X-File 3-35.6

Urban Patrolling Tactics, Techniques and Procedures (TTPs)

Military Operations on Urbanized Terrain (MOUT)

Marine Corps Warfighting Laboratory (MCWL)
U.S. Marine Corps

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This X-File on urban patrolling is another in a series that integrates the results of our experiments with doctrine-based TTPs for MOUT. Our goal is to provide a reference that can be quickly read and easily transported?in the cargo pocket of the utility uniform?so Marines are better prepared to fight and win.

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Urban Patrolling

This X-File is a summary of key parts of Marine Corps doctrine found in MCWP 3-35.3 and the Program of Instruction used by the Special Purpose Marine Air Ground Task Force (Experimental) (SPMAGTF(X)).

U.S. Marine Corps

UNITED STATES MARINE CORPS
Commanding General
Attn: Marine Corps Warfighting Laboratory (C 52)
3300 Russell Road Quantico, Virginia 22134-5001

31 December 1998

FOREWORD

1. PURPOSE: This X-File on urban patrolling is another in a series that integrates the results of our experiments with doctrine-based TTPs for MOUT. Our goal is to provide a reference that can be quickly read and easily transported—in the cargo pocket of the utility uniform—so Marines are better prepared to fight and win.

2. SCOPE. Small units, primarily the rifle squad, are the ones who are charged with the responsibility of urban patrols. So we use this X-File to merge existing doctrine and the Urban Warrior experience to inform Marines about proven ways to meet this responsibility. This information should be used in combination with our maneuver warfare philosophy and adapted to fit the local situation and rules of engagement.

3. SUPERSESSION. None.

4. CHANGES. Recommendations for improvements to this handbook are encouraged from commands and from individuals. You can reproduce and forward the attached User Suggestion Form to the above address.

You may also submit recommendations electronically to:
syncenter@mcwl.quantico.usmc.mil

5. CERTIFICATION. Reviewed and approved this date.

T.E. Donovan
Brigadier General, USMC
Commanding General
Marine Corps Warfighting Laboratory
Marine Corps Combat Development Command
Quantico, Virginia 22134-5001

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X-Files

Urban Warrior (UW) is a series of experiments designed to test, validate and refine TTPs—and some enabling technologies—that can help us fight and win battles on urbanized terrain. What you read here is a compilation what we have learned about MOUT during the build up to the Urban Warrior Advanced Warfare Experiment in March of 1999.

X-Files. The information is this booklet is part of the experiment files (X-Files) created by MCWL using post training analysis and feedback from Marines. It is <u>not</u> doctrine, nor is it a standing operating procedure (SOP). X-Files are evolving. They will be refined during further experiments, and, when we have the necessary information and knowledge on these TTPs, we will insert them into the Marine Corps Combat Development System for further scrutiny and possible incorporation into formal doctrine. Figure 1 summarizes where the X-Files fit on the pathway between MCWL and the Operating Forces.

