UNITED STATES MARINE CORPS
THE BASIC SCHOOL
MARINE CORPS TRAINING COMMAND
CAMP BARRETT, VIRGINIA 22134-5019

URBAN OPERATIONS I: INTRODUCTION B4R5359XQ STUDENT HANDOUT

Urban Operations I - Introduction

Introduction

The purpose is to provide an introduction to the urban environment. The accompanying platform is one hour, designed to provide an introduction to the considerations necessary for planning and executing operations in an urban environment.

In this lesson

In this lesson, students are introduced to the levels of urban environments ("3-Block War), types of cover, unique planning considerations for the urban environment (ASCOPE), and weapons employment considerations in an urban environment.

Table of Contents

This lesson covers the following topics:

Learning Objectives

TERMINAL LEARNING OBJECTIVE(S)

TBS-MOUT-2001 Given a squad, an objective, within an urban environment, and an order with commander's intent, lead a unit in urban operations to accomplish the commanders' intent.

ENABLING LEARNING OBJECTIVE(S)

TBS-LDR-1007c Given a mission and civilian areas, structures, capabilities, organizations, personnel, and events, integrate civil considerations into tactical planning to develop an estimate of the situation.

TBS-MOUT-1001a Given an evaluation, identify the levels of urban environments without omission.

TBS-MOUT-1002a Given an evaluation, identify types of cover in an urban environment without omission.

History and Introduction

Today's Marine air-ground task forces (MAGTFs) are deployed as part of naval expeditionary forces (NEFs) that maintain a *global forward presence for rapid crisis response*. These integrated combined-arms forces are part of the Nation's proven contingency and naval power projection force. Therefore, Marines may find themselves rapidly deployed and employed in actions across the spectrum of military operations.

Many of these trouble spots will likely be located in or around large urban centers. Throughout history, urban centers have played a vital role in military operations. As such, in war, military operations in urban terrain (MOUT) require a dedicated and specific focus. The principles of maneuver warfare still apply, although require the addition of unique planning considerations to maximize effectiveness.

Military operations on urbanized terrain (MOUT) is defined as *all military actions planned and conducted on a topographical complex and its adjacent terrain where manmade construction is the dominant feature. It includes combat in cities, which is that portion of MOUT involving house-to-house and street-by-street fighting in towns and cities* (MCRP 5-12A).

Marine combat experiences in urban environments during the last sixty years include:

- Seoul and Inchon – 1950.
- Beirut – 1958, 1982-1984.
- Santo Domingo – 1965.
- Hue City – 1968.
- Saigon – 1975.
- Grenada – 1983.
- Panama City – 1989.
- Mogadishu – 1993-1994.
- Haiti – 1994.
- Kosovo – 1999.
- Iraq – 2003-today.

As evident from these historical examples, Marines must train and maintain proficiency for operations conducted in urban environments.

Why Study URBAN OPERATIONS?

The world's population is becoming more urbanized. Projections show 85% of the world's population living in urban areas by the year 2025. Today, 75% of politically significant urban areas are within 150 miles of a coastline, and 87% are within 300 miles of the coastline. Moreover, our amphibious and expeditionary nature facilitates rapid engagement with most urban areas.

The "3-Block War" (The Levels of Urban Environments)

The 3-Block War

This is the landscape upon which the 21st Century battle will be fought. It will be an asymmetrical battlefield. Much like the Germanic tribes, our enemies will not allow us to fight the Son of Desert Storm, but will try to draw us into the stepchild of Chechnya. ***In one moment in time, our service members will be feeding and clothing displaced refugees—providing humanitarian assistance. In the next moment, they will be holding two warring tribes apart—conducting peacekeeping operations— and, finally, they will be fighting a highly lethal mid-intensity battle—all on the same day…all within three city blocks.*** *It will be what we call the "**three block war**."*

