

# MARINE CORPS INSTITUTE



## MILITARY OPERATIONS ON URBAN TERRAIN

MARINE BARRACKS  
WASHINGTON, DC



## UNITED STATES MARINE CORPS

MARINE CORPS INSTITUTE  
WASHINGTON NAVY YARD  
912 POOR STREET, S.E.  
WASHINGTON, D.C. 20391-5680

03.66b

15 Aug 97

### MCI 03.66b MILITARY OPERATIONS ON URBAN TERRAIN

1. Purpose. MCI course 03.66b, Military Operations on Urban Terrain (MOUT), provides instruction to Marines having duties that require them to operate in infantry occupational fields.
2. Scope. MCI 03.66b addresses the characteristics of urban terrain and offensive and defensive operations. MCI 03.66b covers all individual training standards (ITS) from duty area 1 of MOS 0300, found in MCO 1510.35c, dated 5 Jan 95, pertaining to MOUT.
3. Applicability. This course is intended for instructional purposes only. It is designed for use by Marines, private through gunnery sergeant, in MOS 0300.
4. Recommendations. Comments and recommendations on the contents of this course are invited and will aid in subsequent course revisions. Please complete the course evaluation questionnaire at the end of this text and return it to

Director (CDD-2)  
Marine Corps Institute  
Washington Navy Yard  
912 Poor Street, S.E.  
Washington, D.C. 20391-5680

G. WHITE  
Lieutenant Colonel, U.S. Marine Corps  
Deputy Director

# MILITARY OPERATIONS ON URBAN TERRAIN

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# Student Information

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**Title and  
Number**

MILITARY OPERATIONS ON URBAN TERRAIN MCI 03.66b

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**Study Hours**

10

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**Course  
Materials**

Text

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**Review  
Agency**

Commanding Officer  
The Basic School  
Quantico, VA 22134

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**RRC**

3 Reserve Retirement Credits  
Not applicable to civilian training/education

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**Assistance**

For administrative assistance, have your training officer or NCO use the Unit Activity Report (UAR) or MCI Hotline: DSN 288-4175/2299/2691 or Commercial (202) 433-4175/2299/2691. Marines worldwide may call toll free on 1-800-MCI-USMC.

For assistance concerning course content matters, call the instructor at DSN 288-3611 ext. 281 or commercial (202) 433-3611 ext. 281.

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## STUDY GUIDE

Congratulations on your enrollment in a distance training course from the Occupational Specialty Department of the Marine Corps Institute (MCI). Since 1920, the Marine Corps Institute has been helping tens of thousands of hard-charging Marines, like you, improve their technical job performance skills through distance training. By enrolling in this course, you have shown a desire to improve the skills you have and master new skills to enhance your job performance.

The distance training course you have chosen, MCI course 03.66b, Military Operations on Urban Terrain, provides instruction to all Marines in infantry occupational fields. This course has five study units: the first addresses the characteristics of urban terrain; the second, organization for urban combat and fundamental combat skills; the third, offensive operations; the fourth defensive operations; and the fifth combat service support requirements for fighting on such terrain.

Because you have chosen to learn at a distance by enrolling in this MCI course, your professional traits are evident and we know

**YOU ARE PROPERLY MOTIVATED.** You made a positive decision to get training on your own. Self-motivation is perhaps the most important force in learning or achieving anything. Doing whatever is necessary to learn is MOTIVATION. You have it!

**YOU SEEK TO IMPROVE YOURSELF.** You enrolled to improve those skills you already possess and learn new skills. When you improve yourself, you improve the Corps!

**YOU HAVE THE INITIATIVE TO ACT.** By acting on your own, you have shown you are a self-starter, willing to reach out for opportunities to learn and grow.

**YOU ACCEPT CHALLENGES.** You have self-confidence and believe in your ability to acquire knowledge and skills. You have the self-confidence to set goals and the ability to achieve them, enabling you to meet every challenge.

**YOU ARE ABLE TO SET AND ACCOMPLISH PRACTICAL GOALS.** You are willing to commit time, effort, and the resources necessary to set and accomplish your goals. These professional traits will help you successfully complete this distance training course.

## **STUDY GUIDE, continued**

### ***BEGINNING YOUR COURSE***

Before you actually begin this course of study, read the Student Information page. If you find any course materials missing, notify your training officer or training NCO. If you have all the required materials, you are ready to begin.

To begin your course of study, familiarize yourself with the structure of the course text. One way to do this is to read the Table of Contents. Notice the Table of Contents covers specific areas of study and the order in which they are presented. You will find the text divided into several study units and a review lesson. Each study unit is comprised of two or more lessons, lesson or unit exercises, exercise solutions and references.

### ***LEAFING THROUGH THE TEXT***

Leaf through the text and look at the figures and tables. Read a few lesson exercise items (questions) to get an idea of the type of items in the course. If the course has additional study aids, such as a handbook or a plotting board, familiarize yourself with them.

### ***THE FIRST STUDY UNIT***

Turn to the first page of Study Unit 1. On this page, you will find an introduction to the study unit and generally the first study unit lesson. Study unit lessons contain learning objectives, lesson text, and exercises.

### ***READING THE LEARNING OBJECTIVES***

Learning objectives describe in concise terms what the successful learner, you, will be able to do as a result of mastering the content of the lesson text. Read the objectives for each lesson and then read the lesson text. As you read the lesson text, make notes on the points you feel are important.

### ***COMPLETING THE EXERCISES***

To determine your mastery of the learning objectives and text, complete the exercises developed for you. Exercises may be contained in a lesson, at the end of a lesson, or at the end of a study unit. Without referring to the text, complete the exercise items and then check your responses against those provided.

### ***CONTINUING TO MARCH***

Continue on to the next lesson, repeating the above process until you have completed all lessons in the study unit. Follow the same procedure for each study unit in the course.

## **STUDY GUIDE, continued**

### ***SEEKING ASSISTANCE***

If you have problems with the text or exercise items that you cannot resolve, ask your training officer or training NCO for assistance. If they cannot help you, request assistance from your MCI distance training instructor by completing the Content Assistance Request Form located at the back of the course.

### ***THE REVIEW LESSON EXAM***

When you have finished all the study units, complete the review lesson exam located at the end of the course text. Try to complete the review lesson exam without referring to the text. For those items you are unsure of, restudy the text. When you have finished the review lesson exam and are satisfied with your responses, check your responses against the answer key provided with your course materials.

### ***PREPARING FOR THE FINAL EXAM***

To prepare for your final exam, you must review what you learned in the course. The following suggestions will help make the review interesting and challenging.

**CHALLENGE YOURSELF.** Try to recall the entire learning sequence without referring to the text. Can you do it? Now look back at the text to see if you have left anything out. This review should be interesting. Undoubtedly, you'll find you were not able to recall everything. But with a little effort you'll be able to recall a great deal of the information.

**USE UNUSED MINUTES.** Use your spare moments to review. Read your notes or a part of a study unit, rework exercise items, review again; you can do many of these things during the unused minutes of every day.

**APPLY WHAT YOU HAVE LEARNED.** It is always best to use the skill or knowledge you've learned as soon as possible. If it isn't possible to actually use the skill or knowledge, at least try to imagine a situation in which you would apply this learning. For example, make up and solve your own problems. Or, better still, make up and solve problems that use most of the elements of a study unit.



## **STUDY GUIDE**, continued

USE THE "SHAKEDOWN CRUISE" TECHNIQUE. Ask another Marine to lend a hand by asking you questions about the course. Choose a particular study unit and let your buddy "fire away."

MAKE REVIEWS FUN AND BENEFICIAL. Reviews are good habits that enhance learning. They don't have to be long and tedious. In fact, some learners find short reviews conducted more often prove more beneficial.

### ***TACKLING THE FINAL EXAM***

When you have completed your study of the course material and are confident with the results attained on your review lesson(s), take the sealed envelope marked "**FINAL EXAM**" to your unit training NCO or training officer. Your training NCO or officer will administer the final exam and return the exam and answer sheet to MCI for grading. Before taking your final exam, read the directions on the NEW (generic DP-37) answer sheet carefully and complete all requested information.

### ***COMPLETING YOUR COURSE***

The sooner you complete your course, the sooner you can better yourself by applying what you've learned! **HOWEVER**--you do have 12 months from the date of enrollment to complete this course. In addition, you may be granted one 6-month extension if approved by your commanding officer. If you need an extension, please complete the Student Request/Inquiry form (MCI-R11) located at the back of the course, and deliver it to your training officer or training NCO.

### ***GRADUATING!***

As a graduate of this distance training course and as a dedicated Marine, your job performance skills will improve, benefiting you, your unit, and the Marine Corps.

***Semper Fi!***

## **STUDY UNIT 1**

### **URBAN TERRAIN**

Introduction. Control of urban terrain has been a military necessity throughout history primarily due to the critical role urban areas play as centers of government, industry, transportation, and culture. Therefore, it is vital for you to know how to maneuver and fight in urban terrain. Knowledge of urban terrain characteristics, types, layouts, and features could mean the difference between life and death to you and your unit.

Urban areas can be actual sources of much conflict. Cities are where radical ideas ferment, dissenters find allies, mixtures of people cause ethnic friction, and discontented groups can receive media attention. Insurgents often focus on the capture of radio and TV stations, indicating the importance of influencing public opinion. You may be called upon to quell disturbances or actually fight the enemy in this unstable environment.

#### **Lesson 1. CHARACTERISTICS OF URBAN TERRAIN**

##### LEARNING OBJECTIVES

1. Define urban terrain.
2. Identify the reasons for fighting in urban terrain.
3. Identify distinguishing features of urban terrain.
4. Select the correct category of urban terrain for successful fighting.
5. Identify street patterns in urban terrain.
6. Identify the two types of buildings found on urban terrain.
7. Identify the two types of underground networks.

#### **1101. Definition of Urban Terrain**

"Urban terrain" is any area where a group of buildings, such as villages, towns, or cities exist for living or commercial purposes. Chief among those are buildings. Buildings provide cover and concealment, limit fields of observation and fire, and block movement, especially by mechanized troops.

## 1102. Reasons for Fighting on Urban Terrain

a. Gain or maintain control of a critical objective. One of the reasons for fighting in urban terrain is to control certain critical objectives. This may be for political purposes or for maintaining transportation, communications, or industrial facilities. Whoever controls these objectives will have an important strategic and/or tactical advantage. The following are examples of situations in which we needed to gain or maintain a critical objective:

- (1) The defense of Bastogne by the U.S. Army during the Battle of the Bulge in World War II. Bastogne was an important road hub that dominated the region.
- (2) The capture of the Ruhr, an important industrial center, severely crippled the German war effort during World War II.
- (3) The capture of Inchon, Korea, in 1950 was necessary because of its importance as a logistical base for future operations.
- (4) The Battle of Hue City in the Vietnam War was important because Hue was an important cultural and political symbol for both the North and South Vietnamese people.
- (5) The noncombatant evacuation operations (NEOs) conducted in Grenada, Liberia, and Somalia caused the United States Embassy in each of those countries to become a military/political objective.

b. No choice. Another reason to fight on urban terrain is a situation where you have no other choice. In this situation, either the terrain around the city is so difficult that you cannot avoid it or the enemy's defenses to the flanks of the city are so strong that fighting in the city is the lesser of the two evils.

c. Psychological effects. In this case, the significance is **symbolic** not **tactical**. National capitals often fit this category. During the Civil War, the Union spilled large amounts of blood to capture Richmond. Union leaders believed that the capture of Richmond would not only deal a psychological blow to the South, but also boost morale in the North so much that the horrendous loss of life was justified.

A city can have psychological significance for other reasons as well. It may be a cultural symbol, such as Hue City, or the hometown of a guerrilla leader. Perhaps the strength of its defenses makes the city symbolic of the country's military prowess. Singapore was symbolic to the British in World War II. Its fall to the Japanese in 1942 marked the low point of the war for the British. The loss of such a city does not necessarily mark the end of the war (as history in this case shows), but its loss may have a profound effect on the morale of a country and, thus, on its willingness to continue a war.

Before you continue with the lesson, can you recall the reasons for fighting in urban terrain?

If you said, (1) gain or maintain control of a critical objective, (2) no choice, and (3) psychological effects, you are right. If not, review paragraph 1102 before continuing.

### **1103. Distinguishing Features of Urban Terrain**

a. Cities. Cities are the centers of finance, politics, transportation, communication, industry, and culture. Therefore, they have often been scenes of important battles due to their psychological, political, or logistical value.

(1) Operations on urban terrain are conducted to capitalize on the strategic and operational significance of the city and to deny that focus of power to the enemy. In small nations, control of only a few cities is often the key to control of all national resources. Often, the side that controls a major city has a psychological advantage, which can be enough to significantly affect the outcome of a country-wide conflict.

(2) The guerrilla and terrorist operations in Santo Domingo, Caracas, Belfast, Managua, and Beirut have demonstrated the importance many insurgent groups place on cities.

(3) In the last 40 years, cities have expanded, losing their well-defined boundaries as they extended into the countryside. New road systems have opened areas to make them passable. Highways, canals, and railroads have been built to connect population centers. Industries have grown along those connectors, creating "strip areas." Rural areas, although retaining much of their farm-like character, are connected to the towns by a network of secondary roads. These trends have occurred in most parts of the world.

b. Multiple avenues of approach (three-dimensional battlefield). Urban terrain is a truly unique battlefield providing both the attacker and the defender numerous and varied avenues of approach and fields of fire. Attacks from above ground, ground level, or below ground are options for both the defender and attacker. Failure to properly plan for battles throughout this three-dimensional battlefield is costly in terms of casualties and loss of time and supplies. The three-dimensional battlefield is divided into **building**, **street**, and **subterranean levels** (figure 1-1).

(1) **Building Level**. Buildings provide cover and concealment, limit or enhance fields of observation and fire, and restrict or block movement of forces, especially mechanized forces. Buildings also provide excellent locations for snipers or anti-air and anti-tank weapons that can attack armored vehicles from above, where they are most vulnerable, and where line of sight is much more effective.

(2) Street Level. Streets provide a means for rapid advance as avenues of approach. Forces moving along streets are often channeled by the buildings and have little space for off-road maneuver. Thus, obstacles on town streets are usually more effective than those on roads in open terrain since they are more difficult to bypass.

(3) Subterranean Level. Subterranean systems found in some built-up areas are easily overlooked but can be important to the outcome of operations. They include subways, sewers, cellars, and utility tunnels (figure 1-1). Both attacker and defender can use subterranean avenues to get behind or to the flanks of the enemy and conduct ambushes, counterattacks, and infiltrations.

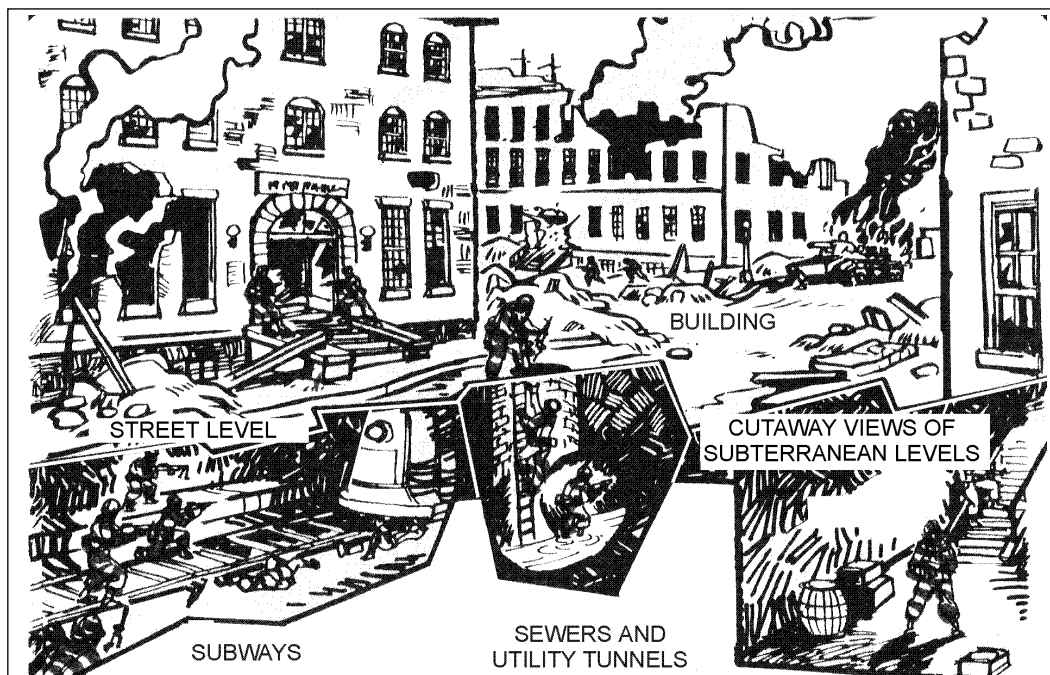


Fig 1-1. Three dimensional battlefield.

#### 1104. Categories of Urban Terrain

Urban terrain is classified in four general categories. Each presents different challenges, with different effects on troops, and requires different equipment during combat. These categories are

- Villages (population of 3,000 or less)
- Strip areas (urban areas built along roads connecting towns or cities)
- Towns or small cities (population up to 100,000 and not part of a major complex)
- Large cities with associated urban sprawl (population in the millions, covering hundreds of square kilometers)

Commanders will be continuously faced with situations involving the various categories of urbanized terrain. Marine Expeditionary Unit (MEU) commanders will most commonly encounter villages and strip areas. Towns and small cities will impact on the operations of larger Marine Air-Ground Task Forces (MAGTFs). Large cities and major urban complexes will affect operations of elements up to and including Marine Expeditionary Force (MEF) sized units.

Can you recall the three avenues of approach (three dimensional battlefields)? If you said, building level, street level, and subterranean level, you are doing great! If not, review 1103. Now, continue with more details of urban terrain.

### **1105. Street Patterns and Widths**

The patterns and widths of city streets have many important effects on the nature of the fighting. Fields of fire, avenues of approach, and selection of both objectives and defensive positions are all examples of what street layout affects. Let's examine street patterns and widths in more detail.

a. Patterns. City streets may have several different patterns. Examples of the different patterns that may be encountered in urban environments include the following:

(1) Radial. The streets in this section of a city radiate from the center, like the rays of the sun (figure 1-2).

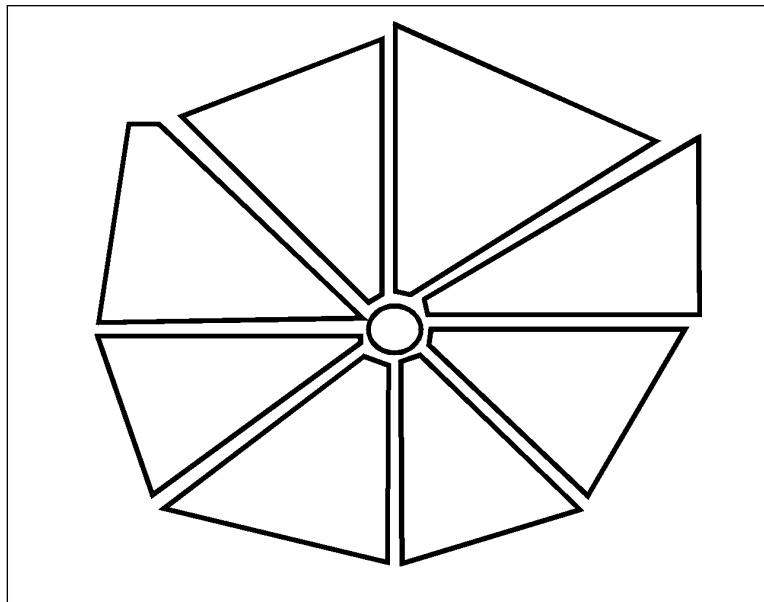


Fig 1-2. Radial street pattern.

(2) Ray. This pattern is similar to a radial street pattern except the rays cover only part of a circle (figure 1-3).

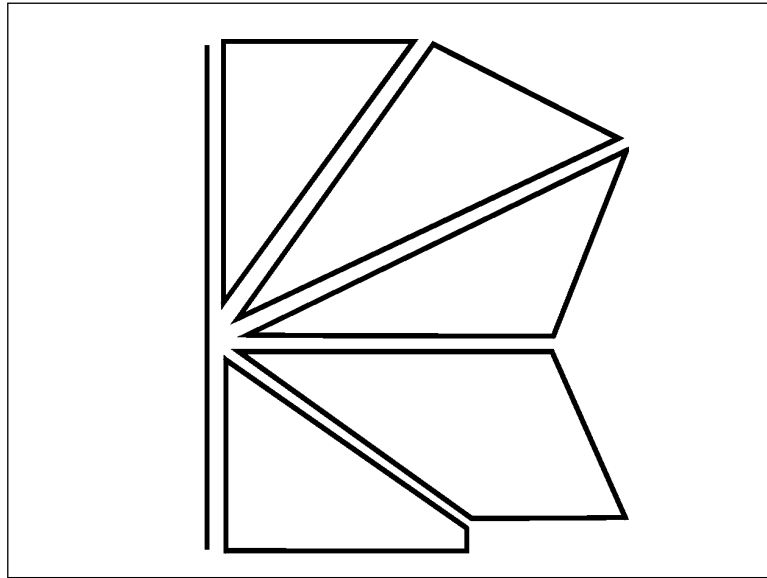


Fig 1-3. Ray street pattern.

(3) Radial ring. This is another variation of the radial pattern. This time, the rays are broken up by streets that form rings around the center (figure 1-4).

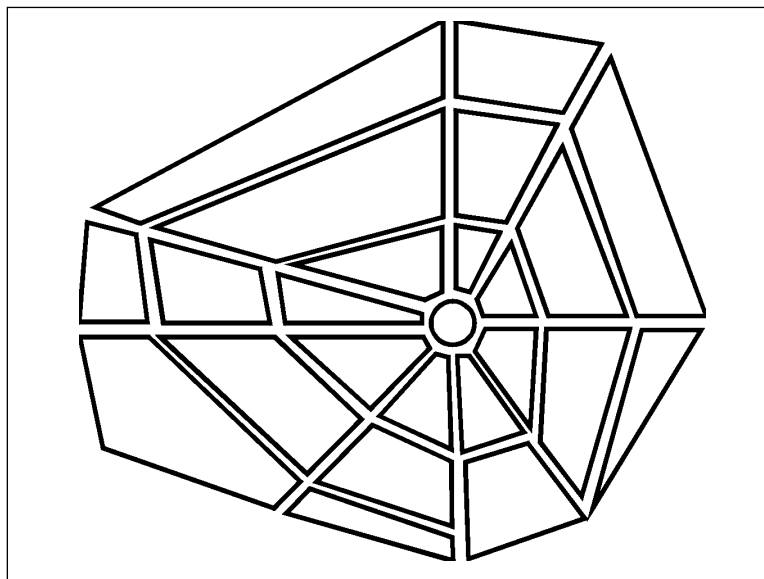


Fig 1-4. Radial ring street pattern.

(4) Rectangular. In this type of pattern, the streets form the same size rectangular or square blocks (figure 1-5).

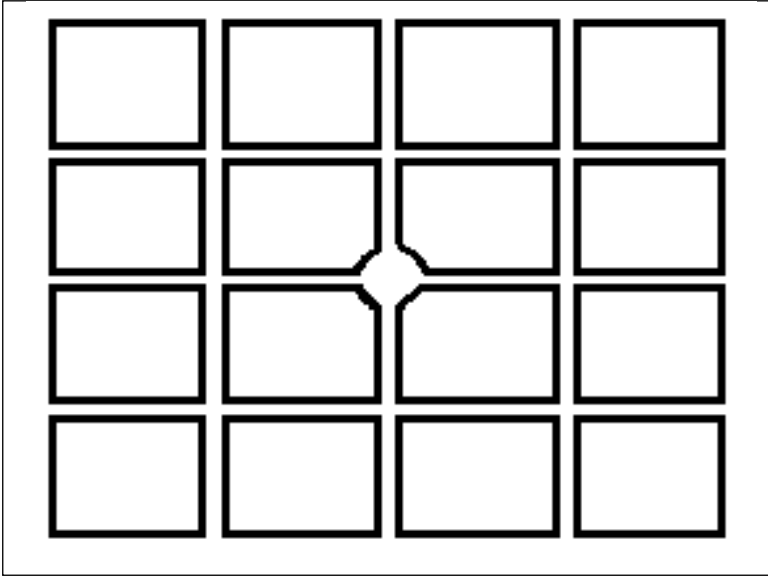


Fig 1-5. Rectangular street pattern.

(5) Combined. This type of a pattern is a combination of rectangular and radial patterns (figure 1-6).

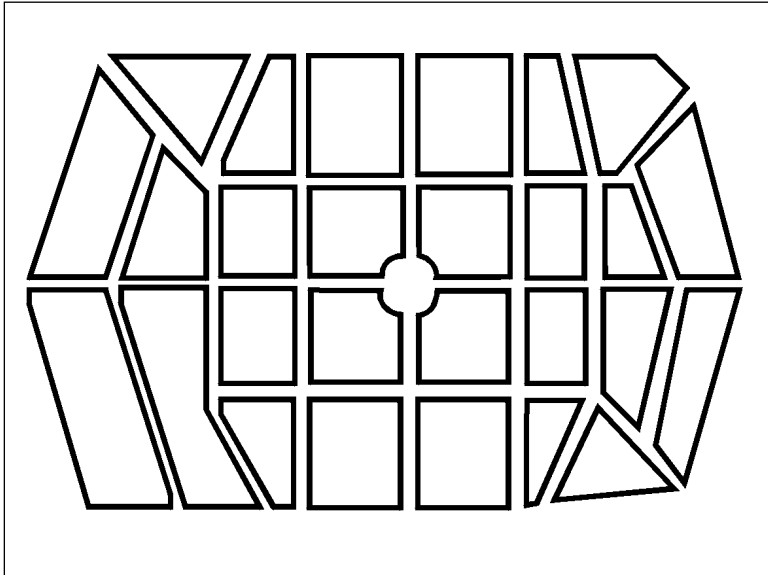


Fig 1-6. Combined street pattern.



(6) No pattern. Here, there is no pattern. The streets form a complex maze of curves, dead ends, and irregularly shaped blocks (figure 1-7).

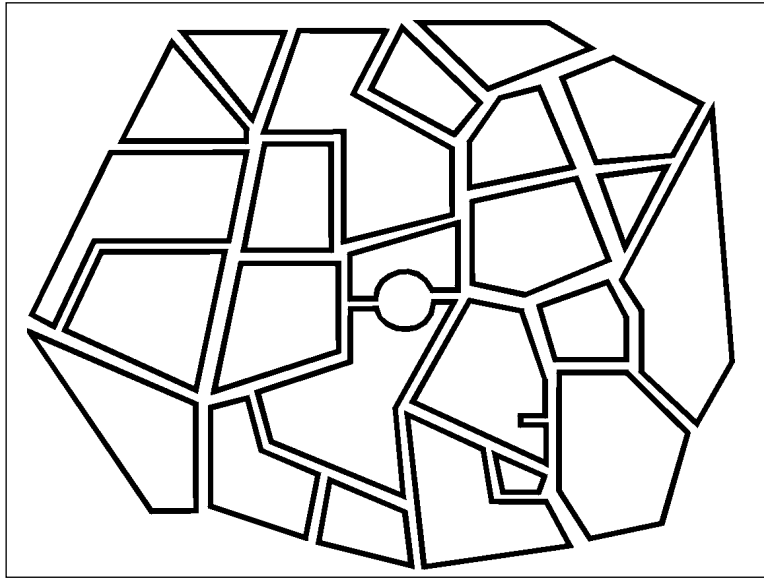


Fig 1-7. No street pattern.

The street pattern of the urban terrain in which you are fighting will influence many things. For example, it is easier to maintain control and direction of movement in a symmetrical street pattern such as the rectangular pattern; likewise, it is easier to get lost or turned around in a section that has no pattern. Fields of fire are also influenced. Once again, a section of town with symmetrical patterns will probably have better fields of fire than a section with no pattern.

b. Street widths. The width of city streets varies from city to city. For example, the streets in an old section of town are usually from 7 to 15 meters across, in a more modern and planned community, streets are 15 to 25 meters across, and in a historical section of town, streets may be 25 to 50 meters across. A street's width influences fields of fire and the amount of support that an attacking unit needs to get across the street (as well as how long you're in the open while crossing there).

## 1106. Types of Buildings

To be successful in Military Operations on Urban Terrain (MOUT), you must have a general knowledge of the physical properties of buildings. When you know the composition and structure of buildings, you will be able to develop a successful plan. With this knowledge, you can select the buildings that provide the most protection when you are in the defense and the proper manner in which to capture buildings when you are in the attack. The two basic types of buildings are **frameless** and **framed**.

a. Frameless buildings. These are buildings in which the mass of the exterior walls performs the main load-bearing function of supporting the "dead" weight of the roof, floors, and ceilings and of sustaining the "live" weight of the furnishings and occupants. Building materials can be mud, stone, brick, building blocks, or reinforced concrete. All frameless buildings have much thicker walls that range from 7 to 30 inches (3-11 bricks) thicker than framed buildings and thus provide more protection from enemy fire than framed buildings (figure 1-8).

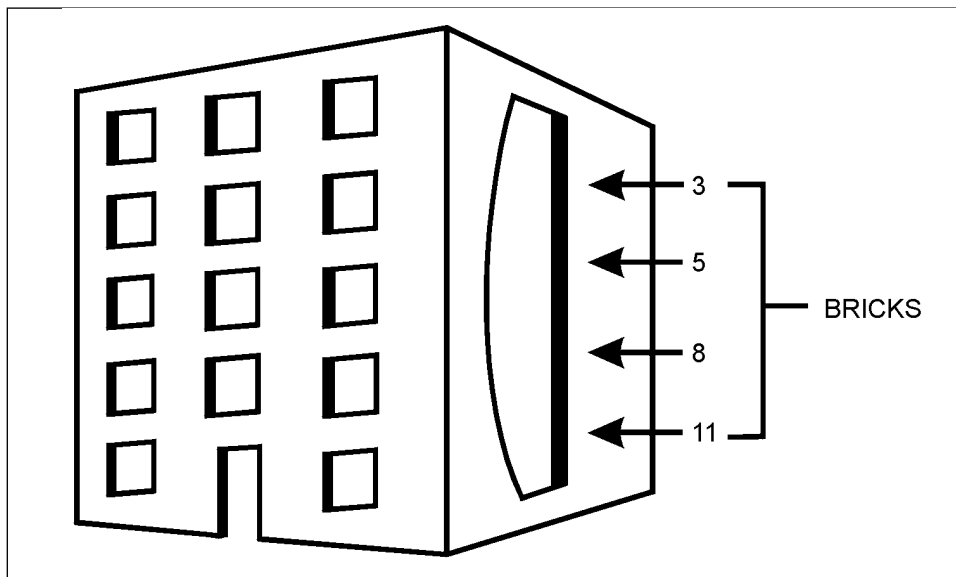


Fig 1-8. Frameless building.

b. Framed buildings. These buildings contain a skeletal structure of columns and beams that supports both vertical and horizontal loads. Exterior "curtain" walls are nonload bearing. These curtain walls can be constructed of anything from glass to cladding (a layer of steel bonded to concrete or other material) to reinforced (interlaced with steel rods) concrete (figure 1-9).

Even on framed buildings that are 100 stories or more, the walls are normally less than 5 inches thick. Without the impediments of thick load-bearing walls, large and open interior spaces are possible. Such open bays offer little protection to defenders unless the curtain walls are constructed of reinforced concrete.

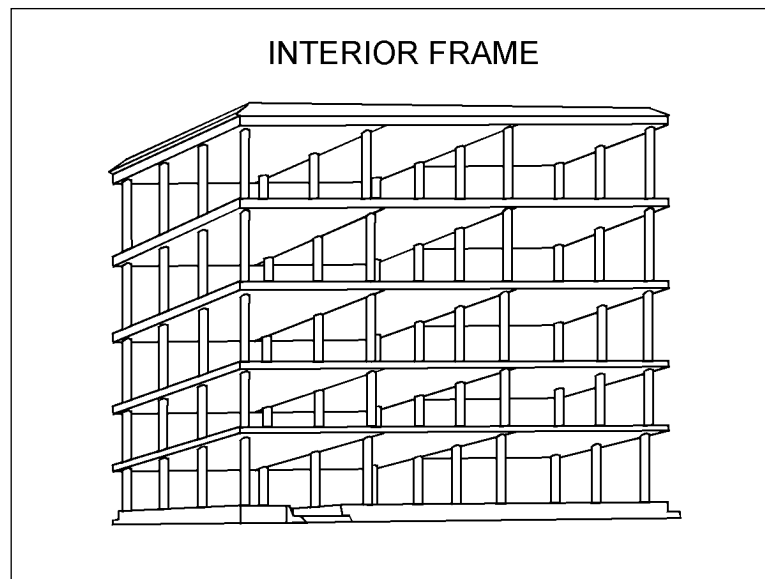


Fig 1-9. Framed building.

### **1107. Underground Networks**

In the spring of 1943, the Jews in the Warsaw Ghetto revolted against the Germans. Armed only with the courage and confidence (along with a motley collection of knives, pistols, rifles, homemade bombs, and one machinegun) that was born out of desperation of condemned men, they fought the German juggernaut from the sewers of Warsaw for four weeks before finally succumbing to the overwhelming firepower of the Germans. This battle demonstrates the importance for knowing about underground networks and how to fight in them. For now, concentrate on how these networks are constructed, while in later study units focus on fighting in them.

a. Types. There are two types of underground networks: **sewers** and **subways**.

- (1) **Sewers**. Sewers are divided into sanitary, storm, or combined systems. Sanitary systems carry wastes and are normally too small to be used for troop movement. On the other hand, storm sewers provide rainfall removal and are often large enough to permit troop and occasionally vehicle movement. Except when it rains or snows, these sewers are dry. Some cities have combined the above two functions, creating systems that flow continuously. Sewers generally follow street patterns (figure 1-10).

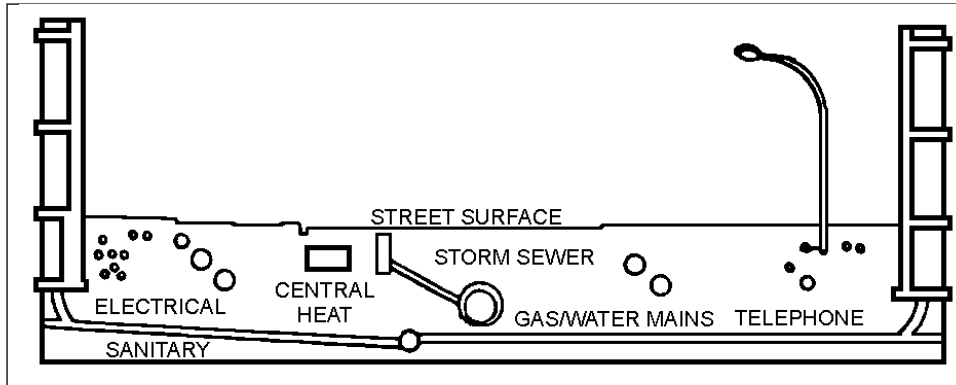


Fig 1-10. Profile of city street showing standard sanitary sewers.

- (2) **Subways**. There are relatively few foreign cities in the world with extensive subway systems. These include Calcutta, Buenos Aires, Budapest, Cairo, Tokyo, London, and Paris. Subways tend to run under roadways and have the potential hazard of having electrified rails and power leads. Passageways often stem from underground malls or storage areas (figure 1-11).

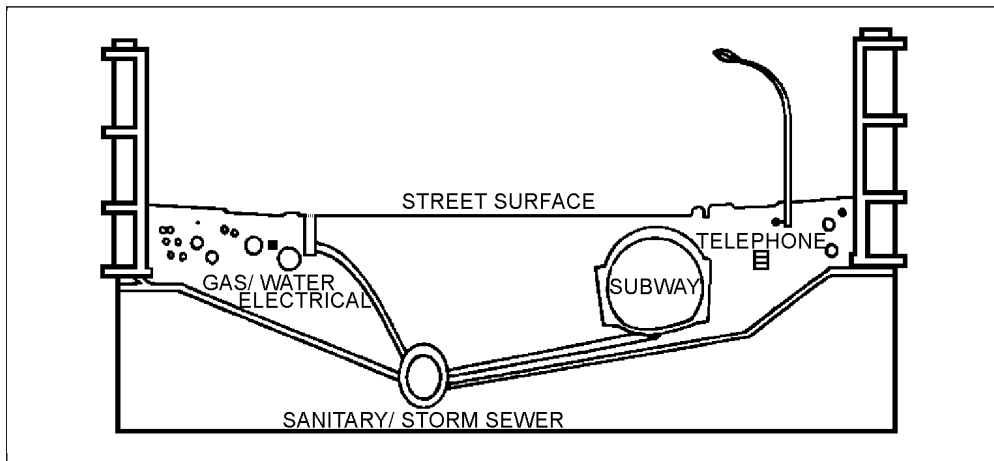


Fig 1-11. Profile of city street showing subway system.

b. Disadvantages of subterranean operations. In addition to expected enemy contact and boobytraps, the subterranean battlefield holds other dangers. The following are four disadvantages encountered in subterranean operations:

- (1) Sewers **fill rapidly during rainstorms**. Sewers are normally drained by electric pumps; however, power to the pumps will more than likely be cut off by either combatant side to prevent anyone from using the sewer system. Also, damage caused by combat operations may cause water to back up and flood the sewer system.
- (2) During the winter months, **the standing water in the sewers may be too cold** for troops to risk exposing themselves.
- (3) Sewers, tunnels, and subways have **poor ventilation** and suffer from **resultant toxic fume buildup**.
- (4) **Sewers provide an excellent breeding ground for diseases**. This disadvantage demands proper troop hygiene and immunization.

Lesson 1 Exercise: Complete items 1 through 4 by performing the actions required. Check your responses against those listed at the end of this lesson.

Situation. II MEF has just conducted an amphibious assault deep behind enemy lines with the intention of enveloping the enemy from the rear. The attack is beginning to slow down because the landing support battalion is getting behind in the off-loading of supplies across the beach. Your battalion is tasked with capturing the port facilities of a nearby city so that maritime prepositioned ships can begin the general off-loading of supplies to support the landing force.

1. In this situation, what is the reason for fighting in urban terrain?
  - a. Gain or maintain control of a critical objective
  - b. No choice
  - c. Psychological effect
  - d. The city is symbolic
2. In which category of urban terrain is the population 3,000 or less?
  - a. Stripe areas
  - b. Villages
  - c. Large city with associated urban sprawl
  - d. Towns or small cities

3. What type of street pattern in urban terrain will be easiest for our Marines to maintain control and direction of movement?
  - a. Radial ring
  - b. Rectangular
  - c. Ray
  - d. Combined
  
4. Which type of building will provide you more protection from enemy fire in urban terrain combat?
  - a. Frameless buildings
  - b. Framed buildings
  - c. New buildings
  - d. Older buildings

Lesson 1 Exercise Solutions

		<u>Reference</u>
1.	a.	1102
2.	b.	1104
3.	b.	1105
4.	a.	1106

Lesson Summary. During this lesson you have been introduced to MOUT. You learned the definition of urban terrain, the general composition of a city, and the reasons for conducting MOUT. In the next lesson you will learn how terrain analysis in an urban environment differs from terrain analysis in other types of terrain. In the next lesson you will learn the unique aspects of KOCOAs as they pertain to operations in urban terrain and how fighting in a city differs from fighting in other types of terrain.

**Lesson 2. CHARACTERISTICS OF MOUT**

LEARNING OBJECTIVE

1. Apply the concepts of the acronym KOCOAs (terrain analysis) to MOUT situations.
2. Identify MOUT characteristics.

**1201. Terrain Analysis of Urban Terrain Using KOCOAs**

When you conduct a patrol, launch an attack, or prepare a defensive position in rural terrain, one of your steps must be to conduct a terrain analysis using the acronym KOCOAs, which stands for key terrain, observation and fields of fire, cover and concealment, obstacles, and avenue of approach. KOCOAs helps you identify terrain features that will affect your mission. The same concept applies when conducting MOUT operations. By conducting a terrain analysis, you will identify those features that will influence how you conduct your mission. The difference is that

cities contain characteristics that are unique to urban terrain. The following paragraphs define each element of KOCOAs and explain how they specifically apply to MOU.

a. **K-Key Terrain.** Key and/or decisive terrain surrounding an urban area can facilitate entry or deny escape. Within the city, airports or fields, stadiums, parks, sports fields, school playgrounds, public buildings, road junctions, bridges, or industrial facilities, to name a few, may be key or decisive terrain. Helicopter-borne forces must consider landing zones, flight routes, and attack-helicopter positioning.

Identify critical public buildings during the terrain-analysis phase of an intelligence preparation of the battlefield (IPB). Hospitals, clinics, and surgical facilities are critical because the laws of war prohibits attacks on them when they are being used for medical support. The locations of civil defense, air raid shelters, and food supplies are critical in dealing with civilian affairs. The same is true during insurgency, guerrilla, or terrorist actions.

Public baths and swimming facilities are useful in providing bathing facilities. They also provide an alternate water source when public utilities break down.

Also, the important thing to key terrain is to identify population size, locations, and density; density of built-up areas; firefighting capabilities; the location of hazardous materials; police and security capabilities; civil evacuation plans; and key public buildings.

b. **O-Observation and fields of fire.** By its very nature, urban terrain offers restrictive observation and fields of fire. Buildings and other manmade structures greatly reduce weapons' ranges. However, high ground or tall buildings can provide long-range line-of-sight for observation and communications as well as for individual and crew-served weapons. Helicopter-borne forces must consider the enemy's increased visual observation and/or electronic surveillance of flight routes and landing zones.

c. **C-Cover and concealment.** Buildings, sewers, and subways provide excellent cover and concealment for enemy and friendly forces. They also provide covered and/or concealed maneuver routes within the built-up area. You need to plan for cover and concealment all throughout your urban operation. Helicopter-borne forces must consider terrain-masking for low-level flights and insertions, covered firing positions for attack helicopters, and landing zones that offer good cover and concealment.

d. **O-Obstacles.** Natural or manmade obstacles restrict or deny maneuvering within most urban areas. You must include bridges, walls or fences, canals, streams, rivers, rubble, etc., in the analysis. Construction sites and commercial operations, such as lumber yards, brick yards, steel yards, and railroad maintenance yards, are primary sources of obstacles and barrier-construction materials when rubble is not present or is insufficient. These areas can also provide engineers with materials to strengthen existing rubble obstacles or to set up antitank hedgehogs or crib-type roadblocks. Helicopter-borne forces consider landing zone obstacles that can affect landing and the scheme-of-maneuver of ground forces.

e. A-Avenues of approach. Avenues to the city should support maneuverability and be concealed either by terrain, darkness, smoke, or a combination of the three. You must identify and avoid avenues that canalize or choke maneuver, due to density of built-up area or natural terrain. Roads, rivers, streams, and bridges provide high-speed avenues for movement. They also provide an opportunity to block the enemy's movement. Supporting engineer units can then analyze demolition targets and estimate requirements for explosives. Helicopter-borne forces consider terrain masking to decrease effectiveness of enemy air defense weapons.