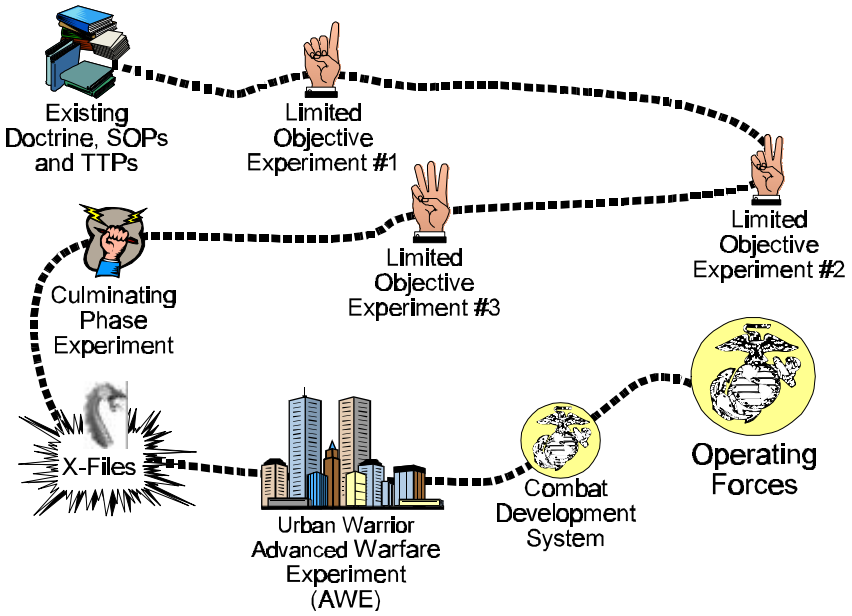

Figure 1 Where the X-Files Fit

Tips from UW Lessons Learned. We use the Dragon to mark paragraphs that are based on lessons learned from our X-Files. This gives you the word on what we found works and does not work. These tips may be completely new information or they may be recommended adjustments to more effectively apply our current doctrine, TTPs or SOPs.

MOUT Doctrine. *Marine Corps Warfighting Publication (MCWP) 3-35.3 Military Operations on Urbanized Terrain* provides doctrinal guidance and detailed information on TTPs. We assume that users of this X-File are familiar with this doctrine.

Introduction

"In one moment in time in the same urban area, our Marines are feeding and clothing displaced refugees— providing humanitarian assistance. In the next moment, they are holding two warring tribes apart—conducting peacekeeping operations. In yet another part of the city, they are fighting a highly lethal battle against a determined foe. All on the same day, all within three city blocks. This is what we call the three block war."

General Charles C. Krulak, USMC
Commandant of the Marine Corps

Urban Patrol Skills. Patrolling in each of the three blocks described above requires different skills—or at least varying levels of the same skills. Beyond that, the three dimensional urban battlespace puts special demands on small unit leaders that require focused training. For example, in the humanitarian assistance mode, winning the trust of the local population is high priority for Marines. This is also true for peacekeeping, although self protection and tactical considerations share the priorities. The third block—where the lethal battle is—shifts all the priorities to winning within the rules of engagement (ROE). *It is this battle in the "third block" that is the focus of this X-File.*

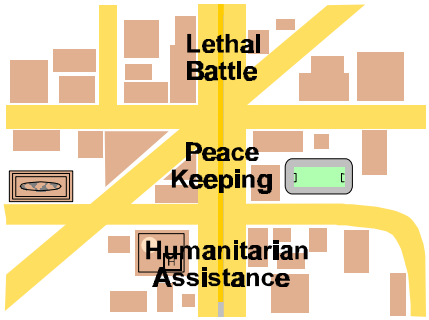

Figure 2 Three Block War

Foot Patrols

Advancing/Patrolling Along City Streets. During MOUT operations, our mission may be such that building-to-building clearing is neither required nor desired until we make contact with the enemy. MCWP 0-1 *Marine Corps Operations* (CD) defines contact as:

> *awareness of the enemy, achieved through combat or, visual, multi-sensory, or electromagnetic means, that can be exploited. Contact helps the commander develop a picture of the battlespace, setting the stage for subsequent operations*.

Unique Urban Patrol Considerations. Although the mission and the urban pattern dictate patrol routes, there are other important considerations that affect planning and execution. Except in situations where intense, highly lethal combat precludes it (such as it was in WWII Berlin, Grozny, etc.) Marines should be guided by these considerations:

- Reassurance.
  - Reassure the public that you can be trusted to act properly. Gain their confidence through professional behavior while upholding the law.
  - Reduce local doubt with a well organized and executed community relations plan.
- Deterrence.
  - Deter adversaries/terrorists by showing strength, discipline and a readiness to respond swiftly and effectively to any threat. When available and tactically appropriate, use MAGTF aviation in a highly visible manner to show your strength to the potential threat. *This includes unmanned aerial vehicles (UAVs)*.
- Attrition.
  - When engaged, attrite the threat by employing good contact drills, correct capture procedures and proper detainee handling. You may never completely win over the population but you can make them realize that you are committed to neutralizing the threat.
- Deception.
  - Deceive the threat about your location. He is unlikely to force a battle unless he can locate *all* of your squads.
- Unpredictability.

S Be unpredictable in your patrol routes and timing. A recent post-tour report from the British Army in Northern Ireland discusses it this way:
We believe that we must maintain unpredictability. . . . anything done by a patrol last week is wrong to do this week. We . . . switched routes, varied compositions . . . lurked, backtracked, crossed over, joined, divided, integrated with mobiles, cut short, lengthened or reinforced patrols.

