanks of the attached tank platoon should move behind the Infantry and fire at targets in the upper stories of buildings. In wide boulevards, commanders may employ a tank platoon secured by one or more Infantry platoons. The Infantry can secure the forward movement of the lead tanks, while the trailing tanks overwatch the movement of the lead units.

- (2) 為了在更寬廣的街道中運動，步兵通常會伴隨一個戰車組，與戰車分別由街道的兩側運動。戰車單車不應被單獨立運用。而戰車

排的其他戰車應該運動至步兵後方，以火力指向較高建築物樓層的目標。在寬闊的林蔭大道中，指揮官可應用一個或數個步兵排來確保戰車排之安全。如此一來，步兵可確保前衛戰車，而當後方戰車掩護前衛戰車向前運動時，步兵亦可掩護並確保其安全。

(3) If an Infantry unit must travel along streets that are too narrow for mutual tank support, the tanks travel in single file for support. The tanks move and fire to cover each other's approach while the Infantry provides ATGM fire from buildings as necessary.

(3) 如果步兵需要與戰車交互掩護通過極狹窄的街道時，那戰車就要變換成縱隊，以提供火力支援。必要時，步兵也可佔領建築物並提供反坦克導彈的火力支援，使雙方均能獲得運動與射擊之交互掩護。

(4) Tanks may drive inside buildings or behind walls for protection from enemy antitank missile fire where feasible. Buildings are cleared by the Infantry first. Ground floors are checked to ensure they support the tank and there is no basement into which the tank could fall. When moving, all bridges and overpasses are checked for mines, booby traps, and load capacity. Specific Infantry elements are

assigned to protect specific tanks.

(4) 戰車可以開進建築物內，也可以在土堤後方，或是在任何較佳的位置，以防止敵反坦克導彈。清除建築物(確保安全)乃步兵首要工作。此外，須對地面樓層做檢查，以確保支援的戰車所在位置沒有地下室會使他們摔落。當部隊運動時，也需要確認所有橋樑與天橋是否有地雷、詭雷，以及它們的負重力為何。要以專責的步兵部隊防護衛指派的戰車部隊。

4-5. LIMITATIONS :

Commanders attacking an urban area must recognize some important limitations in the use of available assets.

4-5. 限制因素：

指揮官在攻擊城市時，必須對某些可利用資源的重大限制因素有所認知。

a. Indirect Fires :

Normally, the use of indirect fires is much more restricted in urban areas than in open terrain. Consideration must be given to the effects of the indirect fire on the urban area and noncombatants. This procedure is especially true when extremely restrictive ROE are in effect. When indirect fires are authorized, they must be fired in greater mass to achieve the desired effect. When units are performing multiple missions,

indirect fire supporting one element can easily cause casualties in adjacent elements. The rubble caused by massive indirect fires adversely affect a unit's ability to maneuver during the attack.

(一) 間接火力：

一般而言，在城鎮中使用間接火力射擊，會比在開闊地上更加受限。間接火力射擊必須考慮對城鎮以及鎮內非戰鬥人員之影響。若在嚴格的交戰規定限制奏效時，那射擊考量的過程就更顯重要了。當間接火力被授權時，則部隊必然以更密集的火力射擊，以達預期效果。當單位執行多項任務，而間接火力只支援一個單位時，則很容易造成鄰接部隊的傷亡。在攻擊的過程中，大量且間接的射擊會造成礮石坍塌，更會影響部隊機動的能力。

b. Noncombatants：

If there are noncombatants intermingled with combatants, the ability to use all available firepower may be restricted.

(二) 非戰鬥人員：

如果有非戰鬥人員與戰鬥人員摻雜一起，那所有可用的火力都會受到限制。

c. Night Vision Devices：

Commanders and leaders must consider the effect that city lights, fires, and background illumination have on night vision devices. These elements may limit the

effectiveness of night vision goggles (NVGs) and make thermal imagery identification difficult.

(三) 夜視裝置：

指揮官和各階領導者必須考量城市內的光線、火光及各背景照明對夜視裝置的影響。這些都可能成為夜視鏡 (NVGs) 的限制因素，以及熱像識別困難的原因。

d. Communications：

Communications equipment may not function to its maximum effectiveness because of the density in building construction. Intelligent use of graphic control measures, understanding the commander's intent, and maintaining situational awareness at all levels become more important to mission accomplishment.

(四) 通信能力：

因為密集的建築物結構特性，所以通信裝備無法在其中發揮最大效益。為了達成任務，善用詳盡的管制措施、了解指揮官的意圖，並且能保持對戰場各階段的體認就顯得格外重要了。

參、結論：

就地面作戰的而言，裝甲部隊一直以來就是地面部隊的作戰主力，也是陸上兵種聯合作戰的決勝兵種。所以我裝甲部隊必然對城鎮地形作戰不容小覷，我們要打破光憑科技裝備之

優勢就可取勝的迷思。另外，由美軍在伊拉克主要城鎮的作戰經驗中可以發現，在城鎮街道與巷弄中的近戰，砲兵與空中火力支援是很容易誤擊友軍，也因此更彰顯了裝甲部隊的存在重要性。因為戰車不但能保護乘員的生命安全，還可適時地支援火力，並且同時為乘員和友軍提供了堅強的心理支柱，甚至其重裝武力也可瓦解敵人的戰鬥意志。

裝甲兵是國軍現代化的科技部隊之一，必須瞭解因應城鎮地區作戰的特性與限制，對於既有準則、戰術戰法與戰技、武器裝備、後勤支援與部隊訓練都要全面地檢討，有效提升城鎮戰鬥能力，唯有不斷汲取科技新知、熟鍊各項戰技、精研戰術戰法，才能在臺澎防衛作戰中，善用城鎮地形優勢，擊敗來犯的敵人，贏得戰爭的勝利。

最後，希望透過個人對「美軍野戰手冊-城鎮地區協同作戰-第四章第一節(攻擊作戰-攻擊考慮事項)」進行翻譯，了解是否對城鎮實施攻擊作戰之理由動機、部隊要求、射擊與運動及各限制因素，能更加清楚地了解美軍目前在城鎮作戰的計畫作為、兵要調查與分析、民心士氣掌握、裝備運用與限制、戰術思維和戰技磨練等各方面與我軍異同之處，更企盼藉由此一機會能審慎、嚴肅地看待並檢討我部隊之缺點，務實地改進並精益求精，如此一來面對未來遭遇城鎮戰鬥時，才能有制敵機先之勝算。

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