Military maps do not provide enough detail for urban terrain analysis. They do not show the underground sewer system, subways, underground water system, mass transit routes, and power plants. Use local maps of intercity road networks and subway systems, city hall/department of public works blueprints of all city buildings (if available), and aerial photos for terrain analysis.

## **1202. Characteristics of Urban Warfare**

The conduct of military operations on urban terrain challenges the resourcefulness and ingenuity of all unit leaders. Specific characteristics which you as a small unit leader need to know to plan urban terrain conflict are

- a. Presence of civilian population. In urban conflicts, many of the residents will remain inside the city. They will congregate in their own homes or apartments or in "safe" areas such as basements, bomb shelters, or subway stations. You will encounter civilians in unexpected areas because of this tendency to congregate. In addition, refugee columns, curfew procedures, and increased civilian logistical burdens will all result from conflict in urban areas.
- b. Restrictions on the use of force. When clearing a city, you may face restrictions on the amount of force and the types of weapons you may use. These restrictions are to prevent civilian casualties and unnecessary damage to cultural monuments and transportation facilities (which you may need).
- c. Increase in supply needs. There will be an increased need for items such as grappling hooks, ropes, construction material, small arms ammunition (especially 40mm grenade rounds), handgrenades, and explosives.
- d. Three-dimensional combat. MOUT is a three-dimensional warfare. Ground units can attack not only from the front, rear, and flanks, but also from below ground level (sewers and subway networks) and above ground level (roofs and upper floors of buildings).
- e. Short-range combat. Target distances in MOUT are usually less than 100 meters, and the targets may be exposed for only a brief instant. These factors may cause close and violent combat. The Marines spearheading the attack will often kill the enemy at ranges of 10 feet or less. There is no other type of warfare in which the opportunity for hand-to-hand combat is as great as it is in MOUT.



f. Defensive advantages. A skilled and well-trained defender has significant tactical advantages over an attacker. He occupies well-fortified positions that offer cover and concealment, whereas the attacker must maneuver over terrain that is often channelized and compartmentalized. The attacker must expose himself to advance. Obstacles impede the movement of armor or mechanized units and greatly reduce maneuverability for mechanized operations.

g. Centralized planning, decentralized control. In few other types of warfare the individual Marine will feel as isolated and alone as in MOUT. In the attack, he may see only one or two other Marines as they move through a building or across an open area. While in the defense, if his squad is stretched thin, he may only hear the other Marines in the squad. Your squad leader's ability to control his squad will be taxed to the limit because he will never see more than a few of his Marines at one time.

This difficulty to supervise and control will become more severe for larger units. Because the commander's control creates the danger of units becoming isolated and destroyed piecemeal (a little at a time), there is an **absolute** need for centralized planning and decentralized control. This means that the overall commander must plan his attack in detail, using all possible control measures (such as phase lines and boundaries), while the small unit leaders actually direct the attack or defense. The small unit leader **must always** keep his superiors advised of his own situation by radio, land lines, and messengers because of the nature of MOUT. Unit leaders need to be closer to the front than normal to facilitate supervision because radio communication may degrade inside cities.

h. Limited objectives. Except in a fluid situation, an attacking unit's objectives will normally be limited to a few buildings or blocks at a time. A well-defended city is difficult to clear--it will be a tedious, time-consuming, and bloody process.

i. Increased stress. Fatigue and shock rates among troops are heightened because of all the preceding factors.

Lesson 2 Exercise: Complete items 1 through 5 by performing the actions required. Check your responses against those listed at the end of this lesson.

Situation: Your battalion has been tasked with conducting a noncombatant evacuation operation. Your company's mission is to seize and secure a soccer field a few blocks from an embassy. It will be used as an LZ.

1. What element of KOCO is described by this situation?

---

Situation: You have a Dragon team attached to your platoon to defend a four-story building. The Dragon team takes its position in a corner room of the top floor of the building because that is the only way it can cover its assigned sector of fire and still meet the 65 meter minimum arming range of the weapon.

2. Which element of KOCOA is described by this situation?

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Situation: I MEF is heavily engaged in seizing a large city. The CG has imposed a curfew in the city to prevent the accidental shooting of civilians.

3. What characteristic of MOUT is described in this situation?

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Situation: Your platoon is participating in a battalion-sized attack on a firmly entrenched enemy unit inside a mid-sized town. Not only has battalion assigned your company phaselines and boundaries, your company commander has also assigned your platoon phaselines and boundaries. Your squad must provide two men to the platoon commander to be used as messengers in case there are problems with radio comm with the company.

4. What characteristic of MOUT is described in this situation?

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Situation: Your squad has been heavily engaged with the enemy inside a large city for two weeks. You begin to notice a problem with your men staying awake during their assigned watches at night. You had to evacuate a man for medication because of battle fatigue.

5. What characteristic of MOUT is described in this situation?

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## Lesson 2 Exercise Solutions

	<u>Reference</u>
1. Key terrain	1201
2. Observation and fields of fire	1201
3. Presence of civilian population	1202
4. Centralized planning, decentralized control	1202
5. Increased stress	1202

Lesson Summary. During this lesson, you learned the unique aspects of KOCOAs as they pertain to operations in urban terrain and the characteristics of MOUT and how to deal with these situations.

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Study Unit 1 Exercise: Complete items 1 through 26 by performing the actions required. Check your responses against those listed at the end of this study unit.

1. Define urban terrain.

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For items 2 through 4, read the situations carefully, then answer the items.

Situation: Your regiment has been forced to fight inside a city because the terrain on the flanks of the city is too rugged to permit the regiment to bypass the city.

2. What reason for fighting inside a city is described by this situation?

---

Situation: A guerrilla war has been going badly for the government forces. Up until now, the guerrillas have restricted their attacks to raids on government outposts and a few prominent targets inside a few cities. In an effort to demonstrate the government's powerlessness, the guerrillas launch a surprise attack to capture the president's hometown, even though the city has no military or political significance.

3. What reason for fighting inside a city is described by this situation?

---

Situation: Your regiment has been tasked with capturing a city that is an important road hub in the area. Your regiment could bypass the city, but then the division's supply train would have problems keeping up with the frontline units.

4. What reason for fighting inside of a city is described by this situation?

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Matching: For items 5 through 7, match the description in column 1 with its category of urban terrain that describes it in column 2. Place your responses in the spaces provided.

Column 1

Column 2

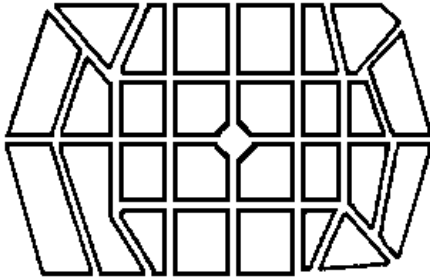
Description

Category of Urban Terrain

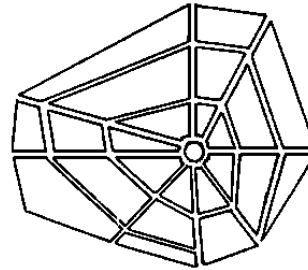
- \_\_\_ 5. Urban areas built along roads connecting towns or cities
- \_\_\_ 6. Population up to 100,000 and not part of a major complex
- \_\_\_ 7. Population of 3,000 or less

- a. Village
- b. Strip areas
- c. Towns or small cities
- d. Large cities

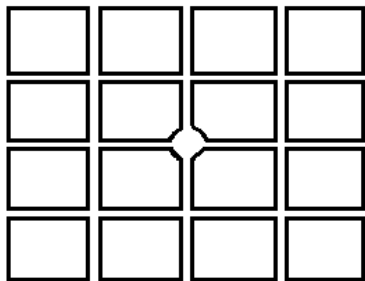
8. Identify the street pattern depicted in each of the following illustrations.



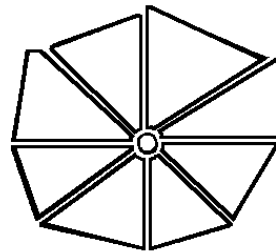
a. \_\_\_\_\_



b. \_\_\_\_\_



c. \_\_\_\_\_



d. \_\_\_\_\_

9. What are frameless buildings?

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10. What are framed buildings?

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11. What are the two underground networks?

a. \_\_\_\_\_

b. \_\_\_\_\_

12. What are the four disadvantages of subterranean operations?

a. \_\_\_\_\_

b. \_\_\_\_\_

c. \_\_\_\_\_

d. \_\_\_\_\_

Matching: For items 13 through 17, match the element of KOCOA terrain analysis in column 1 with the situation that describes it in column 2. Place your responses in the spaces provided.

Column 1

Column 2

Element of KOCOA

Situation

- |                                       |   |
|---------------------------------------|---|
| ___ 13. Key terrain                   | a. You pause behind a cement wall during your movement to your objective.   |
| ___ 14. Observation and field of fire | b. Your company has been tasked with launching a daring heliborne assault behind the enemy lines to capture an important city bridge.                 |
| ___ 15. Cover and concealment         | c. While defending a building, your squads strings concertina wire through the unused halls and stairs.   |
| ___ 16. Obstacles                     | d. Your company commander decides to demolish a building in front of your position to open up your field of view.                                     |
| ___ 17. Avenues of approach           | e. While in the defense, your squad uses the furniture inside of your building to barricade the doors of the bottom floor.                            |
|                                       | f. The Dragon team that has been attached to your platoon has taken up position in the corner of a building so that it can cover a road intersection. |

Matching: For items 18 through 20, match the characteristic of MOUT in column 1 with the situation that describes it in column 2. Place your responses in the spaces provided.

Column 1	Column 2
<u>Characteristic of MOUT</u>	<u>Situation</u>
___ 18. Presence of civilians	a. The use of indirect fire weapons has been forbidden in the historical section of a city in which you are engaged.
___ 19. Force restrictions	b. Your squad places overturned cars on top of all the manhole covers in your area to prevent the enemy from using them.
___ 20. Increase in supply needs	c. The need for grappling hooks, ropes, construction material, small arms ammo, handgrenades, and explosives.
	d. Your battalion has captured several enemy soldiers dressed in civilian attire trying to infiltrate your lines.

Matching: For items 21 through 23, match the characteristic of MOUT in column 1 with the situation that describes it in column 2. Place your responses in the spaces provided.

Column 1	Column 2
<u>Characteristic of MOUT</u>	<u>Situation</u>
___ 21. Three-dimensional combat	a. Your squad has suffered several casualties from bayonet wounds in hand-to-hand combat.
___ 22. Short-range combat	b. Your squad is receiving intense fire from an enemy held building that is on the other side of your platoon's boundary. Your platoon commander asks the company commander for permission to neutralize the building with small arms fire.
___ 23. Defensive advantages	c. The enemy occupies a well fortified position that offers cover and concealment, whereas you must maneuver over terrain that will cause you to be channalized.
	d. While attacking, you have your Marines entering from the roof, front, and sewer of the building.

Matching: For items 24 through 26, match the characteristic of MOUT in column 1 with the situation that describes it in column 2. Place your responses in the spaces provided.

Column 1	Column 2
<u>Characteristic of MOUT</u>	<u>Situation</u>
___ 24. Centralized planning	a. As a squad leader, you have decentralized control and find yourself moving closer to the assault team of your squad when they are in the attack.
___ 25. Limited objectives	b. Two of the men in your platoon have been medivaced due to battle fatigue.
___ 26. Increased stress	c. Your company's task for the day is to clear a heavily defended block of buildings.
	d. While clearing an enemy held building, you accidentally kill a mother and her child as they cower in the basement.

Study Unit 1 Exercise Solutions

	<u>Reference</u>
1. Urban terrain is any area where a group of buildings, such as villages, towns, or cities exist for living or commercial purposes.	1101
2. No choice.	1102
3. Psychological effects.	1102
4. Gain or maintain control of a critical objective.	1102
5. b.	1104
6. c.	1104
7. a.	1104
8. a. Combined	1105
b. Radial ring	1105
c. Rectangular	1105
d. Radial	1105
9. Frameless buildings are buildings in which the mass of the exterior wall performs the main load-bearing function.	1106
10. Framed buildings are buildings that contain a skeletal structure of columns and beams that support both vertical and horizontal loads.	1106



## Study Unit 1 Exercise Solutions -- cont'd

	<u>Reference</u>
11. a. Sewers	1107
b. Subways	1107
12. a. Sewers fill rapidly during rainstorms	1107
b. Standing water in the sewers may be too cold	1107
c. Poor ventilation resulting in toxic fume buildup	1107
d. Sewers provide an excellent breeding ground for disease	1107
13. b.	1201
14. d.	1201
15. a.	1201
16. c.	1201
17. f.	1201
18. d.	1202
19. a.	1202
20. c.	1202
21. d.	1202
22. a.	1202
23. c.	1202
24. a.	1202
25. c.	1202
26. b.	1202

## UNIT SUMMARY

In this study unit, you learned about the characteristics of urban terrain and fighting in urban terrain. This information may seem mundane, but before you can fight in urban terrain, you must first understand it. In the next study unit, you will learn about defensive operations. By learning about defensive operations first, you will understand the study unit on offensive operations better because you will know more about what to expect when in the attack.

## STUDY UNIT 2

### ORGANIZATION FOR URBAN COMBAT AND FUNDAMENTAL COMBAT SKILLS

Introduction. In a MOUT situation, your commander assigns a 175-meter long frontage to your company (roughly one block). Although the company will always have one or two platoons in reserve, the platoons will rarely have any squads in reserve. You will need everyone for the base of fire and assault elements. The actual size and organization of each element will depend on the type and size of the objective, the adjacent terrain (whether it provides covered routes to the objective), and the organization and strength of the enemy defenses.

#### Lesson 1. ORGANIZATION OF THE SQUAD

##### LEARNING OBJECTIVES

1. Identify the organization of the base of fire element.
2. Identify the organization of an assault element.

#### **2101. Base of Fire Element**

The base of fire element will often consist of two squads and a compliment of the crew served weapons, such as machineguns, SMAWs, Dragons, and TOWs. Your platoon commander may even decide to put all the platoon's SAWs in the base of fire. The base of fire must accomplish several tasks, including suppressing the enemy, isolating the objective, breaching walls in the objective, and killing escaping enemy soldiers. We will cover the specifics of these tasks in the next lesson.

#### **2102. Assault Element**

The assault element consists of two parties--the cover party and the search party. Normally, one squad will have enough men for this element. The assault element will actually capture the objective.

- a. Cover party. The cover party normally consists of two fireteams (figure 2-1). They are positioned where they can best follow the search party into the building. This may or may not place them with the base of fire. Initially, they have a secondary task of providing direct support to the search party as they move up to the objective. In other words, they provide suppressive fires to cover the search party's movement. Once the search party enters the building, the cover party has the following tasks:

- (1) Secure the cleared portions of the building by following the search party into the building.
- (2) Provide replacements and/or relief for the search party.
- (3) Resupply ammunition and explosives to the search party.
- (4) Evacuate casualties and Enemy Prisoners of War (EPWs) from the building.

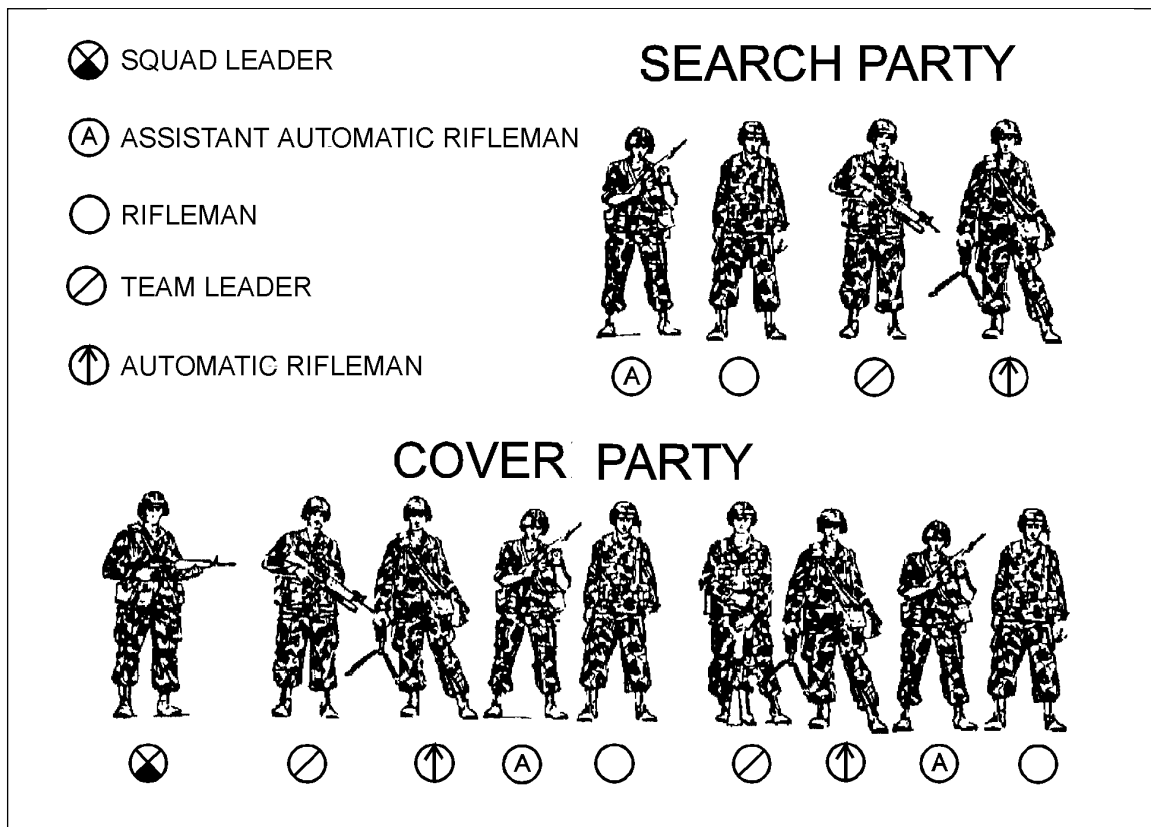


Fig 2-1. Organization of the squad for urban terrain.

Later in this study unit, you will cover the specifics of how the cover party accomplishes its mission.

b. Search party. The search party normally consists of four to six Marines. These are the men who lead the attack. They are broken down into two teams--that's right, the cover team and the search team (figure 2-2).

- (1) Cover team. The cover team protects the search team as they enter each room. Cover team members are responsible for security in the immediate vicinity of the search team. For example, they might cover both directions of a hallway as the search team enters an uncleared room. There are normally two men assigned to the cover team.

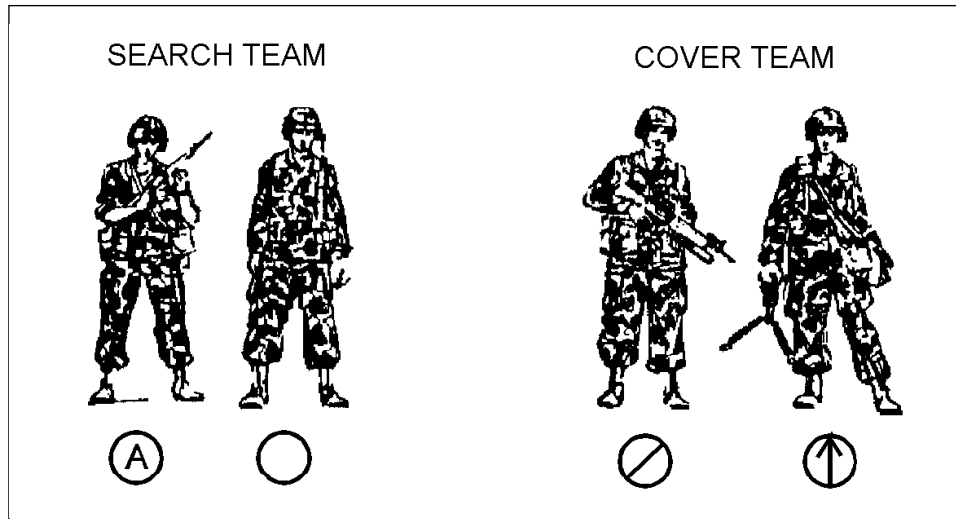


Fig 2-2. Task organization of the search party.

- (2) Search team. This team clears each room, hallway, and stairway in the building. There are normally two to four Marines assigned to the search team. The search teams should be rotated periodically because this team experiences the intensity of initial combat.

It's time to review. What are the responsibilities of the cover party? They are responsible for securing the cleared portions of the building, providing replacements to the search party, resupplying ammunition and explosives to the search party, and evacuating casualties and EPWs. If you have this answer, you are correct. Move on to the next lesson; otherwise, review paragraph 2102.

Lesson Summary. During this lesson, you learned how a platoon is organized for conducting offensive operations inside a city. In the next lesson, you will learn about the preparatory steps that you must take before your search party enters a building.

## Lesson 2. CONDUCT OF MOVEMENT IN MOUT

### LEARNING OBJECTIVES

1. Identify techniques of individual movement in MOUT.
2. Identify unit movement covering techniques in MOUT.
3. Identify techniques for crossing a danger area in MOUT.

### **2201. Individual Movement in MOUT**

a. General. In MOUT, everyone is confronted with many different types of obstacles that must be negotiated to close with and destroy the enemy. Since house-to-house fighting lends itself to surprise situations, we cannot over-emphasize alertness and all-around security. The enemy can appear not only from the front, flanks, and rear, but also from above and below.

The following are some do's and don'ts for movement of individuals within a built-up area:

- (1) Select your next covered position before moving.
- (2) Conceal your movement with smoke and covering fires and by using buildings, rubble, and vegetation to your advantage.
- (3) Move rapidly from one position to another.
- (4) Expect the unexpected and be alert.
- (5) Do **not** silhouette yourself; keep low at all times.
- (6) Do **not** obstruct your covering fires.

Following are some important techniques for an individual to use while moving in a MOUT environment.

#### b. Crossing a wall or fence

- (1) When you first get to the wall, hold on to your weapon with one hand while you use your free hand to feel for mines and boobytraps on top of the wall. Do this gently; you can set the mine or boobytrap off with your hand. Ensure you check enough of the wall for the entire length of your body to go over.

- (2) Once your section of the wall is clear, jump and pull yourself up while swinging your legs on top of the wall. Once on top, lie flat on the wall and maintain a low silhouette. Hold your weapon in the hand closest to friendly lines (figure 2-3).

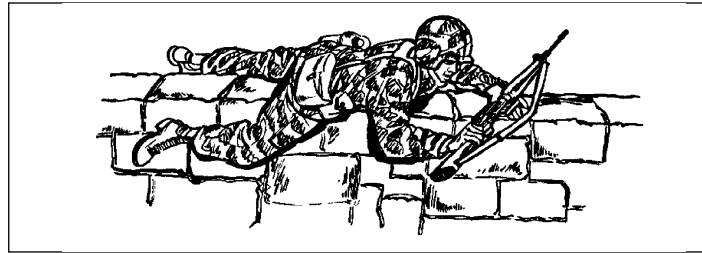


Fig 2-3. Movement over a wall.

c. Stepping/jumping over basement windows/mouse holes (figure 2-4). The most common mistakes in passing this type of danger area are: (1) not noticing its presence and (2) not taking any protective actions at all! Do not merely walk or run past a basement window--this makes you a good target to an enemy gunner inside the building. Figure 2-4 demonstrates the correct technique for negotiating a window/hole danger area of this type. Note that the Marine is staying close to the wall of the building and has stepped or jumped past the window without exposing either of his legs.

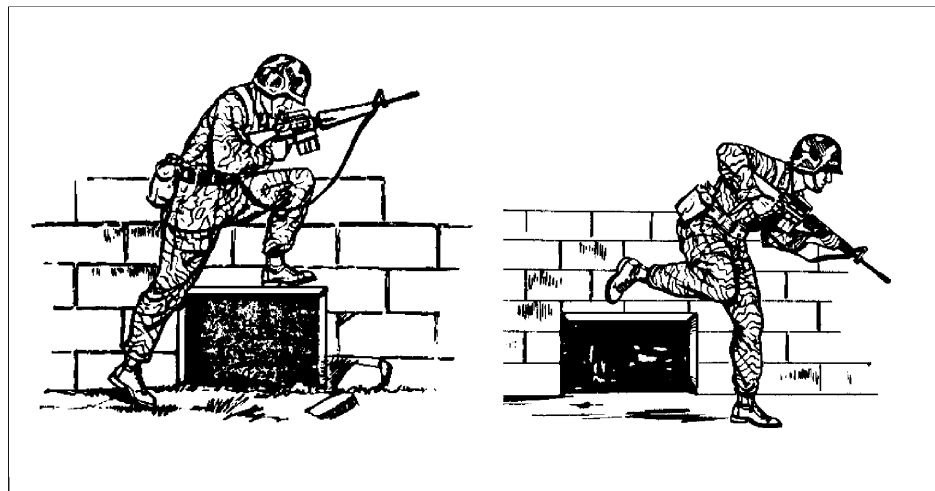


Fig 2-4. Stepping/jumping over a basement window.

d. Moving past windows (figure 2-5). Windows are very hazardous obstacles. You must pass them with extreme care. Most first-floor windows are head-high or lower, and an unsuspecting Marine may expose himself, affording the enemy an excellent shot. The proper technique is to stay as close to the building as possible. When you reach the window, duck to ensure your head is well below the window. Do **not** silhouette yourself.



Fig 2-5. Moving past windows.

e. "Pie" technique. Use the pie technique described below to visually clear the area inside open doorways, windows, and around corners. There is no way for you to sneak past an opening or around a corner without exposing yourself. Since you have to expose yourself, you should visually clear the area. Additionally, there are times when you will want to clear the area inside windows visually.

- (1) Take a position close to (normal stock weld) or against (short stock weld) the wall. The muzzle of your rifle should be close to (but not sticking out from) the corner you are going to pie.

- (2) If you are clearing an area to your **LEFT**, hold your weapon **right-handed**. If you are clearing an area to your **RIGHT** then hold your rifle **left-handed**. Place the butt of the rifle in your shoulder and aim in like you do in the off-hand position (figure 2-6). The only difference is that you must keep the elbow of your shooting hand down. In other words, don't hold it up and away from your body as this will become visible to the enemy as you pie around the corner. By holding the rifle in this manner (normal stock weld), you will present the smallest possible target to the enemy.

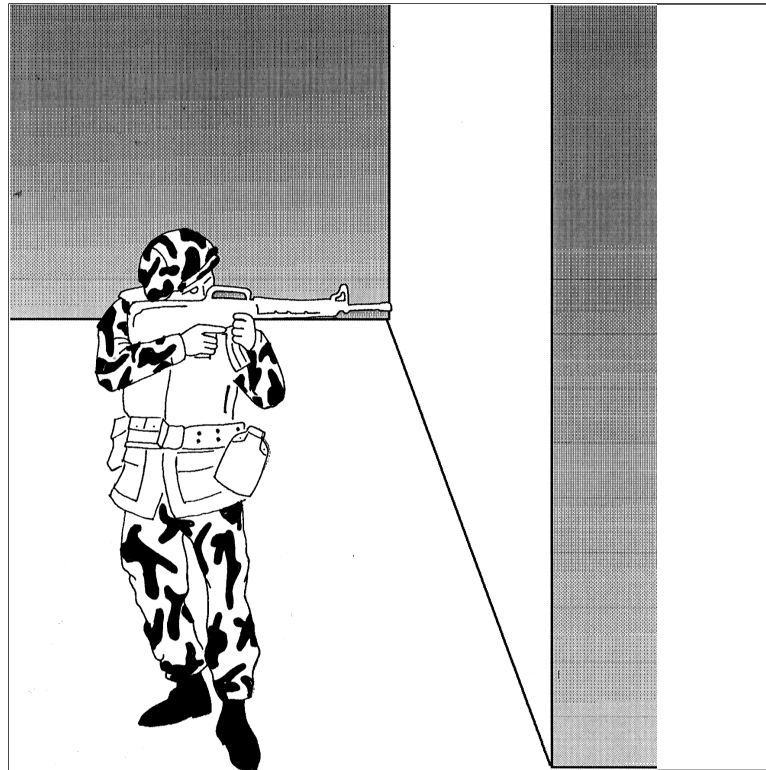


Fig 2-6. Normal pie technique.

Note: An alternate way of holding the rifle is to adjust your stock weld so that your cheek is placed on the **hand guard, close to the front sight assembly**. Your rifle stock will not be in your shoulder (figure 2-7). You know this as having a short stock weld on your weapon and it presents the smallest possible target to the enemy. With this technique you won't have to move away from your cover (the wall) as you do with a normal stock weld. The problem with this technique is the awkwardness and poor accuracy when firing your rifle. With this technique, it may be best to adjust to a normal stock weld as soon as you see the enemy. Of course, the amount of time (as small as it may be) to do this may cost you your life. Whichever stock weld that you decide to use, you must practice it to the point where it is second nature.



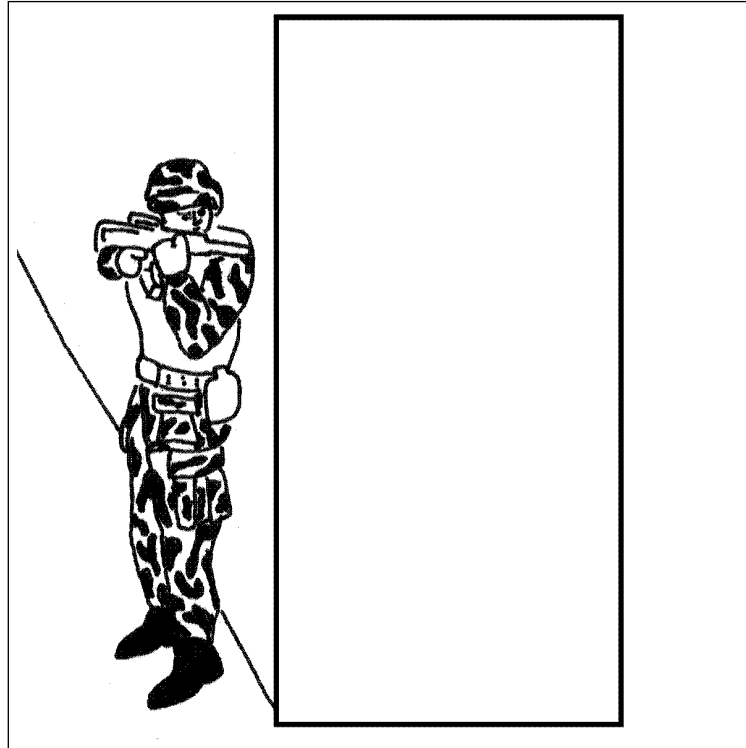


Fig 2-7. Short stock pie technique.

- (3) As you move forward, pivot your body so you can see the area to your direct front as it comes into view. If you have to move away from the wall, the man behind you will cover your back. If you are at the corner of a building, you will have to pie for 90 degrees until you see the entire wall on the other side of the corner. If you are clearing a room using this technique, you will have to pie for 180 degrees. If you are using this technique on a window, crouch down as you pie so that most of your body is hidden below the window.
- (4) When you have cleared the area, return your view to the original front. Return your rifle to the ready position and continue your movement.

## **2202. Unit Movement Covering Techniques**

a. Unit movement down a street. When moving down a street, your unit can either move down both sides simultaneously or just down one side.

- (1) Moving down both sides of the street. When moving your unit down both sides of the street, do not split your individual units up. Keep each individual fireteam together on the same side of the street. This will help your fireteam leaders keep control of their men. The point men on either side of the street must stay abreast of each other as they move. The advantage of this technique is that you can designate men to cover the windows and openings of the upper level floors of the buildings on

**the opposite side** of the street. This angle affords a better view of the inside of the buildings than the Marines on the same side of the street can get.

- (2) Moving down one side of the street. Moving down one side of the street gives you better control of your unit. If you get into a fire fight, you don't have to worry about getting everyone to the side of the street where the action is.

b. Individual responsibilities.

- (1) Point man. This Marine is responsible for covering low (first floor level) and to the front. When he comes to any doors, windows, or other openings, he uses the pie technique to clear the inside of that room. He also pies corners of buildings.
- (2) Second man. This Marine covers high (i.e. the second floor level and above) and to the front.
- (3) Third and fourth men. These Marines cover the flanks. If there are Marines on the other side of the road, they both cover second floor and above openings. If there is no one else on the other side, one of them covers first floor openings.
- (4) Repeat. The responsibilities of the first four men are repeated until the second to the last man of your formation. For example, the fifth man must pie all first floor openings. The sixth man covers high and to the front. The seventh and eighth men cover the flanks, etc. It is especially important that every fourth man clears all first floor rooms using the pie technique since someone could enter a room that has already been cleared.
- (5) Second to the last man. This Marine covers high and to the rear.
- (6) Last man. This Marine covers low and to the rear.

### 2203. Crossing Danger Areas

There are two situations when you will have to move across a danger area. The first situation is when you are currently in a building and need to move across an open area to another building (1) (figure 2-8). The second situation is when you are moving down the street and need to cross an intersection or a gap between buildings (2) (figure 2-8). You will learn about these two situations in this lesson. In both situations we will assume that there is a possibility of enemy contact, but you are not currently under fire.

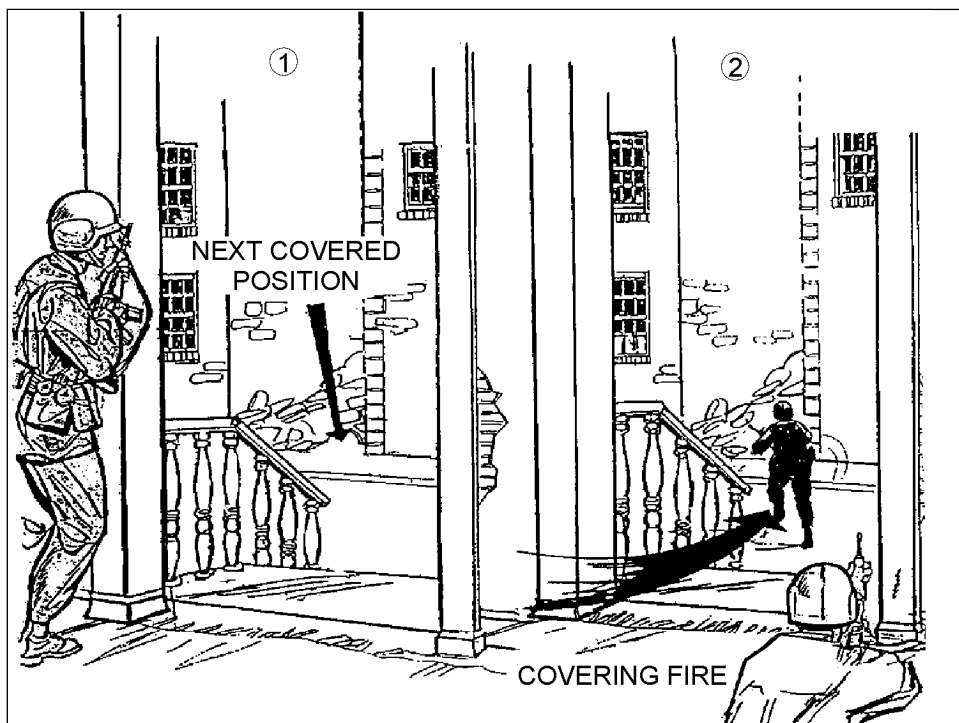


Fig 2-8. Moving from building to building.

a. Building to building. Cover as much of the other side of the danger area as you can. Place security into position on your side of the street so they can cover the front (front security). Task other Marines to cover the flanks (flank security). Remember, no one should violate any of the principles of a good firing position.

For example, do not stick your muzzle out of the window. When everyone is in position, send the men over in pairs. Send the first two men together so they can do a quick reconnaissance of the other side (just like crossing a danger area in open terrain). When the reconnaissance is completed, they must set up security on their side so they can cover buildings on your side of the street that are not occupied by friendly forces. Move the rest of your men across the danger area one at a time.

- b. Crossing a danger area while moving down a street (figure 2-9).

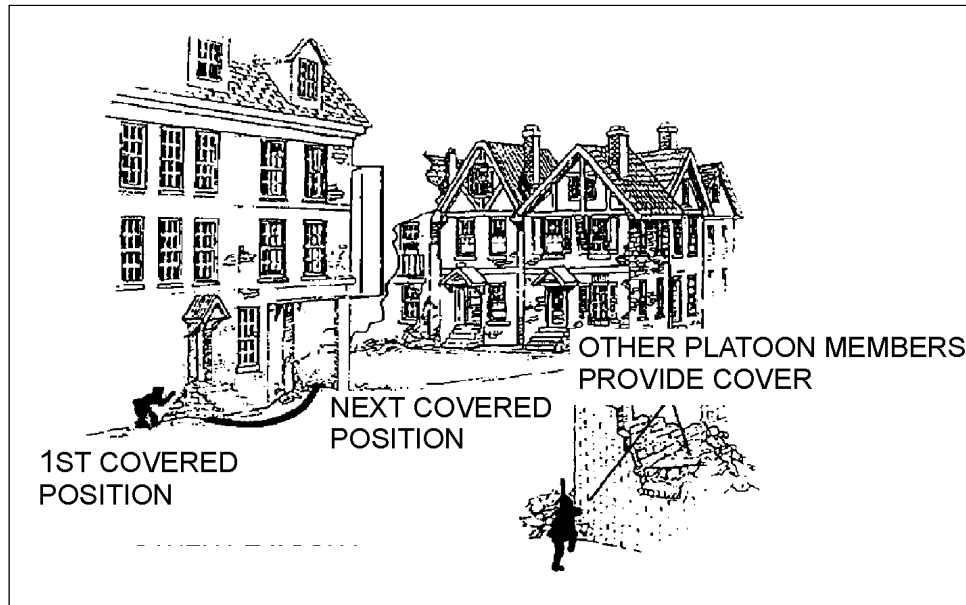


Fig 2-9. Crossing danger area while moving down a street.

- (1) High-low technique. When the point man comes up to the corner of a building which borders a danger area, he uses the pie technique to clear around the corner. After completing his pie, he gets into either the kneeling or the prone position and covers low. The second man comes up to the corner and gets into a position over the point man. He brings his rifle around the corner and covers high. He tells the point man, "Set," to let him know he is in position. Begin sending men across the danger area. The first two men across the danger area assume the same "high-low" position around the corner of the other side so they can cover the back side of the danger area. The third man across assumes the point man's position and continues the movement down the street. He adjusts his speed according to how fast the rest of the unit is crossing the danger area.
- (2) High-low bump technique. If you want to switch off your high-low men, the procedure is simple. Follow the same procedure as the high-low technique until the point where you start sending Marines across the danger area. The third man in the formation gets right behind the second man (high man) and tells him, "Set," to let him know he is ready (figure 2-10). The high man tells the point man (low man) "Go." At this signal, the low man crosses the danger area. When he leaves, the high man crouches down and assumes the previous man's position while the third man assumes the high man's position. When the previous low man gets across the danger area, the second relief man assumes a position right behind the first relief man and the procedure is repeated. The rest of the procedure remains the same as for the high-low technique.

The advantage of the high-low bump technique is that each man gets a chance to see what the danger area looks like before he actually crosses it (figure 2-10). This lets you pick out your route as well as the likely enemy positions. The procedure that you use should follow your unit standard operating procedure (SOP).

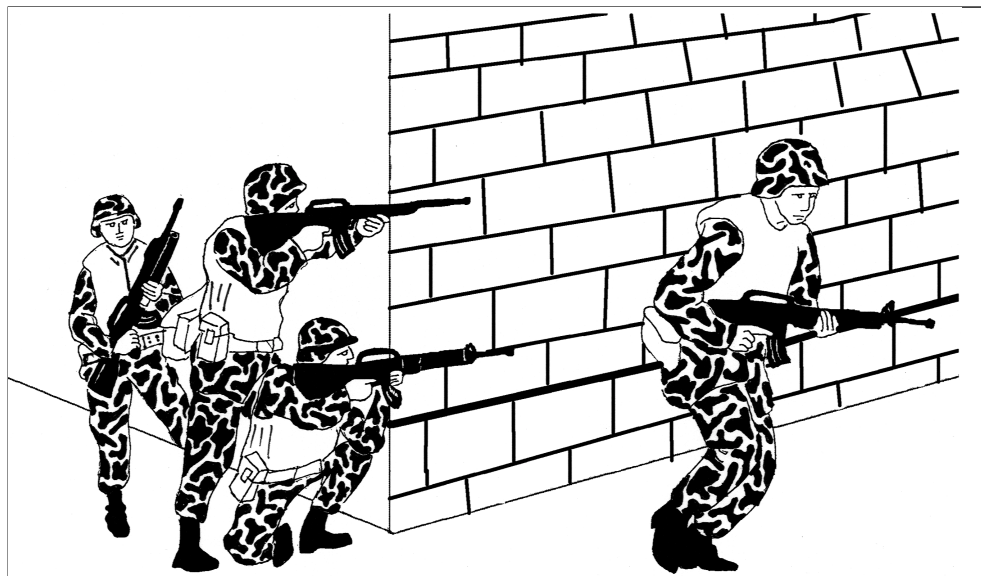


Fig 2-10. High-low bump technique.

Lesson Summary. During this lesson you learned the procedures to use for individual and unit movement inside a city. You learned how to clear an area using the pie technique and how to cross danger areas.

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### **Lesson 3. PREPARATORY STEPS FOR ENTERING A BUILDING**

#### LEARNING OBJECTIVES

1. Select the correct factor for determining the attack order.
2. Determine tasks to isolate a building during an attack.
3. Identify the weapon specifically designed for breaching entry points.
4. Identify the appropriate time for the search party to move to an entry point.

### 2301. The Factors for Determining the Order of Attack

With any combat operation, there are certain preparatory steps that you must take before you begin an attack. Following are the factors that will determine the order of attack on a building in your area of responsibility.

- a. Covered routes. Minimize your exposure to enemy fire. Use covered routes as much as possible in planning your attack.
- b. Good positions for the base of fire and covering party. The search party needs support. To provide support, assign good positions to the base of fire and covering party so they can cover the search party's movements.
- c. Weak link. Look for a building that may be a weak link in the enemy's defenses. We have all heard the cliché about how a chain is only as strong as its weakest link. This applies to a defensive position as well.