Urban Patrolling Principles. Patrolling in urban areas is a lot different and is often more complex than patrolling in the jungle or forested areas. In the urban environment, we may have to transition from a presence patrol—where our goal is to be highly visible—to a life and death firefight within seconds. This causes us to look beyond the TTPs found in *MCWP 3-11.3 Scouting and Patrolling* and focus on these six principles for urban patrolling:

1. Maintain Depth. The restrictive, canalizing nature of urban terrain usually limits a patrol's ability to disperse laterally. So, to prevent bunching up, we maintain depth along the *length* of the patrol formation. This causes us to make formation mistakes such as:

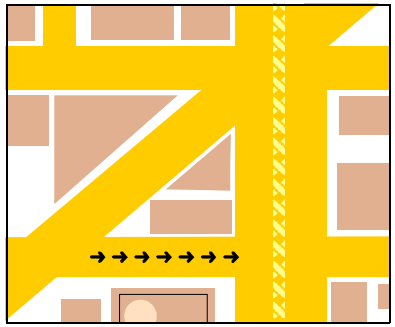

Figure 3 Duck Patrolling

a. Duck Patrolling—when all teams end up following each other along the same street in a fairly straight line with identical spacing between them. Figure 3 shows this error.

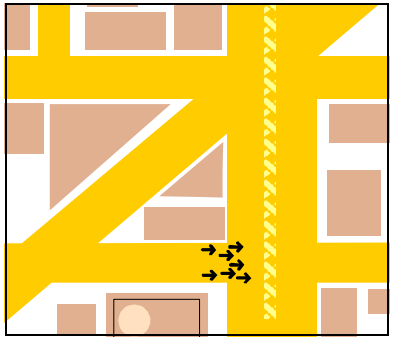

Figure 4 Bunching

b. Bunching—particularly on the same street junction as illustrated in Figure 4.
c. Paralleling—teams end up marching down parallel streets in a line with each other as illustrated in Figure 5.

If an incident should occur when you are arrayed in *any* of these **improper** formations, you are vulnerable and have limited reaction options.

2. Plan for Mutual Support. Put your support weapons (SAW, anti-armor, machinegun) in key spots within the patrol so they can provide timely and effective supporting fires. Also, have a plan to use support from LAVs, AAVs, and tanks. Don't forget to use snipers for mutual support along patrol routes in the urban canyon. Plan to use the air assets of the MAGTF within the ROE.

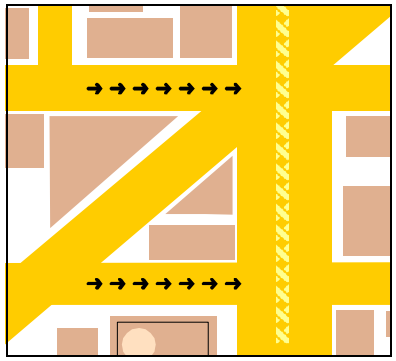

Figure 5 Paralleling

3. Consider Deception and Pattern Avoidance. Vary patrol routes, duration, and departure times. This can prevent enemy ambushes, blockades, and other hostile actions commonly used against urban patrols.
   a. This is normally a planning consideration of the HQ that controls the entire MAGTF patrol plan.
4. Establish Solid Communication. Each element within an urban patrol must be able to communicate with every other element within the patrol. This intra-unit communication is essential to maintain unit integrity, eliminate fratricide and maintain situation awareness (SA). This becomes especially important in reduced visibility. Also, the patrol must have reliable communication with higher HQ for reporting and to share SA with other friendly forces. This inter-unit communication also enables rapid crisis assistance with supporting fires, reinforcement, etc.
5. Establish a Reaction Force. Because urban patrols are subject to such a wide range of threats, the need for immediate, coordinated

reinforcement of an isolated patrol is best satisfied by an established reaction force.

6. Plan on the Three Dimensional Threat. Patrolling in an urban environment requires constant attention to the three dimensional threat. Hostile actions can originate from rooftops, streets, and subsurface levels.