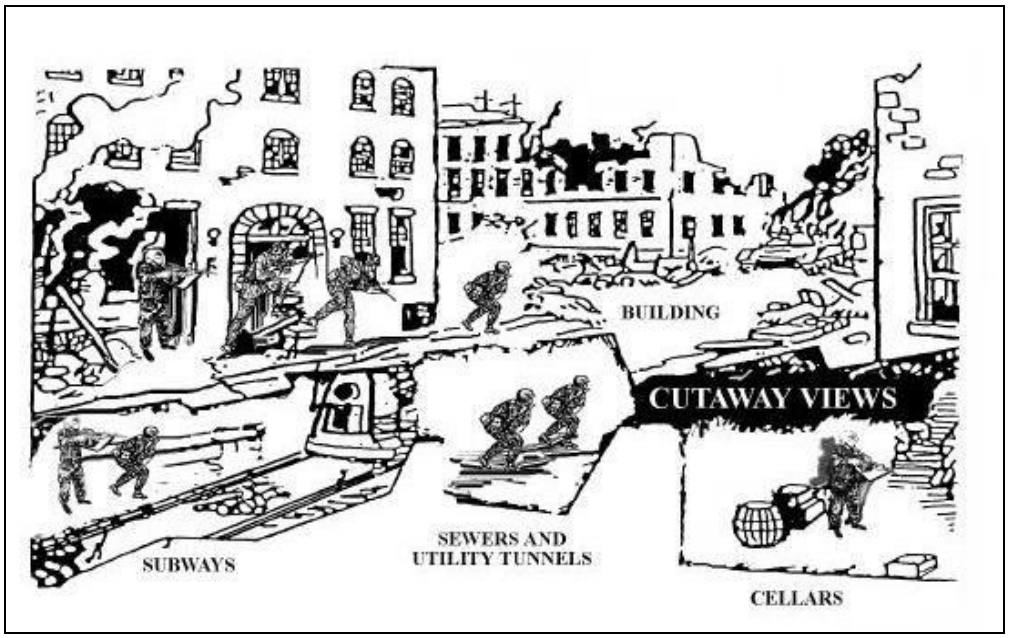
General Charles C. Krulak
31st Commandant, US Marine Corps

Urban Operations and the Spectrum of Conflict. The phrase "3-Block War" was coined by Gen Charles C. Krulak to describe the myriad of situations and challenges Marines may experience in an urban environment. The three blocks describe different environments, each with their own challenges, often faced simultaneously. The three blocks are described as follows:

Block One	Humanitarian Operations. Host Nation Control. Stable Environment. Restrictive Rules of Engagement (ROE).
Block Two	Counter-Insurgency Operations. Limited Host Nation Control. Unstable Environment. Increased Force Protection.
Block Three	High intensity conflict. No Host Nation Control. Violent and chaotic environment.

Multi-Dimensional Battlefield (Types of Cover)

Urban areas present an extraordinary blend of horizontal, vertical, interior, exterior, and subterranean forms superimposed on the natural relief, drainage, and vegetation. An urban area may appear dwarfed on a map by the surrounding countryside. In fact, the size and extent of the urban area of operations is many times that of a similarly sized portion of undeveloped natural terrain. A multi-storied building may take up the same surface area as a small field, but each story or floor contains approximately an equal area as the ground upon which it sits. In effect, a ten-story building can have eleven times more defensible area than "bare" ground—ten floors and the roof. It is the sheer volume and density created by this urban geometry that makes Urban Operations resource intensive in time, manpower, and materiel.



1. Levels of Urban Environments

The urban battlespace is divided into four basic levels: *building*, *street*, *subterranean,* and *air*. Operations can be conducted from above ground, on ground level, inside buildings, or below the ground. Many operations include fighting on all levels simultaneously.

- **Building Level.** Buildings provide cover and concealment; limit or increase fields of observation and fire; and canalize, restrict, or block movement of forces, especially mechanized forces. They provide optimum firing points for snipers and anti-air weapons. Buildings also provide anti-tank weapons optimum positioning to allow engagement from above, exploiting an inherent weakness found in most armored vehicles.

- **Street Level.** While streets provide the means for rapid advance or withdrawal, forces moving along streets are often canalized by buildings and have little space for off-road maneuver. Because they are more difficult to bypass, obstacles on streets in urbanized areas are usually more effective than those on roads in open terrain.

Multi-Dimensional Battlefield (Types of Cover) (Continued)

- **Subterranean Level.** Subterranean systems are easily overlooked but can be important to the outcome of operations. These areas may be substantial and include subways, sewers, cellars, and utility systems. The city of Los Angeles alone has more than 200 miles of storm sewers located under the city streets. Both attacker and defender can use subterranean avenues to maneuver to the rear or the flanks of an enemy. These avenues also facilitate the conduct of ambushes, counterattacks, and infiltrations.