To find that weak link, look for a building that is not protected by fire from other enemy buildings. If possible, find a building that is connected to several other buildings. By gaining access to this one building, you can blow holes in the walls that connect the buildings and take the entire complex. Finally, there may be one building that dominates the enemy's defenses and its capture will force the enemy to abandon the other buildings in the area as well.

### 2302. Isolating the Building

The base of fire does this by accomplishing two tasks, suppressing the enemy and establishing kill zones around the building.

- a. Suppressing the enemy. Suppress the enemy in the objective and adjacent buildings by engaging all possible enemy firing positions. Continue to do this until the search team enters the building. At that time, the base of fire will engage likely enemy firing positions in all buildings **except for those in the objective building**; this is to prevent friendly casualties. Remember, in combat, your targets will be fleeing. You will rarely get a good view of your targets. In MOUT, this situation will be even worse. If you see a target in a building where friendly troops have entered, you will have no sure way of knowing if the target is enemy or friendly.
- b. Establishing kill zones around the building. Using automatic weapons, establish kill zones outside all exits. Do not open fire with these weapons unless you have specific targets to engage and these targets are exiting the building. The assault element will try to flush the enemy out of the building (rather than kill him inside). Since the enemy will fight more fiercely if he thinks he is trapped, you present him with what appears to be a way out. If you can't cover all of the exits, cover them with indirect fire such as mortars set with air burst fuzes. These kill zones also prevent the enemy from bringing in supplies and reinforcements.

### 2303. Selecting Initial Entry and Breach Points

The squad leader must decide where to make the breach.

a. From the roof or the highest point possible. Enter at the highest level possible to minimize the amount of upstairs fighting. Availability of access to upper stories and the cover and concealment in the area will affect your ability to enter the building above the ground floor. A squad leader has to evaluate the risks of scaling the side of a building or clearing upward from the ground floor. Remember, clearing a building from the bottom up may force the enemy into a corner where he will fight like a caged animal. It is better if you can flush him into the kill zones that the base of fire has set up. Once the squad leader determines the entry point, he can pass this information using the numbering system discussed in study unit 3, lesson 4.

b. Making your own entry point. The enemy may have the doors and windows boobytrapped. When you are in the middle of a fire fight, you don't want to have to clear boobytraps from a window or doorway. The entry point that you make must be at least 24 inches in diameter. If it is smaller, you will have a difficult time getting through the hole. There are many ways in which you can make your own entry point, to include the following:

- (1) SMAW. The SMAW is specifically designed for breaching entry points. Unlike antitank weapons, it does not have a shaped charge. When a SMAW round hits, it will punch a nice-sized hole in the wall.
- (2) Tanks. The tank's main gun fire is very effective in breaching the walls of a building. But remember that a tank's survival depends on its mobility and ability to destroy the enemy from long ranges. Both of these abilities are severely limited in urban terrain.
- (3) M203 and MK19 grenade launchers. Both of these weapons work well against thin targets. The M203 cannot reasonably deliver the rounds needed to breach a typical exterior wall. The nice thing about the M203 is that every fireteam leader has one. The nice thing about the MK19 is that "several well-placed rounds" is not a problem when firing from the tripod, using a locked-down traversing and elevating mechanism. However, there is no precise data existing as to the number of rounds required to produce loopholes or breach holes with the MK19.

- (4) Explosives. The problem with using explosives is someone has to move up to the entry point to set them. Also, you must tamp the explosives against the point of entry to prevent the power of the charge from dissipating **away** from the wall. You do this using a sandbag to cover the explosives (figure 2-11) which forces some of the explosive charge back against the point of entry. If your point of entry is a wall, you will have to use a thick board or timber to hold the sandbag against the explosives. Normally, buildings have exterior walls 2 feet or less thick. Assuming that all outer walls are constructed of reinforced concrete, a good rule of thumb for breaching is to use nine (9) one-quarter pound blocks of C-4 placed against the target between waist and chest height. This will normally blow a hole large enough for a Marine to get through. If this charge is not elevated at least one wall thickness above the base of the wall, the charge will not create the desired effect. If your point of entry is a roof, place the sandbag on top of the charge.

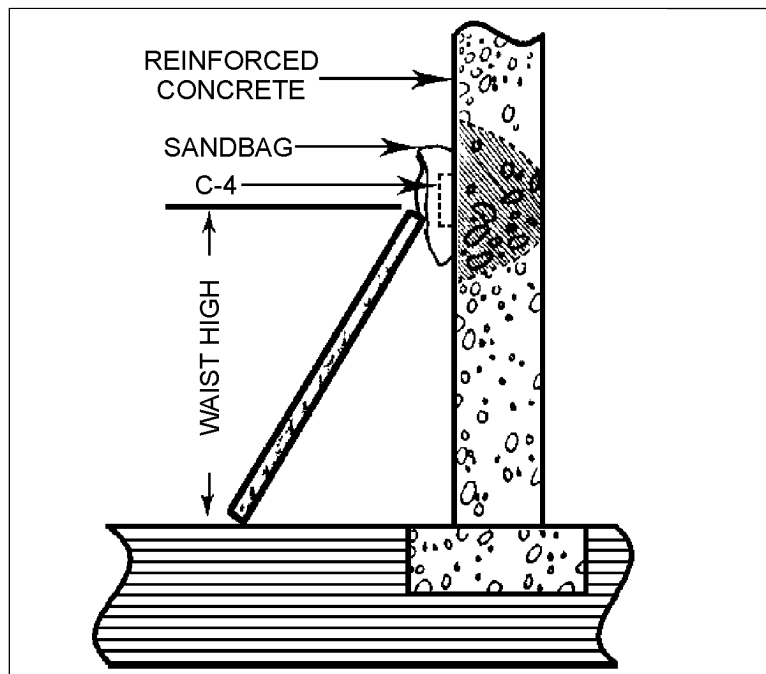


Fig 2-11. Tamping explosives to make an entry point.

#### 2304. Search Party Movement to Entry Points

After the base of fire suppresses the enemy fire, the search party moves to the entry point. The search team moves to the breach while the cover team moves into a position to cover the search team. Ideally, the search party must move immediately after the breach has been made but before the rubble and smoke from the breach have settled. For example, if the breach is to be made with a SMAW, the search party must move as soon as the SMAW round strikes the building. This will help the search party gain entry to the building since the enemy will still be in shock from the detonation of the SMAW round. The search party may need to use smoke grenades to cover their movement to the entry point. During their movement, they must be sure



not to mask any friendly fires. If you are using explosives to open your point of entry, the search party must move to the objective before the breach is made.

Lesson Summary. During this lesson, you learned the preparatory steps that you must take before entering a building. This includes determining the order in which you will capture the buildings in your area of responsibility, isolating the objective, selecting the entry point, making the breach, and moving the search party to the entry point. During the next lesson, you will learn about how to make an initial entry into a building.

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## **Lesson 4. CONDUCTING AN INITIAL ENTRY**

### LEARNING OBJECTIVES

1. Identify the three general ways to enter a building.
2. Identify the three types of stack formations.
3. Identify the techniques for entering a room.
4. Identify the proper procedure for entering a building from the upper floor.

Introduction. Clearing or defending a building is easier using a breach on the highest floor; however, you will begin this lesson with the bottom floor because the entry techniques described once you are in the room will be the same regardless of which floor you are on, and they will be referred to throughout this lesson.

The lesson will take you through the first floor entry to using the stack formation to enter any room. You will cover room entry techniques, again used in any room, then study the many methods of gaining entry into to the building from upper floors.

### **2401. First Floor Building Entries**

a. General. Although entering a building from an upper floor is preferred, you will often find that entering from the first floor is the only viable option. There are three ways to enter a building: hot entry, cold entry, and SWAT team entry. A hot entry is faster and more violent than a cold entry. Use it when you know the enemy is occupying the building. Use a cold entry when you don't know the enemy's location, such as in a guerrilla warfare situation with large numbers of civilians present in the battle area. The third way to enter the building, SWAT entry, is also a cold entry. Since this technique relies heavily on speed and surprise, you would use it during a gorilla warfare situation or during a night raid. It will be covered in more detail in the next lesson.

Note: The confined spaces of buildings are ideal places to use riot control agents such as CS and CN. Riot control agents will cause visibility problems inside the building, but there will be visibility problems anyway due to dust, smoke, and fires. As always, you must get permission from higher authority before using such agents.

- b. Hot entry. Earlier, you discovered the best way to enter a building is for the search party to wait under cover while a breach is made at the entry point using a SMAW or other preferred weapon. The search party rushes in through the entry point directly from their covered position. There may be times when using this technique is not possible, such as when there is an insufficient distance between your objective and the SMAW team for the round to arm itself or if you pause outside the entry point before entering the building. If you do pause, the point man must throw at least one handgrenade into the room before entering himself. The Marines enter the room immediately after the grenade explodes. They shoot only at specific visual targets.
- c. Cold entry. A cold entry is the same as a hot entry except you do not breach entry points or throw in handgrenades before entering. The base of fire still sets into position, but they do not open fire. A cold entry becomes a hot entry if the enemy is encountered.

## **2402. Stack Formations**

Stack formations are used for entering into rooms and for entering into the building from the ground level. The following paragraphs discuss the latter movement. Later, the stack formation will be discussed regarding entry into rooms.

- a. Determine the formation. Once you reach the breach, there are three ways to stack your search party: 4 x 0, all four Marines on one side of the entry point (figure 2-12); 3 x 1, one Marine is on one side of the entry point with the other three men on the other side (figure 2-12); or 2 x 2, two Marines on each side of the entry point (figure 2-12). The advantage of a split stack formation (3 x 1 or 2 x 2) is that you can see more of the room before you actually enter, but a split stack formation is not always feasible. To split the team means that one or two of the Marines must cross in front of the entrance. If the entrance is open, you expose yourself to enemy fire.

Notes: In a 3 x 1 stack, it does not matter which side of the entry point the single man is on.

You will notice that in the 3 x 1 and the 2 x 2 stacks, the point man and the fireteam leader are the two Marines who are closest to the entry point.

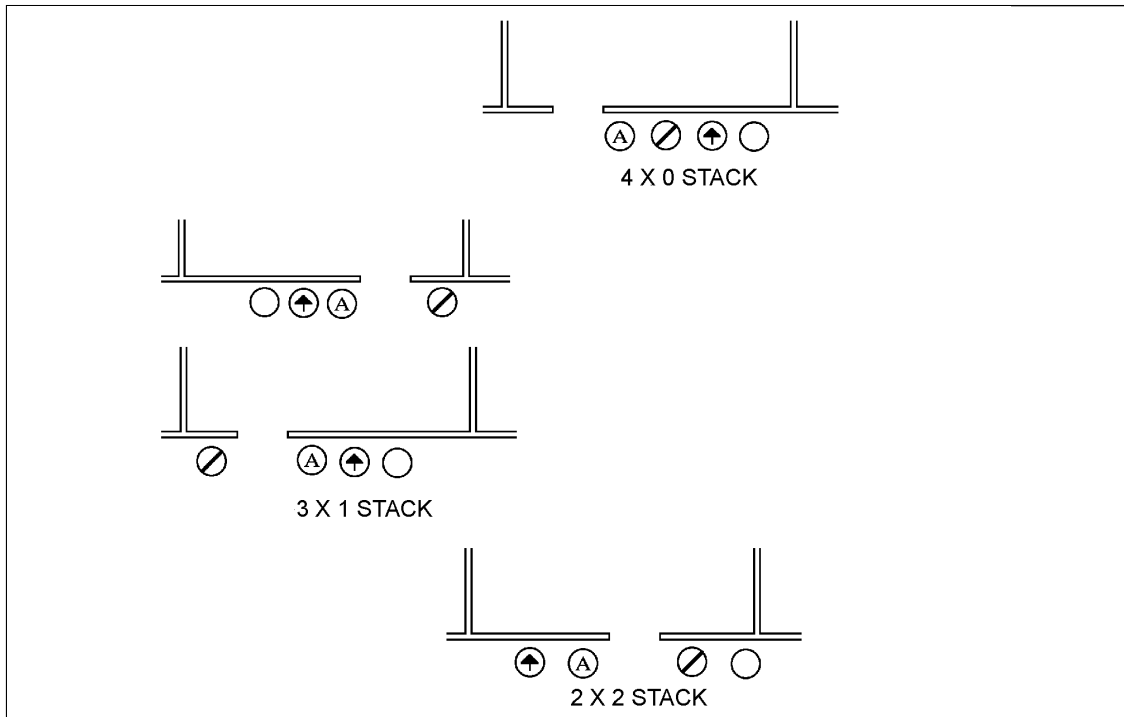


Fig 2-12. Stack formations.

b. Movement in the stack formation. Whichever stack you use, there are a few things to remember. Do not move anyone across an open entry point to stack the other side since doing this unnecessarily exposes your Marines to enemy fire from inside the entry point. If you are going to use a certain stack, you should determine this before you move to the entry point so your Marines can move directly to their assigned side of the entrance.

You can use simple hand and arm signals to tell the search party what type of stack you will use. For example, holding four fingers up means a 4 x 0 stack, three fingers means a 3 x 1 stack with three men on the right side of the entry point, one finger means a 3 x 1 stack with three men on the left side of the entry point, and two fingers means a 2 x 2 stack. Once the search team is in its proper stack formation beside the entry point, all Marines in the search team must direct their attention to the entry point. Stay as close to the wall as possible for protection.

If the one or the two Marines closest to the entry point see anything inside the building, they must pass this information on to the rest of the search team. Important information includes room size and any furniture or obstacles they see. Also, some sort of overhead and rear security must be provided to the search party. It is best to delegate this responsibility to the base of fire or cover party since the search party must concentrate on entering the building.

### 2403. Room Entry Techniques

You can have as many members of the search party enter the building with the initial rush as you want. If it appears that the room is small, then you may want only the point man to enter and clear the room. If it appears that the room is large or the enemy has been putting up stiff resistance, then you may want your entire party to enter. It is preferable for at least two men to enter the room to clear it, but the decision is up to you. Now that you have decided how many Marines of the search party are going to enter the building, you must decide where each man is going once he passes through the entry point.

a. There are five entry methods:

- (1) Straight entry. A Marine making a straight entry simply moves through the entry point and stops at a position 10 to 15 feet directly in front of the entry point (figure 2-13).

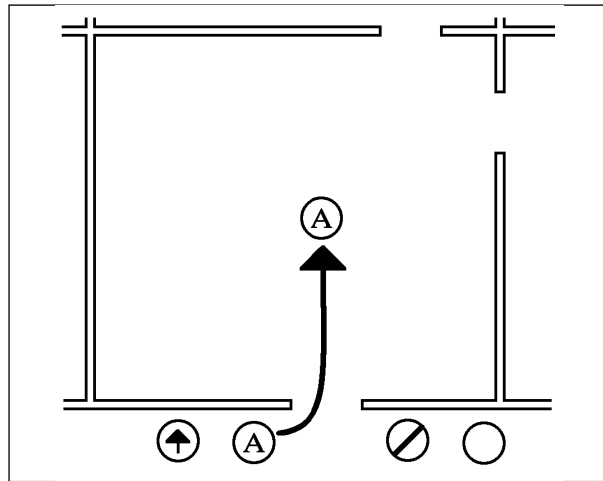


Fig 2-13. Straight entry.

- (2) Limited penetration. This entry is the same as a straight entry, only the Marine stops directly in front of the entry point (figure 2-14).

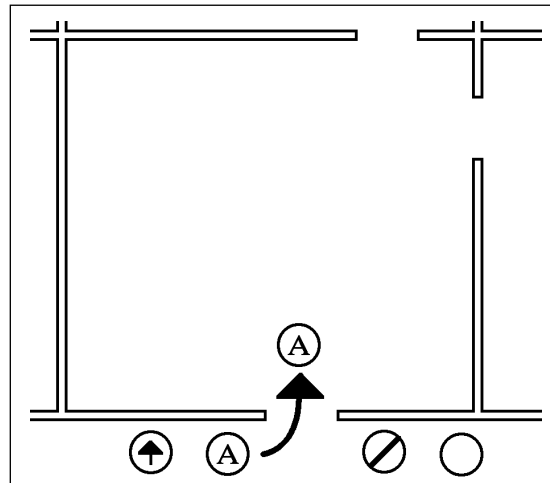


Fig 2-14. Limited penetration.

- (3) Button hook. With this entry, the Marine enters the room, then immediately hooks back against the wall.

If his position in the stack is on the left side of the entry point, then he hooks to the left. If his position in the stack is on the right side of the entry point, then he hooks to the right (figure 2-15). When the button hook is completed, the Marine is within 5 feet of the entry point.

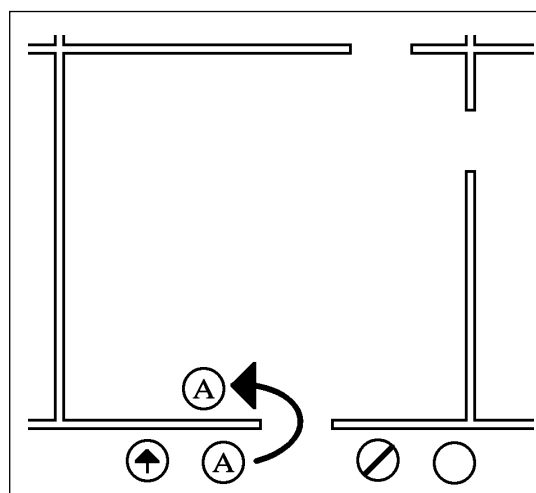


Fig 2-15. Button hook.

- (4) Cross entry. The cross entry is the same as a button hook except the Marine crosses over to the other side. For example, if the Marine is on the left side of the stack, he crosses to the right side of the room (figure 2-16). When the Marine completes his cross, he is within 5 feet of the entry point.

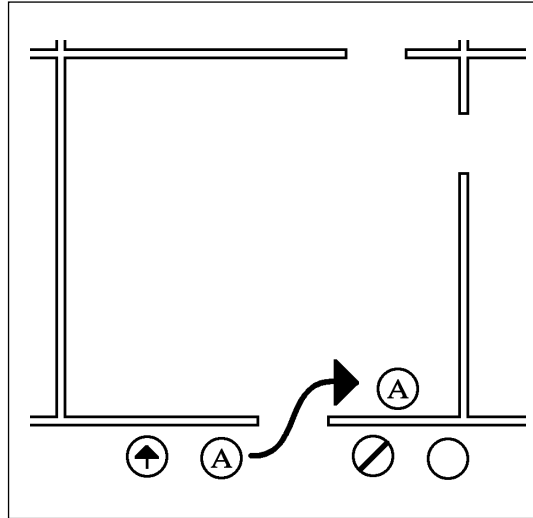


Fig 2-16. Cross entry.

- (5) Combination. If more than one Marine is entering the building, you can use any combination of entries and in any order (figure 2-17). For example, you could have the first man do a straight entry, the second man a button hook, the third man a cross, and the fourth man a limited penetration. You can have two men doing button hooks or two men doing crosses. There are a large number of possible combinations you can use. The only guideline is if someone is conducting a limited penetration, he must be the last one through the entry point so he won't interfere with the rest of the team's entry.

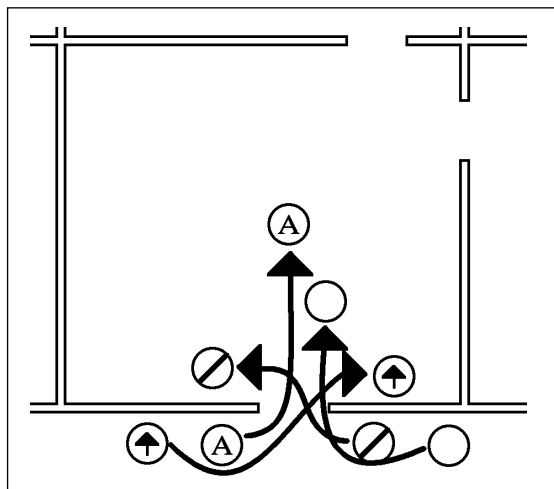


Fig 2-17. Combination entry.

b. Designation of room entry team members. Who designates Marines, how many of them will enter the room, and what kind of entries they use are questions you must answer. Designate whoever is closest to the entry point because he has the best view of the inside of the room. If you have a 4 x 0 stack, the person closest to the entry point would be the point man. If you have a 3 x 1 or a 2 x 2 stack, the fireteam leader can make the determinations. How do you tell everyone what kind of entry to make and what order to enter the room? It's simple. You just use hand and arm signals. The fireteam leader (or point man) points to each Marine, one at a time, and uses hand and arm signals to tell them which entry to use. Whomever he points to first, enters first. Whomever he points to second, enters second, etc.

c. Throwing in a handgrenade. The second Marine in the stack is responsible for throwing the handgrenade because the one (or two) who is (are) closest to the entry point is too busy covering the part of the room that is visible to him (them). The grenade thrower pulls the thumb clip and pin, lets the spoon fly, lets the handgrenade "cook off" for two seconds, and throws the handgrenade into the room. He should throw hard and towards a far corner of the room and near the ceiling, so the enemy cannot pick the handgrenade up and throw it back.

d. Entering the room. As soon as the handgrenade explodes, those Marines designated to enter the room (the search team) rush into the room (in their designated order).

Caution: If the wall of the building you are using for cover is thin, **DO NOT** clear the room with a handgrenade as your Marines may be injured from the explosion.

**DO NOT SPRAY THE ROOM.** Shoot only at specific visual targets. Spraying is unproductive and wastes ammunition.

Note: If anyone's rifle malfunctions, he shouts out "RED!" and the direction of the enemy that he tried to engage when his weapon malfunctioned (for example, "RED, RIGHT FRONT!"). He then gets out of the way by taking cover and performs immediate action to clear his weapon. The nearest Marine then engages the enemy.

e. Clearing the room. Each Marine covers his designated area of the room. He pays particular attention to any doors, windows, or openings in his area. Two Marines (usually the point man and another Marine) then conduct a thorough search of the room. They assume a position touching each other so they are almost back-to-back and hold their rifles using the short stock technique.

The point man does the actual searching while the other Marine covers him. The Marines move around the room (following the point man's lead) and search all possible places where the enemy may hide. The cover man must have some sort of physical contact with the point man (such as with his shoulder or elbow) so that he can follow the point man without having to look where the point man is going. This permits him to concentrate on his job of covering the point man. The search begins close to the entry point and expands outward.

As the point man clears the other side of any furniture in the room (or other obstructions) using the pie technique, he calls out what he sees, for example, trap doors, loopholes, dead enemy, etc. This alerts the rest of the search team to what the point man sees. If the point man and his cover man are killed while searching the room (for example, by an enemy soldier behind a hidden trap door) the rest of the search team will know what to expect when they take corrective action. During the search, the point man and cover man must be extremely careful of all doors, windows, and other openings. Once they have cleared openings, another member of the search team moves up to that opening to cover it.

Caution: If you suspect mines or boobytraps are inside the room, your best option is to leave the suspected areas alone. Mark the area and pass the information to the Marines coming behind you. Engineers or follow-on forces will handle them. Mines and boobytraps do not prevent you from clearing the rest of the building. Each Marine who enters the room must be advised of the suspected mines and boobytraps.

If mines and boobytraps interfere with your search of the room or the clearing of the building (such as a doorway that is mined), you must find a way to circumvent the problem. One way would be to breach a new opening with explosives.

Once you have cleared the entire room using this technique, call the cover team (the other part of the search party) into the room. Before they can enter the room, however, someone from the cover party must first relieve them from their covering positions. Before the cover team enters the room, each man shouts out his name and "COMING IN!" to let the search team know that a "friendly" and not an enemy soldier is entering the room. The cover team takes up the position where they can best cover the search team's back as they continue clearing the building. For example, if there are two openings in the room that lead to other parts of the building, the cover team covers one of the openings, while the search team continues the attack through the second opening.



Note: If you choose to enter the building using the preferred technique, entering from your covered position immediately after the breach has been made, you can modify the appropriate parts of this paragraph. You would decide who was entering the building with the first rush and what type of entry each man would use (button hook, cross, etc.) before you left your covered position. You would not clear the room with a handgrenade since you are not pausing outside the building. Everything else remains the same.

#### **2404. Upper Floor Building Entries**

Earlier in this study unit we said it was best to enter a building using a breach on the highest possible floor of the building. In this section, you will learn the different techniques for entering an upper floor. You may note that they are hot entries.

Clearing or defending a building is easier from an upper level. Gravity and the building's floor plan become assets when throwing handgrenades and moving from floor to floor.

a. Top floor or roof entry. You can use various means to reach the top floor or roof of a building such as ladders, fire escape ladders, rainspouts, vines, helicopters, grappling hooks, or the roofs, windows, or holes blown in walls of adjoining buildings.

- (1) Ladders. Ladders offer the quickest method to gain access to the upper levels of a building (figure 2-18). You can get ladders from local civilians, stores, or obtain material to build ladders through supply channels. If required, ladders can be built with resources available throughout the urban terrain; for example, lumber can be taken from the inside walls of buildings (figure 2-19). Although ladders will not allow access to the top of some buildings, they will offer security and safety through speed.



Fig 2-18. Using ladder to get to upper level.

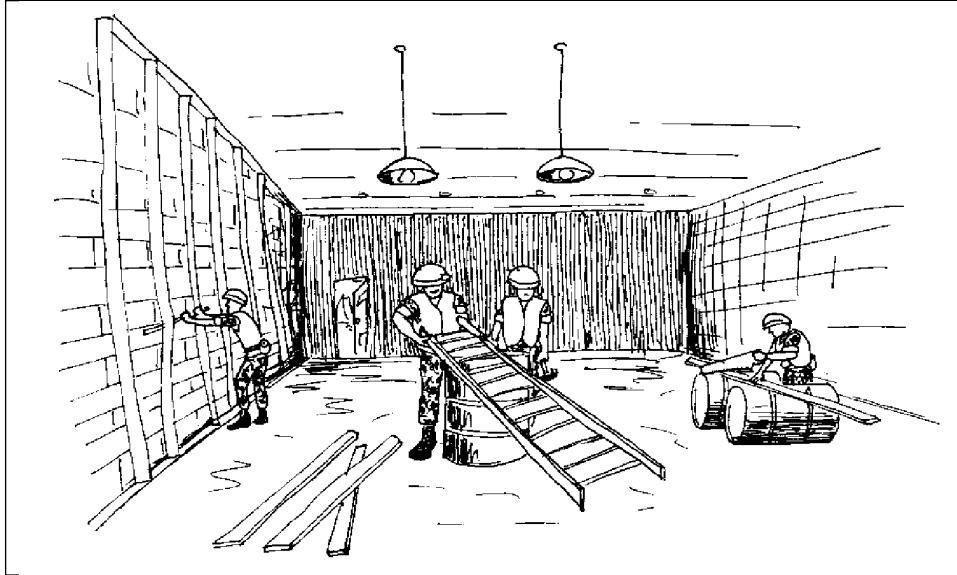


Fig 2-19. Getting lumber from inside walls.

- (2) Grappling hook and rope. Select a suitable grappling hook and rope. The grappling hook must be sturdy, lightweight, easily thrown, and equipped with hooks that are likely to hold once inside a window. The scaling rope must be  $\frac{5}{8}$  to 1 inch in diameter and long enough to reach the targeted window. Knots tied in the rope at 1 foot intervals will facilitate climbing.
  - (a) Stand as close to the structure as possible (figure 2-20). The closer the thrower stands to the structure, the less he is exposed to enemy fire, which is why it's the least preferred method. Standing close to the structure will make it harder for him to throw the grappling hook where he wants it.

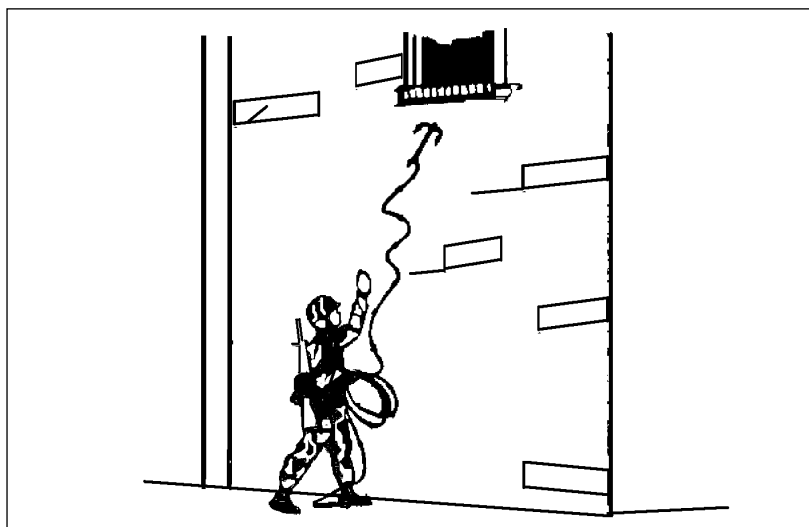


Fig 2-20. Position for throwing the grappling hook.

- (b) Allow the rope to play out freely. Ensure you have enough rope to reach your target. Have the hook and a few coils of rope in your throwing hand. The remainder of the rope, in loose coils, must be in your nonthrowing hand so you can release the rope as it plays out.
- (c) Ensure the hook has a solid hold before beginning to climb (figure 2-21). Once the grappling hook is inside the window (or on the roof), the climber pulls on the rope to obtain a good hold. When using a window, the hook must be pulled to one corner to enhance the chances of a good "bite" and to reduce exposure to lower story windows during the climb.

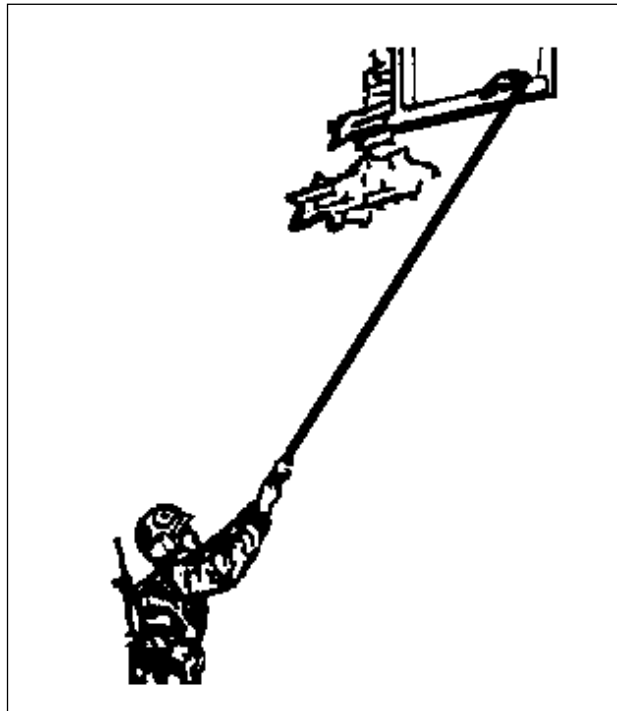


Fig 2-21. Ensuring a proper hold.

- (d) The climber must avoid silhouetting himself in windows of uncleared rooms. He must avoid exposing himself to enemy fires from lower story windows. The climber must clear the lower story room with a handgrenade before ascending outside the window. He must loosen safety pins on grenades used for clearing rooms during the ascent to facilitate one-handed employment. He can enter the objective upper story window only after he has thrown a handgrenade in.

- (e) Enter the objective using the lowest possible silhouette (figure 2-22). The climber can enter head first; however, a preferred method is to hook a leg over the window sill and enter sideways, straddling the ledge.

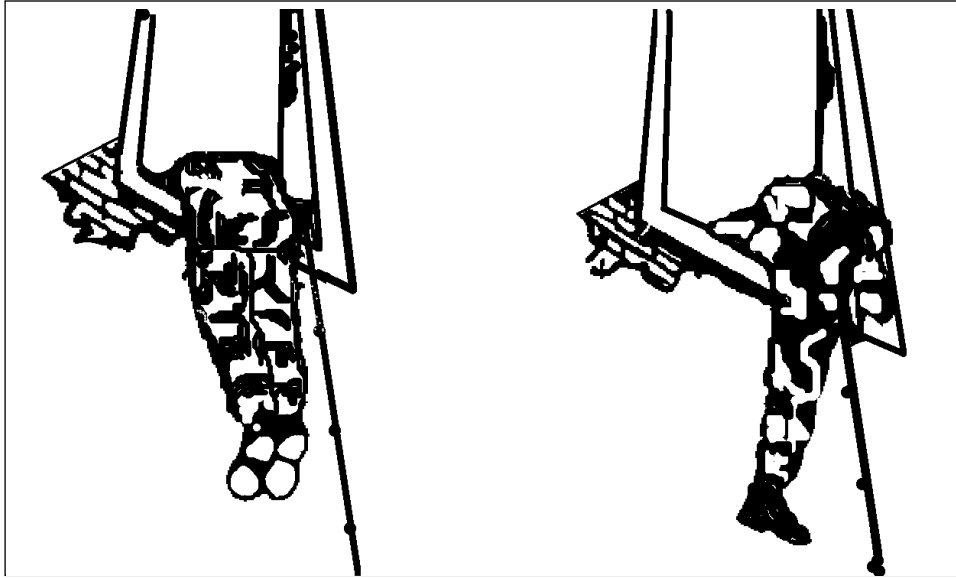


Fig 2-22. Entering through second floor window.

- (f) The use of grappling hooks is the least preferred method for gaining entry to upper levels of buildings. It should be used only as a last resort and away from potential enemy positions. This method may potentially be used on adjacent buildings that offer concealed locations and a connecting roof to enemy positions.
- (3) Helicopters. When enemy air defense weapons can be suppressed and assault parties can be transported to the rooftops by helicopter, helicopters should land only on those buildings that have special heliports or parking garages on the roof. Marines can reppel or fast-rope onto the roof (figure 2-23) or dismount as the helicopter hovers a few feet above the roof. The assault party then breaches the roof or wall with explosives and use ropes to enter the lower floors. Stairs should be guarded by the covering team or search team when not in use.

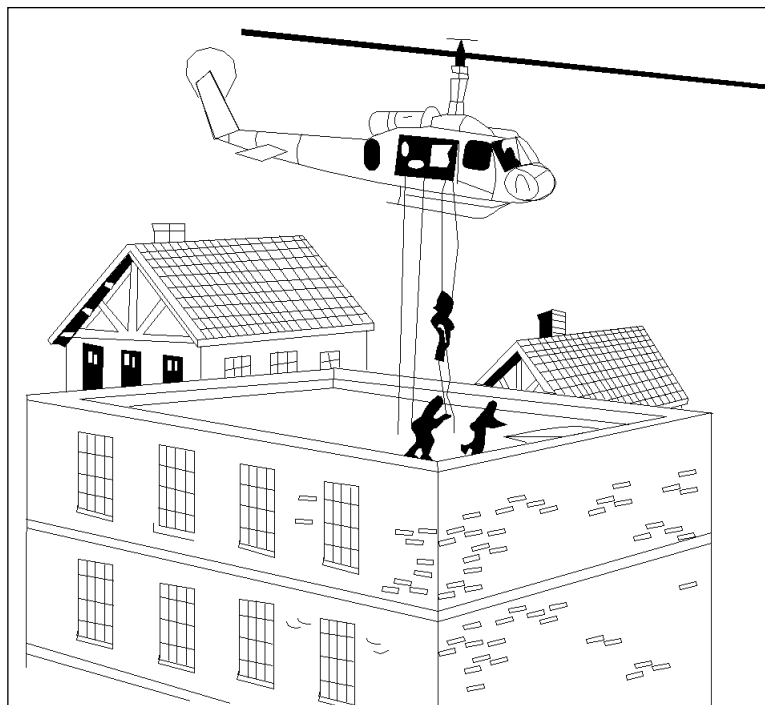


Fig 2-23. Helicopter rappel/fast rope.

b. Second floor entry. If it is difficult or impossible to enter a building from the roof, the squad leader can choose to enter it from the second floor. There are several things that he must consider before he actually enters the building from the second floor.

- (1) Clearing the entry point. You have two options when clearing an entry point.
  - (a) Handgrenade. The Marine throwing the handgrenade will have to be relatively close to the building, since few Marines could throw a handgrenade through a small opening from across the street. If the Marine does not get the grenade through the entry point, the grenade can fall back and explode near him. For this reason, this is the least preferred option.
  - (b) M203 and MK19. These grenade launchers are excellent (therefore the best option) for clearing an entry point. You can fire them accurately from a distance and they pack enough punch to do the job.
- (2) Moving to the entry point. As the squad leader making the entry, you must make a decision. The search team can move to the entry point before you clear the entry point (as in the case of your clearing the entry point with a handgrenade) or they can move after you do it (as in the case of your using an M203). If you are bold enough, you could clear the entry point with an M203 while the search team is positioned under the entry point. You must have absolute trust and confidence in your ability to shoot the grenade launcher accurately.

- (3) Techniques for lifting Marines to the second floor. There are several ways to boost a Marine up to the second floor.
- (a) Two-man lift, supported. In this method, two Marines stand facing one another holding a support board, bar, weapon, etc. (1). A member of the search team places his feet up onto the support (2) and is then raised upward into the entrance (3) (figure 2-24).

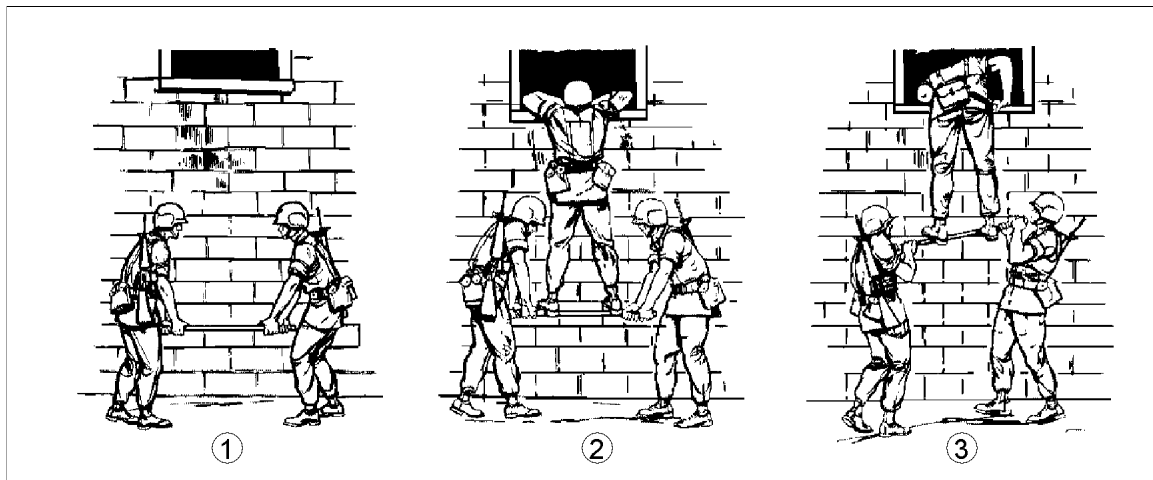


Fig 2-24. Two-man lift, supported.

- (b) Two-man lift, unsupported. In this method two Marines bend over, facing one another with their hands cupped together, their feet shoulder width apart and about 2 feet from the wall (1). A search team member raises his feet up into their cupped hands (2) and is lifted upward into the entrance (3) (figure 2-25).

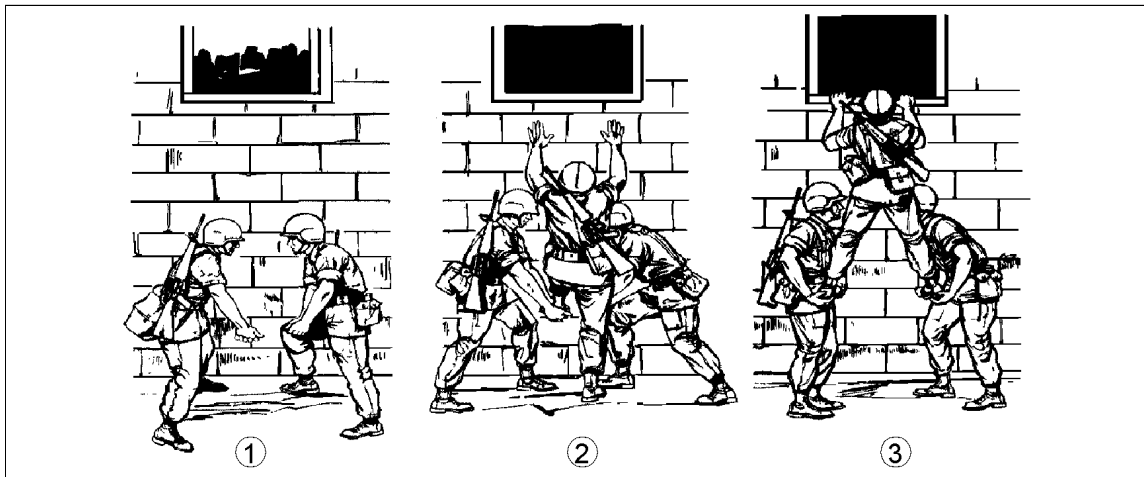


Fig 2-25. Two-man lift, unsupported.

- (c) Two-man lift, heels raised. One man stands approximately 2 feet away from the building, raises his heels, and places his palms flat against the wall (1). Two men bend over facing each other, and with cupped hands, grasp his heels (2) and lift him up into the entrance (3) (figure 2-26).

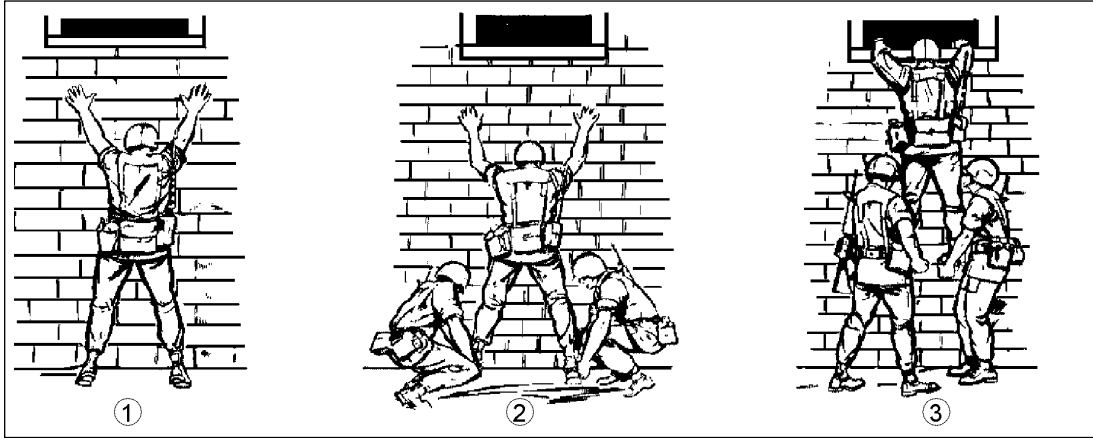


Fig 2-26. Two-man lift, heels raised.