Urban Patrols are Normally Combat Patrols. The vast majority of urban patrols are overt in nature, with the patrol's presence readily apparent to the local populace. Therefore, most urban patrols are designated *combat patrols* vice *reconnaissance patrols*. Combat patrols are usually assigned one of the following mission types:

- Security patrols. This includes most urban patrols. Within this mission, units may be assigned secondary tasks of reconnoitering specific or general areas along the patrol routes.
- Raid patrols. Raid patrols normally involve a swift penetration of an objective to secure information, confuse the enemy, or destroy installations. Raid patrols end with a planned withdrawal upon completion of the assigned mission.

The means of movement for these patrols varies between dismounted (foot patrols) or mounted (motorized, mechanized or armored). Patrols can be heliborne to a point at which they become either mounted or dismounted.

Special Mission Requirements. Like all MAGTF elements, patrol units task organize to meet specific mission requirements and can easily integrate specialists required for the conduct of specific missions. Specialists that may accompany urban patrols include, but are not limited to:

- Explosive detection dogs and their handlers.
- Interrogator Translator Team (ITT).
- Counterintelligence (CI) Team.
- Explosive Ordnance Disposal (EOD) personnel.
- Members of host nation or allied military forces.
- Interpreters.
- Local community leaders.
- Local law enforcement officers.
- Public Affairs personnel—escorting news media representatives.

Tips on Patrol Organization. The Marine rifle squad is ideally suited for urban patrolling. And, unit integrity at the fire team and squad level is critical. In addition to sustaining the comfort level of individual Marines, it optimizes your tactical ability to respond to threat activity. Also, even though you maintain restraint per the mission, commander's intent and ROE, you must be prepared for instant combat. Therefore, you should organize the patrol into assault, support, security, and command and control elements. You should further divide the security element into front, flank, and rear security responsibilities.

Patrol Planning.

- Higher headquarters will:
  - S Assign missions to a specific unit (company or platoon).
  - S Designate the area for patrol.
  - S Provide intelligence briefs and updates.
  - S Coordinate with higher, adjacent and supporting units.
  - S Ensure liaison with allied forces and civilian populace.
  - S Provide special equipment and specialists.
  - S Consider deception and pattern avoidance when issuing mission.
- The patrolling unit will:
  - S Assign the patrolling mission to a specific unit (company, platoon, or squad).
  - S Conduct detailed patrol planning and rehearsals.
  - S Coordinate with the agency responsible for the overall patrolling effort (patrol overlay, intel briefs, etc.).
  - S Coordinate with the reaction force commander.
  - S Conduct an intelligence brief by S-2 officer or representative;
    - Cover threat situation on specific patrol routes and areas.
    - Use a detailed terrain model and photographs to ensure complete understanding of the plan.
  - S Issue the Urban Patrol Order/Warning Order.
  - S Conduct a rehearsal.
    - Limited size of the patrol base usually precludes full scale rehearsals.
    - Immediate action drills, crossing danger areas, etc. are rehearsed in as much detail as possible in available space.
  - S Conduct initial and final inspections.
  - S Ensure outside personnel are fully integrated into the patrol and are familiar with the plan and all unit SOPs.

Conduct of an Urban Patrol. In addition to patrolling factors discussed earlier, ensure movement takes place with overwatch (units and buddy

system). Always be aware of your surroundings (civilians, atmosphere, potential cover in case of contact), plan for contact with civilians (particularly children, dogs, vehicles). And use the following TTPs summarized from MCWP 3-35.3

Squad Double Column. This is the preferred method for moving along an urban street because it gives you 360 degrees of security with mutual support and interlocking sectors of fire. There must be at least two squads or fire teams to conduct a double column. They move down the sides of the street using the building walls for cover and concealment. The pointmen stay abreast of each other while the rest of the Marines stagger themselves tactically. Patrol leaders put themselves where they can best control their units.

Sectors of Responsibility. (See Figure 6)

- Pointmen are responsible for security to the direct front and for pieing off windows and doorways. They are also responsible for staying abreast of one another.
- Marines immediately behind pointmen are the covermen. They cover the 45-degree oblique angle across from one another. The second coverman covers the direct front when the pointman is pieing and checking for the enemy. The third and fourth covermen in the column are responsible for the far-side flank security—one covers the upper level and one covers the lower level building windows, doors, and stairwells. The fourth Marine also provides rear security if he is the last man in the column—or he interlocks his sector of fire with that of the lead Marine in the next fire team in the column.
- The last two Marines in the squad of each column are responsible for the rear security of each of their formations. They move in bounds in order to allow a Marine to always provide active security to the squad's rear.