- **Air Level.** The air provides another avenue of approach in urbanized areas. Aviation assets can be used for high speed insertion or extraction of troops, supplies, and equipment. While aviation assets are not affected by obstacles on the streets, they are affected by light towers, signs, power lines, and other aerial obstructions. They are also vulnerable to the man-portable surface-to-air missile threat, crew served weapons, and small arms fire.

METT-TC Analysis: Similarities and Differences

As always, the Six Troop Leading Steps (BAMCIS) remain the same. Within these steps, the METT-TC analysis for urban operations is expanded to account for the *human dimension*. These additional considerations aid in the understanding of both demographic and geographic considerations. Before analyzing the cultural aspects of urban operations, the information below covers standard geographic characteristics of urban areas.

Commanders must identify building types, construction materials, and building design and must understand the capabilities and limitations of their weapons systems. Moreover, urban combat requires the constant visualization of a three-dimensional battle space.

Other factors that impact battle space include—

- CASEVAC and resupply procedures
- Procedures for handling EPW and noncombatants
- Rules of engagement (ROE)
- Battlefield obscuration
- Communications
- Movement of vehicles, that is, how the battlespace will affect movement and target engagement.

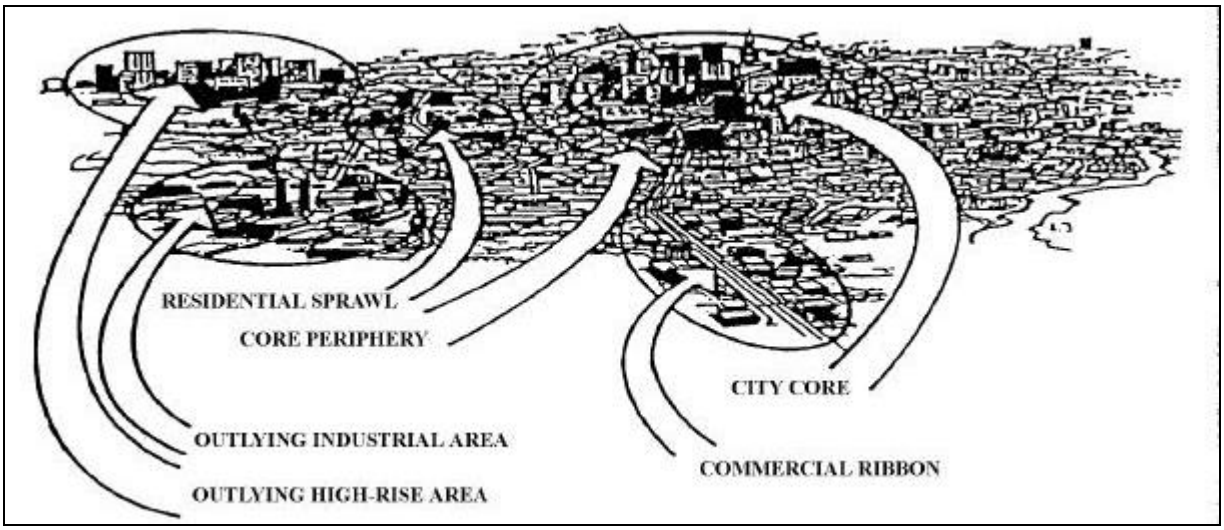
Urban Zones and Street Patterns

The urban area is analyzed using the zones and street patterns. Urban areas will contain varying degrees of physical infrastructure. This infrastructure will at a minimum include a transportation network, utilities, government buildings, hospitals, schools, food processing and distribution centers, and communications facilities. The infrastructure may be relatively simple or it may be highly complex and sophisticated. For example, transportation infrastructure in one city may be a simple network of streets; in another city it may consist of sophisticated port facilities, rail networks, airports, large highways, subways, and other modes of public transportation. In the latter case, such a city would be the transportation hub for the region in which it is located.