- (d) Two-man ladder. Two Marines face the building with their hands against the wall and above their heads (1). They place their feet about 2 feet from the wall and spread them about **double** shoulder width apart (2). They then crouch down so their thighs are parallel to the ground (3). The Marines' inboard feet must be close together. A third Marine comes from behind and climbs the other two Marines' inboard thighs and shoulders like a ladder (4) (figure 2-27).

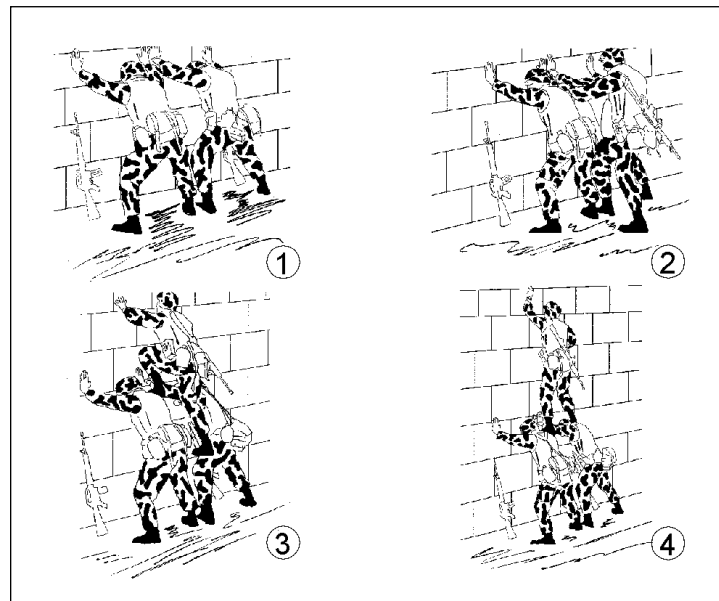


Fig 2-27. Two-man ladder.

- (e) One-man lift. This is the same technique as the two-man lift unsupported technique described in figure 2-25. The only difference is that only one Marine does the lifting (figure 2-28).

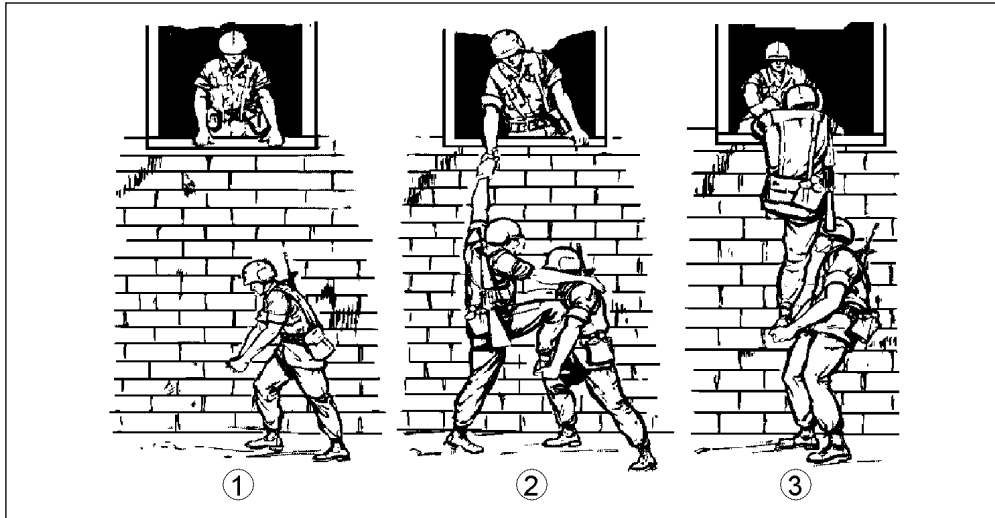


Fig 2-28. One-man lift.

- (f) One-man ladder. Repeat steps for the two-man ladder described in figure 2-27, except only one Marine is used to form the ladder (figure 2-29).

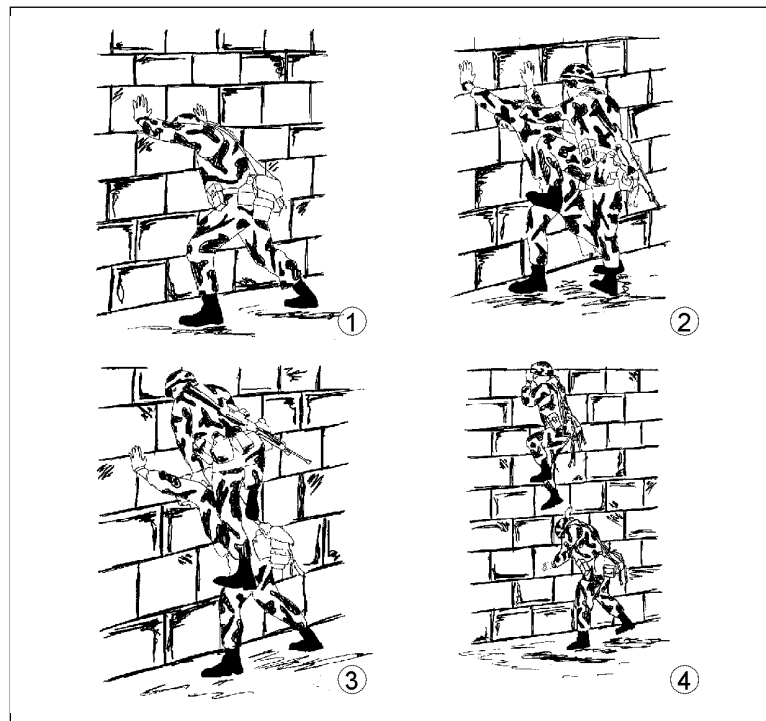


Fig 2-29. One-man ladder.



- (g) Two-man pull. Once the search party is inside the point of entry, they can assist other Marines up by leaning out the entry point (1), grabbing them by the wrists (2), and pulling them up (3) (figure 2-30).

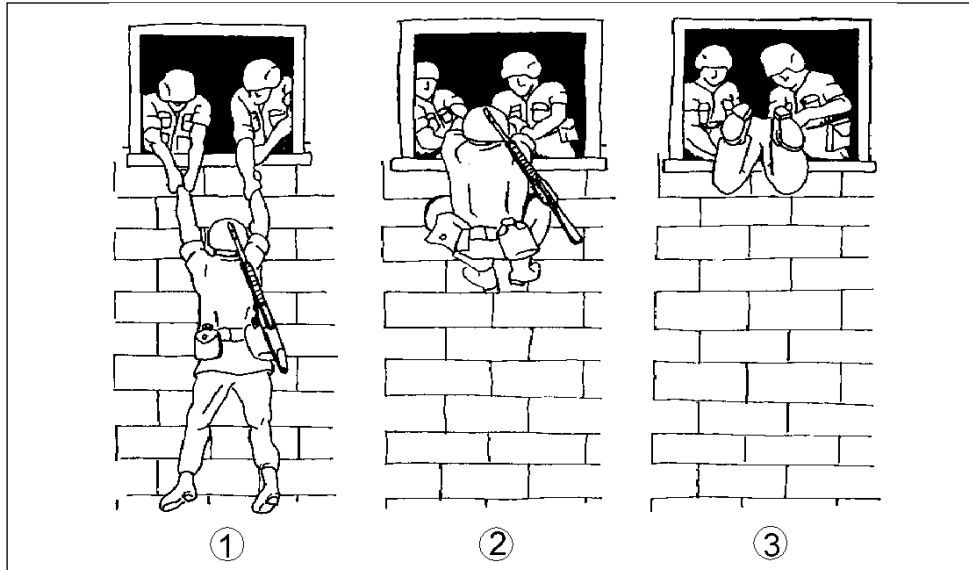


Fig 2-30. Two-man pull.

- (4) Clearing the room. Whichever technique you use to get to the second floor, you still clear it the same way as the first floor. You must get the search party into the building as quickly as possible. The first man in does not begin clearing the room until the entire search party is in.

Lesson Summary. That was a pretty long lesson, but it covered a lot of important information such as the types of entries, stack formations, entering buildings from different floors; also, it included the techniques to cook-off a handgrenade, what to do if your weapon malfunctions, clearing a room, using a grappling hook, and executing the seven types of lifts. During the next lesson, you will learn how to clear the rest of the building.

## Lesson 5. CLEARING THE BUILDING

### LEARNING OBJECTIVES

1. Identify the general techniques for clearing the rest of a building.
2. Identify the proper techniques for clearing a building between floors.
3. Identify the proper methods of using grenades when clearing a building.
4. Select the correct procedures for the assault element to enter and clear a building using the SWAT team technique.
5. Identify the procedures for post building clearing operations.

### **2501. Clearing the Remainder of a Building**

In the previous lesson, you learned techniques for making the initial entry into a building. Now that you are inside the building, you must ensure the remainder of the building is clear.

a. Search team. The search team systematically clears the building. If you have gained entrance to the building through the roof or on the top floor, clear the building one floor at a time from top to bottom. If you entered the building on either the bottom floor or a middle floor, clear the building in one of two ways: clear one floor at a time from bottom to top or clear a corridor to the top floor and then work your way down. This last option gives you the benefit of entering the building from the top floor, but the problem with the option is that your corridor is very vulnerable to the enemy. You can also become confused and engage your own men as you work your way down. Whichever option you select, the operation must be systematic, which decreases the likelihood of engaging your cover team. The fireteam leader or squad leader tells the point man where the next room is to be cleared. When giving these directions, you must not distract the point man from observing his front. The fireteam or squad leader can either whisper these directions to the pointman or tap him on his back.

Note: When the search team enters the building, the base of fire either ceases fire or shifts fire to other buildings. The base of fire must not run the risk of accidentally hitting a member of the search team or cover team.

b. Vary the ways to enter each room. Never set a pattern (figure 2-31). You can enter rooms through doors and mouseholes (small holes that you make in walls, ceilings, or floors) or you can make your own entrance using explosives. Although C-4 explosives have adhesive backing, you can use additional means to secure charges to the walls. When using C-4, the material construction and thickness of the wall will determine what size charge to use. For thin walls, use one block of C-4 cut into three equal parts. For thicker walls, (brick, concrete, and walls 4 to 8 inches thick) use 1-quarter pound blocks. Place the charges on the wall at an equal distance, at a height between the neck and knees. Prime the charges with detonating cord or three electrical blasting caps to obtain simultaneous detonation.

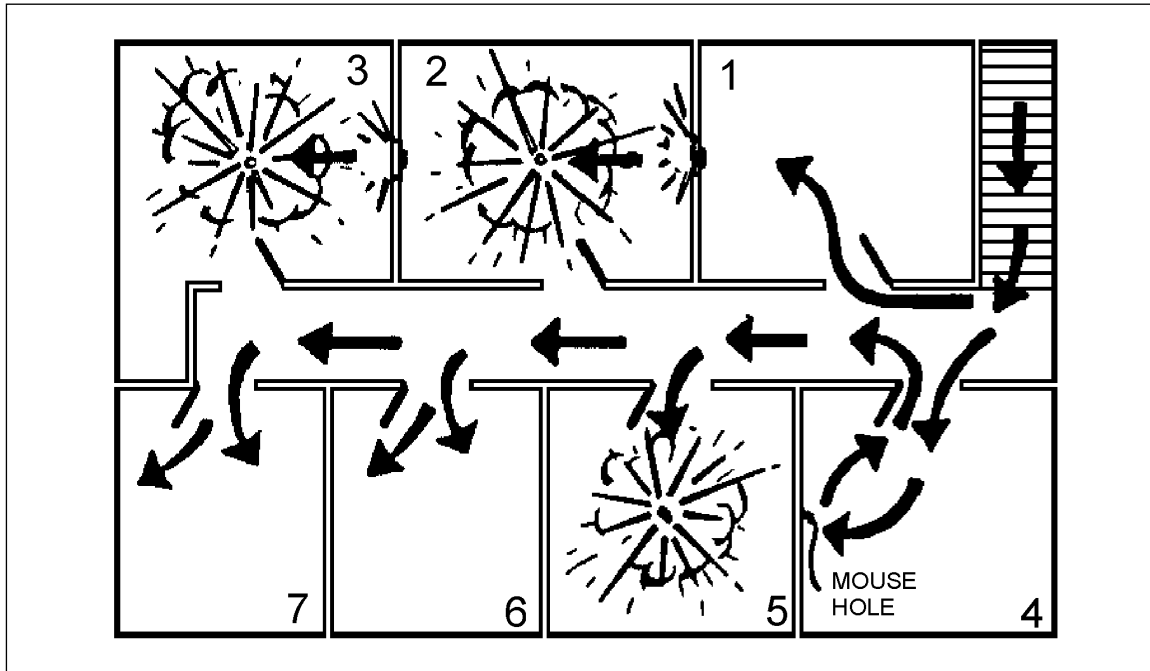


Fig 2-31. Vary how you enter each room.

Enter each room using the same stack formations and types of entry discussed in paragraph 2402 and 2403 (4 x 0, 3 x 1, straight entry, button hook, etc.). Post the cover team so it can cover the search team.

- (1) Closed doors. Avoid entering through closed doors since they could be boobytrapped. If you have no other way to enter that room (due to lack of explosives, etc.) open the door using either a front kick or a mule kick. (The mule kick is the preferred of these two techniques since it gives you more cover after you kick the door open.) Before the door is kicked open, the second man in the stack pulls both pins on a handgrenade. As soon as the door is kicked open, the kicker moves out of the way and the second man in the stack throws in the handgrenade as discussed in paragraph 2403. The remaining procedures for entering and clearing a room are the same.

- (2) Hallways. You must avoid hallways since they present natural fields of fire. If you must move down a hall, everyone must stay to one side of the hall to present a smaller target to anyone shooting down the hall. Each man should stay close to the wall **without touching** the wall. If you brush up against the wall, you "telegraph" your position to the enemy because they can hear the sound of your gear scrapping against the wall. This means that you unintentionally let him know your location.

## 2502. Techniques for Clearing a Building Between Floors

Besides the initial entry into a building, movement between floors may be the most difficult part of your clearing operation.

No matter how you move from floor to floor, the cover party must keep up with the search party. Members of the cover party are deposited along the way to cover doors, windows, mouseholes, and avenues of approach into areas that you have not yet cleared of the enemy.

### a. From an upper floor to a lower floor.

- (1) Using stairs. The procedure is the same as clearing a room. If the stairs are around a corner, line up in a stack formation, throw in a handgrenade, and enter the stairs. Use caution when throwing a handgrenade up a stair well; it could roll back on you. Also, remember the stairs may be boobytrapped.
- (2) Using a mousehole. Stairs are an avenue of approach inside a building but the enemy may have the stairs obstructed with mines, boobytraps, obstacles, and covered by fire. The enemy can also knock down stairs and use mouseholes to move between floors (figure 2-32).

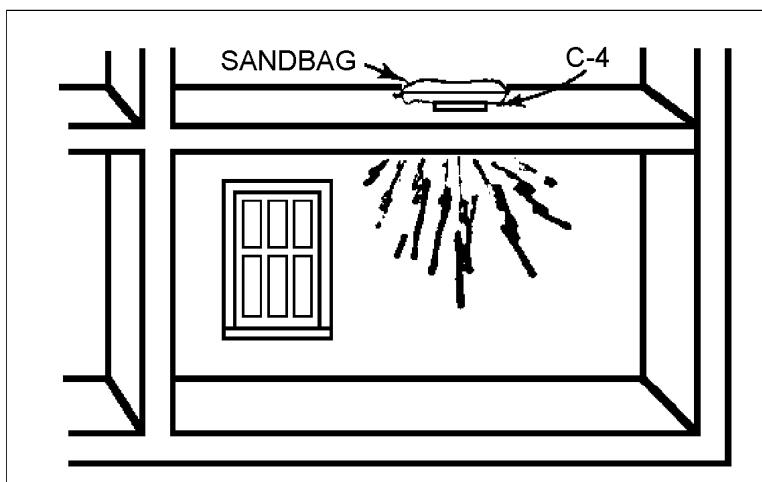


Fig 2-32. Making a mousehole in a floor.

- (a) Create a mousehole. Create your own mousehole. Make it close to an outside wall of the building. When creating the mousehole, tamp the explosives as discussed in paragraph 2303.
  - (b) Use a stack formation. When you finish the mousehole, the search party moves to the mousehole and assumes a stack formation--usually a 3 x 1 or 2 x 2 formation will be the best stack to use. The two Marines who are closest to the mousehole must pie their way into position. In their final position, they should begin either a crouched or kneeling position to permit them to see as much of the room as possible.
- (3) Sending the search party into the room. As soon as the handgrenade goes off, two Marines jump through the mousehole and into the room while the rest of the search team moves forward to take the place of the Marines who have moved through the mousehole. The second Marine through the mousehole must pause briefly before he jumps so that he doesn't land on top of the first Marine. Each Marine covers an assigned sector of the room when they initially enter the room. These Marines must carry pistols instead of rifles since it may be awkward getting through the mousehole with a rifle. No matter what arms they bring, they must point their weapons downward so that if there is an accidental discharge, the round will not go in the direction of the cover party. Once the two Marines have gained a foothold into the lower floor room, before clearing the rest of that room, the rest of the search party enters the room by either jumping or lowering themselves down with a rope or other means.
- (4) Clearing the room. When the entire search party is in the room, it will clear the room in the same manner as all other rooms. It will complete the entire procedure quickly to exploit the element of surprise and to maintain momentum.
- b. From a lower floor to an upper floor.
- (1) Using stairs. Clear the stairs in the same manner as you clear a hallway. **DO NOT** attempt to throw a handgrenade up the stairs--there is a great possibility that the grenade may roll back down toward you!
  - (2) Using a mousehole. Although you can use an existing mousehole, it is best to create your own since the enemy could have the existing mouseholes covered by fire.

- (a) Creating a mousehole. To make your own mousehole, tamp a block of explosives against the ceiling. You must make the mousehole close to one of the outside walls of the building. Hold the explosives in place with some sort of pole or other support (figure 2-33).

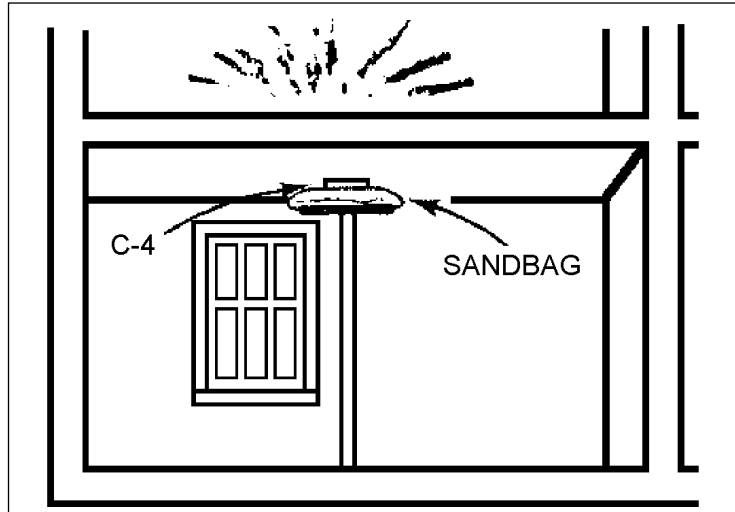


Fig 2-33. Creating a mousehole in a ceiling.

- (b) Search party enters the room. Once the explosives detonate, the search party moves into position under the hole in the same manner as they did when moving from an upper floor to a lower floor through a mousehole. Get the point man up through the mousehole. If the hole is close to one of the walls and the ceiling is not too high, use one of the lifts discussed in paragraph 2404b. A better idea is to build a platform out of furniture for the point man to stand on. Whatever technique is used, the point man must still pie into position. Ideally, the point man is armed with a pistol.
- (c) Clear the room with a handgrenade. One of the Marines on the floor cooks off a grenade and throws it into the room. Remember to throw the grenade hard and into one of the corners.
- (d) Point man enters the room. As soon as the handgrenade explodes, the point man stands erect in the mousehole and visually clears the entire room from his position in the mousehole. If the mousehole is big enough, two Marines can enter the mousehole simultaneously. In this case, the two Marines can then cover each other as each Marine climbs up through the hole.
- (e) Clear the room. The entire search party enters the room. Each Marine should have an assigned type of entry to perform (buttonhook, cross, etc.). When the entire search party is in the room, the room is cleared as described in paragraph 2403.

c. Clearing a basement. Search and clear a basement as soon as possible, preferably at the same time as the ground floor. The procedures for clearing a basement are much the same as for clearing any other room or floor of a building. Basements may be connecting points for sewers and tunnels that the enemy will use for escaping and infiltrating troops back into a cleared building. For that reason, a basement must be thoroughly cleared and secured. Post Marines from the covering party at the entrances to any tunnels, sewers, etc.

### **2503. Handgrenades**

Combat in built-up areas (mainly during the attack) requires extensive use of handgrenades. The Marine should throw a grenade before entering rooms, negotiating staircases, mouseholes, and so on. This usually requires the use of both hands and the overhand and underhand techniques of throwing.

- (1) Two techniques may be used in the throwing of a grenade. The grenade is thrown (preferred technique) hard enough so that it bounces or skips around making it difficult to pick up. The hard throw skip/bounce technique will be used by Marines in training and combat. The not preferred technique of cooking-off the grenade for two seconds, then throwing it to prevent the enemy from grabbing the grenade and tossing it back will be used by Marines, as appropriate, during actual combat.
- (2) Nonverbal or verbal alerts are used, as appropriate, prior to throwing a grenade. A visual showing (preferred) of the grenade to assault party members with a visual acknowledgment from them. In other words, show the grenade, get a nod, then let loose! A nonverbal alert will ensure the enemy is surprised when the grenade is thrown. If the situation demands, a voice alert can be used, but the element of surprise may be lost. When, or if a voice alert is used, the voice alert is "FRAG OUT!" when an enemy grenade has been identified, friendly forces shout **"GRENADE!"**
- (3) The construction material used in the buildings being cleared influences the use of grenades. **Concussion (or "offensive") grenades are preferred** over fragmentary grenades during offensive operations or when defending from hasty defensive positions. In MOUT if the walls of a building are made of thin material, such as plasterboard or thin plyboard, the Marine must either lie flat on the floor with his helmet pointing towards the area of detonation, or move away from any wall that might be penetrated by grenade fragments.

- (4) Marines should throw grenades in an opening before entering a building to eliminate any enemy that might be near the entrance (figure 2-34). The M203 grenade launcher is the best method for putting a grenade in an upper story window.



Fig 2-34 Handgrenade thrown through window.

- (5) When a handgrenade must be used, the Marine throwing the grenade and the rest of the unit/element should stand close to the building, using it for cover. Additionally you should have a planned area to move to for safety if the grenade does not go through the window but falls back to the ground.
- (6) The Marine throwing the grenade should step out just far enough to lob the grenade in the upper-story opening. The Marine's weapon should be kept in the nonthrowing hand so it can be used if needed. Once the grenade has been thrown into the opening, assaulting forces must move swiftly to enter the building. This technique should only be employed when the window has been broken. Otherwise, the chances are high that the thrown grenade will fall back onto the ground without going into the room.
- (7) If you must enter a building via the stairs, first look for boobytraps. Then throw a grenade through the stairwell door, let it detonate, and quickly move inside.



- (8) Although buildings are best cleared from the top down, this is not always possible. **While clearing the bottom floor of a building**, you may encounter stairs, which must also be cleared. Once again, grenades play an important role. Before climbing the stairs on the bottom floor, Marines should first inspect for boobytraps, then toss a grenade to the head of the stairs, if appropriate (figure 2-35). The use of a grenade in these situations is based on stair/building construction and building layout.

Throwing grenades up staircases is extremely dangerous and extreme caution and common sense must be used. In most situations, throwing a grenade up a staircase is not recommended. If you throw a grenade too hard or up a steep staircase, the grenade can roll back down the staircase. For this reason, you should throw the grenade **underhand** to reduce the risk of it bouncing back and rolling down the stairs. Again, you should use nonverbal or, as appropriate, a verbal alert when throwing the grenade. Once the first grenade has detonated, another grenade should be thrown over and behind the staircase banister and into the hallway, destroying any enemy hiding to the rear.



Fig 2-35. Tossing grenade up a stairway.

- (9) After the stairs have been cleared, assaulting forces move to the top floor and clear it. Upon clearing the top floor, forces move downstairs to clear the center and bottom floors, and to continue with the mission.

Note: Since large quantities of handgrenades are used when clearing buildings, a continuous supply must be available to forces having this mission within a built-up area.

#### 2504. The SWAT Team Building Clearing Technique

a. General. The SWAT team technique is for cold entries only; you do not want to make your own entry point or announce your presence with a handgrenade.

This technique relies heavily on **speed** and **surprise**. Use it either during a guerrilla warfare situation or when conducting a night raid to capture a foot-hold on a complex enemy defensive position. If the raid is at night, all Marines must have night-vision goggles (NVGs).

b. Preparatory steps. The base of fire is set up in the same manner as a hot entry. The two main differences are (1) the base of fire does not fire on the enemy unless the attack is compromised and (2) the entire assault element enters the building at one time. The entire assault element lines up in a tight formation outside the entry point. If needed, they leave one Marine on either corner of the building to cover those areas. Since surprise is vitally important, all hands must move into position quietly. **The enemy must not have time to react!**

Note: This technique works best if the entry point leads directly into a main hallway (figure 2-36).

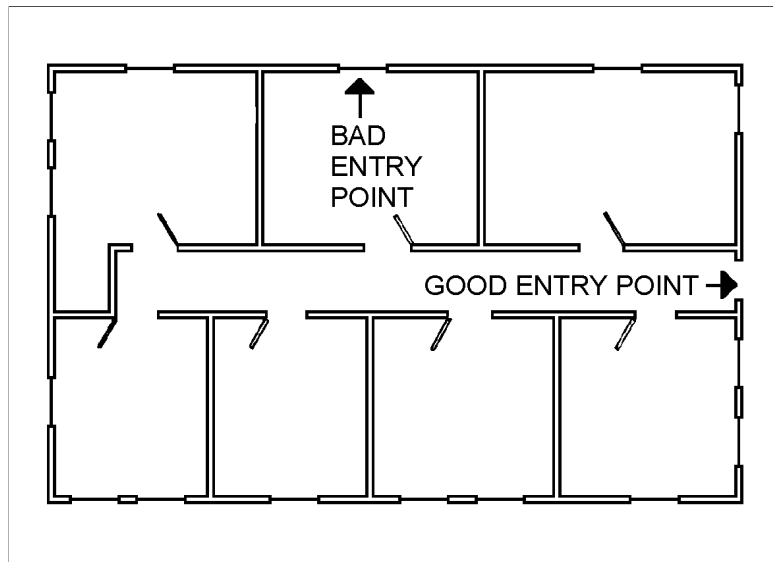


Fig 2-36. Good and bad entry points.

c. Entering the building. On the squad leader's signal, the entire assault element, following the point man, enters the building. The point man's rifle is the only one pointing horizontally. All other weapons are pointed down and to the side.

d. First phase. The point man moves straight down the hallway and engages only those targets that impede his way. Everyone must remain close to the man in front of him. When the point man passes the first door in the hallway, the Marine right behind him enters that room and clears it by himself. If the door to that room is closed, he kicks it open. The third man in the formation then closes up the distance between him and the point man. When the point man passes the second door in the hallway, the Marine directly behind the point man (he was originally the third man in the formation) peels off and clears that room. As each Marine clears his room, he shouts out "**ALL CLEAR!**" The search party continues to move in this manner until all rooms are cleared. By not peeling off himself, the point man maintains the correct direction of movement.

Since the second man in the formation is always peeling off, the Marines still in the formation must move quickly to maintain the proper distance. The point man should move quickly (but not so fast that he loses the formation). **Only rooms adjacent to the hallway are cleared.**

e. Second phase. If a Marine enters a room with a doorway leading to another room that is not adjacent to the hallway, he clears only his room. After clearing his room, he assumes a position where he can cover any other uncleared doors. The squad leader goes to each room to check on the status of that Marine. If there are any adjacent rooms that have not been cleared, then the squad leader tells other Marines to finish the clearing operation.

## **2505. Post Building Clearing Operations**

a. Marking cleared rooms. As rooms are cleared, leave doors open and make a predetermined mark (chalk marks, tape, or colored piece of cloth) on the door frame to indicate the room has been cleared and searched.

b. Marking the building. Once the entire building is cleared, the search party leader marks the building in the designated manner and signals the squad leader or sounds off "**ALL CLEAR!**" (Methods for marking the secured building are established in the company commander's attack order and may include recognition measures such as chalk marks or colored pieces of cloth.)

c. Reorganization. Reorganization of the assault force in a cleared building must be rapid so the team is ready to repel counterattacks. You are extremely vulnerable to an enemy counterattack while you are in the middle of an attack or while you are consolidating your new position. After securing the building, the squad leader assigns members of the assault teams and the support teams to cover potential counterattack routes to the building. At the same time, begin preparations to continue the attack if you are on an intermediate objective; otherwise, begin preparing defensive positions.

Lesson Summary. During this lesson, you learned how to clear a building once an initial entry was made, including how to move down hallways and from one floor to another; how to clear basements; how to mark rooms and buildings as they are secured; how to reorganize after a building has been captured; and how the assault element enters and clears a building using SWAT team techniques.

Study Unit 2 Exercise: Complete items 1 through 41 by performing the action required. Check your responses against those listed at the end of this study unit.

Matching: For items 1 and 2, match the element in column 1 with what it consists of in column 2. Place your responses in the spaces provided.

Column 1	Column 2
<u>Element</u>	<u>Consistency</u>
___ 1. Base of fire element	a. Two squads and a compliment of crew served weapons, such as machineguns, SMAWs, dragons, and TOWs
___ 2. Assault element	b. Two parties, the cover party and search party. One squad will normally have enough men for this element
	c. At least two platoons with tanks and air support from the battalion's S-3
	d. One fireteam with a compliment of TOWs, dragons, machineguns, and antiarmor support

Matching: For items 3 through 6, match the responsibility of a unit within a platoon in column 1 with its correct unit in column 2. Place your responses in the spaces provided.

Column 1	Column 2
<u>Responsibility</u>	<u>Unit</u>
___ 3. Secure the cleared portions of the building	a. Base of fire
___ 4. Isolate the objective	b. Assault element
___ 5. Clears each room, hallway and stairway in the building	c. Cover party
___ 6. Provides security in the immediate vicinity of the room to be entered	d. Cover team
	e. Search team



14. Which statements listed below describe the correct procedures to be used when executing the high-low technique for crossing danger areas while moving down a street?

- (1) The point man pries around the corner.
- (2) The point man covers high and to the front.
- (3) The second man then assumes either a prone or kneeling position and covers low and to the front.
- (4) Start sending Marines across.
- (5) The first two across assume a high-low position on the corner of the building on the other side.
- (6) The third man across assumes the point man's position.

- |    |            |    |            |
|----|------------|----|------------|
| a. | 1, 2, 4, 5 | c. | 1, 4, 5, 6 |
| b. | 1, 3, 4, 6 | d. | 2, 3, 5, 6 |

15. Which statements listed below describe the procedures to be used when executing the high-low bump technique for crossing danger areas while moving down a street?

- (1) The point man pries around the corner.
- (2) The point man assumes either a prone or a kneeling position and covers low.
- (3) The second man assumes a position over the point man and covers high.
- (4) The third man gets right behind the second man (high man) and tells him, "SET."
- (5) The high man (second man) tells the low man (point man), "GO."
- (6) The low man (point man) crosses the danger area.
- (7) The high man drops down and assumes the low man's position.
- (8) The third man assumes the high man's position.
- (9) The procedure is repeated until everyone is across.
- (10) The first Marine across assumes the high man position.
- (11) The second Marine across assumes the point man's position.

- |    |                             |
|----|-----------------------------|
| a. | 1, 2, 3, 6, 7, 8, 9, 10, 11 |
| b. | 1, 2, 3, 4, 5, 6, 7, 8, 9   |
| c. | 1, 4, 5, 6, 7, 8, 9, 10, 11 |
| d. | 3, 4, 5, 6, 7, 8, 9, 10, 11 |

Item 16 refers to the situation that follows. Read the situation carefully, then answer the item.

Situation: The first building that your squad plans to capture does not appear to be well defended by the enemy despite that it dominates all of the other buildings in the area. After you capture this building, all of the other buildings in the areas should fall quickly.

16. What factor in selecting the order in which you will attack the buildings in your area is described in this situation?
  - a. Covered routes
  - b. Weak link
  - c. Isolate the building
  - d. Good positions for base of fire and cover party

Item 17 refers to the situation that follows. Read the situation carefully, then answer the item.

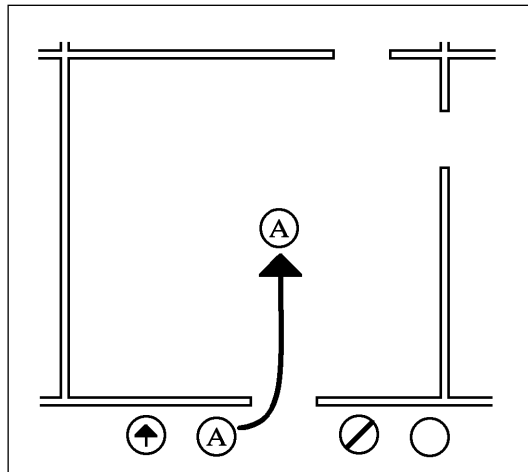
Situation: As a member of the base of fire, your fireteam has been tasked with covering all rear exits from the building the assault element is preparing to attack.

17. What task in isolating the building is described in this situation?
  - a. Establish kill zones around the building
  - b. Prepare positions to continue the attack
  - c. Suppress the enemy
  - d. Provide cover for the search party
18. What is the ideal weapon for breaching entry points?
  - a. Tank
  - b. TOW
  - c. M203 grenade launcher
  - d. SMAW
19. When should the search party move to the entry point?
  - a. Before the search party breaches the entry point
  - b. After the base of fire breaches the entry point
  - c. After the cover team isolates the building
  - d. After the base of fire suppresses the enemy fire
20. What are the three general ways of entering a building?
  - a. First floor, second floor, and underground
  - b. Hot, cold, and SWAT team
  - c. Point, area, and night
  - d. Door, window, and breach

21. How is a cold entry different from a hot entry?
- In a hot entry, you spray the room with automatic fire; whereas, in a cold entry, you engage targets with a double tap to the chest.
  - A cold entry is a rehearsal using blanks, while a hot entry is the actual attack.
  - In a hot entry, you breach entry points and throw handgrenades to clear entry points, while in a cold entry, you do not.
  - In a hot entry, the base of fire opens fire on the enemy, while in a cold entry, there is no base of fire since everyone is a member of the assault element.
22. What are the three types of stack formations?
- 3 x 1, 2 x 2, and 1 x 3
  - 4 x 0, 3 x 1, and 2 x 2
  - Right-sided, left-sided, and balanced
  - Near-sided, far-sided, and lop-sided

Item 23 refers to the illustration below.

23. What type of entry is depicted in the illustration?



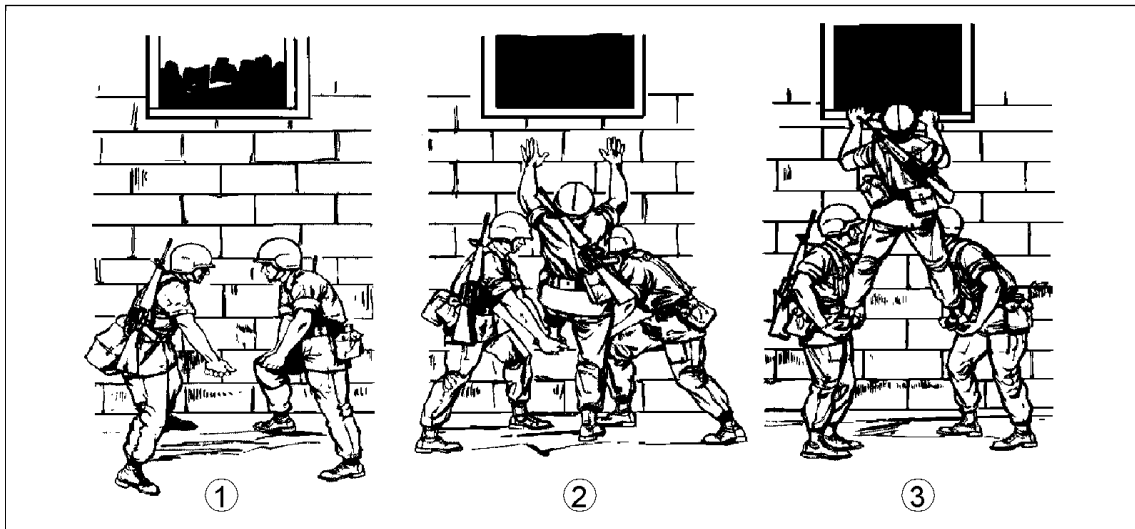
- Cross entry
- Button hook entry
- Straight entry
- Limited penetration entry



24. What is the proper procedure for clearing an entry point using a handgrenade?
- The second Marine in the stack cooks-off the handgrenade and throws it hard towards a far corner of the room near the ceiling.
  - The first Marine in the stack cooks-off the handgrenade and throws it hard towards a far corner of the room near the ceiling.
  - The second Marine in the stack cooks-off the handgrenade and throws it lightly towards a far corner of the room.
  - The second Marine in the stack pulls the pins of a handgrenade and releases the spoon. He hands the grenade to the point man who throws the grenade hard towards a far corner of the room near the ceiling.
25. What is the proper procedure for rushing into a room during a hot entry?
- The Marines wait till most of the dust and smoke from the grenade has cleared before they enter the room. Only the first two Marines into the room spray their assigned sector of the room with automatic fire.
  - The Marines enter the room immediately after the grenade explodes. Only the point man sprays the room with automatic fire.
  - The Marines enter the room immediately after the grenade explodes. They shoot only at specific visual targets.
  - The Marines wait till most of the dust and smoke from the grenade has cleared before they enter the room. They shoot only at specific targets that they see.
26. What is the proper action to take when a weapon malfunctions during a hot entry into a building?
- The Marine with the malfunctioning weapon shouts "RED!" and performs immediate action on his weapon while the nearest Marine engages the enemy.
  - The Marine with the malfunctioning weapon shouts "RED!" and the direction of the enemy that he tried to engage. He takes cover and performs immediate action to clear his weapon.
  - The Marine with the malfunctioning weapon performs immediate action and engages the enemy.
  - The Marine with the malfunctioning weapon shouts, "RED!" and attacks the enemy with his bayonet.

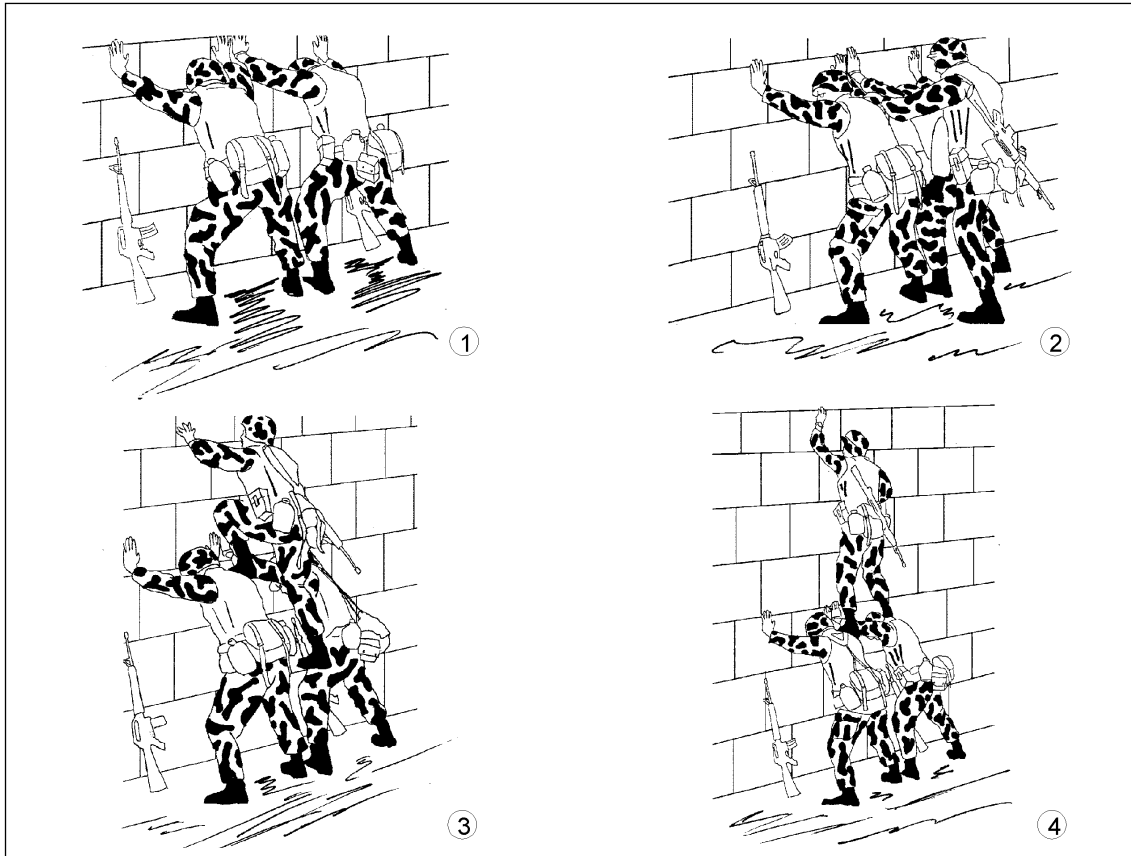


Item 31 refers to the illustration below.