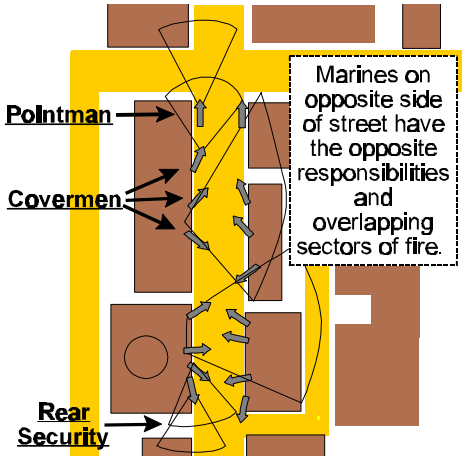

Figure 6 Double Column

Single Column. This is used to move rapidly along a street, or when streets are restricted in width. The single column is the least preferred advance/patrol method of moving along a street. The same principles apply as in the double column, except the single column does *not* provide 360-degree security. Unless dictated by street/alley width, use this formation *only* when enemy contact is considered to be unlikely.

Crossing a Street Intersection. Four-way intersections should be crossed quickly with focused security for the protection of crossing units. Crossing the intersection will force the three elements of a unit moving along a city street to rotate positions and assume appropriate responsibilities.

- *First Fire Team To Cross*. The lead (1st) fire teams in the two columns simultaneously set security around the corners of the building. They provide mutually supporting security to the direct front, security to the building on the far side of the intersection, and intersection security (Figure 7). The middle (2nd) fire teams provide mutually supporting flank and rear security. On order, the rear (3rd) fire teams move forward, cross the intersection, and assume the lead (1st) fire team's forward security mission.
- *Second Fire Team to Cross.* The front-most fire teams (now the middle fire teams) continue to provide intersection security and assume rear area security. The 2nd fire teams (now rear fire teams) cross the intersection on order. The second fire teams position themselves to provide rear and intersection security to support the covering of the last fire teams.
- Third Fire Team To Cross. The 1st fire teams (now the rear fire teams) provide rear security and cross the intersection on order. In "leapfrog" fashion, the 1st fire teams bypass the 2nd fire teams to become the middle fire teams and provide mutually supporting forward and flank security. The 2nd fire teams become the rear security.

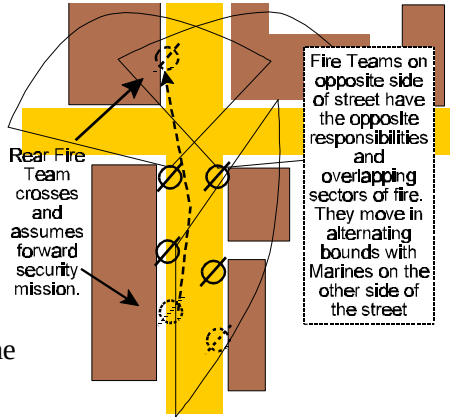

Figure 7 Crossing an Intersection

After the squads and three fire teams have crossed the intersection, the fire teams have rotated. This rotation is convenient because it alternates the lead units, who may be fatigued by the demands of MOUT. The same procedures are used to cross an intersection with a single column.

Other Movement Formations. In a high threat environment, the need for immediate firepower often outweighs the dangers of becoming canalized. However, in a low threat level, possibly only marked by snipers, our need to be able to move quickly modifies our approach; e.g., so we can cut off a terrorist's escape route. The "V" formation (Figure 8) is an example of such an approach. Here, fire teams move in "V" formation along parallel routes, while staying in depth with mutual support. The HQ team is in the center, with Assault and Security Teams slightly forward, on each flank. The distance between teams is within 150 meters. If the environment poses a higher threat level or the streets are too far apart, then the squad moves in a staggered column formation.