In addition to the physical infrastructure of power plants, transportation networks, and the like, cities also have a service infrastructure: police, fire, and other government services; food and water availability and distribution; medical services; fuel and electricity; the news media and information flow; and others. This sort of infrastructure may be quite sophisticated and an integral part of the city's life, it may be virtually nonexistent, or it may exist in a state of ineffectiveness.

Urban Zones

A typical urban area consists of combinations of the *city core*, *commercial ribbon*, *core periphery*, *residential sprawl*, *outlying industrial areas*, and *outlying high-rise areas*. Each of the urban area's regions has distinctive characteristics that may weigh heavily in planning for MOUT.



1. ***City Core***. The city core is the heart of the urban area—the downtown or central business district. It is relatively small and compact, but contains a larger percentage of the urban area's shops, offices, and public institutions. It normally contains the highest density of multistory buildings and subterranean areas. In most cities, the core has undergone more recent development than the core periphery. As a result, the two regions are often quite different. Typical city cores of today are made up of buildings that vary greatly in height.

Urban Zones and Street Patterns (Continued)

2. Commercial Ribbon. Commercial ribbons are composed of rows of stores, shops, and restaurants that are built along both sides of major streets through built-up areas. Typically, such streets are 25 meters wide or more. The buildings in the outer areas are uniformly two to three stories tall—about one story taller than the dwellings on the streets behind them.

3. Core Periphery. The core periphery generally consists of streets 12 - 20 meters wide with continuous fronts of brick or concrete buildings. The building heights are fairly uniform—2 or 3 stories in small towns, 5 to 10 or more stories in large cities.

4. Residential Sprawl. Residential sprawl areas consist mainly of low houses or apartments that are one to three stories tall. The area is primarily composed of detached dwellings that are usually arranged in irregular patterns along streets, with many smaller open areas between structures.

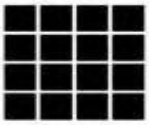
5. Outlying Industrial Areas. These areas generally consist of clusters of industrial buildings varying from one to five stories in height. Buildings generally vary dramatically in size and composition to match the needs of the particular businesses they house. Industrial parks are good examples of this category.

6. Outlying High-Rise Areas. These areas are similar in composition to city core areas, but may be composed of clusters of more modern multistory high-rise buildings in outlying parts of the city. Building height and size may vary dramatically. Generally, there is more open space between buildings located in the outlying high-rise areas than is found within the city core area.

Urban Zones and Street Patterns (Continued)