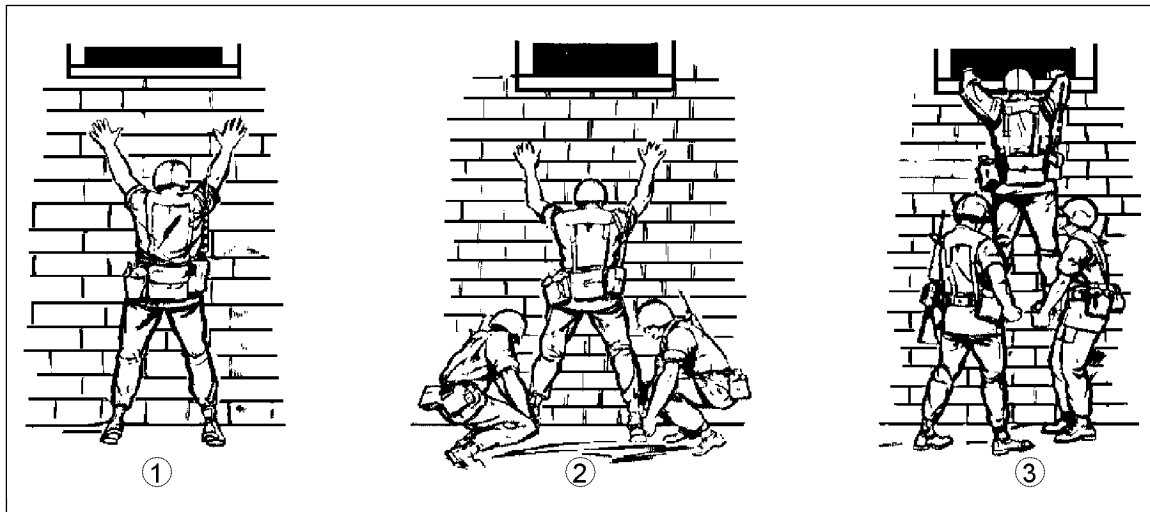
31. What technique of boosting a Marine to a second floor entry point is depicted in the illustration?
- a. Two-man ladder
  - b. Two-man lift unsupported
  - c. Two-man lift supported
  - d. Two-man lift heels raised

Item 32 refers to the illustration below.



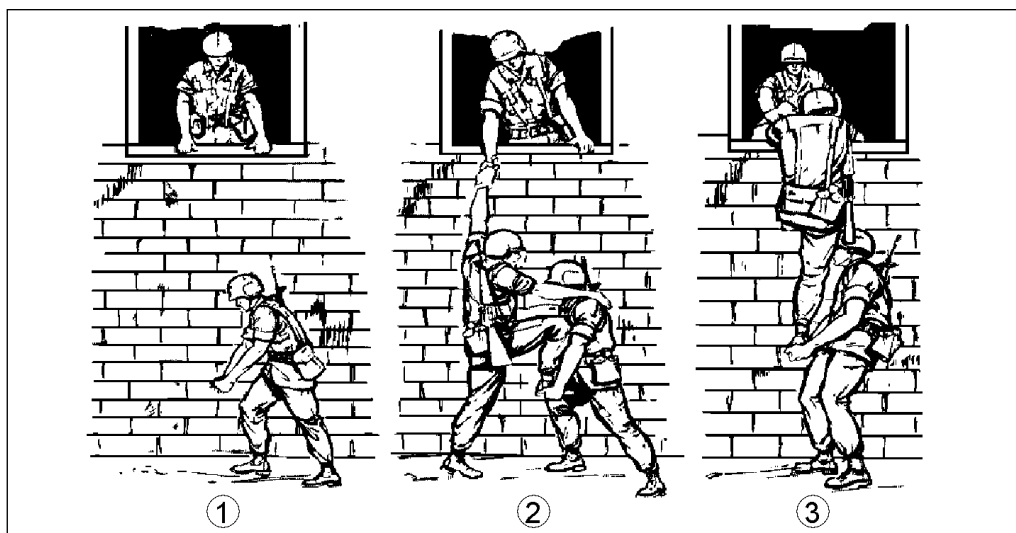
32. What technique of boosting a Marine to a second floor entry point is depicted in the illustration?
- a. Two-man lift unsupported
  - b. Two-man ladder
  - c. Two-man lift heels raised
  - d. Two-man lift supported

Item 33 refers to the illustration below.



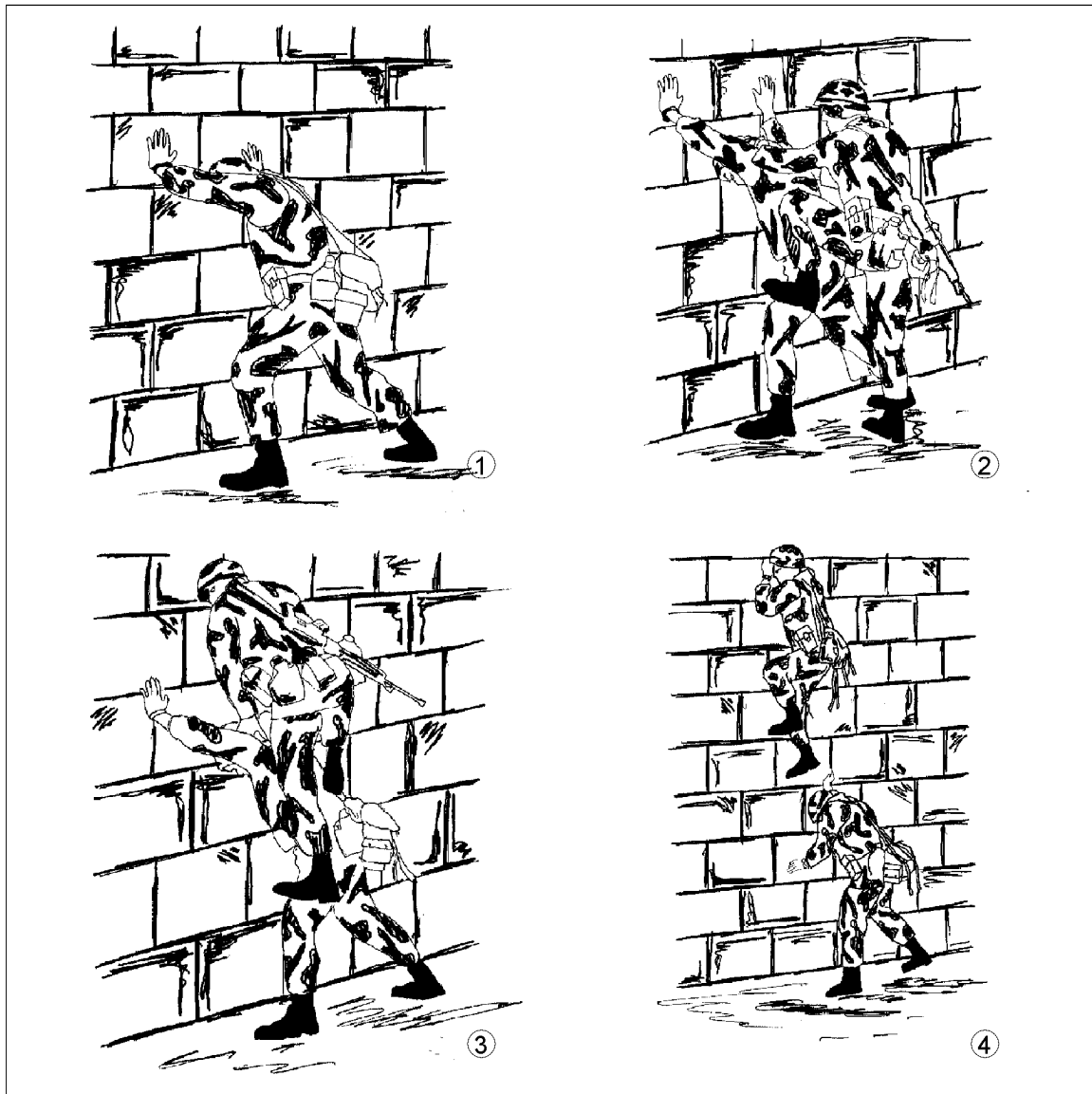
33. What technique of boosting a Marine to a second floor entry point is depicted in the illustration?
- a. Two-man lift heels raised
  - b. Two-man lift supported
  - c. Two-man lift unsupported
  - d. Two-man ladder

Item 34 refers to the illustration below.



34. What technique of boosting a Marine to a second floor entry point is depicted in the illustration?
- a. One-man lift
  - b. Two-man ladder
  - c. Two-man lift unsupported
  - d. One-man ladder

Item 35 refers to the illustration below.



35. What technique of boosting a Marine to a second floor entry point is depicted in the illustration?

- a. Two-man ladder
- b. One-man lift
- c. One-man ladder
- d. Two-man lift unsupported

36. What are the two techniques for opening a closed door?
- Front kick and side kick
  - Shoulder butt and mule kick
  - Side kick and shoulder butt
  - Front kick and mule kick
37. What is the proper procedure for moving down a hall?
- All Marines move down the center of the hall.
  - All Marines move down one side of the hall without brushing up against the wall.
  - All Marines move down the hall in a tactical formation without brushing up against the walls.
  - You spray the hall with automatic fire as you move.
38. What is the preferred weapon for the point man when moving between floors using mouseholes?
- M16A2
  - Pistol
  - SAW
  - Machinegun
39. When should basements be cleared?
- Same time as the ground floor
  - Last
  - First
  - Immediately after you find the door leading to the basement
40. What are the two main differences between a normal hot entry and a SWAT team entry?
- The search team enters the top floor of the building by rappelling and the base of fire does not open fire until the building has been entered in a SWAT team entry.
  - The search team rappels to the roof of the building from helicopters and the base of fire does not open fire unless the attack is compromised in a SWAT team entry.
  - The base of fire does not open fire unless the attack is compromised and the entire assault team enters the building at the same time during a SWAT team entry.
  - The entire assault team enters the building at the same time and uses CS grenades in a SWAT team entry.





## Study Unit 2 Exercise Solutions -- con't

	<u>Reference</u>
28. d.	2404
29. d.	2404
30. d.	2404
31. b.	2404
32. b.	2404
33. a.	2404
34. a.	2404
35. c.	2404
36. d.	2501
37. b.	2501
38. b.	2502
39. a.	2502
40. c.	2504
41. b.	2504

### STUDY UNIT SUMMARY

In this study unit, you covered squad organization including base of fire and assault elements; conducting movements; preparing, entering and clearing rooms and buildings. In the next study unit, you will learn a little about offensive operations which include combining an offensive operation and attack phases.

## STUDY UNIT 3

### OFFENSIVE OPERATIONS

Introduction. Urban warfare is the same as other warfare except it is waged on a different terrain. The principles of war and Marine Corps maneuver warfare philosophy both provide guidance to commanders for developing, planning, and executing their missions.

This study unit will deal mainly with offensive operations conducted in an unrestricted environment where collateral damage is given little consideration.

Most units have developed a standing operating procedure (SOP) for MOUT. This study unit is designed to be used as a foundation for those units that do not have an SOP or for those Marines who want to learn more about MOUT. As you will find out from reading this study unit, MOUT is a truly intense activity. Every combat situation is different, and you will have to adjust your actions and SOPs accordingly. If you learn the principles of this study unit, and realize that you **can** and **should** adjust your actions to each unique situation, you will succeed in accomplishing your mission. During this study unit you will learn the basic techniques to conduct offensive military operations on urban terrain.

#### Lesson 1. CONDUCTING AN OFFENSIVE OPERATION ON URBAN TERRAIN

##### LEARNING OBJECTIVES:

1. Select the correct reasons for attacking a built-up area.
2. Select the correct reasons for **not** attacking a built-up area.

#### 3101. General

a. Marines and MOUT. As the nation's force in readiness, forward deployed with Naval Expeditionary Forces (NEFs), Marines must be prepared to fight in urban terrain. In the last two decades, Marine Air-Ground Task Forces (MAGTFs) ranging from a Marine Expeditionary Force (MEF) (Saudi Arabia, Desert Shield/Storm, Somalia, and Restore Hope) through Marine Expeditionary Unit (MEU) (Beirut, Lebanon, Grenada, Urgent Fury, Somalia, Eastern Exit, and Restore Hope) have been required to conduct MOUT operations.

b. MAGTF availability and flexibility. In the years since World War II, the United States has employed military force more than 200 times. Of these operations, 90 percent involved naval forces, most of which included Marines embarked on amphibious ships. The reasons are straightforward: availability and flexibility. You're already available by being forward deployed on amphibious ships. Flexibility derives from the Marine Corps' MAGTF organization, doctrine, training, and equipment. You are prepared for expeditionary missions from the sea in support of a variety of missions while retaining the capability for forcible entry. In addition to this flexibility, maritime prepositioning forces (MPF) can provide a rapid build-up of combat and logistic equipment. This is joined with Marines on a distant shore, creating a substantial combat force to meet the most demanding missions. However, the prospect of urban warfare combined with an amphibious assault is one of the most daunting of military actions, requiring special preparation.

At the outset of a developing situation, forward-deployed naval and Marine expeditionary forces can quickly move within range of the situation that threatens a country or allies. The focus of political and economic strength is found in the urban centers of these nations, particularly in nations where economic and political developments have been uneven and where urbanization has been dramatic. Embassies and committees are located in cities where the host country political and economic leadership is concentrated and where U.S. nationals tend to gravitate due to economic opportunities. Historically, evacuations of U.S. nationals have been executed from urban areas.

Urban intervention operations of necessity must often be planned and executed in a short period of time (hours and days rather than weeks or months). Good timing takes advantage of the internal turmoil surrounding a developing crisis before opposing political and military power is consolidated. In summary, naval and Marine forces should anticipate deployment to urbanized areas on a day-to-day basis, and be prepared to leave on a moments notice.

c. Importance of tactical and individual skills. Planning for military operations in urban terrain is slow and costly especially for forces on the offensive. The cost is measured in time, supplies, equipment, morale, and especially lives. The initial advantage usually lies with the defender. Therefore, the decision to attack an urban area must be made carefully.

Whatever size MAGTF is required for a particular operation on urban terrain, the actual fighting is done by task-organized Marine infantry battalions and companies. Consequently, our success in urban fighting will largely depend on the tactical and individual skills resident at the infantry battalion through squad-level skills.

### **3102. Reasons for Attacking Urban Terrain**

A commander should consider the following reasons for attacking urban terrain:

- a. Tactical advantage. 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.
- b. Political advantage. The political importance of a built-up area may justify the use of time and resources to liberate them. Capturing the city could destroy the seat of local or national governments. If not, it could deal the enemy a decisive psychological blow and/or lift the morale of the people within the city.
- c. Economical advantage. The destruction or capture of key industrial and commercial cities with the resulting denial of production and distribution of equipment and supplies strikes at the enemy's future ability to wage war. Capture of these cities is extremely beneficial to the attackers who can, in turn, use these resources to their advantage. The requirement for a logistics base, especially a port or airfield, will play a pivotal role during an operation.
- d. Potential threat to operations.

(1) Terrain allows bypass. In a situation where terrain around a built-up area allows you to bypass it, there may still be another problem. The enemy could have the ability to interdict your communications; therefore, you will have to contain or destroy them.

(2) Terrain does not allow bypass. The urban area may be located in a valley that you must capture before continuing combat operations. Or, the urban area may sit on dominating terrain with weapons that threaten your combat support and combat service support elements.

### **3103. Reasons for Not Attacking Urban Terrain**

The commander should consider the following reasons for not attacking urban terrain:

- a. City has no military or political significance. If a city is not military or politically significant, then you are wasting your time and effort to capture that city. Capturing a city which will not damage the enemy's effort but will put a burden on your own resources is worthless because you will have to dedicate men and supplies to support the battle for that city, and then divert food and other medical and comfort items to its citizens once the city is liberated. For example, in August 1944, General Eisenhower did not intend to liberate Paris from the Germans by a direct assault. If he did and the German generals had chosen to defend the city (per Hitler's orders), the allied attack would have required a great number of men and vast amounts of supplies. It would have resulted in a bloodbath that the allies could not afford.

b. Enemy not a threat. The commander may decide to bypass a city if he determines that no substantial threat exists in the built-up area that would interfere with his unit's ability to accomplish its mission. You must avoid MOUT if it does not directly support your mission because it is so demanding on troops and equipment. Once you bypass the city, it will eventually fall of its own accord or you can secure it at a later date with probably fewer casualties.

c. Sufficient combat forces or support not available. The commander realizes that he does not have sufficient force to seize and clear the built-up area. However, a situation may exist where more than enough forces are available to accomplish the mission, but the attack cannot be supported logistically. In either case, the commander should avoid attacking a built-up area until he has sufficient forces and adequate logistical support. Remember, in the average urban terrain battle, ratio of the expenditures on manpower and supplies (materials, ammunition, and medical supplies) between attackers and defenders is 4:1.

d. Time or risk unacceptable. Commander's intent may dictate that speed is 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. The restrictions placed on attacking forces may result in unacceptable risks to the commander's primary mission.

e. Declared an open city. The urban terrain 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.

Lesson 1 Exercise: Complete items 1 and 2 by performing the action required. Check your responses against those listed at the end of this lesson.

1. The city you are about to attack is controlled by the National Government. Why would you attack the city?
  - a. Tactical advantage
  - b. Economical advantage
  - c. Political advantage
  - d. Potential threat to the operation
  
2. Your division has suffered serious losses in the recent fighting and is currently waiting for replacement. Which reason for not attacking best applies?
  - a. City declared to be open
  - b. Sufficient combat forces or support not available
  - c. Bypass of the city is feasible
  - d. City has no military or political significance

## Lesson 1 Exercise Solutions

1. c.
2. b.

### Reference

3102

3103

Lesson Summary. You have learned that the reasons for attacking a built-up area include tactical, political, and economical advantages. Reasons for not attacking built-up areas are lack of military or political significance; lack of threat from the enemy; unavailability of sufficient combat forces or support; unacceptable time or risk; or the city has been declared open.

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## **Lesson 2. METT-T FACTORS**

### LEARNING OBJECTIVE

Identify each element of the acronym METT-T

As in any other military operation, you plan an attack against a built-up area based on the commander's estimate of the situation. A tool to guide the commander through this estimate is the METT-T acronym (**M**ission, **E**nemy, **T**errain and weather, **T**roops and support availability, **T**ime). The acronym stands for the individual factors that, when evaluated, serve to give the commander a framework for ordering information that he may use to help him make decisions. The METT-T factors remain the same as in any other tactical operation, but this section addresses METT-T considerations as they pertain to the offense in urban warfare.

### **3201. Mission**

You conduct a mission analysis early in the estimate process. You accomplish the essential tasks for a successful MOUT operation. Those tasks are either specified by the order or implied which the commander must deduce. Mission analysis determines what you must accomplish, the intent of the commander ordering the mission (the reason of the operation), and any constraints by higher headquarters. This, in conjunction with the enemy analysis, is the basis for deciding on task organization. Once you have analyzed the mission and made deductions, you can consider all other factors in terms of their impact on the mission. It is therefore imperative that you understand the mission before continuing the estimate.

When conducting mission analysis for MOUT, commanders and their staffs must determine the higher commander's intent for the degree of clearance required in the urban area. The commander must determine if initial clearance means every building, block by block, or the seizure of a key objective, which may only require clearing along the axis of advance.

### 3202. Enemy

Use the Intelligence Preparation of the Battlefield (IPB) process to analyze the enemy and terrain in detail (see FM 34-130, Intelligence Preparation of the Battlefield). The commander must decide if threat forces are conventional or unconventional as this may effect the task-organization of the Ground Combat Element (GCE).

a. Conventional forces. Most Third World countries adopted techniques of urban combat from either the United States or the Soviet Union. Therefore, most conventional forces that may become our enemy believe that the motorized or mechanized rifle battalion is the most effective unit for urban combat. It has inherent mobility, armor protection, and the ability to quickly adapt buildings and other structures for defense (see FM 100-2-1, The Soviet Army Operation and Tactics). These potential enemy forces organize defenses into two echelons to provide greater depth and reserves. Prepared company strongpoints form the perimeter of the battalion's defense and reserves are located in a separate position within the strongpoint. Established ambushes fill gaps in the strongpoint and dummy strongpoints to deceive the attacker. You establish positions for securing and defending the entrances to and exits from underground structures and routes. Prepare security positions forward of first echelon defensive positions.

Within urban terrain, a motorized/mechanized rifle company may defend several buildings or a single, large building with mutually supporting fires. Each platoon defends one or two buildings, or one or two floors of a single building.

b. Unconventional forces. Use the IPB process for low-intensity conflict during urban counterinsurgency, counterterrorism, and counterterrorist operations. (See FM 34-130 and FM 7-98, Operations in a Low Intensity Conflict, Chapter 6.)

### 3203. Terrain and Weather

a. Terrain. Tailor offensive operations to the urban environment is based on a detailed analysis of each urban terrain setting, its types of built-up areas, and existing structural forms. Commanders and subordinate leaders use the elements in the acronym **KOAOA** (key terrain, observation and fields of fire, cover and concealment, obstacles, and avenues of approach) to identify important terrain factors refer back to Study Unit 1, Lesson 1.

b. Weather. As in any military operation, weather affects equipment, terrain, and visibility, but its greatest impact is on the individual Marine. Snow, ice, dust, wind, rain, humidity, and temperature extremes all combine to affect human maneuverability and the use of weapons and equipment. Weather extremes coupled with stress and the physical drain of urban combat require the utmost effort from small-unit leaders and their teammates.

(1) Precipitation. Rain or melting snow often floods basements and subway systems. This is especially true when automatic pumping facilities that normally handle rising water levels are deprived of power. Rain also makes storm and other sewer systems hazardous or impassable. Precipitation works chemical agents into underground systems. As a result, these systems contain agent concentrations much higher than surface areas and become contaminated "hot spots." These effects become more pronounced as agents are absorbed by brick or unsealed concrete sewer walls.

(2) Fog. Many major cities are located along canals or rivers, which often create fog in low-lying areas. Industrial and transportation areas are most affected by fog due to their proximity to waterways. Fog, like any other period of reduced visibility, adversely affects vision and optical aids. This can result in reduced effectiveness in the calling and adjustment of supporting arms, as well as degraded observation capability. It may also be used to help conceal friendly movement.

(3) Inversion layers. Air inversion layers are common over cities, especially cities located in low-lying "bowls" or in river valleys. Inversion layers trap dust, chemical agents, and other pollutants reducing visibility and often creating a greenhouse effect, which raises ground and air temperatures.

(4) Temperature. Because of interior heating of buildings during the winter, and the reflection and absorption of summer heat, built-up areas are warmer than surrounding open areas during both summer and winter. The difference can be as great as 10 to 20 degrees hotter throughout the year, which can be an advantage during the winter and a disadvantage during the summer.

(5) Wind chill effects. Wind chill is not as pronounced in urban terrain. However, the configuration of streets, especially in regular blocks and high-rise areas, can cause wind channalization. This increases wind on streets that parallel the wind direction, while cross-streets remain relatively well protected.

(6) Day/Night differences. Light is especially significant for maneuverability. Night and periods of reduced visibility favor surprise, infiltration, detailed reconnaissance, attacks across open areas, seizure of defended strongpoints, and reduction of defended obstacles. However, because of the difficulties of night navigation in restrictive terrain, without reference points, and near the enemy, forces rely on simple maneuver plans with easily recognizable objectives.

(7) Aviation support considerations. Helicopter-borne forces must also consider the following:

- Presence or absence of fog, industrial haze, low clouds, heavy rain, and other factors that limit visibility for pilots
- Illumination and moon phase/angle during night vision goggle operations



- Ice, sleet, and freezing rain that degrade aerodynamic efficiency
- High temperatures and/or density altitudes that degrade aircraft engine performance and lift capability
- High winds (large gust spreads) that may create localized hazards to aviation
- Weather conditions that create hazards on pick-up zones and landing zones, such as blowing dust, sand, or snow

#### **3204. Troops and Support Available**

So far we have covered MET of METT-T. Now let's look at the next T.

The commander must be aware of all combat power resources; manpower, kinds of weapon systems and their capabilities, and vehicles. Specifically, leadership at all levels must analyze the following factors:

- Number and type of available units.
- Task organization for urban combat.
- Availability of critical weapons systems.
- State of training and discipline. Quality training for MOUT is imperative to success and especially with casualties.
- Strength in terms of troops and materials in relation to enemy and size of urban terrain.
- Helicopter lift capability, strength of combat power employed into the objective area.
- State of maintenance and supplies.
- Availability of combat support. Distribution of combat support is based on availability and mission requirements.
- Availability of combat service support (critical logistical and maintenance items).
- Availability of civilian support. If the city's occupants are friendly to the attacker, then support in intelligence, deception, and diversion may be possible.

### 3205. Time

Carrying out offensive operations in built-up areas are slow. You must consider the following issues when analyzing the time available for an attack in urban terrain.

- Due to urban density, you need more time for clearing buildings, blocks, or axis of advance.
- Marines tire more quickly during clearing, because of stress and additional physical exertion.
- More time must be allowed for thorough reconnaissance and rehearsals. Both of these actions save time during the actual operation.

Lesson 2 Exercise: Complete items 1 through 6 by performing the actions required. Check your responses against those listed at the end of this lesson.

1. What does METT-T stand for?

M - \_\_\_\_\_

E - \_\_\_\_\_

T - \_\_\_\_\_

T - \_\_\_\_\_

T - \_\_\_\_\_

2. What do you find in the mission statement of METT-T?

- a. What must be accomplished
- b. What type of ammo you have
- c. Where your weapons are located
- d. How many attachments

3. What threat forces must the commander decide in the "enemy" paragraph of METT-T?

\_\_\_\_\_

4. What acronym would you use for the terrain and weather factor?

- |             |              |
|-------------|--------------|
| a. SMEAC    | c. KOCOA     |
| b. METT-TSL | d. MOOSEMUSS |

5. What must the commander be aware of in "troops and support available" of METT-T?
  - a. Combat power resources
  - b. Type of ammo to be used
  - c. What weapons will be used
  - d. What type of casualty to expect
  
6. What issues are important when considering "time"?
 

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Lesson 2 Exercise Solutions

	<u>Reference</u>
1. Mission Enemy Terrain and Weather Troops and Support availability Time availability	3201
2. a.	3201
3. Conventional or Unconventional	3202
4. c.	3203
5. a.	3204
6. Due to urban density, more time is required for clearing building, blocks, and axis of advance Marines tire more quickly during clearing More time must be allowed for thorough reconnaissance rehearsals.	3205

Lesson Summary. In this lesson, you have learned what the acronym METT-T stands for (**M**ission, **E**nemy, **T**errain and weather, **T**roops and support availability, **T**ime). In the next lesson, you will learn how to plan and execute the offensive plan.

## Lesson 3. PHASES OF THE ATTACK

### LEARNING OBJECTIVES

1. Identify phases of the attack.
2. Identify the type of hasty assault that must be conducted when given a situation involving MOUT.
3. Identify the type of deliberate assault that must be conducted when given a situation involving MOUT.
4. Identify clearing techniques.
5. Identify control measures for identifying buildings within a company sector during MOUT operations.

Having collected the essential data with METT-T, you can now postulate several courses of action. Next you will develop and execute the offensive plans. Plan and implement offensive operations in a built-up area based on the factors of METT-T and established doctrine. At the tactical level, the attack is either hasty or deliberate. Both the hasty and deliberate attacks are characterized by as much planning, reconnaissance, and coordination as time and the situation permit. No matter what the size of force attacking or the size of objective, whether hasty or deliberate, carry out the same phases of the attack (reconnoiter, isolate, secure foothold, and clear).

### **3301. Phases of the Attack**

The deliberate attack of a built-up area is similar to the assault of a strongpoint given the nature of urban terrain. You focus the bulk of your combat power on the enemy's weakest point, avoiding his strength. The deliberate attack of a built-up area is conducted in the following phases:

- a. Phase I: Reconnoiter the objective. Intelligence gathering and reconnaissance/surveillance are critical to the planning process and success of the operation. Use all available tactical and intelligence resources to gain vital information and ensure success. Whenever possible, you make a leader's reconnaissance of the objective area to collect information regarding the area to be attacked. A thorough reconnaissance yields a wealth of information to use in the continued development of the plan. Avenues of approach, observation posts, supply routes, and the emplacement positions of direct and indirect fire weapons systems are examples of information that may be uncovered during the reconnaissance of the objective area. Composition and structure of buildings and roadbeds, cover and concealment opportunities, and other information may not be apparent in a map study alone, but have definite impact on the tactical execution of the plan.

b. Phase II: Isolate the objective. Isolate the objective by seizing terrain or features that dominate the area so the enemy cannot supply or reinforce its defenders. You may accomplish the isolation by coordinated use of supporting arms to seal off enemy avenues of ingress and egress to the area being attacked. You may conduct this phase simultaneously with phase III, securing a foothold. Once you isolate the objective, you should enact phase III quickly to maintain tempo, so the defender has no time to react. Figure 3-1 shows a task-organized, reinforced infantry battalion isolating the objective.

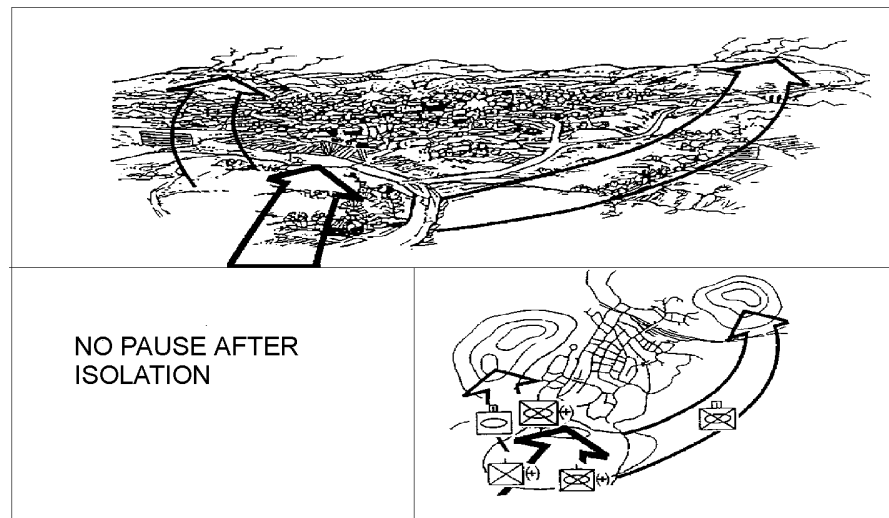


Fig 3-1. Isolation of the objective area.

c. Phase III: Secure a foothold. Once you have isolated the objective, the task-organized and reinforced infantry battalion seizes a foothold in the outskirts of the built-up area. The seizure of a foothold provides the attacking force with a position to continue the assault through the objective area. The assault is supported by direct and indirect suppressive fire and smoke. Figure 3-2 shows the battalion objective being isolated with one company providing suppressive fires onto the enemy, fire support assets isolating and suppressing the objective, and one company seizing an initial foothold.

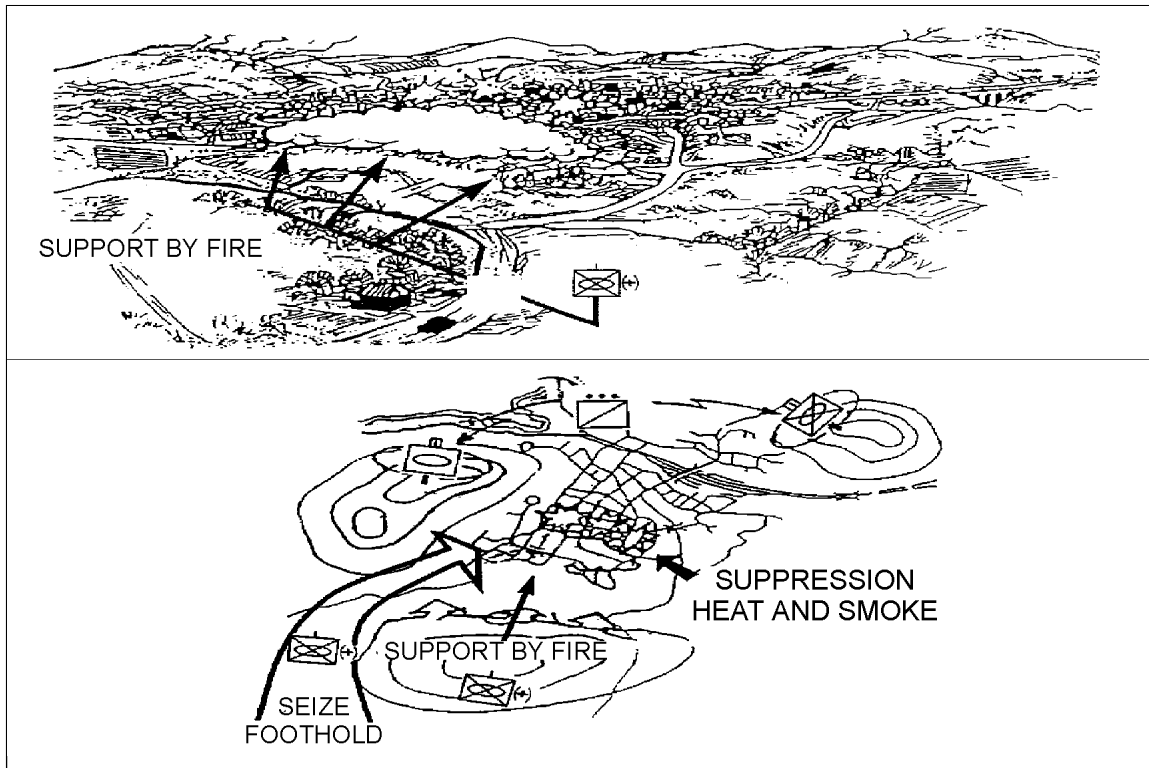


Fig 3-2. Secure a foothold.

d. Phase IV: Clearing a built-up area. Once you seize and consolidate the foothold, the supporting force moves to the built-up area to support the clearing of the objective area. To maintain tempo and subsequently reduce the enemy's ability to effectively react against the attacker, the transition between the phases should be seamless. Once you have established the foothold, the forward units continue the attack through the objective area, supporting units assist the units in the attack, and the momentum of the assault continues until you clear the objective area. The METT-T analysis helps determine to what extent the built-up area is to be cleared.

In review, can you name the four phases of attack?

If you said, (1) reconnoiter the objective, (2) isolate the objective, (3) secure a foothold, and (4) clearing a built-up area, you are right. Continue.

### 3302. Hasty Attack

Maneuver forces conduct hasty assaults as a result of unexpected contact during movement through a built-up area or in a situation where the unit has the opportunity to attack vulnerable enemy forces. When you receive contact or fire from an enemy position, the commander immediately

- Deploys (while seeking cover and positions of advantage) and returns fire to fix the enemy and gain fire superiority (with all means available)
- Reports the contact and situation to the higher commander
- Develops the situation (determines enemy disposition)
- Chooses a course of action (attacks or creates a weak point)

Note: The concept of the hasty assault follows the same four phases as the deliberate attack. You must reduce the preparation time available to respond.

This response time may equate to immediate response, where you are using organic weapons or support only, or delayed response until you can coordinate the additional fire support to engage the enemy.

You conduct a hasty assault when the enemy is not firmly entrenched inside a city, such as when you have broken through the enemy lines and the enemy is conducting an unorganized retreat. There are two types of hasty assaults, **seizure of key objectives** and **seizure of a corridor**.

a. Seizure of key objectives. In this assault, the idea is to quickly capture the entire city (or section of the city). Other important key objectives may be road intersections, bridges, landing zones, government buildings, etc. Their seizure will ensure friendly forces will control the entire city or its key objectives, and force the enemy to abandon it because of the importance of these objectives. There are several situations during which you conduct the seizure of key objectives.

- (1) **Breakthrough**. In this scenario, your forces have broken through the enemy lines. The enemy is in total disarray and is unable to defend the city. The landing at Inchon, Korea, by the 1st Marine Division in September 1950 is an example of this type of assault.

- (2) Noncombatant Evacuation Operation (NEO). In this scenario, you only need to seize part of the city so you can evacuate American citizens (and possibly civilian nationals) from a dangerous situation, such as a guerrilla war that has suddenly gone bad. The only objectives seized are the ones needed to ensure the safe evacuation of the noncombatants, such as LZs, embassies, collection points, and the routes between these objectives. With this assault, there is no intention of maintaining indefinite control of the city. NEOs are normally executed with heliborne forces due to the superior mobility of helicopters. The evacuation of noncombatants from Liberia and Somalia are two examples of this type of assault.

b. Seizure of a corridor. In this situation, your main objective is beyond the city, but all routes to the objective happen to go through the city--there is no other way around. Since the friendly forces do not want to waste time capturing the city before they move onto their main objective, they simply capture a corridor to pass through the city.

After the friendly forces have seized the corridor and the unit and the focus of effort has continued on to its objective, the follow-on forces capture the remaining portions of the city. This will involve a deliberate assault on the rest of the city, unless the enemy may abandon the rest of the city due to the devastating loss it suffers through the seizure of your main objective.

Obviously, this is a risky assault. FMFM 1, Warfighting, states that "Risk is inherent in war and is involved in every mission. Risk is also related to gain; normally, greater potential gain requires greater risk."

### **3303. Types of Deliberate Attacks**

A deliberate attack is a fully coordinated operation that employs the MAGTF's combined arms team against the enemy's defense. This type of attack is necessary when enemy positions are well prepared, when the built-up area is large or severely congested, or when the element of surprise is lost. A deliberate attack uses precise planning based on detailed information and thorough reconnaissance, preparation, and rehearsals. There are two types (isolate and contain, and direct assault) of deliberate attacks:

a. Isolate and contain. In this situation, you surround the city but do not try to capture it immediately. You want to do this because, although there are adequate lines of supply and communication that go around the city, the enemy still has sufficient forces to lash out and damage your efforts. To prevent this, you must leave behind enough men to isolate and contain the enemy inside the city to protect your own supply and communication lines. Later, when the enemy has weakened, you go back and capture the city by direct assault. You may also leave the city in enemy hands during the duration of the war (this happened with many French cities during the last year of World War II) or you can actively try to force the enemy to surrender by starving him out and harassing him with indirect fire.

b. Direct assault. This involves a block-by-block deliberate capture of a city. There are three phases of a direct assault.



- (1) Isolate the city. During this phase, you prevent the enemy from bringing in reinforcements and supplies into the city. You want to isolate the city because MOUT is demanding enough without the enemy supplying fresh replacements to the battle area. You can isolate the city by either surrounding it with ground forces or by harassing the enemy and pinching off his communication routes using indirect fire, air strikes, and ambushes.

The latter method is less preferred, because surrounding the city can be ineffective. For example, in World War II, the Germans held Leningrad under siege for almost 3 years. The assault was ineffective because Leningrad sits on a lake that freezes over during the winter; the Soviets simply built roads on the frozen lake to bring supplies into the city and prevented the Germans from defeating them.

- (2) Seize a foothold. Once you have the city isolated, seize a foothold. The difficulty of this phase will depend on the terrain outside the city. If there are wide open fields outside the city, you will have problems closing with the enemy. Regardless of the situation, you must isolate the enemy from immediate reinforcements and fix his defenses. Make sure air bursts are used to sweep the streets clean of enemy movement. Remember, the enemy may have covered routes of communications, such as underground systems. In this case, you will not be able to use air bursts exclusively. Once you isolate the enemy, you must fix his defenses using direct fire weapons, such as machineguns and SAWs. This base of fire forces the enemy to keep his head down while your maneuver element closes with the enemy and establishes the foothold.
- (3) Clear enemy forces. You conduct this phase in the same way as seizing a foothold. The main difference is that your starting positions are inside the city. In this phase, the entire city is cleared of all enemy forces. You will learn the details of this subject later in this study unit.

Can you recall the types of hasty attacks? How about the types of deliberate attacks? If you can, continue on to the next paragraph, if you cannot recall, review paragraph 3303 again.

Hasty attacks include seizure of key objectives and seizure of a corridor. Deliberate attacks include isolate and contain and direct assault.

### **3304. Clearing Techniques**

Clearance may consist of a systematic house-by-house or block-by-block advance through the entire zone of action, or it may be a rapid advance through a lightly defended area or rapid movement to seize a critical objective. The decision on which technique to use is made by the degree of enemy dictated within the zone of action. The commander makes the determination based on his mission requirements and the METT-T analysis. This phase is characterized by detailed planning, coordination, and decentralized, violent small-unit actions. The assault continues until all mission requirements are met.

a. Rapid Advance. This method (figure 3-3) involves rapid movement through the zone of action to seize certain specified critical objectives. It may involve the isolation or bypassing of some enemy positions for the sake of gaining speed and momentum. You can use this procedure when

- The critical objective is identified
- Time is critical in reaching objective
- Only key buildings on the route of advance are to be cleared
- Moving quickly through a lightly defended area

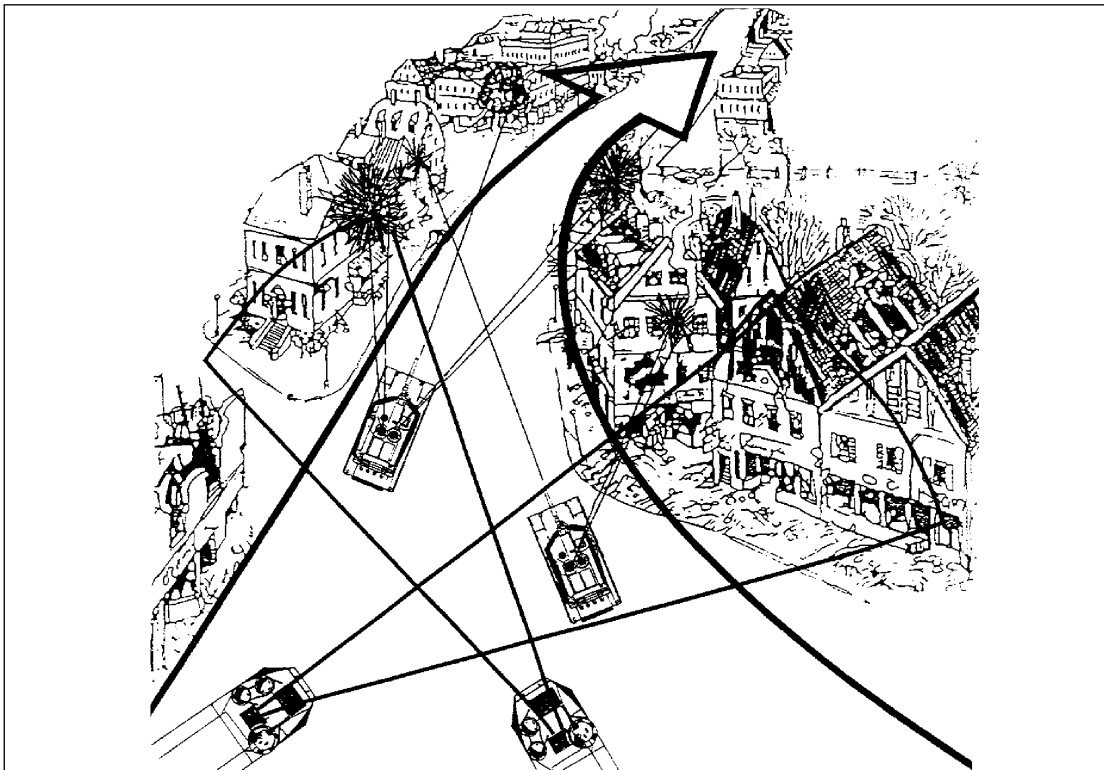


Fig 3-3. Rapid advance on route to critical objective.

b. Systematic Clearance. This method (figure 3-4) involves the deliberate reduction of all significant enemy positions throughout the objective area and may be used when

- You cannot identify critical objectives
- Enemy positions are strong
- The area is densely built-up
- You place the main attack on a narrow front against enemy weakness
- Your intent is to secure the area for subsequent use by Combat Support (CS) and Combat Service Support (CSS) forces

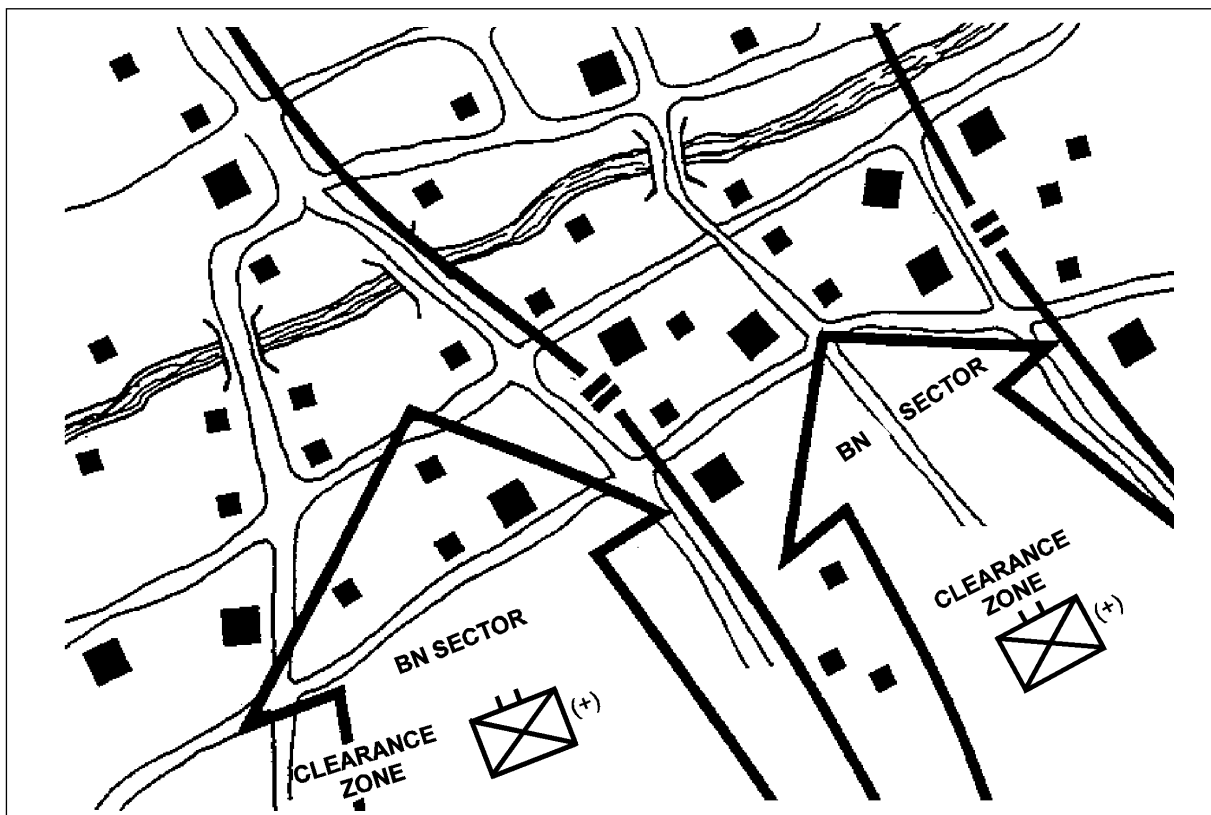


Fig 3-4. Systematic clearance within assigned sectors.