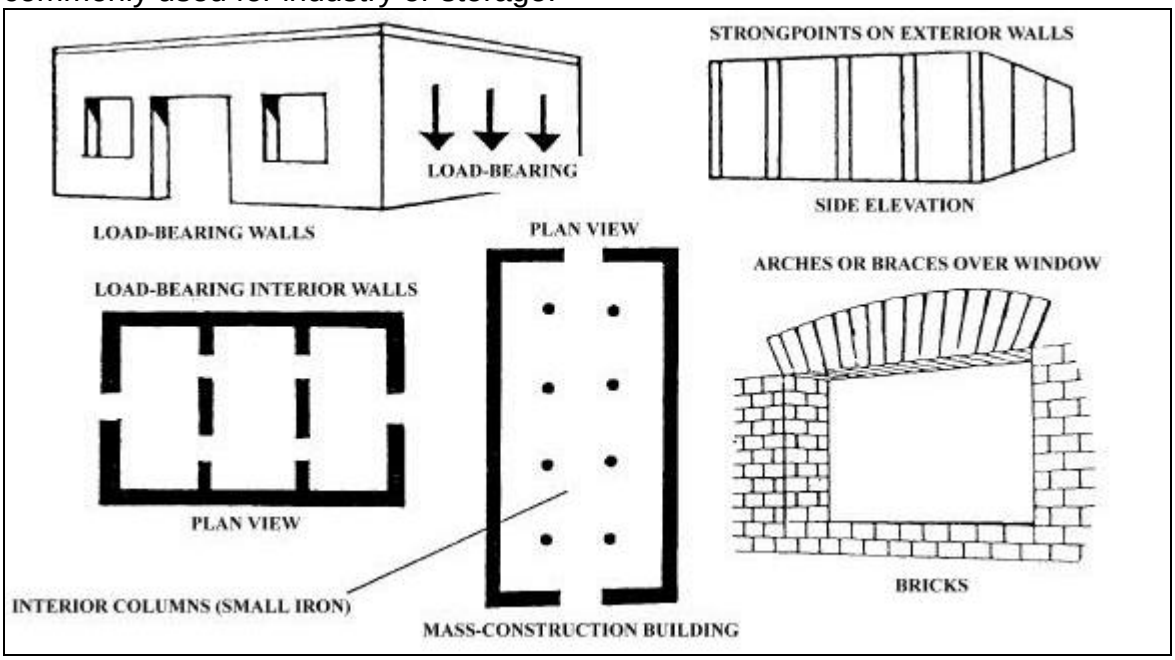
Street Patterns

Knowledge of street patterns and widths gives commanders and leaders a good idea of whether or not mounted mobility corridors in different zones can permit wheeled or tracked vehicles and facilitate command and control. For example, a rectangular, radial, radial ring, or combined pattern facilitates movement and control better than irregular patterns.

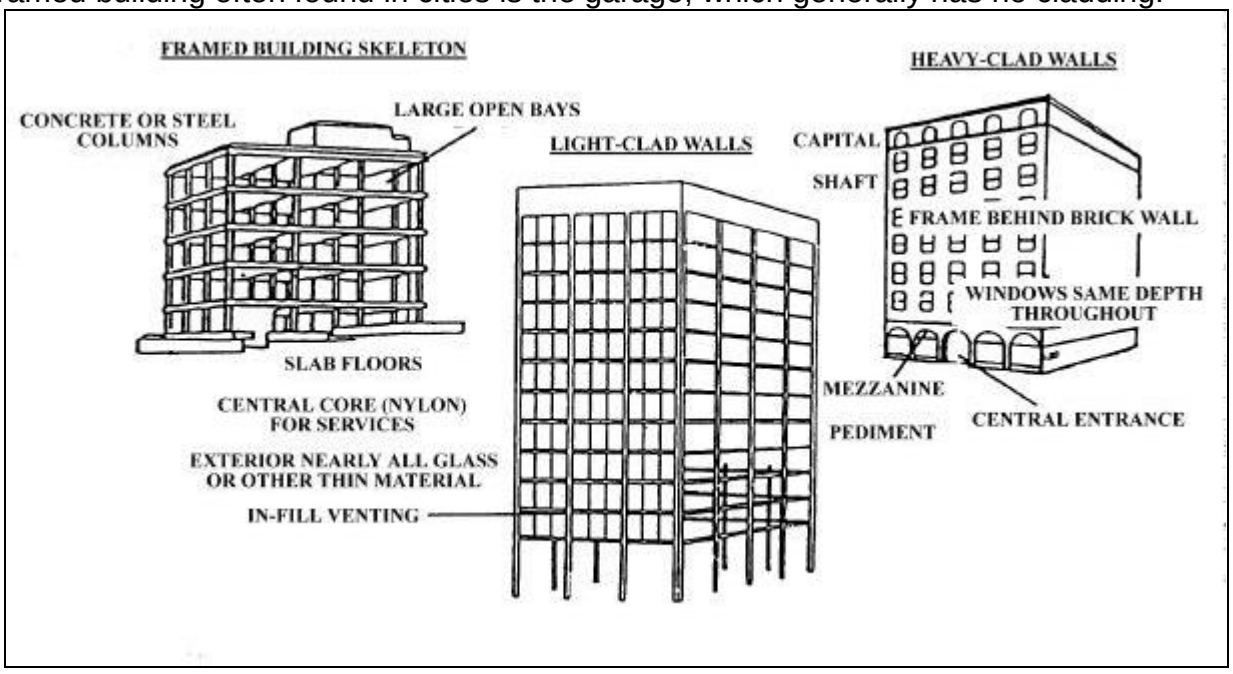
Shape	Street Pattern	Effect
	Rectangular or Chessboard	Streets are grid-like, with parallel streets intersected by perpendicular streets.
	Rayed	Streets that fan out at various angles from a given focal point and through less than 360 degrees.
	Radial	Primary thoroughfares radiate out from a central point. These streets may be extended outward 360 degrees around the central point or within an arc from a point along a natural barrier, such as a coastline.
	Radial-Ring	Loops or rings are surrounded by successively larger ones. Usually found in conjunction with larger radial patterns. Radial rings incorporate the elements of both radial and ring/concentric designs.
	Contour Forming	Pronounced terrain relief influences construction of roadways along lines of elevation. Primary streets run parallel to contour lines, with intersecting roads connecting them.
	Irregular Pattern	Irregular street patterns have been specifically engineered without geometric patterns for aesthetic or functional reasons. An American subdivision with curving streets and cul-de-sacs is an example.
	Combined Pattern	Any combination of the above and is best demonstrated by the development of high rise and business districts in Medieval or pre-Medieval cities.
	Linear Pattern	A primary thoroughfare radiates down the center with buildings on either side. American strip malls and main shopping districts are patterned this way for ease and convenience.

Types of Building Construction

1. Mass-Construction Buildings. Mass-construction buildings are those in which the outside walls support the weight of the building and its contents. Additional support, especially in wide buildings, comes from using load-bearing interior walls, strongpoints (called pilasters) on the exterior walls, cast-iron interior columns, and arches or braces over the windows and doors Modern types of mass-construction buildings are wall and slab structures, such as many modern apartments and hotels, and “tilt-up” structures commonly used for industry or storage.



2. Framed Buildings. Framed buildings are supported by a skeleton of columns and beams and are usually taller than frameless buildings. The exterior walls are not load-bearing and are referred to as either heavy clad or light clad. Another type of framed building often found in cities is the garage, which generally has no cladding.



OCOKA-W and ASCOPE

Geography and Demography. By conducting a thorough METT-TC analysis, we evaluate Terrain and Weather using the OCOKA-W acronym (Observation and Fields of Fire, Cover and Concealment, Obstacles, Key Terrain, Avenues of Approach -- Weather). Because urban areas usually contain high concentration of people, however, we must also consider the details of the human terrain, as a defining element of the urban area and for its effect on the geography of the urban area. We will continue to use OCOKA-W to guide our planning in regards to the physical terrain, but we will additionally consider the cultural elements using the acronym ***ASCOPE*** (Area, Structures, Capabilities, Organizations, People, Events).

1. OCOKA-W

- **Observation and Fields of Fire.** Urbanized terrain is characterized by both restrictive and permissive observation and fields of fire. Buildings, walls, and other manmade structures limit visibility and create vast amounts of dead space, while tall buildings, towers, and other structures may provide perches which enhance line of sight for observation and communication as well as for weapons (at the expense of being highly visible). Buildings will concentrate fire down streets and alleys, but restrict fires between blocks. Rooms will restrict fires within structures.

- **Cover and Concealment.** Buildings, walls, sewers, and subways can provide excellent cover and concealment for enemy and friendly forces. The civilian population may also offer cover and concealment to irregular enemy forces. Different types of building composition offer varying protection against munitions' effects. Shadows and darkness between and inside buildings, as well as artificial light systems common in urban areas, create changing light conditions that can be exploited for concealment or surprise.

- **Obstacles.** Natural or manmade obstacles restrict or deny maneuver within the urban area. Canals, rivers, walls, fences, and rubble should be thoroughly analyzed. Construction sites and commercial operations such as lumberyards, brickyards, steelyards, and railroad maintenance yards are primary sources of obstacle and barrier construction materials. These sites can also supply engineers with materials to strengthen existing obstacles or to set up antitank hedgehogs or crib-type roadblocks. Vehicles and heavy furniture may also be used to construct obstacles.

- **Key Terrain.** All kinds of structures can be tactically significant terrain. They may be important because of the observation they provide, or the cover that defenders inside enjoy. Other structures are significant because of the services they offer. Examples of key terrain are airports or airfields, power plants, water works, dams, and bridges.

OCOKA-W and ASCOPE (Continued)

- **Avenues of Approach.** Highways, roads, bridges, alleys, building tops, sewers, and subways are just some examples of urban avenues of approach. These can be natural choke points, they may provide cover and concealment, or allow for easy top down attacks. It is critical to understand the advantages and disadvantages of every avenue of approach and how to exploit each one. They are categorized as building level, street level, subterranean level, and air.