### 3305. Control Measures

In MOUT, you will use normal control measures such as phase lines and boundaries and control measures that are MOUT-peculiar. Two of the MOUT-peculiar control measures are assigning numbers to buildings and designating the openings within the building.

a. Building numbers. Each company must assign a number to each building in its sector. To do this, number the buildings in order, starting with the ones closest to your current lines (figure 3-5). This will simplify your communications within the company. For example, you can designate objectives by building number, call for a resupply at a building number, etc.

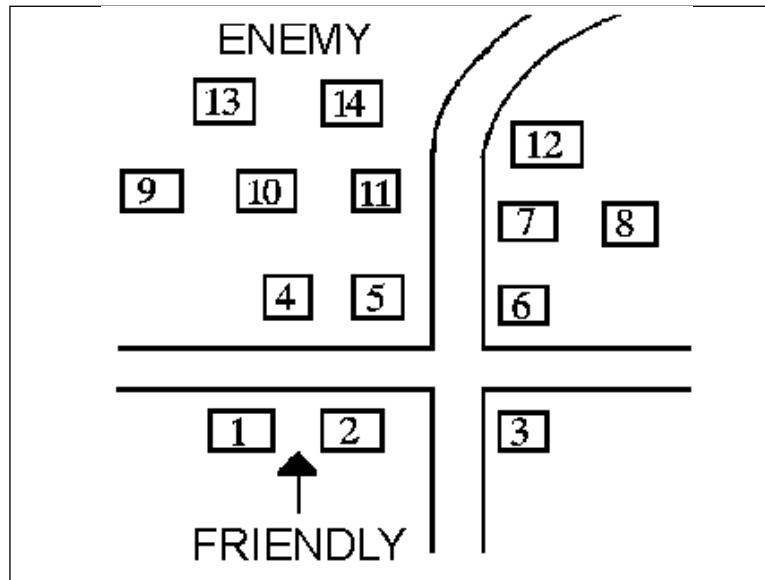


Fig 3-5. Numeric designation of buildings.

b. Opening designations. In addition to numbering the buildings, you will designate the openings (windows, doors, etc.) of each building. Designate each opening in a uniform manner. There are three parts to each designation, for example, D-3-5 (pronounced "Dee-three-five").

- (1) The first part of the designation indicates the side of the building that the opening is on (you will use letters for the first part of the designator). Start with the side of the building that you are facing and label it "A." Then go in a clockwise direction around the building and label each side in alphabetical order (figure 3-6). For example, the left side of the building would be "B" and the back of a four-sided building would be "C." If you do not know how the back of the building is shaped and you need to designate the right side of the building, just assume the building has four sides and label the right side "D."

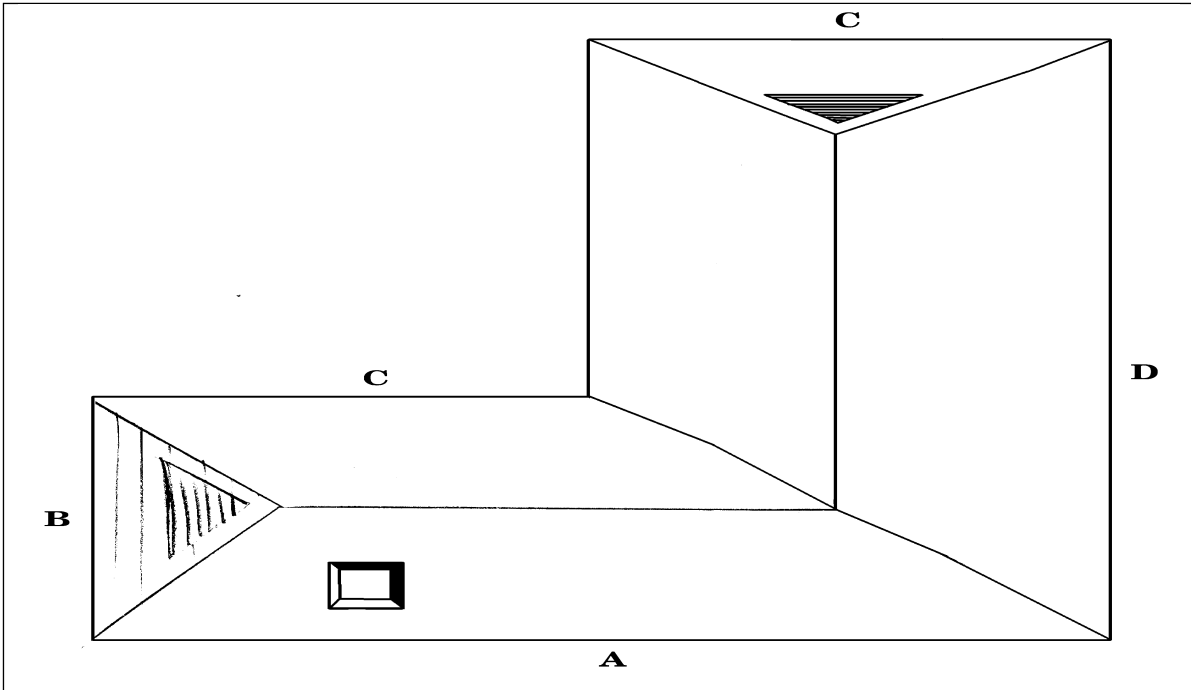


Fig 3-6. Alphabetical designation of building sides (roof view).

- (2) The second part of the designator indicates the floor of the opening, with "1" being the ground floor, "2" being the second floor, etc.

- (3) To figure out the last part of the designation, start counting the number of openings on that floor (starting from the left side as you face left). You must count ALL openings on that floor, including windows, doors, and holes made in the course of the battle (figure 3-7). For example, D-3-1 designates the first opening (counting from the left) of the third floor of the right side of the building.

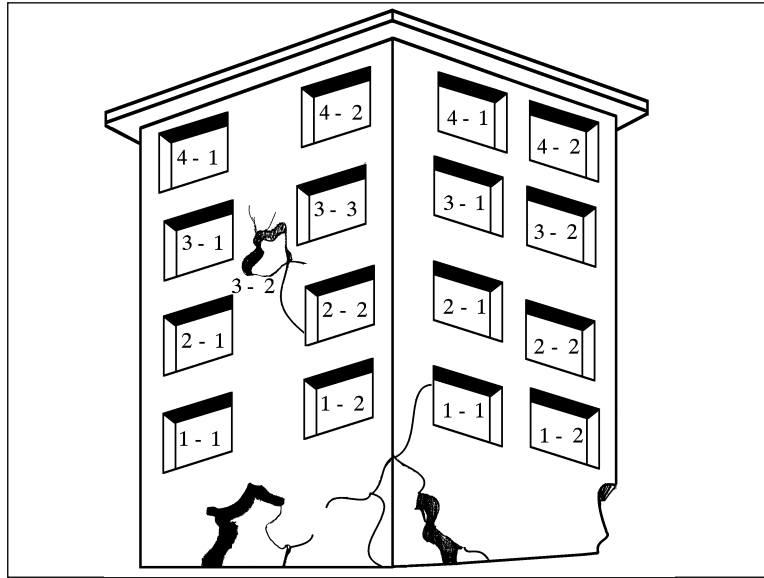


Fig 3-7. Numerical designation of building openings.

Lesson 3 Exercise: Complete items 1 through 3 by performing the actions required. Check your responses against those listed at the end of this lesson.

1. Select the phases of attack in the correct sequence.
  - a. Isolate the objective, reconnoiter the objective, secure a foothold, clearing a built-up area
  - b. Seizure of a corridor, reconnoiter the objective, secure a foothold, clearing a built-up area.
  - c. Seizure of a corridor, reconnoiter the objective, seizure of key objectives, clearing a built-up area
  - d. Reconnoiter the objective, isolate the objective, secure a foothold, clearing a built-up area.
  
2. What are the two types of hasty attacks?
  - a. Isolate and contain, seize a foothold
  - b. Seizure of a corridor, seizure of key objectives
  - c. Clear enemy forces, seizure of key objectives
  - d. Direct assault, seizure of a corridor

3. What are the three phases of a direct assault?
  - a. Surround, seize a foothold, and mop up
  - b. Isolate, seize a foothold, and clear
  - c. Surround, assault, and mop up
  - d. Isolate, seize a corridor, and clear

### Lesson 3 Exercise Solutions

	<u>Reference</u>
1. d.	3301
2. b.	3302
3. b.	3303

Lesson Summary. In Lesson 3, you covered the two types of hasty attacks and the two types of deliberate attacks. You also covered the phases of attack and how they all tie together, in addition to control measures which include numerical designation of buildings. Next is your unit exercise. Good luck!

Study Unit 3 Exercise: Complete items 1 through 17 by performing the action required. Check your responses against those listed at the end of this study unit.

1. What are the reasons for attacking urban terrain?

\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

Matching: For items 2 through 5, match the reason to avoid attacking urban terrain in column 1 with its situation in column 2. Place your responses in the spaces provided.

Column 1	Column 2
<u>Reason to Avoid an Attack on Urban Terrain</u>	<u>Situation</u>
___ 2. City has no military political significance	a. The city in your division's area of operation is on the end of a peninsula and is outside the transportation network of the area.
___ 3. Bypass of the city is feasible	b. The government of your enemy does not defend a city to avoid damage to cultural monuments.
___ 4. Insufficient forces	c. Capturing a city which will not damage the enemy's effort but will put a burden on your own resources is worthless.
___ 5. City declared to be open	d. The city to your front is surrounded by an undefended ridge line that dominates the city.
	e. Your division has suffered serious losses in the recent fighting and is currently waiting for replacements.

6. What do you find in the mission statement of METT-T?

- a. Combat power resources
- b. MOOSEMUSS
- c. What type of casualty to expect
- d. What must be accomplished

7. What does the "E" in METT-T stand for?

\_\_\_\_\_

8. For the Terrain and Weather factor what acronym would you use?

- a. KOCOA
- b. SMEAC
- c. METT-TSL
- d. SAFE



9. What do the last 2 "T"s stand for in METT-T?

\_\_\_\_\_ and \_\_\_\_\_

10. Select the phases of attack in the correct sequence.

- a. Isolate the objective, reconnoiter the objective, secure a foothold, clear a built-up area
- b. Reconnoiter the objective, isolate the objective, secure a foothold, clear a built-up area
- c. Secure a foothold, clear a built-up area, reconnoiter the objective, isolate the objective
- d. Clear a built-up area, secure a foothold, reconnoiter the objective, isolate the objective

Matching: For items 11 through 13, match the type of assault in column 1 with its situation in column 2. Place your responses in the spaces provided.

Column 1

Column 2

Type of Assault

Situation

- |  |   |
|--|---|
| <p>___ 11. Seizure of key objectives</p> <p>___ 12. Seizure of a corridor</p> <p>___ 13. Isolate and contain</p> | <p>a. Your commander has tasked your battalion with conducting a noncombatant evacuation operation.</p> <p>b. To protect your own supply and communication lines.</p> <p>c. Your division's objectives lie on the other side of a city. You do not want to waste your strength in capturing the entire city, but there are no ways around the city.</p> <p>d. Your forces have surrounded an enemy-held city for six months. The division commander decides that it is not worth waiting anymore, so orders you to another objective.</p> |
|--|---|

14. What are the three phases of a direct assault?

- a. Surround, seize a foothold, and mop up
- b. Isolate, seize a foothold, and clear
- c. Surround, assault, and mop up
- d. Isolate, seize a corridor, and clear

15. Use \_\_\_\_\_ clearing technique when time is critical in reaching the objective.
16. What is the correct technique for identifying buildings within a company sector?
  - a. Assign letters to them in order, starting with the ones furthest from your frontlines.
  - b. Number them in order, starting with the ones closest to your frontlines.
  - c. Number them in order, starting with the ones furthest from your frontlines.
  - d. Assign letters to them in order, starting with the ones closest to your frontlines.

Item 17 refers to the situation that follows. Read the situation carefully, then answer the item.

Situation: You are standing facing the front of a building and notice movement on the fourth floor. The movement seemed to appear in the first window on the left.

17. What is the designation of opening in which the movement was seen?
 

a. A-4-1	c. D-1-4
b. B-1-4	d. D-4-1

### Study Unit 3 Exercise Solutions

	<u>Reference</u>
1. tactical, political, economical advantages and potential threat to operations	3102
2. c.	3103
3. a.	3103
4. e.	3103
5. b.	3103
6. d.	3201
7. enemy	3202
8. a.	3203
9. troops and time	3204 & 3205
10. b.	3301
11. a.	3302
12. c.	3302
13. b.	3303
14. b.	3303
15. rapid advance	3304
16. b.	3305
17. a.	3305

## UNIT SUMMARY

In this study unit, you covered inducing an offensive operation in MOUT, METT-T, phases of the attack, and identifying control measures. These are operations we have to complete for a successful MOUT. In the next study unit, you will cover defensive operations which include avoiding defense of urban terrain, and preparing for the defense.

## STUDY UNIT 4

### DEFENSIVE OPERATIONS

Introduction. A defense at the right time and place can equal a victory. If a spirited and stubborn defense persuades an attacker to abandon the attack, that can be victory enough. Even in the 20th century, some defenders can be credited, not only with turning away an attacker but with making the course of war veer in their own favor.

MAGTFs, being forward deployed on amphibious shipping, are most likely to be called on to defend a port city, an embassy located on or near a coastline, a transportation link, or the capital of a foreign government from hostile forces. Marines could defend from an urban area in an economy of force role in order to support offensive action elsewhere. The probability of Marines defending a built-up area is equal to the probability of attacking a built-up area. Therefore, it is imperative that Marines understand how to defend a built-up area.

The fundamentals of defense do not change when the battlefield is an urban area. The defenders of a city, however, gain certain advantage. Primarily, the defender can establish an extensive defensive network which will force an attacker to expend exorbitant amounts of time, supplies, equipment, and manpower. Commanders must understand and use these advantages to make the most of their units and weapons.

#### **Lesson 1. AVOIDING DEFENSE OF URBAN TERRAIN**

##### LEARNING OBJECTIVE

Identify the five reasons to avoid defending urban terrain.

Military Operations on Urban Terrain (MOUT) are not only extremely taxing on the attackers, but are also equally difficult for the defenders. Since there are many difficulties with fighting in urban terrain, you must consider that in some situations, defending a city should be avoided. The following are five reasons to avoid defending urban terrain.

##### **4101. Insufficient Forces**

In a normal situation, an entire platoon or even company would be needed to effectively defend a single building. With insufficient forces, you will be forced either to spread yourself too thin everywhere or to defend only certain parts of the city. The enemy could easily break through your defensive line or could bypass your strongpoints. In either case, you'll suffer heavy losses with nothing to show for your efforts.

#### **4102. City Can Be Bypassed**

If the enemy is able to bypass a city (either because of his superior mobility or because of favorable geographic conditions such as road, railroad, or other transportation networks that do not rely on the city), it will be pointless to defend that city.

#### **4103. Buildings Don't Provide Sufficient Protection From Enemy Fire**

Too often, we think that cover and concealment will provide us with the same protection; actually they will not. For example, a plasterboard wall can give us plenty of concealment, but it provides absolutely no protection from enemy fire. So, as you can see, you must ensure the building you plan to use will be able to cover you from attack by enemy fire.

Although you can always improve buildings with sandbagged positions, there may be a limit to the time you have to work on your positions. Therefore, if time does not allow you to strengthen your defensive position, you should not choose to fight in urban terrain.

#### **4104. City Has Been Declared To Be "Open"**

There may be situations when the politicians of a country do not want any fighting to occur inside a particular city. In such cases, they will declare the particular city to be "open." In other words, the city will not be defended. One of the reasons for declaring a city to be "open" is the cultural or archeological treasures in that city must be preserved. For example, in June 1944, the Italians declared Rome to be an "open" city so the Roman ruins and many cultural treasures of that city would not be destroyed or damaged. Making a city open is normally an attempt to preserve irreplaceable cultural treasures.

#### **4105. City is Dominated by Terrain with Superior Observation for Indirect Fire**

If the enemy has captured terrain that may provide him with superior observation for indirect fire, you will be forced to limit your movement to the night. The enemy will make your life miserable with indirect fire weapons. A fine example of this situation is General Lee's first Maryland campaign and the siege of Harper's Ferry.

Lesson Summary. During this lesson, you learned the five reasons to avoid fighting a defensive battle inside urban terrain. In the next lesson, you will learn some preliminary techniques to begin the preparation of your defensive positions.

## Lesson 2. PREPARING FOR THE DEFENSE

### LEARNING OBJECTIVES

1. Identify the characteristics of each type of defense.
2. Select a building with the characteristics necessary for a successful defense.

In the spring of 1944, a dispute raged against the Wehrmacht officers over how to conduct the defense against the expected Allied invasion of northern France. The problem was the Germans didn't have enough men to defend the 1400 mile French coastline. Field Marshall Erwin Rommel had built all of the fortifications known as the "Atlantic Wall." He wanted to maintain a skeleton frontline defense while most of his men were held in reserve so they could quickly mass at the actual point of an invasion.

Rommel's boss, Field Marshall Karl von Rundstedt, however, wanted to mass his men on the frontlines at the few critical areas where he expected the invasion may occur. The strategic disagreement between those two generals was over which of the two types of defense to adopt. Our next paragraph is devoted to these two types of defensive strategies.

### **4201. The Two Types of Defense**

There are two types of defense: mobile and static.

a. Mobile defense. The type of defense General Rommel proposed was mobile defense. In this type of defense, you will place a small number of men on the frontlines while a heavy reserve force is maintained at central locations where they can easily react to enemy attacks. The commanders of troops in the frontlines must determine not only where the enemy's main effort may be, but must also delay the enemy long enough for the reserves to deploy. In this manner, they can isolate and destroy the enemy penetrations. The reserves must be extremely mobile for this type of defense. (You should notice that "mobile" is a relative term. For example, tanks are mobile in the desert but not in the jungle; so, when we say that the reserves must be "mobile," we mean they will be able to react to the enemy's ability to attack under certain geographic conditions.)

Marine commanders must realize that if they rely on this type of defense, they must have air superiority in the battle area. Otherwise, the enemy's aircraft will hamper or prevent the movement of their reserves--what happened with the Iraqi Army in Operation Desert Storm is a good example. Marines gained the necessary air superiority to prevent Iraqi reserves from deploying. Note also that the German Luftwaffe did not have air superiority at any time during the actual Normandy invasion.

b. Static defense. In this type of defense, place the majority of troops on the frontlines and the frontline positions are heavily fortified. Deploy your security forces to the front to force the enemy to deploy before they reach our front. Maintain a reserve, but not as large as in a mobile defense. In this course, you will primarily be concerned with the static defense. No matter what type of defense your commander decides to use, the defense of a city will always begin with preparation from outside of the city.

#### 4202. Selecting a Building for Defense

Selecting a building as a defensive position requires an analysis of the type of area in which the building is located and the individual characteristics of the building. Unit leaders must consider the following factors when determining a building's suitability for defense:

a. Strategic location. Buildings that occupy strategic locations must be heavily fortified or at least denied to the enemy. These locations might include buildings that overlook avenues of approach, bridges, possible LZs, landing beaches, port or transportation facilities, etc.

b. Mutually supporting. To prevent isolation, positions should be mutually supporting and capable of firing in all directions. If a position in a building can provide you with only limited observation and fields of fire, the only way to get good all-around observation would be to stick your head out of a window or door. Naturally, this would expose you to hostile fire. Thus, just as bunkers must be mutually supporting to offset their poor fields of observation, so must positions in buildings support each other (figure 4-1).

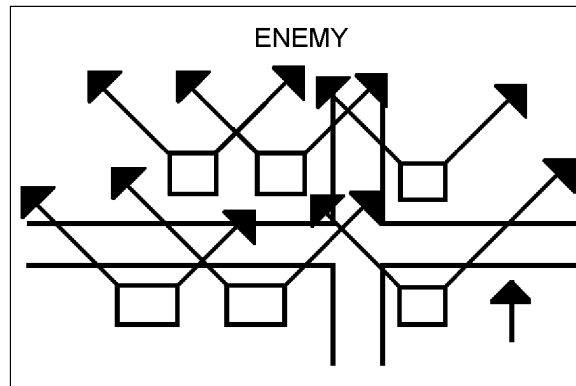


Fig 4-1. Buildings mutually supporting each other.

c. Covered routes. Defensive positions should have at least one covered route that permits resupply, medical evacuation, reinforcement, or withdrawal from the building. You can establish this route as follows:

- Through walls of adjacent buildings
- Through an underground system
- Through communication trenches
- Behind protective buildings

d. Observation and fields of fire. You must select a building that has good observation and fields of fire including good observation of adjacent defensive sectors. Remember, fields of fire, like observation, are limited in MOUT. Your fields of fire may be restricted by battle debris or other buildings. Even if you "rubble" a building (completely destroy, using explosives), there will still be a mound of debris that may obstruct your fields of fire. You can obtain adequate observation and fields of fire by selecting buildings that have open areas to the front or that are on straight streets.

e. Cover and concealment. Select buildings that provide protection from direct and indirect fires as well as direct observation by the enemy. Commercial buildings having large windows will not permit you to move around freely. The floors should be strong enough to support the rubble from upper floors as they are destroyed by indirect fire.

Reinforced concrete buildings with three or more floors normally provide suitable protection. Buildings constructed of brick, block, wood, or other light material must be reinforced for sufficient protection. One or two-story buildings without a strongly constructed cellar are vulnerable to indirect fires. If the building does not provide adequate protection, you must have the time and the construction material necessary to improve your position.

f. Preparation time. Time to prepare the defense is one of the most critical factors in selecting building positions. Buildings that require extensive reinforcement with sandbags, fields of fire clearance, time-consuming fire prevention measures, and other manual labor efforts should be avoided unless the enemy is far enough away to give you plenty of time to improve such positions. Conversely, buildings located in desirable areas that require minimal construction and improvement may already be the enemy's primary objective. Whatever building you occupy, you must establish a priority of work to improve it.



Lesson 2 Exercise: Complete items 1 through 9 by performing the action required. Check your responses against those listed at the end of this lesson.

Matching: For items 1 through 3, match the aspects of two types of defense in column 1 to the types of defense in column 2. Place your responses in the spaces provided.

Column 1	Column 2
<u>Aspects</u>	<u>Types of defense</u>
___ 1. The majority of the troops are on the frontline	a. Mobile defense
___ 2. Has a large reserve that reacts to isolate and destroy enemy penetrations	b. Static defense
___ 3. Few troops are on the frontlines	

Matching: For items 4 through 7, match the characteristics of selecting a building to defend in column 1 to the situations in column 2. Place your responses in the spaces provided.

Column 1	Column 2
<u>Building Characteristic</u>	<u>Situation</u>
___ 4. Strategic location	a. Your squad occupies a building that has a brick wall behind it that is an excellent way to get back to the platoon CP.
___ 5. Mutually supporting	b. You ensure that each squad has overlapping fields of fire and that each building's fields of fire also overlap.
___ 6. Covered routes	c. Your platoon occupies a building overlooking a bridge.
___ 7. Observation and fields of fire	d. You decide to rubble two buildings to your front.

Matching: For items 8 and 9, match the characteristics of selecting a building to defend in column 1 to the situations in column 2. Place your responses in the spaces provided.

Column 1	Column 2
<u>Building Characteristic</u>	<u>Situation</u>
___ 8. Cover and concealment	a. The building that you occupy has floors that are strong enough to support any rubble from upper floors.
___ 9. Preparation	b. You put buckets of water by each position.
	c. When your company occupies their positions inside of a city, you expect to have 10 days before the enemy attacks.

Lesson 2 Exercise Solutions

	Reference
1. b.	4201
2. a.	4201
3. a.	4201
4. c.	4202
5. b.	4202
6. a.	4202
7. d.	4202
8. a.	4202
9. c.	4202

Lesson Summary. During this lesson, you have learned the two types of defense and what to look for when you select a building to defend. During your next lesson, you will learn how to occupy and construct a defensive position inside of a building.

**Lesson 3. ESTABLISHING THE PRIORITY OF WORK**

LEARNING OBJECTIVES

1. Identify the steps to defend your position inside the building in accordance with the priority of work acronym SAFE.
2. Identify the five possible missions for a reserve unit.
3. Identify the field firing techniques for fighting in a MOUT.

The strength of your defense will depend on several factors, one of which is the amount of time you must use to prepare your positions. Even if you **think** you have completed the fortifications of your positions, you must remember that you need to improve them continuously. When occupying a defensive position, you should follow the acronym **SAFE** (Security, Automatic and Antitank weapons, Fields of fire, and Emplacements) to prioritize your tasks.

#### **4301. Applying the Acronym SAFE to Your Defensive Position**

Security

Automatic and Antitank weapons

Fields of fire

Emplacement

a. Security. After you occupy a position, the first task you need to carry out is to establish security. This means that your unit will establish sentinel posts in addition to assigning Marines within your lines to security duties. These Marines will protect the rest of the unit while work continues on preparing and improving positions. This is similar to any other defensive position.

(1) Listening and observation posts (LP/OPs). LP/OPs are normally closer to your lines when you are inside a built-up area than when you are not.

- Position the LP/OPs where they have superior observation of all possible enemy avenues of approach.
- Position LP/OPs far enough from the front of your position so that you have plenty of time to react to reports of enemy movement.
- If possible, they should have some sort of communication with the platoon commander using such means as a field phone or radio.
- Place them before you do anything else, because sentinel posts provide your first warning of enemy activity.

(2) Inside your defensive position. Within a normal defensive position, every other Marine is assigned to security while preparing the position. The same principle applies to the defense in a MOUT situation. Rotate the Marines on watch periodically to ensure a high level of alertness by the sentries and to rest those Marines preparing positions.

b. Position automatic and antitank weapons. Your next task will be to set each Marine and his weapon into position.

- (1) Cover likely avenues of approach including sewers, subway tunnels, roofs and walls of adjacent buildings, stairs and hallways with crew served weapons or weapons such as Dragons, TOWs, or SMAWs.
- (2) Locate your automatic weapons as close to ground level as possible to fire on the enemy with grazing fire, rather than plunging fire. This will increase the chances of hitting your target.

Caution: Keep in mind that battle debris may restrict your fields of fire. If so, move your automatic weapons to a higher position or clear the battle debris.

- (3) TOWs, Dragons, and SMAWs. Within built-up areas, TOWs, Dragons, and SMAWs are best employed from the upper stories of buildings to attain long-range fields of fire. The higher position will also provide a better angle on the softer areas of enemy armor.

Warning: Since these weapons create backblast signatures and must have a 10 to 65 meter arming range, use extreme caution in urban terrain. Ensure

- There is at least 20 square feet of ventilation (space) to the rear of the weapon. (An open 7 x 3 foot door provides adequate ventilation.)
  - When firing the TOW and Dragon at street level, maintain at least 3.5 feet (1.1 meters) vertical clearance over obstacles (such as rubble or power lines).
  - The building is of sturdy construction.
  - The ceiling is at least 7 feet high.
  - The floor size of the room is at least 17 x 24 feet for the TOW; 15 x 12 feet for the Dragon; and 6 x 10 for an AT-4 to allow for backblast.
  - All glass from windows and all loose objects are removed from the room.
  - Marines within the room are forward of the rear of the weapon.
  - Marines in the room protect their ears when the weapon is fired.
  - The clearance between the muzzle of the weapon and the opening you fire through is at least 9 inches for a TOW and 6 inches for a Dragon.
- (4) The unit leader assigns each Marine a primary, alternate, and supplementary position. You should rehearse moving among them when time permits.

- (5) Shift weapon positions at night from their primary position to their alternate position. Do this to protect these weapons in case the enemy has discovered their locations during a daylight reconnaissance.

c. Fields of fire. The third element in preparing the defense is designating and clearing fields of fire. Unit frontages during MOUT are severely constricted in comparison with fighting in other types of terrain. Companies may be assigned sectors as short as 300 to 500 meters, that is less than a third of the typical distance. This means that a squad might defend a normal-sized home (figure 4-2). After you have assigned everyone his individual position, you must work on your fields of fire.

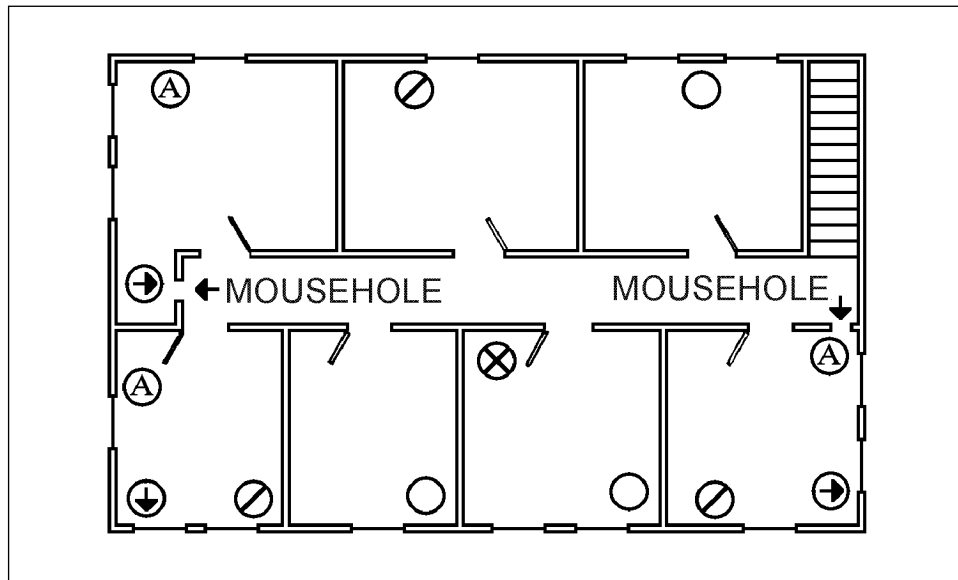


Fig 4-2. Squad defense of a building.

- (1) Overlapping sectors. Assign each Marine a sector of fire. Ensure that these sectors are overlapping to prevent gaps in your defense.
- (2) Dead space. Cover any dead space with M203s or mortars or by placing Marines in upper level floors. Doing this will also help you achieve plunging fires.

- (3) Clear battle debris. Clear as much battle debris as possible to deny cover to the enemy as he advances. You can leave some debris as obstacles and/or boobytraps. As in other situations, do not clear your fields of fire in such a way that it makes it obvious to the enemy where your positions are. Suppose the enemy is moving through a city and observes the normal battle debris found in a MOUT. If he suddenly comes upon a street that looks like your living quarters back at mainside after a field day, then you probably have cleared your fields of fire too much.
- (4) "Rubble" selected buildings. If there is a building that obstructs your fields of fire, place explosives on the support columns in the middle of the basement and detonate them. You will still be left with a pile of rubble, but it will not be as high as the original building. (You can also do this to block off selected streets.) When rubbleing buildings, don't do it in such a way that gives away your position.

d. Emplacement (entrenchment). The last and most time-consuming task in preparing your position is actually building the individual emplacements and improving the platoon position. The procedures are as follows:

- (1) Loopholes.
  - (a) Definition. A loophole is a hole, approximately eight inches in diameter, that is made in a wall or roof of a building. It can be made in either inside or outside walls.
  - (b) Purpose. We prepare loopholes to avoid establishing a pattern of always firing from windows. Each weapon position (primary, alternate, and supplementary) will generally require several loopholes, but keep the number of loopholes to a minimum because they may weaken walls and reduce protection capacity. Additionally, since you won't always be able to camouflage loopholes properly, you should make some dummy loopholes to deceive the enemy as to your true location.

(c) Location. The general rule to follow in preparing loopholes is to place them where they are concealed (do not alter the appearance of the building) and where they are unexpected (figure 4-3), such as

- 1 In missing or removed roof tile
- 2 In a wall
- 3 Between boards in window shutters
- 4 Concealed under eaves
- 5 In chimneys
- 6 Behind vines and bushes
- 7 In dark areas out of sight
- 8 At the bottom of doors
- 9 In mail drops or concealed by name plates

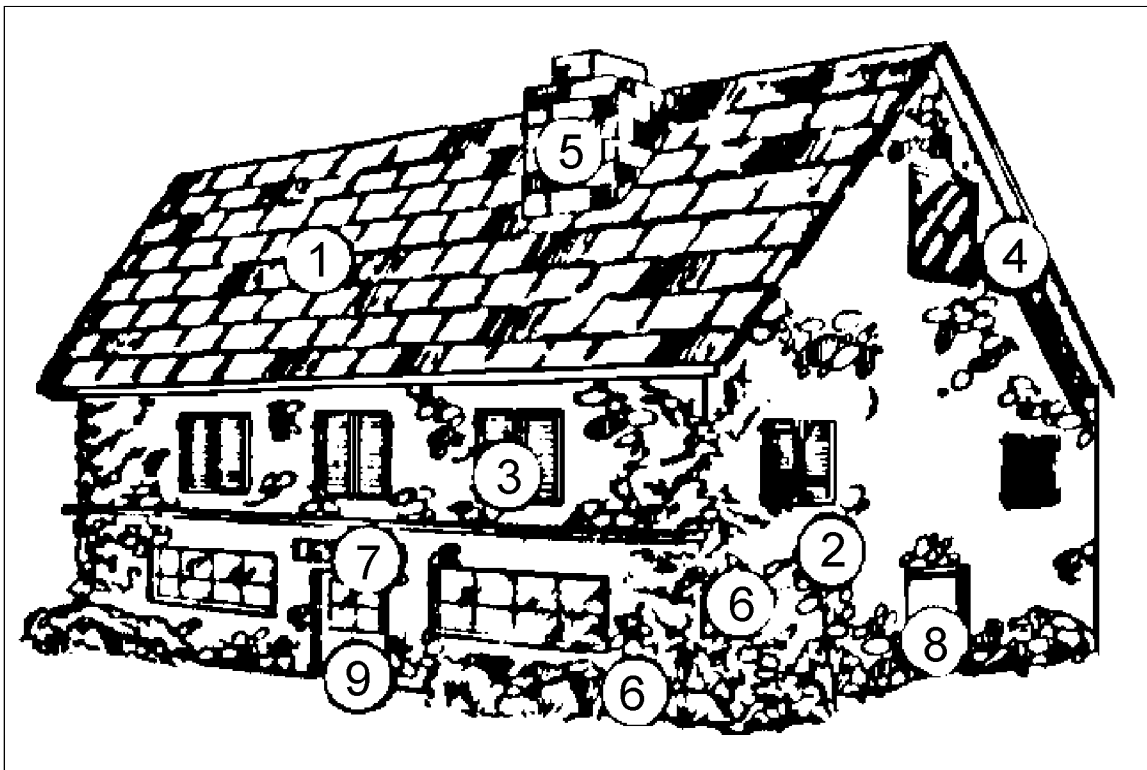


Fig 4-3. Possible loophole locations.

- (d) Exterior loopholes. You can make loopholes by punching or drilling holes in walls (figure 4-4). Loopholes are cone-shaped to enable engagement of targets above and below the position and to reduce the size of the outside hole. The edges of a loophole, especially in brick walls, splinter when hit by bullets. Where possible, you should use protective linings, such as an empty sandbag held in place by wire mesh, to reduce splintering effects. When not in use, cover loopholes with sandbags or furniture to prevent the enemy from firing into or observing through them.

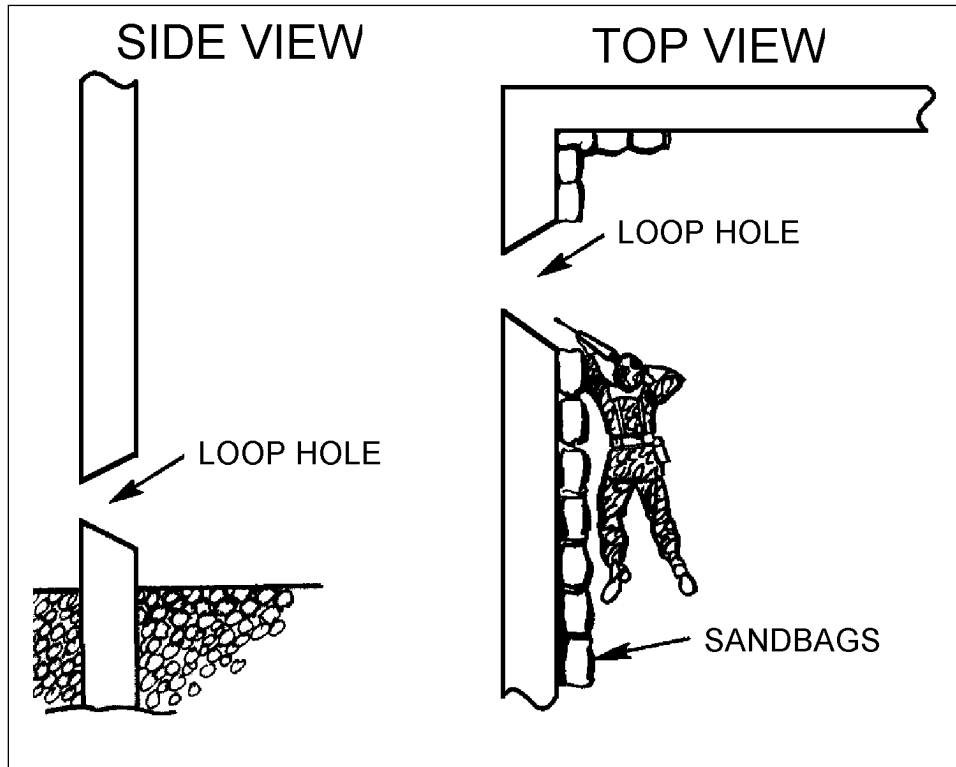


Fig 4-4. Exterior loophole shapes.

- (e) Interior loopholes. Loopholes are also prepared in interior walls and ceilings of the building to enable fighting **within** the position when necessary. Interior loopholes should cover stairs, halls and unoccupied rooms. Conceal interior loopholes with pictures, drapes, or light furniture. Loopholes in floors permit you to engage enemy personnel on lower floors with small arms and/or to drop grenades. Cover these holes when not in use.



- (2) Window positions. When using window positions, Marines use the wall on either side of the window to provide a protected kneeling or standing position.
- (a) Elevate the position. To increase your ability to fire downward from upper floors, tables or similar objects placed against the wall should provide sufficient elevation. When using an elevated platform, it must be positioned to prevent the weapon from protruding through the window (figure 4-5).
  - (b) Remove all glass from the windows to prevent flying shards of glass from injuring you. Removing the glass will also help to decrease the concussion from hand grenades thrown into your position.
  - (c) Cover the window with wire mesh. Attach the wire mesh to all sides of the window except the bottom. This will keep enemy hand grenades out and still permit you to drop hand grenades on the enemy (figure 4-5).
  - (d) Sandbag the window or cover the entire window except for a small firing port. You can do this with sandbags, wooden pallets, or shutters.