- **Weather.** As in any military operation, weather affects equipment, movement, and visibility, but its greatest impact is on the individual Marine. Snow, ice, dust, wind, rain, humidity, and temperature extremes reduce human efficiency. Weather extremes coupled with stress and the physical strain of urban combat can be
minimized with effective small-unit leadership. Weather also affects the civilian population, and can be used to find times when the streets will be vacant.

2. ASCOPE

- **Areas.** These are areas that have significance to the local population. As planners we must examine tribal boundaries, religious and political influences, and the physical location of local centers of business, religion, and politics in order to guide us in the application of our influence and force.

- **Structures.** Planners for urban operations must understand the impact of particular physical structures in an assigned area. While hospitals and mosques might quickly come to mind as politically and culturally sensitive structures, such locations as schools, monuments, and cemeteries might also have a great impact on the success or failure of a mission. When Marines use some structures for a tactical advantage, the population may have a negative response to the occupation of the structure. This must be taken into account during operations. Other structures are high value targets to insurgents, police stations and rival mosques for example, and their security must be factored into planning operations.

- **Capabilities.** These are the functions and services that local authorities provide. Examples include courts, hospitals, police, firefighters, and things as basic as drinking water and sanitization. We may use the local police to assist us, or coordinate for firefighting and medical assistance. To gain the support of the population we can assist the locals in improving their capabilities.

- **Organizations.** People with a shared interest or goal make up organizations. These can be religious groups, criminal organizations, foreign nongovernmental organizations, or a host of other entities. We will support some and eliminate others, but we must first identify how each organization can help or hurt our mission.

OCOKA-W and ASCOPE (Continued)

- **People.** Key individuals in any area must be considered as important as key terrain. These people's support or opposition can affect our mission. Marine leaders will interact with tribal, religious, or political leaders who can influence the population.

- **Events.** Each culture maintains key dates that are important to them for different reasons. We have seen how particular dates or calendar events can be connected to a rise in insurgent activity in Iraq. This is not an isolated phenomenon and can be expected in any urban operations environment. The battle of Hue City was a result of the Tet Offensive in 1968 when the North Vietnamese used a holiday as an impetus for their massive assault on South Vietnam. Elections may entice the enemy to attack us or the general population. Weddings and funerals will draw crowds, and may include celebratory gunfire. We must understand what events will take place in our area of operations, and plan for the population's reaction to these events.

Weapons Employment Considerations

1. Urban Factor Considerations

- **Surfaces.** Hard, smooth, flat surfaces are characteristic of urban targets. Rarely do rounds impact perpendicular to these flat surfaces; rather, they impact at some angle of obliquity, which reduces the effect of a round and increases the threat of ricochets.

- **Engagement Ranges.** Engagement ranges are close. Studies and historical analyses have shown that only 5 percent of all targets are more than 100 meters away. About 90 percent of all targets are located 50 meters or less from the identifying Marine. Few personnel targets will be visible beyond 50 meters and engagements usually occur at 35 meters or less. Minimum arming ranges and troop safety from backblast or fragmentation effects must be considered.