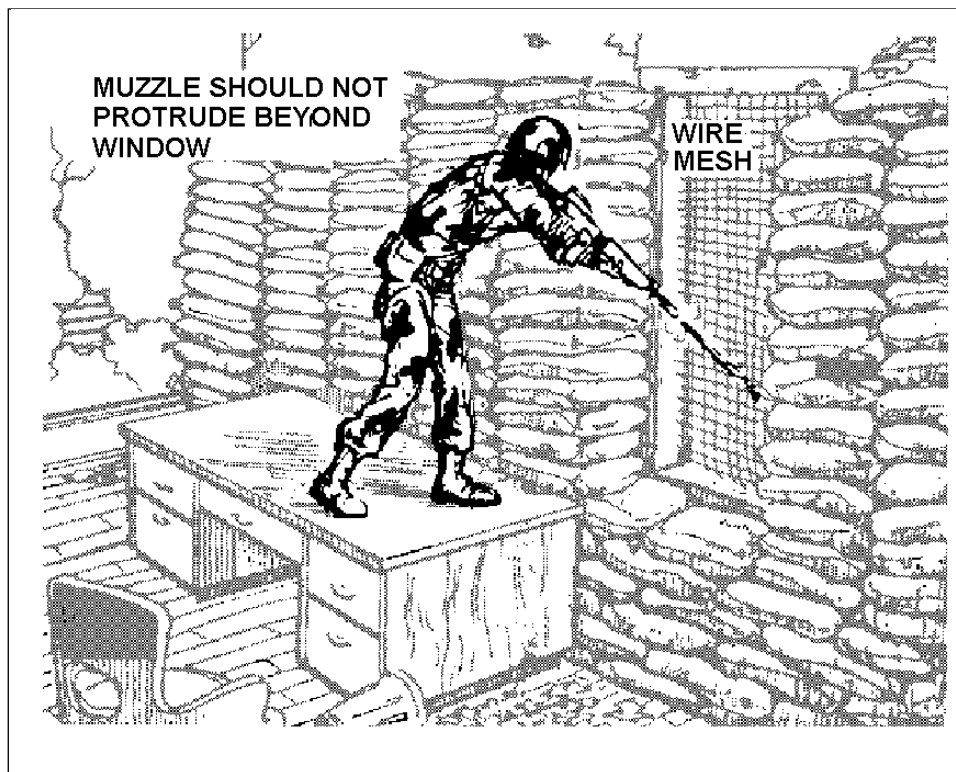


Fig 4-5. Window position.

- (3) Sandbags. Build a sandbag wall around your entire position, including the outside wall (figure 4-6). Outside walls may provide you some protection, but they will rarely be enough to justify not reinforcing the walls. Sandbagging the walls will protect you if the enemy is able to gain entry into the building. Build some sort of overhead protection, such as sandbags placed over a strong table. The overhead protection will help prevent injury from falling debris. Cover the floor with sandbags to protect you if the enemy tries to gain entry to your floor by blasting a hole under your position.

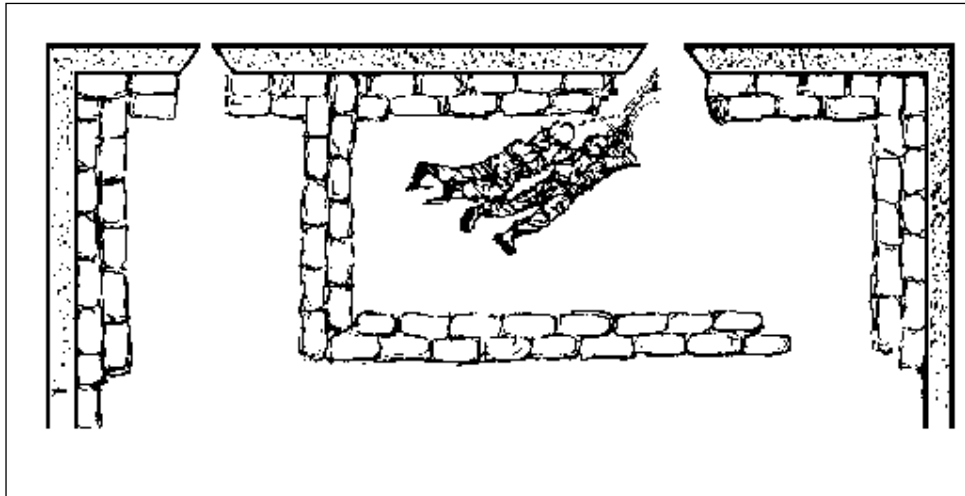


Fig 4-6. Sandbagged position.

- (4) Stairs. Use furniture and tactical wire to block stairs that are not essential to defense. Employ boobytraps as required (figure 4-7).

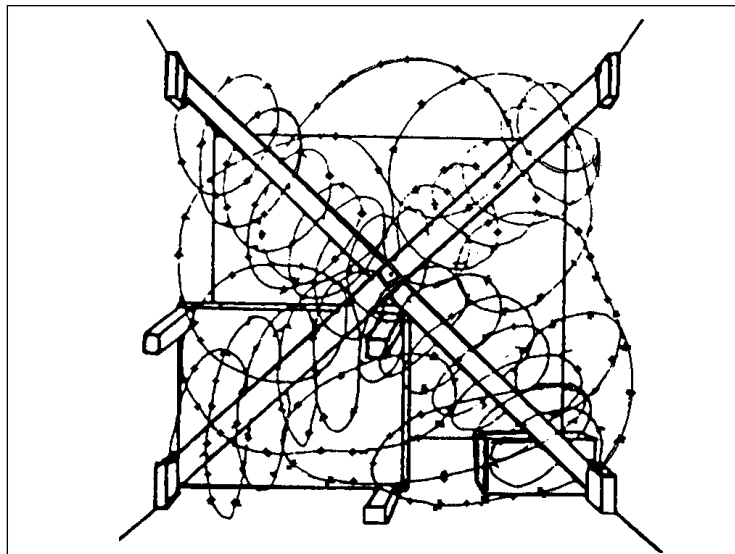


Fig 4-7. Blocked stairs/halls.

- (5) Ceilings. Reinforce ceilings with supports to withstand the weight of rubble from upper floors.
- (6) Floors. If there is no basement, dig fighting positions into the floor for additional protection against heavy direct-fire weapons.
- (7) Unoccupied rooms. Block rooms not required for defense with tactical wire and boobytraps.
- (8) Basements. The basement requires preparation identical to the first floor. Any underground system that you are not using may provide your enemy access to your position.
  - Block enemy access with barbed wire, mines and boobytraps, or furniture.
  - Block these systems by caving them in using explosives.
  - Weld shut the man-holes leading to these systems.
  - Block "man-holes" by covering them with battle debris and covering them with fire.
- (9) Roofs. Positions in flat-roofed buildings require antihelicopter obstacles, such as hedgehogs or barbed wire. Cover and guard roofs accessible from adjacent structures with tactical wire. Block entrances to the building from the roof.
- (10) Fire prevention. Buildings that have wooden floors and rafter ceilings will require extensive fire prevention measures.
  - Remove all flammable material from the building.
  - Cover the attic and other wooden floors with approximately one inch of sand or dirt.
  - Position buckets of water or sand for immediate use beside all fighting positions.
  - Fill water basins and bathtubs as a reserve for firefighting.
  - Turn off all electricity and gas, preferably from a central location at the city's public utilities system.
  - Destroy some buildings to form a fire break.

(11) Communications. Lay the communication wire to the building through adjacent buildings and through underground systems, or bury in shallow trenches.

Note: If you install the wire within the building, lay it through walls and floors.

- Conceal radio antennas by locating them among civilian TV antennas, up the side of a chimney or steeple, or by placing them out a rear window away from enemy observation.
- Construct interior routes to permit your defending forces to move within the building to engage enemy forces in any direction.
- Plan and construct escape routes to permit rapid evacuation of a room or building.
- Make small holes in walls to permit movement between rooms.
- Conceal these holes behind furniture and block them with sandbags when not in use.
- Move between floors by knocking holes in ceilings/floors and using ropes or ladders that can be quickly installed or removed.

Note: If you must withdraw to upper floors, block these holes with timbers and furniture. Clearly mark evacuation routes for day and night identification. Brief all personnel and ensure they practice evacuating over different routes.

- Cover exterior routes required between buildings to provide for emergency evacuation from the building for resupply, reinforcement, counterattack, an evacuation of casualties.
- Build these exterior routes through the walls of adjacent buildings, through sewers, through communications trenches, behind brick walls, etc.

Note: You must cover the route at both ends to prevent enemy use.

- Familiarize all your Marines with the layout of the route.
- Remove or block with tactical wire any structures on the outside of a building that the enemy may gain access to upper floors or to the roof.
- Position obstacles to stop and delay enemy infantry.
- Block narrow streets with destroyed vehicles. Take the wheels off and turn the vehicle on its side, and fill them with rubble.

Note: Buildings that may provide cover for enemy infantry or are suitable to weapon positions should be either destroyed or treated as follows:

- Fill with barbed wire
- Block doors and windows

(12) Miscellaneous.

- Run security patrols at night in front of your position and cover open areas between positions that are covered by fire during the day.
- Place electronic and chemical sensor devices, such as remote sensors and trip flares, along likely avenues of approach.
- Make full use of the fire support available by planning on call targets and final protective fires (FPF's), and also include indirect fire illumination in your plans.

#### **4302. Use of the Reserves**

Five possible missions for reserves. If your unit is in reserve, plan for several different missions:

- Conduct security missions, such as security patrols and ambushes in front of the friendly lines or patrols in the rear to enforce a curfew on the civilians.
- Cover gaps created by enemy attacks.
- Cover a friendly withdrawal.
- Destroy halo or parachute landings.
- Counterattack to regain lost terrain.

The location of the company reserve will be within the same block of the attacking platoons. The battalion reserve must be within two blocks of the attacking companies.

#### **4303. Field Firing Techniques**

When firing from positions inside of a city, take the following considerations into account so that you have the maximum amount of protection from the available cover:

a. Firing through loopholes.

- Place your body close to the wall to expose as little of yourself as possible.
- Stay far enough back from the loophole so the muzzle of your weapon does not show through the loophole.

Note: This will make it difficult for the enemy to locate your position (figure 4-8).

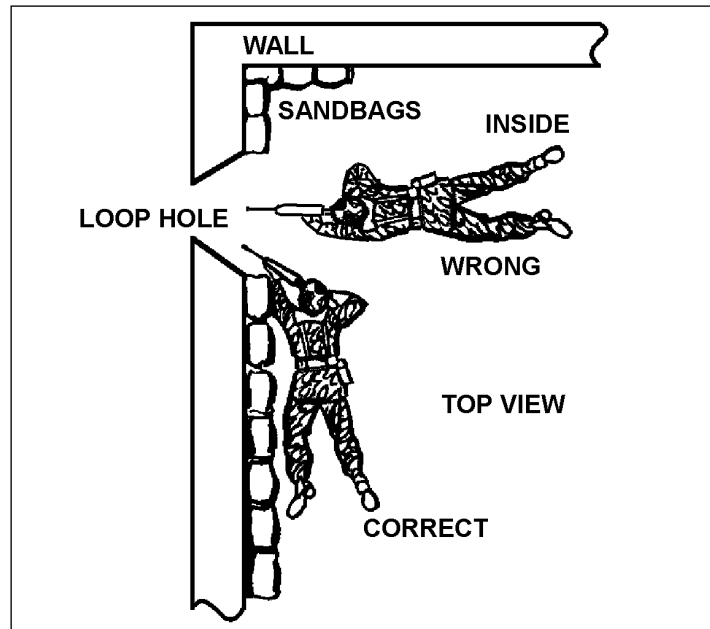


Fig 4-8. Firing through loopholes.

b. Firing through windows or doors. (See figure 4-9).

- Stay far enough away from windows or doors so your muzzle is at least 3 feet from the opening.
- Stay back even farther if the sun is shining through the opening. (By doing this, you can use the shadows of the room to hide your location).

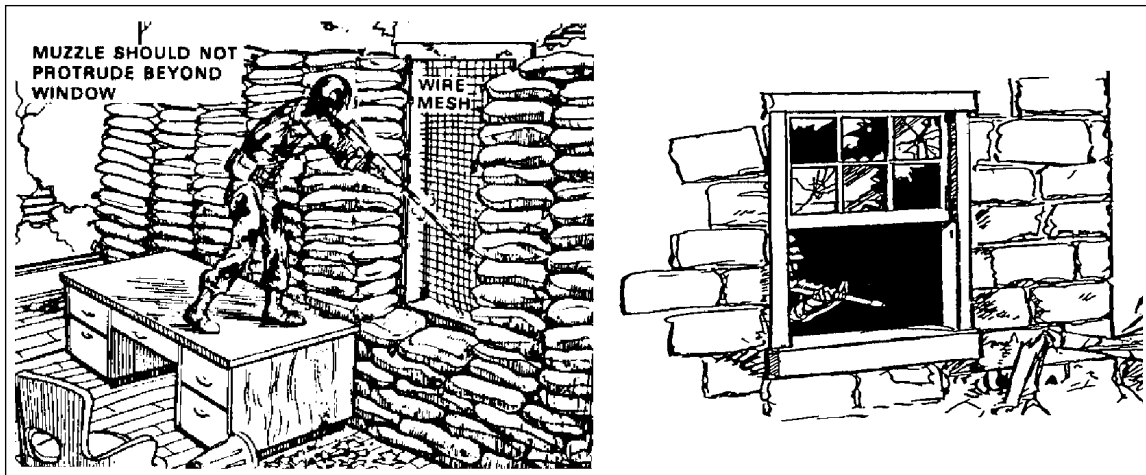


Fig 4-9. Firing through windows.

The ideal situation for firing through a window or door would be to fire from behind an interior wall (figure 4-10), through a loophole or another door. Sandbagging an interior wall would afford you additional protection.

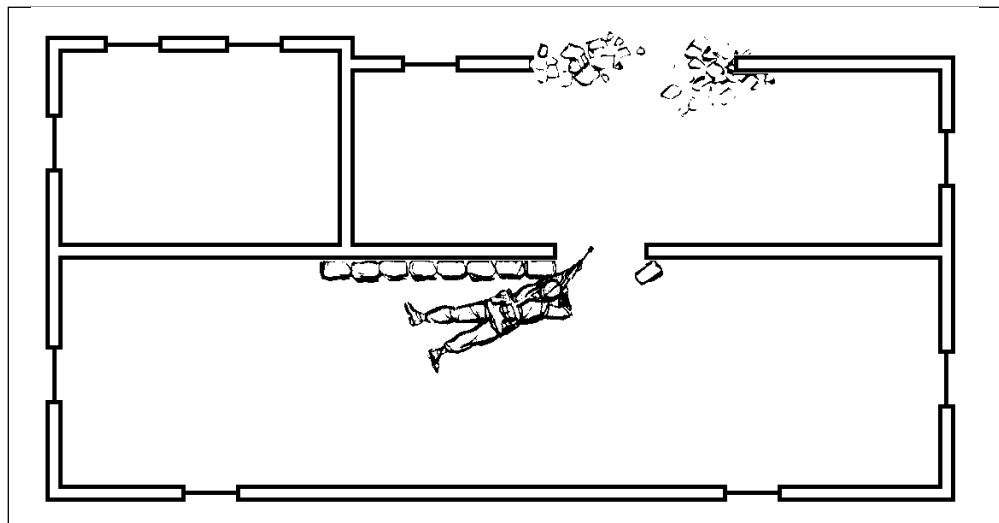


Fig 4-10. Interior wall position.

c. Firing around corners.

- Place your body close to the wall to expose as little of yourself as possible.
- Stay low to the ground.

Notes: If you are firing around a corner to the left, then shoot right-handed.

If you are firing around a corner to the right, then shoot left-handed (figure 4-11). Again, this limits your exposure to the enemy.

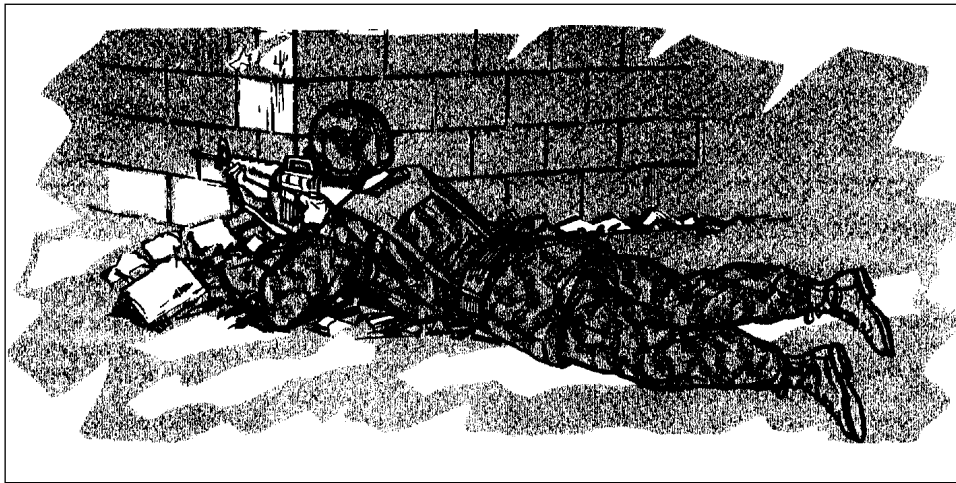


Fig 4-11. Firing around corners.

d. Firing from behind a wall.

- Fire through the wall if there are available holes.

Note: If there are no holes, then fire from around the corner of the wall in the same manner as discussed above.

- Fire over the top of the wall only when there is no other choice, since this position will expose you to enemy fire.



Lesson 3 Exercise: Complete items 1 through 4 by performing the action required. Check your responses against those listed at the end of this study unit.

Matching: For items 1 through 4, match the priorities of work in column 1 to the tasks to be accomplished in column 2. Place your responses in the spaces provided.

Column 1	Column 2
<u>Priorities of Work</u>	<u>Tasks to be Accomplished</u>
___ 1. Security	a. Locate your automatic weapons as close to ground level as possible.
___ 2. Automatic and Antitank weapons	b. Establish sentinel posts.
___ 3. Fields of fire	c. Clear as much battle debris as possible to deny cover to the enemy as he advances.
___ 4. Emplacements	d. Build a sandbag wall around your position, including the outside wall.

#### Lesson 3 Exercise Solutions

	<u>Reference</u>
1. b.	4301
2. a.	4301
3. c.	4301
4. d.	4301

Lesson Summary. During this lesson, you learned about the priorities of work to execute when you first occupy a defensive position, the possible missions that you might have in the reserve, and the proper technique for firing from different positions

Study Unit 4 Exercise: Complete items 1 through 18 by performing the actions required. Check your responses against those listed at the end of this study unit.

Item 1 refers to the situation that follows. Read the situation carefully, then answer item 1.

Situation: A small city in your division's sector has multiple heavy-duty roads leading around the outskirts of the city.

1. Why should your division avoid defending this city?

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Matching: For items 2 through 5, match the aspect of the type of defense in column 1 with the type of defense in column 2. Place your responses in the spaces provided.

Column 1	Column 2
<u>Aspect of the Type of defense</u>	<u>Type of Defense</u>
___ 2. The frontline troops must delay the enemy long enough to give friendly reserve units time to deploy to isolate and destroy enemy penetrations.	a. Static defense b. Mobile defense
___ 3. Normally it requires air superiority.	
___ 4. Frontline positions are heavily fortified.	
___ 5. Reserves are maintained, but they are not as numerous.	

Matching: For items 6 through 9, match the characteristics of buildings to defend in column 1 with the situations in column 2. Place your responses in the spaces provided.

Column 1	Column 2
<u>Characteristics of buildings to defend</u>	<u>Situation</u>
___ 6. Strategic location	a. Your building has a sewer in the basement that you can use to bring in supplies
___ 7. Mutually supporting	b. You have engineers move a destroyed bus because it is interfering with your view of your front.
___ 8. Covered routes	c. Although there is a building that is ideally positioned to protect an important bridge, you select a different building because you cannot support this one from your other positions.
___ 9. Observation and fields of fire	d. The building that you are defending is ideally situated to protect port facilities that are vital to your supply lines.

Matching: For items 10 and 11, match the characteristics of buildings to defend in column 1 with the situations in column 2. Place your responses in the spaces provided.

Column 1	Column 2
<u>Characteristics of buildings to defend</u>	<u>Situation</u>
___ 10. Cover and concealment	a. When preparing your position, you place one inch of sand or dirt on all wooden floors in your building.
___ 11. Preparation time	b. Because enemy contact is imminent, you select a building that requires minimal construction time for your positions.
	c. The building that you are defending is able to withstand direct and indirect fire.

Matching: For items 12 through 15, match the step in the priority of work in column 1 with task to be accomplished in column 2. Place your responses in the spaces provided.

Column 1

Column 2

Priority of Work

Task

- |     |                         |    |   |
|-----|-------------------------|----|---|
| ___ | 12. Security            | a. | Place automatic weapons in position to cover possible routes the enemy may use to get to your position. |
| ___ | 13. Avenues of approach | b. | Construct loopholes.  |
| ___ | 14. Fields of fire      | c. | Designate a portion of your unit to watch for the enemy while the others work on the positions.         |
| ___ | 15. Emplacements        | d. | Clear battle debris to your front to minimize dead space.   |

16. What is the purpose of loopholes?

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17. What are the five possible missions for a reserve unit?

- a. \_\_\_\_\_
- b. \_\_\_\_\_
- c. \_\_\_\_\_
- d. \_\_\_\_\_
- e. \_\_\_\_\_



## UNIT SUMMARY

During this study unit, you not only learned how to defend in a MOUT environment, but also what you can expect to face if you are attacking an opponent who is occupying well prepared positions. You learned the reasons for avoiding the defense in a city, how to prepare for the defense, and what the priority of work should be while establishing the defense. In Study Unit 5, you will cover Combat Support and Combat Service Support in MOUT.

## STUDY UNIT 5

### COMBAT SUPPORT/COMBAT SERVICE SUPPORT IN MOUT

Introduction. In this study unit, you will learn how the combat support (CS) and combat service support (CSS) elements coordinate and work with the infantry in a MOUT environment. You don't usually think of these elements at the small unit level; you just naturally expect the fire support to be on time and the chow and ammo to appear when needed. This study unit will not make you an expert on combat support and combat service support. Its purpose is to make you aware of what is happening beyond your world in the squad or platoon. There are other courses that will prepare you to optimize your fire support assets and help you understand the importance of logistics. However, don't neglect this part of your MOUT education; it's important, too.

#### Lesson 1. COMBAT SUPPORT IN MOUT

##### LEARNING OBJECTIVES

1. Identify the primary considerations of mortar employment.
2. Identify limiting factors in artillery employment.
3. Identify the characteristics of naval gunfire.
4. Identify the characteristics of aviation employment.
5. Identify the characteristics of tank employment.
6. Identify the function of combat engineers in MOUT.

A number of combat support weapons are available to fight in addition to infantry units. These combat support weapons include the following:

- Mortars
- Artillery
- Naval gunfire
- Aviation
- Tanks

#### 5101. Considerations in Mortar Employment

Terrain masking by buildings in urban warfare is an important fire support consideration. While all fires are masked to some degree, mortars are the least affected because of their high angled trajectory. In planning target concentrations, priorities are given to streets and other open areas as well as to areas containing lightly constructed buildings.

- a. Mortars in the attack. Use mortars to clear the enemy off rooftops and from the streets behind the objective. Use them to isolate the objective also.
- b. Mortars in the defense. Due to the excellent cover available, mortars are normally employed to defend troops in urban areas. This is true because mortars allow you to plan for airburst concentrations that are much closer to friendly positions than in other situations. Incendiary fires can also be planned for in the defense.
- c. Mortar in positions. When selecting your mortar positions, ensure your fires are not masked by any buildings. Use sandbags as buffers under the base plate, and use sandbags or dirt-filled cans for the aiming stakes if necessary.

## **5102. Employing Artillery for Combat Support**

The mission of artillery, which is to support the infantry by suppressing and destroying the enemy, is not changed by the urban battlefield.

- a. Limitations. Positioning is critical because of the following:
  - Heavy use of artillery can rubble the city to the point where resupplying the frontline units will be difficult.
  - Limited fields of observation, such as heavy fires caused by lots of artillery firing can create a haze you may have to fight through.

Note: A prime example of this limited field of observation was the 1944 battle for the Monte Cassino monastery. This historical monastery sat on a high cliff that dominated the region below. At first, the Allies did not fire into the monastery because of its historical importance. But, after being bloodily repulsed on several occasions, they decided to level the monastery, which made the fighting bloodier than ever. Thus, the limited fields of observation of the frontline units can restrict the use of artillery on adjust fire missions.

- Mobility restrictions.
- Limited availability.
- Masking of fires by urban features, security, and enemy counter-battery fires.

- b. Methods of employment.

- Use high-angle fire, although this increases the possibility of counterfire radar detection.
- Increase the size of the kill zone and provide more effective fire at street level.



Note: High-angle fire is used more extensively in urban environments. Overall, the best use of artillery in a MOUT environment is to isolate the objective.

### **5103. Capabilities of Naval Gunfire**

The most profound effects of any type of fire support in urban warfare is undoubtedly wrought by naval gunfire (NGF). The innate characteristics of NGF confinement to the sea and the flat trajectory inhibit its ability to engage targets surrounded by structural masking. Accordingly, you can use NGF to supplement existing fire support whenever and wherever the situation allows. Because of its range and maneuverability, NGF can be extremely valuable in attacking targets outside a metropolitan area which could decisively influence the battle within, for instance, bridges, roads, reinforcements, rolling stock, known or suspected artillery positions, and command centers are prime examples. In effect, NGF could be a dominant factor in isolating the battlefield.

### **5104. Characteristics Aviation Employment**

Both fixed and rotary wing aircraft are key contributors to success in MOUT. The Air Combat Element (ACE) provides the MAGTF commander with a variety of options in ordnance delivery and adds flexibility in his ability to maneuver. Conventional ordnance is quite effective for MOUT, particularly against hard targets. Cluster bomb units, rockets, cannons, laser-guided bombs, and electro-optically guided missiles can be used to isolate the area, deny the use of an area to the enemy, funnel the enemy into designated engagement areas, and destroy specific targets. However, the presence of civilians, the requirement to preserve key facilities, and residual effects caused by rubble and collateral damage must be taken into consideration when planning and using aviation in an urban environment.

### **5105. Characteristics of Tank Employment**

a. Limitations. A tank's effectiveness relies on its maneuverability and its ability to destroy the enemy from long ranges, but both of these capabilities are severely restricted in urban warfare. If the city has endured heavy fighting

- The streets will be blocked by rubble and shell holes.
- Engagement ranges are reduced.
- The limited depression and elevation ranges of the main gun will increase the size of the critical dead space around the tank.
- Buildings can interfere with the traversing of the turret.
- Fields of observation are limited when tanks are buttoned up.

These limitations permit infantry units to easily engage tanks using traditional and field expedient (for example, Molotov cocktails) antiarmor weapons.

b. Employment. Because of their limitations in MOUT, **tanks should never lead an attack** except when the situation is fluid and the enemy is not firmly entrenched. Tanks can **support**

the infantry by attacking with their main guns and secondary armament, but the infantry must be well ahead of the tanks. Possible positions for tanks include behind walls and inside of buildings.

Using the radio or tank phone, the infantry unit relays a detailed description of the target it has identified. The tank then moves from its hiding position, fires on the target, and regresses back to its covered position. This maneuvering ability should keep it protected and much more useful than out front where it becomes too much of a target.

### **5106. Employment of Combat Engineers**

a. General. Combat engineers provide many valuable services to infantry units. However, because of their limited numbers, they often supervise the infantry in various construction tasks, rather than actually performing all of the work themselves.

b. Tasks. During urban operations, engineers may be attached to support the dispersed maneuver elements. Engineers perform the following missions during the defense of built-up areas.

- (1) Constructing essential obstacles.
  - (a) Provide technical advice to infantry units in the construction and placement of obstacles using local materials. These obstacles are placed on the perimeter and throughout the built-up area. Priority is given to construction of antiarmor obstacles on concealed and covered approaches to the defended area.
  - (b) Barricade streets to delay tanks at the optimum employment range of antitank weapons to restrict/stop the movement of tanks and infantry, to separate attacking dismounted infantry from tanks, and to assist in the delay by inflicting casualties on the attacker.
  - (c) Employ antitank and antipersonnel mine obstacles. These are then covered with fires to make reduction costly and time consuming.
- (2) Leveling buildings.
- (3) Preparing and executing demolition missions as required.
- (4) Maintaining counterattack and resupply routes.

Can you recall the most important limitation of artillery in a MOUT environment? That's right, limited fields of vision caused by rubble among other things. If you were incorrect, review 5102.

Lesson Summary. During this lesson, you learned how various combat support units will help you in urban warfare. You learned about their limitations as well as their uses. In the final lesson of this course, you will be introduced to combat service support (CSS) in a MOUT environment.

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## **Lesson 2. COMBAT SERVICE SUPPORT**

### LEARNING OBJECTIVES

1. Identify the guidelines for CSS in built-up areas.
2. Identify the characteristics of the company supply distribution point.
3. Identify medical functions during combat operations.

### **5201. Employing Guidelines for Combat Service Support in Built-up Areas**

There are a number of guidelines for providing effective combat service support to units fighting in built-up areas. The list below is not intended to cover everything; however, it gives an idea of what to expect.

- Provide supplies to combat units as far forward as possible where they are needed
- Protect supplies and CSS elements from enemy fire by seeking cover, avoiding detection, and using deception techniques
- Disperse and decentralize CSS elements with emphasis on communication, command and control, security, and proximity to the main supply route (MSR)
- Plan for carrying parties and litter parties
- Position support units as far forward as the tactical situation permits
- Plan for and use host country support and civil resources when authorized and practical
- Plan for requesting and arranging special equipment

### **5202. Supply Procedures**

a. Responsibilities for supplies. The company commander is responsible for the logistical function of the company and the proper use of supplies and equipment. The company commander exercises his responsibility through a very small supply section. This section carries

a minimum resupply load for the company. Internal distribution is usually performed by a sergeant. During combat operations, he is closely supervised by the company first sergeant or gunnery sergeant.

b. Company distribution point. The company distribution point is located within the company command post. Upon request, the supplies that have been ordered are expeditiously brought to this location. The distribution point must contain as many of the following characteristics as possible:

- (1) Centrally located to the platoons
- (2) Located near a good road or trail to the battalion distribution point
- (3) Provides adequate space
- (4) Easily identifiable
- (5) Provides concealment
- (6) Affords cover from flat trajectory fire

The exact method of distribution will be according to unit standard operating procedures (SOPs).

c. Supply classes. Supply requirements are submitted to the battalion by the company supply sergeant/gunnery sergeant through informal routine requests. Urban combat will place heavy demands on the supply system. Certain classes of supplies will be depleted more rapidly than others. Those classes that are rapidly consumed and the recommended courses of action for supply are the following:

- (1) Class I (rations). Deliver rations by normal channels (the company). During urban combat, other classes can overload the distribution system. This situation will be closely monitored by the company and battalion.
- (2) Class II and IX (supplies and repairs parts). Maintenance teams will stockpile spare parts and tools. Planning personnel will provide for fixing vehicles, weapons, engineering, and power generated equipment as far forward as possible.
- (3) Class III (petroleum, oil, and lubricants [POL]). Fuel and petroleum products will be stockpiled in five gallon cans. Larger drums and tankers will be staged throughout the area to allow rapid distribution.

Note: Civilian assets may be used when authorized, i.e., fuel trucks. All leaders must take precautions to prevent fuel contamination and pilferage.

- (4) Class IV (barrier materials). Estimate requirements for the defense as early as possible. Many materials, such as lumber and bricks, may be found within the city.
- (5) Class V (ammunition). Urban combat will require more ammunition than normal. To make resupply easier, you must establish ammunition supply points (ASP) in several locations. This applies especially to battalion and those companies that can be fighting in isolation for extended periods. Remember, you will initially move into your area heavily loaded.
- (6) Other supplies. Other classes of supplies, including medical supplies, personal items, and water are distributed as the situation permits. However, stockpiling as low as the squad level becomes important since extended fighting by units that become isolated is common in urban combat and resupply may become erratic.

### **5203. Medical Functions**

Under ideal conditions, there will be a medical team of 11 corpsmen assigned to a rifle company. But combat conditions will be anything but ideal. Expect to have half that number. The team

- Provides first aid for casualties and prepares them for evacuation.
- Makes recommendations to the unit commander concerning field sanitation and personal hygiene.
- Provides immediate medical treatment of minor ailments.

Urban operations, especially offensive operations, will result in high casualty rates. Medical personnel are going to be overwhelmed. Train all Marines in basic first aid and prepare them to receive mass casualties, both civilian and military.

Helicopter support for medical evacuation may not be available or practical under the air threat. Vehicle assets may be overtaken and hampered by rubble, roadblocks, and ground fire. Evacuation of the wounded or the dead is the company's responsibility. Prepare all unit leaders, in addition to other tasks, to assign limited and valuable manpower to carrying/litter parties.

Lesson Summary. During this lesson, you learned how combat service support helps you in urban warfare. This was just an overview; you still have a great deal to learn to become proficient in this area. Don't wait until just before you cross the line of departure; it might be too late!

Study Unit 5 Exercise: Complete items 1 through 9 by performing the action required. Check your responses against those listed at the end of this study unit.

1. When planning target considerations, what are the priorities for using mortars in MOUT?
  - a. Streets and open areas
  - b. Terrain masking
  - c. High angled trajectory
  - d. Fire support
  
2. What is the most limiting factor of artillery in MOUT?
  - a. High angled trajectory
  - b. Limited visibility
  - c. Availability to support fire missions
  - d. Limited fields of observation
  
3. Flat trajectory, the ability to supplement existing fire power and range and mobility are characteristics of which type of fire?
  - a. Mortar fire
  - b. Tank fire
  - c. Artillery fire
  - d. Naval gun fire (NGF)
  
4. What must be taken into consideration when planning aviation support?
  - a. Flexibility
  - b. Conventional ordnance
  - c. Presence of civilians
  - d. Aerial forward observation
  
5. Which of the factors listed are the most limiting to tanks in MOUT?
  - a. Limited gun trajectory
  - b. Combat engineers support
  - c. Leading an attack in daylight
  - d. Streets blocked with rubble
  
6. The following are functions of the combat engineer in MOUT: \_\_\_\_\_, leveling buildings, and maintaining resupply routes.
  - a. bridge construction
  - b. obstacle construction
  - c. building construction
  - d. dud artillery destruction
  
7. Which of the following is a guideline for combat service support?
  - a. Provide tank parts
  - b. Protect supplies
  - c. Call in air strikes
  - d. Provide motor transport

8. Characteristics of the company supply distribution point are:
  - a. Deliver rations by normal channels
  - b. Employment of mortars
  - c. Provide field sanitation
  - d. Centrally located
  
9. Which team provides recommendations to the unit commander concerning field sanitation and personal hygiene?
 

a. Mortar	c. Medical
b. Artillery	d. Supply

### Study Unit 5 Exercise Solutions

	<u>References</u>
1. a.	5101
2. d.	5102
3. d.	5103
4. c.	5104
5. d.	5105
6. b.	5106
7. b.	5201
8. d.	5202
9. c.	5203

### UNIT SUMMARY

This study unit provided you with information about how the different combat support and combat service support units can help you conduct urban warfare. If you think you have a firm grasp of the information covered in this course, move on to the review lesson examination and test your new-found knowledge.

## MILITARY OPERATIONS ON URBAN TERRAIN

### REVIEW LESSON EXAMINATION

**INSTRUCTIONS:** The purpose of the review lesson is to prepare you for your final examination. We recommend that you try to complete your review lesson without referring to the text, but for those items (questions) you are unsure of, restudy the text. When you have finished your review lesson and are satisfied with your responses, check your responses against the answers provided at the end of this review lesson examination.

Select the ONE answer which BEST completes the statement or that answers the item. For multiple choice items circle your response. For matching items place the letter of your response in the space provided.

1. What is the definition of urban terrain?
  - a. Area where a group of buildings, villages, towns, or cities exist for living or commercial purposes.
  - b. Only those areas that are big enough to be a village, town, or city.
  - c. Only the commercial areas of a village, town, or city.
  - d. Only those areas where the buildings are at least two stories high.

Item 2 refers to the situation that follows. Read the situation carefully, then answer item 2.

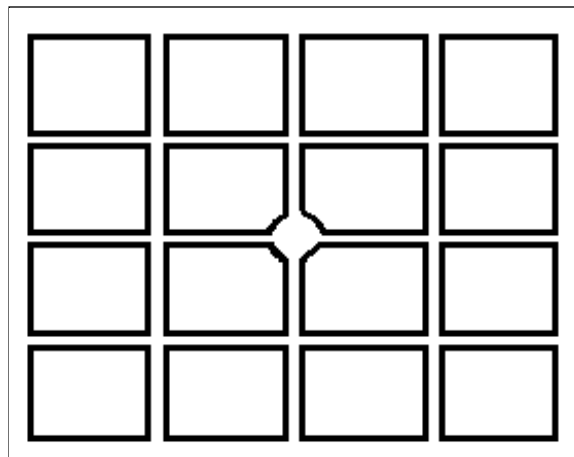
**Situation:** Your regiment has been forced to fight inside of a city because the terrain on the flanks of the city are too rugged to permit the city to be bypassed.

2. What reason for fighting inside a city is described by this situation?
  - a. Gain or maintain control of a critical objective
  - b. No choice
  - c. Psychological effects
  - d. Destroy pockets of resistance



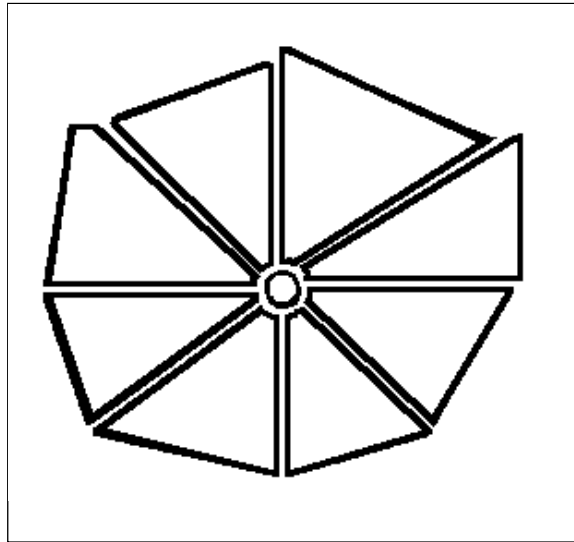
3. Urban terrain is a truly unique battlefield providing both the attacker and defender numerous and varied avenues of approach and fields of fire. What does the three-dimensional battlefield consist of?
- a. Building level, street level, subterranean level
  - b. Street level, air, subways
  - c. Subways, sewers, building level
  - d. Sewers, subways, tunnels
4. Urban areas build along roads connecting towns and cities is which category of urban terrain?
- a. Villages
  - b. Towns or small cities
  - c. Large cities with associated urban sprawl
  - d. Strip areas

Item 5 refers to the illustration below.



5. Identify the street pattern depicted in the illustration.
- a. Rectangular
  - b. Radial
  - c. No pattern
  - d. Combined

Item 6 refers to the illustration below.



6. What street pattern is depicted in the illustration?
- a. Ray
  - b. Radial
  - c. Radial ring
  - d. Combined
7. Frameless buildings are buildings \_\_\_\_\_.
- a. with outside walls made from brick or reinforced concrete
  - b. that have no outside windows
  - c. that contain a skeletal structure of columns and beams
  - d. where the mass of the outside wall performs the main load-bearing function
8. Framed buildings are buildings \_\_\_\_\_.
- a. where the mass of the outside wall performs the main load-bearing function
  - b. with outside walls are made from wood
  - c. that contain a skeletal structure of columns and beams that supports both vertical and horizontal loads
  - d. that share at least one outside wall with another building
9. What are the two types of underground networks?
- a. Combined and integrated
  - b. Sewers and subways
  - c. Natural and manmade
  - d. Downhill and pump



Matching: For items 14 and 15, match the aspect of KOCOA in column 1 to the situation that describes it in column 2. Place your responses in the spaces provided.

Column 1	Column 2
<u>Aspect of KOCOA</u>	<u>Situation</u>
___ 14. Obstacles	a. Place automatic weapons in position to cover possible routes the enemy may use to get to your position.
___ 15. Avenues of approach	b. While in the defense, your squad uses the furniture inside your building to barricade the doors of the bottom floor.
	c. Your battalion has been tasked with capturing the port facilities of a city so that the landing support battalion can offload supplies.

Matching: For items 16 through 18, match the characteristic of MOUT in column 1 to the situation that describes it in column 2. Place your responses in the spaces provided.

Column 1	Column 2
<u>Characteristic of MOUT</u>	<u>Situation</u>
___ 16. Presence of civilian population	a. Because of a lack of handgrenades, your squad must clear an enemy held building with only small arms.
___ 17. Restrictions on the use of force	b. Your battalion has captured several enemy soldiers, dressed in civilian attire, trying to infiltrate your lines.
___ 18. Increased supply needs	c. The use of indirect fire weapons has been forbidden in the historical section of a city that you are engaged in.
	d. Your platoon was humping an extra 40mm grenade rounds to their objective.

Matching: For items 19 through 21, match the characteristic of MOUT in column 1 to the situation that describes it in column 2. Place your responses in the spaces provided.

Column 1	Column 2
<u>Characteristic of MOUT</u>	<u>Situation</u>
___ 19. Centralized planning, decentralized control	a. While clearing an enemy held building, you accidentally kill a mother and her child as they cower in the basement.
___ 20. Limited objectives	b. Your company's task for the day is to clear a heavily defended block of buildings.
___ 21. Increased stress	c. Two of the men in your platoon have been medivaced due to battle fatigue.
	d. As a squad leader, you have found yourself moving closer to the assault team of your squad when they are in the attack.

Matching: For items 22 through 24, match the characteristic of MOUT in column 1 to the situation that describes it in column 2. Place your responses in the spaces provided.

Column 1	Column 2
<u>Characteristic of MOUT</u>	<u>Situation</u>
___ 22. Three-dimensional combat	a. Because of the ferocity of the enemy's defenses, you have found that the only way you can capture your objective is to ensure that you outnumber the enemy by 10 to 1 in the objective area.
___ 23. Short-range combat	b. While defending a well-constructed building, you place antihelicopter obstacles on the roof.
___ 24. Defensive advantages	c. Your squad is receiving intense fire from an enemy-held building that is on the other side of your platoon's boundary. Your platoon commander sends a squad to the roof of an adjacent building through the sewer to the enemy.
	d. Your squad has suffered several casualties from bayonet wounds in hand-to-hand combat.