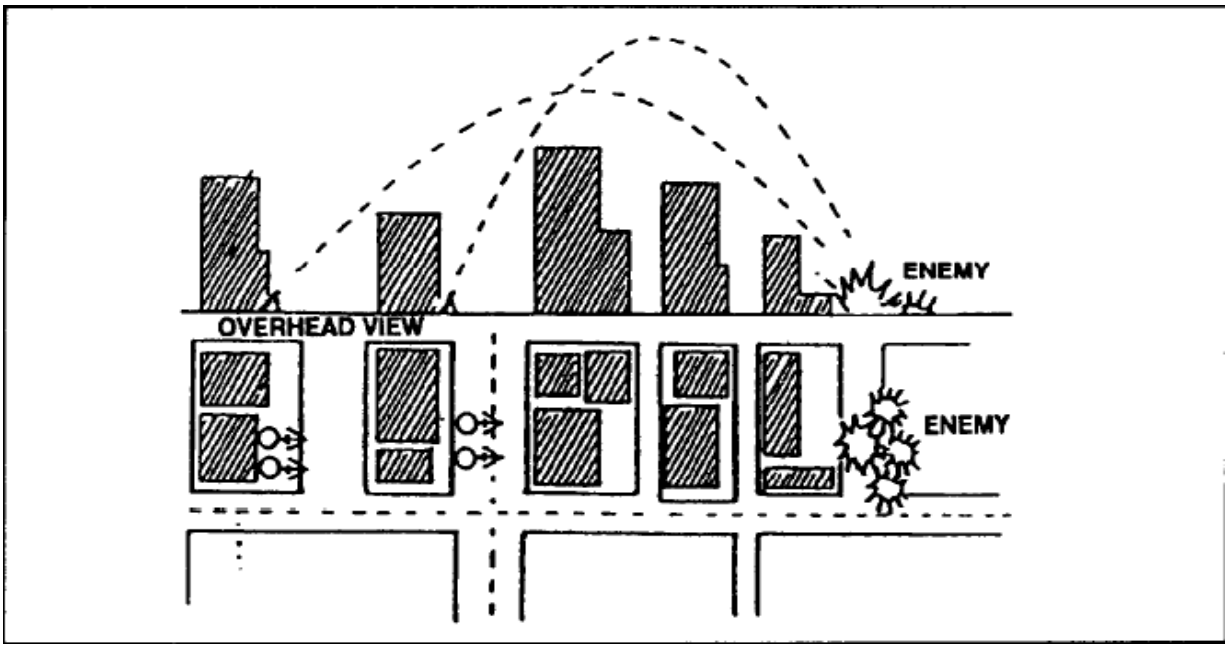
- **Engagement Times.** Engagement times are short. Enemy personnel present only fleeting targets. Enemy-held buildings or structures are normally covered by fire and often cannot be engaged with deliberate, well-aimed shots.

- **Risks from Friendly Fire.** Urban fighting often becomes confused melees with several small units attacking on converging axes. The risks from friendly fires, ricochets, and fratricide must be considered during planning. Control measures must be continually adjusted to lower the risks. Marines and leaders must maintain a sense of situational awareness and clearly mark their progress IAW unit SOP to avoid fratricide.

- **Close Combat.** Both the shooter and target may be inside or outside buildings, and they both may be inside the same or separate buildings. The enclosed nature of combat in urban areas means the weapon's effects, such as muzzle blast and backblast, must be considered as well as the round's effects on the target.

Weapons Employment Considerations

- **Depression and Elevation.** Depression and elevation limits for some weapons create dead space. Tall buildings form deep canyons that are often safe from indirect fires. Some weapon systems, (i.e: MK-19, M203, M2) can fire rounds to ricochet behind cover and inflict casualties. Target engagement from oblique angles, both horizontal and vertical, demands superior marksmanship skills.



- **Reduced Visibility.** Smoke from burning buildings, dust from explosions, shadows from tall buildings, and the lack of light penetrating inner rooms all combine to reduce visibility and to increase a sense of isolation. Added to this is the masking of fires caused by rubble and man-made structures. Targets, even those at close range, tend to be indistinct.

2. Effects of Common Weapons Systems. Effects and penetration of common weapon system can be found in Appendix B (MCWP 3-35.3).

Summary

It is imperative that we understand how to properly plan for urban operations. In order to accomplish this we must develop the ability to consider those geographic characteristics that are unique to the urban environment and also to properly examine the cultural and demographic characteristics of a particular people or region. OCOKA-W and ASCOPE are two extremely valuable acronyms that will help you organize your thoughts and develop a plan in any urban environment.

As the global population grows and becomes more urbanized, we as a Corps must maintain our skill at conducting urban operations. A proper understanding of the "3-Block War" concept will allow us to plan appropriately. The leadership of our Corps has outlined the intent and it is up to us as executors to affect the training and operational success demanded of us.

References

Reference Number or Author	Reference Title
MCDP 1	Warfighting
MCDP 1-0	Marine Corps Operations
MCWP 3-11.1	Marine Rifle Company/Platoon
MCWP 3-35.3	Military Operations on Urbanized Terrain (MOUT)
MCRP 3-11.1B	Small Unit Leader's Guide to Weather and Terrain
MCRP 3-16C	Tactics, Techniques, and Procedures for Fire Support for the Combined Arms Commander
MCWP 3-33.5	Joint Marine Corps/Army COIN Manual
MCWP 3-11.3	Scouting and Patrolling

Notes