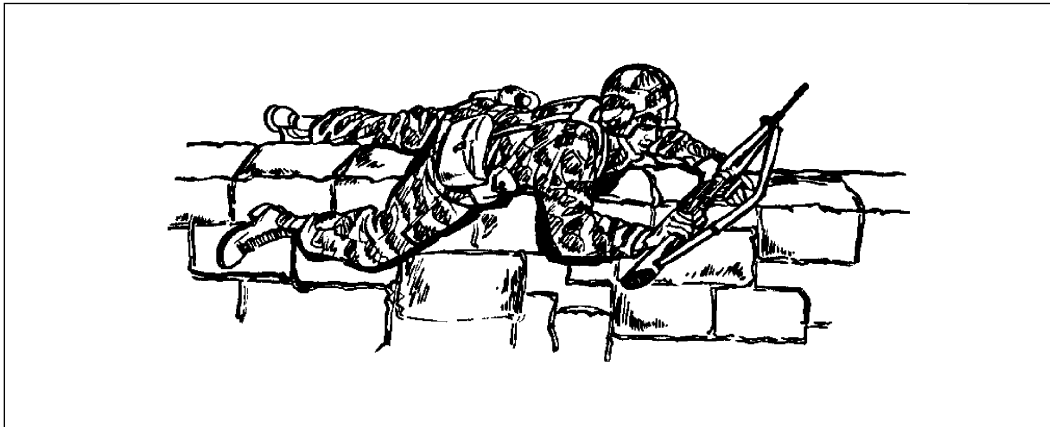
Matching: For items 25 and 26, match the unit in column 1 with the responsibility of a unit within a platoon in column 2. Place your responses in the spaces provided.

Column 1	Column 2
<u>Unit</u>	<u>Responsibility</u>
___ 25. Base of fire element	a. Consists of two squads and a compliment of crew served weapons, such as machineguns, SMAWs, Dragons and TOWs.
___ 26. Assault element	b. Consists of two parties, the cover party and search party. One squad will normally have enough men for this element.
	c. Consists of at least two platoons with tanks and air support from the battalions S-3.
	d. Consists of one fireteam with a compliment of TOWs, Dragons, machineguns, and antiarmor support.

Matching: For items 27 through 30, match the responsibility of a unit within a platoon in column 1 to the correct unit in column 2. Place your responses in the spaces provided.

Column 1	Column 2
<u>Responsibility</u>	<u>Unit</u>
___ 27. Secures the cleared portions of the building	a. Base of fire
___ 28. Isolates the objective	b. Assault element
___ 29. Clears each room, hallway, and stairway in the building	c. Cover party
___ 30. Provides security in the immediate vicinity of the room to be entered	d. Cover team
	e. Search team

Item 31 refers to the illustration below.



31. Identify the individual movement depicted in the illustration.
- a. Movement over a wall
  - b. Jumping over rubble
  - c. Moving under a window
  - d. Shooting over a wall
32. Which four of the six statements listed below describe the correct procedures to be used when executing the pie technique?
- (1) If you are right-handed, hold the rifle right-handed.
  - (2) Take a position close to the wall so that the muzzle of the rifle does not extend past the corner.
  - (3) Hold the rifle with the butt in your shoulder.
  - (4) Move forward and pivot your body so that you can see the area to your front as it comes into view.
  - (5) Once the pie has been completed, return your view to the original front.
  - (6) Reload and continue your movement.
- a. 1, 2, 4, 5
  - b. 1, 3, 5, 6
  - c. 2, 3, 4, 5
  - d. 2, 4, 5, 6

Matching: For items 33 through 36, match the squad member in column 1 to the area he is to cover in column 2. Place your responses in the spaces provided.

Column 1

Column 2

Squad Member

Area to be Covered

- |  |  |
|--|--|
| <p>___ 33. Point man</p> <p>___ 34. Second man</p> <p>___ 35. Third and fourth man</p> <p>___ 36. Last man</p> | <p>a. High and to the front</p> <p>b. Low and to the rear</p> <p>c. Flanks</p> <p>d. Low and to the front</p> <p>e. Left front</p> |
|--|--|

37. What is the correct procedure for crossing a danger area from building to building?

- a. Set up front and flank security on your side of the street. Send two Marines across to do a box recon of the other side. When they are done, they give a high sign to the squad leader and set up security on the other side. Get everyone on line and move everyone across at one time.
- b. Set up flank security on your side of the street. Send two Marines across to do a box recon of the other side. When they are done, they give a high sign to the squad leader and set up security on the other side. The rest of the squad moves across one man at a time.
- c. Place front and flank security on your side of the street. Send two Marines across to do a recon. When they are done, they give a high sign to the squad leader and set up security on the other side. The rest of the squad moves across one man at a time.
- d. Get everyone on line and move everyone across at one time.

38. Which four of the six statements listed below describe the correct procedures to be used when executing the high-low technique for crossing danger areas while moving down a street?

- (1) The point man pries around the corner.
- (2) The point man covers high and to the front.
- (3) The second man then assumes either a prone or kneeling position and covers low and to the front.
- (4) Start sending Marines across.
- (5) The first two across assume a high-low position on the corner of the building on the other side.
- (6) The third man across assumes the point man's position.

- |   |   |
|---|---|
| <p>a. 1, 2, 4, 5</p> <p>b. 1, 3, 4, 6</p> | <p>c. 1, 4, 5, 6</p> <p>d. 2, 3, 5, 6</p> |
|---|---|



39. Which nine of the eleven statements listed below describe the correct procedures to be used when executing the high-low bump technique for crossing danger areas while moving down a street?
- (1) The point man pries around the corner.
  - (2) The point man assumes either a prone or a kneeling position and covers high and to the front.
  - (3) The second man assumes a position over the point man and covers low and to the front.
  - (4) The third man gets right behind the high man and tells him "Set."
  - (5) The high man tells the low man "Go."
  - (6) The low man crosses the danger area and assumes the low man position on the other side.
  - (7) The high man drops down and assumes the low man's position.
  - (8) The third man assumes the high man's position.
  - (9) The procedure is repeated until everyone is across.
  - (10) The second Marine across assumes the high man position.
  - (11) The third Marine across assumes the point man's position.
- a. 1, 2, 3, 6, 7, 8, 9, 10, 11
  - b. 1, 2, 4, 5, 6, 7, 8, 9, 10
  - c. 1, 4, 5, 6, 7, 8, 9, 10, 11
  - d. 3, 4, 5, 6, 7, 8, 9, 10, 11

Item 40 refers to the situation that follows. Read the situation carefully, then answer item 40.

Situation: The first building that your squad plans to capture appears to be weakly defended by the enemy despite the fact that it dominates all of the other buildings in the area. After you capture this building, all of the other buildings in the areas should fall quickly.

40. What factor in selecting the order in which you will attack the buildings in your area is described in this situation?
- a. Isolate the building
  - b. Covered routes
  - c. Weak link
  - d. Good positions for base of fire and cover party

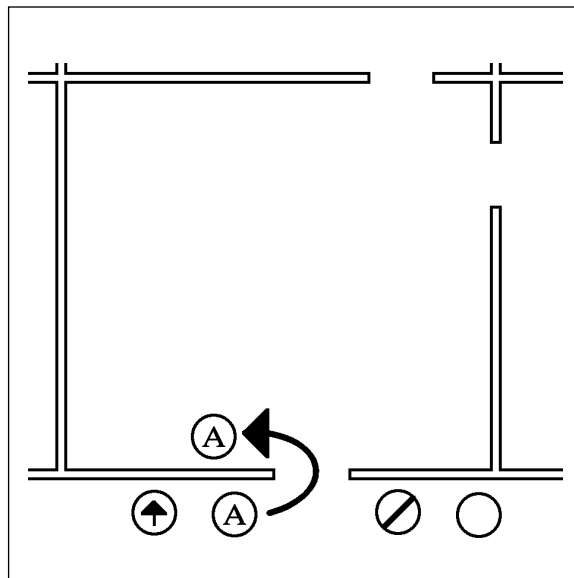
Item 41 refers to the situation that follows. Read the situation carefully, then answer item 41.

Situation: As a member of the base of fire, your fireteam has been tasked with covering all rear exits from the building that the assault element is preparing to attack.

41. What task in isolating the building is described in this situation?
  - a. Prepare positions to continue the attack
  - b. Suppress the enemy
  - c. Provide cover for the search party
  - d. Establish kill zones around the building
  
42. What is the ideal weapon for breaching entry points?
  - a. TOW
  - b. Tank
  - c. SMAW
  - d. M203 grenade launcher
  
43. What is the definition of tamping?
  - a. Packing C-4 tightly into an ammo can to increase the explosive power of the charge
  - b. Covering an explosive charge with a sandbag to prevent most of its power from dissipating
  - c. Chipping out a hole in a brick wall for the explosive charge to prevent most of its power from dissipating
  - d. Kneading a block of C-4 to make it more potent
  
44. When should the search party move to the entry point?
  - a. After the base of fire suppresses the enemy fire
  - b. After the cover team isolates the building
  - c. Before the search party breaches the entry point
  - d. After the base of fire breaches the entry point
  
45. What are the three ways of entering a building?
  - a. Point, area, and night entries
  - b. Door, window, and breach entries
  - c. First floor, second floor, and underground entries
  - d. Hot, cold, and SWAT team entries

46. How is a cold entry different from a hot entry?
- In a hot entry you spray the room with automatic fire; whereas in a cold entry, you engage targets with a double tap to the chest.
  - A cold entry is a rehearsal using blanks, while a hot entry is the actual attack.
  - In a hot entry, you breach entry points and throw handgrenades to clear entry points, while in a cold entry, you do not.
  - In a hot entry, the base of fire opens fire on the enemy, while in a cold entry, there is no base of fire since everyone is a member of the assault element.
47. What are the three types of stack formations?
- Right-sided, left-sided, and balanced
  - 4 x 0, 3 x 1, and 2 x 2
  - 3 x 1, 2 x 2, and 1 x 3
  - Near-sided, far-sided, and lop-sided

Item 48 refers to the illustration below.

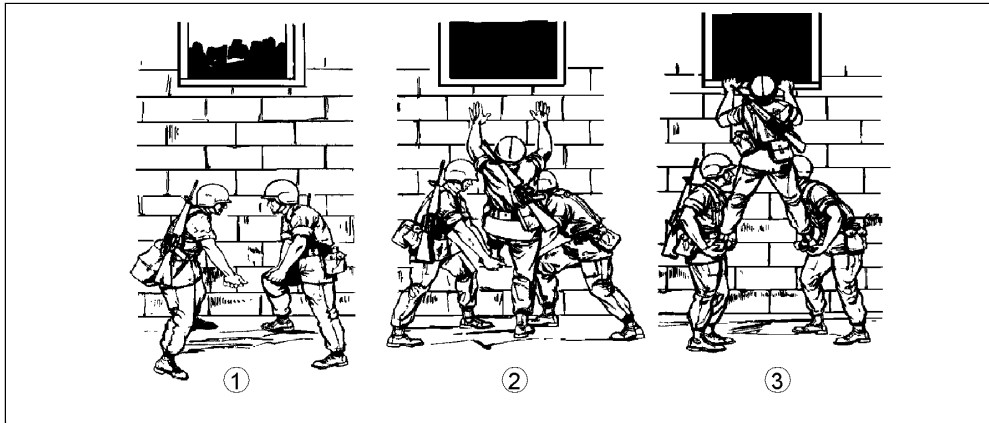


48. What type of entry is depicted in the illustration?
- Button hook entry
  - Cross entry
  - Limited penetration entry
  - Straight entry

49. Which of the following is the proper procedure for clearing an entry point using a handgrenade?
- The first Marine in the stack cooks off the handgrenade and throws it hard towards a far corner of the room near the ceiling.
  - The second Marine in the stack pulls the pins of a handgrenade and lets the spoon fly. He hands the grenade to the point man who then throws the grenade hard towards a far corner of the room near the ceiling.
  - The second Marine in the stack cooks off the handgrenade and throws it lightly towards a far corner of the room.
  - The second Marine in the stack cooks off the handgrenade and throws it hard towards a far corner of the room near the ceiling.
50. What is the proper procedure for rushing into a room during hot entry?
- The Marines wait until most of the dust and smoke from the grenade has cleared before they enter the room. They shoot only at specific targets that they see.
  - The Marines enter the room immediately after the grenade explodes. They shoot only at specific targets that they see.
  - The Marines wait until most of the dust and smoke from the grenade has cleared before they enter the room. Only the first two Marines into the room spray their assigned sector of the room with automatic fire.
  - The Marines enter the room immediately after the grenade explodes. Only the point man sprays the room with automatic fire.
51. What is the proper action to take when a weapon malfunctions during a hot entry into a building?
- The Marine with the malfunctioning weapon yells, "Red" and attacks the enemy with his bayonet.
  - The Marine with the malfunctioning weapon yells, "Red" and the direction of the enemy that he tried to engage. He takes cover and performs immediate action while the nearest Marine engages the enemy.
  - The Marine with the malfunctioning weapon yells, "Red" and performs immediate action on his weapon while the nearest Marine engages the enemy.
  - The Marine with the malfunctioning weapon performs immediate action and engages the enemy.

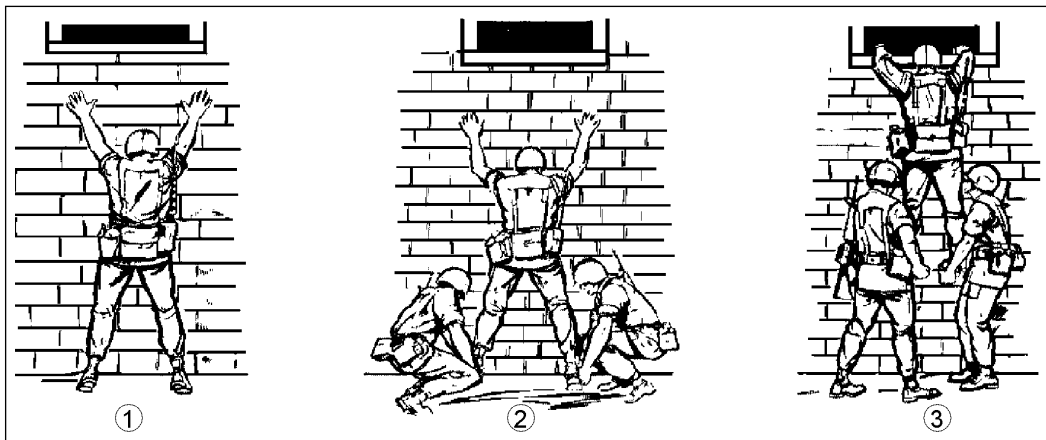


Item 56 refers to the illustration below.



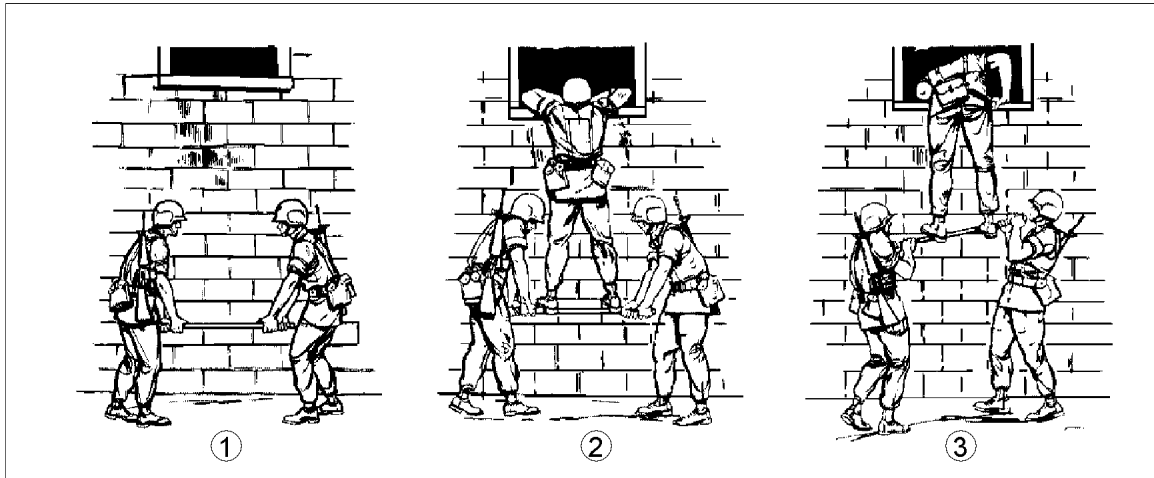
56. What technique of boosting a Marine to a second floor entry point is depicted in the illustration?
- a. Two-man lift, supported
  - b. Two-man lift, heels raised
  - c. Two-man ladder
  - d. Two-man lift, unsupported

Item 57 refers to the illustration below.



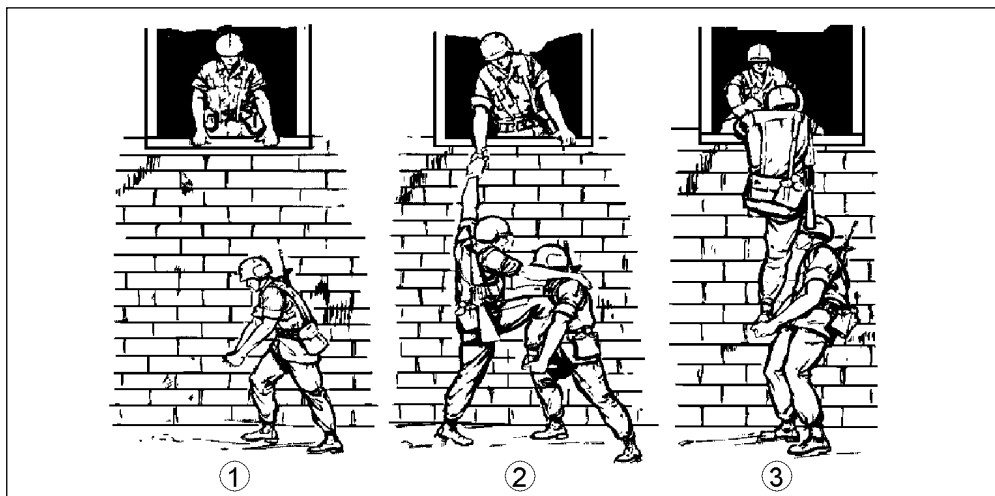
57. What technique of boosting a Marine to a second floor entry point is depicted in the illustration?
- a. Two-man lift, unsupported
  - b. Two-man lift, heels raised
  - c. Two-man lift, supported
  - d. Two-man ladder

Item 58 refers to the illustration below.



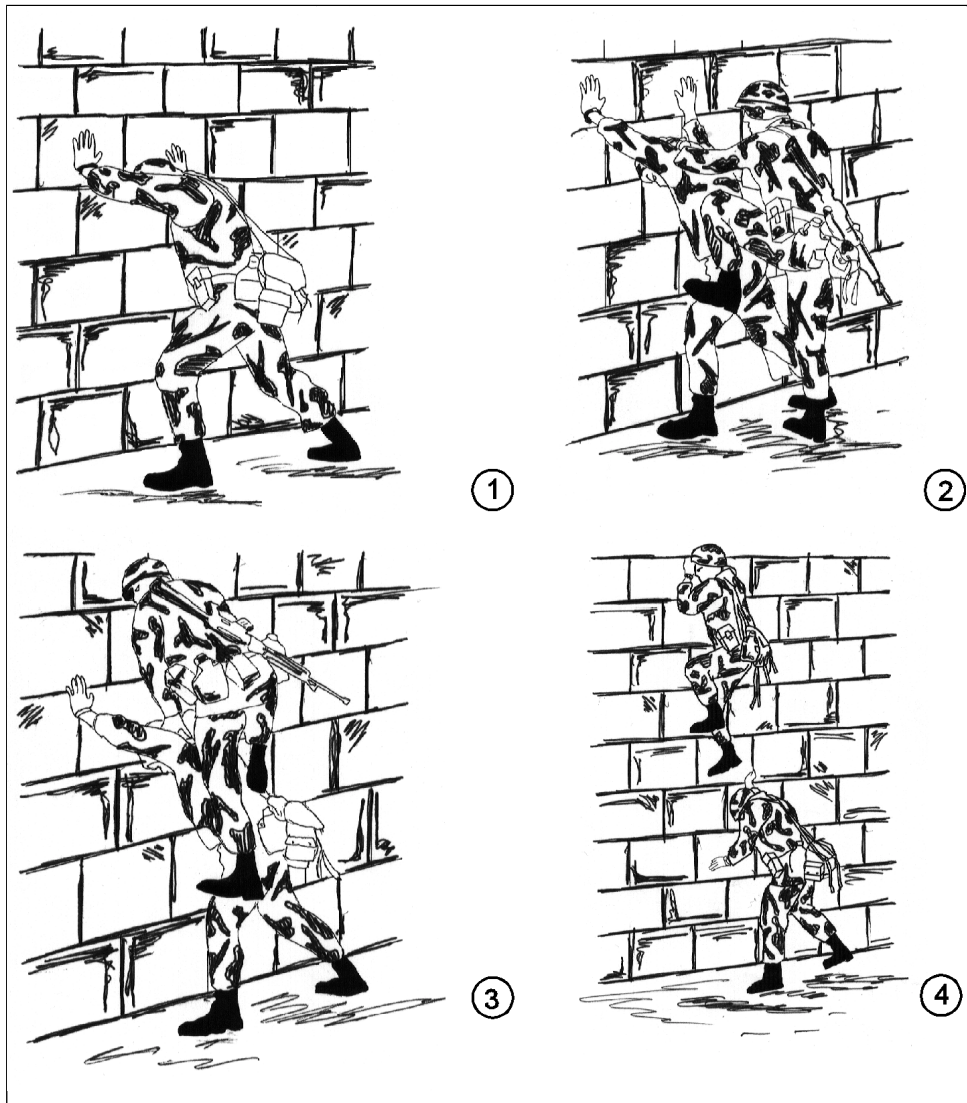
58. What technique of boosting a Marine to a second floor entry point is depicted in the illustration?
- a. Two-man lift, heels raised
  - b. Two-man lift, supported
  - c. Two-man lift, unsupported
  - d. Two-man ladder

Item 59 refers to the illustration below.



59. What technique of boosting a Marine to a second floor entry point is depicted in the illustration?
- a. Two-man ladder
  - b. One-man lift
  - c. One-man ladder
  - d. Two-man lift, unsupported

Item 60 refers to the illustration below.



60. What technique of boosting a Marine to a second floor entry point is depicted in the illustration?
- a. One-man lift
  - b. Two-man ladder
  - c. Two-man lift, unsupported
  - d. One-man ladder
61. What are the two techniques for opening a closed door?
- a. Front kick and mule kick
  - b. Side kick and shoulder butt
  - c. Front kick and side kick
  - d. Shoulder butt and mule kick



62. What is the proper procedure for moving down a hall?
- Spray the hall with automatic fire as you move.
  - All Marines move down one side of the hall without brushing up against the wall.
  - All Marines move down the center of the hall in a stock formation.
  - Move down the hall in a tactical formation without brushing up against the walls.
63. What is the preferred weapon for the point man when moving between floors using mouse holes?
- M16A2
  - Pistol
  - SAW
  - Machinegun
64. During building clearing operations, when should basements be cleared?
- First
  - Immediately after you clear the first floor
  - Last
  - At the same time as the ground floor
65. What is the preferred technique for throwing a handgrenade?
- Hard enough so that it bounces or skips around
  - Cook-off the grenade for two seconds, then throw it to prevent the enemy from grabbing it
  - Lob the grenade around the corner of the room so it stays along the wall
  - Using a nonverbal alert
66. What are the two main differences between a normal hot entry and a SWAT team entry?
- The base of fire does not open fire unless the attack is compromised and the entire assault team enters the building at the same time during a SWAT team entry.
  - The entire assault team enters the building at the same time and uses CS grenades in a SWAT team entry.
  - The search team enters the top floor of the building by rappelling and the base of fire does not open fire until the building has been entered in a SWAT team entry.
  - The search team rappels to the roof of the building from helicopters and the base of fire does not open fire unless the attack is compromised in a SWAT team entry.



Matching: For items 73 through 76, match the reason to avoid an attack on urban terrain in column 1 to its situation in column 2. Place your responses in the spaces provided.

Column 1

Column 2

Reason to Avoid an Attack  
on Urban Terrain

Situation

- |  |   |
|--|---|
| <p>___ 73. City has no military or political significance</p> <p>___ 74. Enemy not a threat</p> <p>___ 75. Insufficient forces</p> <p>___ 76. City declared to be open</p> | <p>a. The city in your division's area of operation is on the end of a peninsula and is outside of the transportation network of the area.</p> <p>b. Your enemy's government does not defend a city to avoid damage to cultural monuments.</p> <p>c. The city to your front is surrounded by a defended ridge line that dominates the city.</p> <p>d. Your division has suffered serious losses in the recent fighting and is currently waiting for replacements.</p> <p>e. Paris during World War II is an example of this situation</p> |
|--|---|
- 
77. What do you find in the mission statement of METT-T?
- a. What type of ammo you have.
  - b. Where your weapons are located.
  - c. What must be accomplished.
  - d. How many attachments.
- 
78. In "enemy" of METT-T the commander must decide if the threat forces are \_\_\_\_\_ as this may affect the task - organization of the ground combat element.
- a. Conventional forces, Unconventional forces
  - b. Conventional forces, First echelon defensive forces
  - c. Unconventional forces, Counterguerrilla forces
  - d. Motorized forces, Unconventional forces

79. For the "terrain and weather" factor, what acronym would you use?
- a. SMEAC
  - b. METT-TSL
  - c. KOCOA
  - d. MOOSEMUSS
80. In "troops and support available" of METT-T, what must the commander be aware of?
- a. Combat power resources
  - b. Type of ammo to be used
  - c. What weapons will be used
  - d. What type of casualty to expect
81. What must be allowed for a thorough reconnaissance and rehearsals?
- a. Manpower
  - b. Safety
  - c. Time
  - d. Operation
82. What are the four phases of the attack?
- a. Reconnoiter the objective; isolate and contain; rapid advance; and systematic clearance
  - b. Isolate the objective; secure a foothold; rapid advance; and consolidate the foothold
  - c. Consolidate a foothold; secure a foothold; reconnoiter the objective; and rapid advance
  - d. Reconnoiter the objective; isolate the objective; secure a foothold; and clearing a built-up area

Matching: For items 83 through 85, match the type of assault in column 1 to its situation in column 2. Place your responses in the spaces provided.

Column 1		Column 2	
<u>Type of Assault</u>		<u>Situation</u>	
___	83. Seizure of key objectives	a.	Your battalion has been tasked with conducting a noncombatant evacuation operation.
___	84. Seizure of a corridor	b.	Your forces have surrounded an enemy-held city for six months. The division commander decides that it is time to capture the city.
___	85. Isolate and contain	c.	To avoid heavy casualties, your division is trying to starve out the enemy forces holed up inside a city.
		d.	Your division's objectives lie on the other side of a city. You do not want to waste your strength in capturing the entire city, but there are no ways around the city.
86.	What are the three phases of a direct assault?		
	a. Isolate, seize a foothold, and clear		
	b. Surround, assault, mop up		
	c. Surround, seize a foothold, mop up		
	d. Isolate, seize a corridor, and clear		
87.	What is the correct technique for identifying buildings within a company sector?		
	a. Assign them letters in order, starting with the ones furthest from your frontlines.		
	b. Number them in order, starting with the ones closest to your frontlines.		
	c. Number them in order, starting with the ones furthest from your frontlines.		
	d. Assign them letters in order, starting with the ones closest to your frontlines.		

Item 88 refers to the situation that follows. Read the situation carefully, then answer item 88.

Situation: Your entire platoon is unable to effectively defend a single building. You will be forced either to spread your Marines too thin or have to defend only a certain part of the city.

88. Which of the following reasons for **not** defending urban terrain is best for the situation above?
- a. City can be bypassed
  - b. City has been declared to be "open"
  - c. Buildings don't provide sufficient protection from enemy fire
  - d. Insufficient forces

Item 89 refers to the situation that follows. Read the situation carefully, then answer item 89.

Situation: A small city in your division's sector has multiple heavy-duty roads leading around the outskirts of the city.

89. Why should your division avoid defending this city?
- a. The city has been declared "open."
  - b. You have insufficient forces.
  - c. The city can be bypassed
  - d. Buildings don't provide sufficient protection from enemy fire.

Matching: For items 90 through 93, match the aspect of the type of defense in column 1 to its type of defense in column 2. Place your responses in the spaces provided.

Column 1	Column 2
<u>Aspect</u>	<u>Type of defense</u>
___ 90. The frontline troops must delay the enemy long enough to give friendly reserve units time to deploy, isolate, and destroy the enemy.	a. Mobile defense b. Static defense
___ 91. Normally requires air superiority	
___ 92. Frontline positions are heavily fortified.	
___ 93. Minimal reserves are maintained.	

Matching: For items 94 through 97, match the characteristic of selecting a building to defend in column 1 to the situation in column 2. Place your responses in the spaces provided.

Column 1	Column 2
<u>Characteristic of Selecting a Building to Defend</u>	<u>Situation</u>
___ 94. Strategic location	a. The building that you are defending is ideally situated to protect port facilities that are vital to your supply lines.
___ 95. Mutually supporting	b. Your building has a sewer in the basement that you can use to bring in supplies.
___ 96. Covered routes	c. The building that you are defending is able to withstand indirect fire.
___ 97. Observation and fields of fire	d. You have engineers move a destroyed bus because it is interfering with the view of your front.
	e. Although a building is ideally positioned to protect an important bridge, you select a different building because you cannot support it from your other positions.

Matching: For items 98 and 99, match the characteristic of selecting a building to defend in column 1 to the situation in column 2. Place your responses in the spaces provided.

Column 1	Column 2
<u>Characteristic of Selecting a Building to Defend</u>	<u>Situation</u>
___ 98. Cover and concealment	a. The building that you are defending is ideally situated to protect port facilities vital to your supply lines.
___ 99. Preparation time	b. Because enemy contact is imminent, you select a building that requires minimal construction time for your positions.
	c. The building that you are defending is able to withstand direct and indirect fire.
	d. When preparing your position, you place one inch of sand or dirt on all wooden floors in your building.

Matching: For items 100 through 103, match the step in the priority of work column 1 to the task to be accomplished in column 2. Place your responses in the spaces provided.

Column 1	Column 2
<u>Priority of Work</u>	<u>Task</u>
___ 100. Security	a. Place automatic weapons in position to cover possible routes the enemy may use to get to your position.
___ 101. Automatic weapons position	b. Write a 5-paragraph order for a defensive position.
___ 102. Fields of fire	c. Place sandbags/construct loopholes.
___ 103. Entrenchment	d. Designate a portion of your unit to watch for the enemy while the others work on the positions.
	e. Clear battle debris to your front to minimize dead space.
104. Of the seven construction requirements for recoilless weapons positions listed below, which four are correct?	
(1) At least 2.5 feet of vertical clearance must be maintained over obstacles such as rubble or power lines so they do not interfere with the missile flight of TOWs and Dragons.	
(2) The building must be of sturdy construction.	
(3) The ceiling must be at least 6 feet high.	
(4) The floor size of the room must be at least 17 by 24 feet for TOW, 15 by 12 feet for Dragon, and 6 by 10 feet for an AT-4 backblast area.	
(5) There must be at least 10 square feet of ventilation (room openings) to the rear of the weapon. An open 4 by 3 foot window would provide adequate ventilation.	
(6) All glass must be removed from windows and all loose objects from the room.	
(7) The clearance between the muzzle of the weapon and the opening it is fired from should be 9 inches for a TOW and 6 inches for a Dragon.	
a. 1, 2, 4, 6	c. 2, 3, 5, 6
b. 1, 3, 4, 5	d. 2, 4, 6, 7



105. What is the purpose of loopholes?
- They provide hiding places for mines and boobytraps.
  - They provide a way to move between rooms inside a building.
  - They help you with stringing communication wire between rooms inside of a building.
  - They help you avoid establishing a pattern of always firing from windows.
106. Select the five missions for a reserve unit in the defense from the list below.
- Security missions
  - Cover gaps opened up by enemy attacks
  - Cover a friendly withdrawal
  - Destroy helicopter or parachute landings
  - Build defensive positions
  - Counterattack to regain lost terrain
- 1, 2, 3, 4, 6
  - 1, 2, 4, 5, 6
  - 1, 3, 4, 5, 6
  - 2, 3, 4, 5, 6
107. The company reserves should be located within \_\_\_\_\_.
- the same block of the attacking platoons
  - two blocks of the attacking platoons
  - 300 meters of the attacking platoons
  - 100 meters of the attacking platoons
108. The battalion reserves should be located within \_\_\_\_\_.
- 300 meters of the attacking companies
  - the same block of the attacking companies
  - two blocks of the attacking companies
  - 100 meters of the attacking companies

109. Which of the following are the three guidelines for firing in a MOUT environment.

- (1) When firing through a loophole, place your body as close to the wall as possible to provide yourself the maximum protection
- (2) When firing through loopholes, stick your muzzle out of the loophole so you get the maximum width for your fields of fire.
- (3) When firing through a window or door, fire from behind an interior wall through a loophole or another door.
- (4) When firing around a corner, stay as low as possible.
- (5) When firing around a corner, fire from the most comfortable position (right-handed or left-handed) to ensure you fire as accurately as possible.

- |    |         |    |         |
|----|---------|----|---------|
| a. | 1, 2, 4 | c. | 1, 3, 4 |
| b. | 2, 3, 5 | d. | 2, 4, 5 |

110. A primary consideration when using mortars in MOUT is, you must \_\_\_\_\_ .

- a. ensure that your FOs have a good visual of the selected targets.
- b. ensure that the mortar fires are not masked by the buildings.
- c. be careful to use the correct fuze on the rounds.
- d. have exact grid locations for the mortar position and targets.

111. What is the primary mission of mortars in the attack in a MOUT environment?

- a. Destroy enemy strongpoints
- b. Interrupt the supply lines
- c. Clear the enemy off roof tops and from the streets behind the objectives
- d. Destroy the enemy command and control elements

112. What is an important limitation of artillery in MOUT?

- a. The buildings will interfere with radio communication with the artillery units.
- b. Resupply becomes difficult.
- c. The buildings mask many targets.
- d. It will rubble the city.

113. Flat trajectory, the ability to supplement existing fire power, and range and mobility are characteristics of which type of fire?

- |    |             |    |                     |
|----|-------------|----|---------------------|
| a. | Mortar fire | c. | Artillery fire      |
| b. | Tank fire   | d. | Naval gunfire (NGF) |

114. What must be taken into consideration when planning aviation support?
- a. Flexibility
  - b. Conventional ordnance
  - c. Presence of civilians
  - d. Aerial forward observation
115. Of the following statements, which five are true about the employment of tanks in MOUT?
- (1) A tank's maneuverability and ability to destroy the enemy from long-ranges is severely restricted in MOUT.
  - (2) Recent technological advances have increased the depression and elevation ranges of the main gun to the point where this is no longer a disadvantage of tanks in MOUT.
  - (3) Buildings may interfere with the traversing of the turret.
  - (4) When buttoned up, the tank's field of vision is further limited.
  - (5) Tanks should never lead an attack except when the situation is fluid and the enemy is not firmly entrenched.
  - (6) The tanks should be on line with the infantry when supporting their attack.
  - (7) If a tank is to take a position inside of a building, someone should check the floor to make sure that it will support the weight of the tank.
- a. 1, 2, 3, 5, 7
  - b. 1, 2, 4, 6, 7
  - c. 1, 3, 4, 5, 7
  - d. 2, 3, 4, 5, 6
116. Which organization is responsible for providing and protecting the supplier, and planning litter and carrying parties?
- a. MEU commander
  - b. Combat service support
  - c. Motor transport section
  - d. Combat supply section
117. Which supply class provides maintenance teams a stockpile of spare parts and tools?
- a. Class II and IX
  - b. Class III
  - c. Class IV
  - d. Class V
118. What is one of the medical functions of combat support?
- a. Prepare for medical evacuation
  - b. Advise commander on NBC matters
  - c. Augment machinegun teams
  - d. Teach hygiene classes

## Review Lesson Solutions

## Reference

1.	a.	1101
2.	b.	1102
3.	a.	1103
4.	d.	1104
5.	a.	1105
6.	b.	1105
7.	d.	1106
8.	c.	1106
9.	b.	1107
10.	b.	1107
11.	d.	1201
12.	c.	1201
13.	a.	1201
14.	b.	1201
15.	a.	1201
16.	b.	1202
17.	c.	1202
18.	a.	1202
19.	d.	1202
20.	b.	1202
21.	c.	1202
22.	c.	1202
23.	d.	1202
24.	a.	1202
25.	a.	2101
26.	b.	2102
27.	c.	2102
28.	a.	2101
29.	e.	2102
30.	d.	2202
31.	a.	2201
32.	c.	2201
33.	d.	2202
34.	a.	2202
35.	c.	2202
36.	b.	2202
37.	c.	2203
38.	c.	2203
39.	c.	2303
40.	c.	2301
41.	d.	2302
42.	c.	2303

Review Lesson Solutions, cont'd

	<u>Reference</u>
43. b.	2303
44. a.	2304
45. d.	2401
46. c.	2401
47. b.	2402
48. a.	2403
49. d.	2403
50. b.	2403
51. b.	2403
52. b.	2403
53. d.	2404
54. b.	2404
55. c.	2404
56. d.	2404
57. b.	2404
58. b.	2404
59. b.	2404
60. d.	2404
61. a.	2501
62. b.	2501
63. b.	2502
64. d.	2502
65. a.	2503
66. a.	2504
67. b.	2504
68. c.	2505
69. d.	3102
70. a.	3102
71. b.	3102
72. c.	3102
73. e.	3103
74. c.	3103
75. d.	3103
76. b.	3103
77. c.	3201
78. a.	3202
79. c.	3203
80. a.	3204
81. c.	3205
82. d.	3301
83. a.	3302
84. d.	3302

Review Lesson Solutions, cont'd

	<u>Reference</u>
85. c.	3303
86. a.	3303
87. b.	3305
88. d.	4101
89. c.	4102
90. a.	4201
91. a.	4201
92. b.	4201
93. b.	4201
94. a.	4202
95. e.	4202
96. b.	4202
97. d.	4202
98. c.	4202
99. b.	4202
100. d.	4301
101. a.	4301
102. e.	4301
103. c.	4301
104. d.	4301
105. d.	4301
106. a.	4302
107. a.	4302
108. c.	4302
109. c.	4303
110. b.	5101
111. c.	5101
112. d.	5102
113. d.	5103
114. c.	5104
115. c.	5105
116. b.	5201
117. a.	5202
118. a.	5203

## **BIBLIOGRAPHY**

### **SOURCE MATERIALS**

MCO 1510.35c -- Individual Training Standard System (ITS)

FM 90-10-1 -- An Infantryman's Guide to Combat in Built-Up Areas

MCWP 3-3.5.7 -- Military Operations in Urban Terrain

OH 8-7 -- Military Operation on Urbanized Terrain (MOUT)

**MARINE CORPS INSTITUTE**

**COURSE CONTENT ASSISTANCE REQUEST**

**MCI 03.66 MILITARY OPERATIONS ON URBAN TERRAIN**

Use this form for questions you have about this course. Write out your question(s) and refer to the study unit, lesson exercise item, or the review lesson exam item you are having a problem with. Before mailing, fold the form and staple it so that MCI's address is showing. Additional sheets may be attached to this side of the form. Your question(s) will be answered promptly by the Distance Training Instructor responsible for this course.

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**YOUR QUESTION:**

**INSTRUCTOR'S RESPONSE:**



**MARINE CORPS INSTITUTE  
COURSE EVALUATION QUESTIONNAIRE**

**MCI 03.66 MILITARY OPERATIONS ON URBAN TERRAIN**

Directions:

This questionnaire is extremely important to the Marine Corps Institute. The course you have just completed has undergone extensive development and revision. As an integral part of the continued success of this course, **YOUR HELP IS NEEDED**. By completing this questionnaire, your responses may result in a need to review the course.

Please take five minutes to complete the questionnaire and return it to MCI in the self-addressed envelope provided with your course materials. Additional comment sheets may be attached to this questionnaire. If you want to be contacted by the course instructor, please provide your name, rank, and phone number. Regardless of whether you want to be contacted or not, please enter your primary military occupational specialty (MOS).

Information About YOU:

Name (Optional)	Rank	MOS
Telephone Number (Optional)		
DSN	Commercial (Area Code)	

Information About the COURSE:

1. How long did it take you to complete this course including the review lesson examination?

- |   |                            |
|---|----------------------------|
| <input type="checkbox"/> Less than three hours    | If more than fifteen hours |
| <input type="checkbox"/> Three to six hours       | enter number of hours      |
| <input type="checkbox"/> Seven to ten hours       | here: _____                |
| <input type="checkbox"/> Eleven to fourteen hours |                            |

2. Were the learning objectives stated at the beginning of each lesson clear?  
(Circle your response)

- a. Yes      b. No

If you circled "NO" please list below the study unit and lesson number for those unclear objectives.

**MARINE CORPS INSTITUTE  
COURSE EVALUATION QUESTIONNAIRE**

Information About the COURSE (continued):

3. Did the figures, that is illustrations, photographs, tables, charts, etc., clearly support the information/text within the lesson? (Circle your response)

a. Yes            b. No

If you circled "NO" please list the figure or table number(s) below.

\_\_\_\_\_

4. Did the exercise at the end of a lesson or study unit test your skills and knowledge gained by studying the lesson? (Circle your response)

a. Yes            b. No

If "NO" please list the exercise question/item number, the lesson number, and the study unit number below. (Attach additional sheet, if necessary)

Question Number      Lesson Number      Study Unit Number

\_\_\_\_\_

5. When you read the lesson the first time, did it make sense to you? (Circle your response)

a. Yes            b. No

If "NO" please list the lesson number and/or paragraph number below.

\_\_\_\_\_

6. Would you recommend that a revision be made to any portion of this course? (Circle your response)

a. Yes            b. No

If "YES", is your recommendation based on (check all that apply):

___ Outdated procedures or process.	Enter Study Unit Nos. _____
___ Outdated equipment or material.	Enter Study Unit Nos. _____
___ Information not accurate.	Enter Study Unit Nos. _____
___ Other (Please describe)	

7. Comments: Please attach separate sheet.

**MARINE CORPS INSTITUTE--STUDENT REQUEST/INQUIRY-MCI - R-11 (3/96)**

MCI 03.66  
 MILITARY OPERATIONS ON URBAN TERRAIN

DATE: \_\_\_\_\_

**SECTION 1. STUDENT IDENTIFICATION**

**INSTRUCTIONS:** Print or type clearly:  
 (Section 1. Information is needed by MCI to act/respond to input provided in Section 2.)

**SECTION 2. STUDENT REQUEST/INQUIRY**

RANK	FIRST NAME MI. LAST NAME	MOS	RUC	SOCIAL SECURITY NO.
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**INSTRUCTIONS:** Complete only those sections requiring an action/response from MCI.

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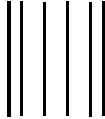
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