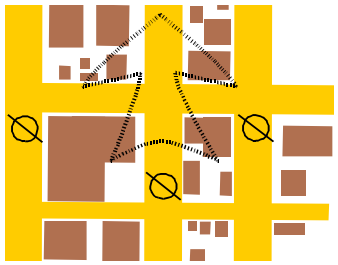

Figure 8 V Formation

For Platoon-sized patrols, squads generally travel in the same manner as the fire teams along parallel routes. The intent is to create less of a target to an aggressor yet still allow the patrol to quickly react to an incident. Individuals within units/teams will move in a tactical stagger.

Whenever possible, use snipers in an overwatch position to provide patrols with observation and intelligence updates prior, during, and after the patrol is conducted.

Tips on Navigation/Control Measures. The patrol leader is responsible for the navigation of the patrol. The headquarters unit normally functions as the base unit during movement and the designated navigator is normally assigned from within the headquarters unit. Buildings are the major terrain features, and units become tied to streets.

- UW experience confirmed for us that—above all—streets are the enemy's killing zones.

If fighting has destroyed buildings, rubble may block these streets making navigation and control even more difficult. Operations in subways and sewers present other unique navigation challenges.

Tips on Using City Maps. The scale of a city map can vary from 1:25,000 to 1:100,000 depending on the importance and size of the city and intelligence information available. Special maps prepared by topographical engineers may be available, but don't count on them—especially in third world cities. When available, they may include maps of road and bridge networks, railroads, built-up areas, and electric power fields. The UW AWE will evaluate discrete technology within the Integrated Marine Multi Agent Command and Control System (IMMACCS) to:

- make night vision maps, and
- enable real-time mapping for electronic "pull-down" in the field.

Use street maps—unless street and road signs have been destroyed, switched or removed by the enemy. In this case, the global positioning system (GPS) can be a significant help with navigation. Use street intersections as reference points just as you would use hills and streams in rural terrain. You can still use compass reading and pace counting, with or without GPS, especially in a blacked-out city where street signs and buildings may not be visible. Be alert to the possibility that the steel and iron in the MOUT environment may cause inaccurate compass readings.

Tips on Sewer Navigation. Navigate sewers in much the same way as city streets. Try to get maps providing the basic layout of the sewer system. These are normally maintained by city sewer departments. This information includes the directions that the sewer lines run and distances between manhole covers. Along with basic compass and pace-count techniques, such information may enable you to move through the city sewers with accuracy.

Tips on Use of Electronic Navigation Aids. The urban canyon adversely affects the performance of some types of communications-electronic devices such as the GPS, the Position Location Reporting System (PLRS), and other line of sight (LOS) data-distribution systems. Use these systems on the tops of buildings, in open areas, and down streets where obstacles will not affect LOS readings.

Other Urban Security Issues.

Camouflage.

- The often overt nature of urban patrols negates the need for camouflage. Our patrols are deployed to show force presence and usually move on the urban street in plain view. When you do use camouflage, avoid frightening and confusing the local populace.

Movement Rate.

- During daylight, vary your rate of movement. Take irregular halts and employ brief periods of double timing. Make your patrol very hard to predict so you frustrate the enemy's ability to coordinate an attack or easily set an ambush against a specific patrol.

Security Halts.

- Patrols should take short security halts, with Marines taking up mutually supporting firing positions that change frequently.
  - **S** 5-meter check. A short-term halt to conduct an immediate visual search within a 5-meter radius.
  - **S** 20-meter check. A longer-term halt to conduct an immediate visual search within a 20-meter area.

Buddy System.

- Marines must always work in pairs, ensuring mutual support. The last man in the unit/team will provide rear security, but will always remain in sight of his assigned buddy.

Security Tasks. Individuals within each unit/team may be assigned additional responsibilities. For example:

- Carman.
  - **S** Tasked with looking out for suspicious or known insurgent vehicles.
- Spotter.
  - **S** Tasked with looking for previously identified enemy in crowds.
- Talker.
  - **S** Tasked to gain information from casual conversation with the local populace—language skill permitting.
  - **S** Individuals assigned as the talkers are usually subordinate leaders.
- Searcher
  - **S** Tasked with the physical searching of vehicles and personnel while other patrol members provide cover and security.

- Marksman.
  - **S** Tasked with engaging point targets, such as enemy snipers, when the tactical situation does not permit massed fires. Other patrol members provide security to cover the marksman's engagement.

Danger Areas. Patrols can expect to encounter many danger areas during a single patrol in the urban environment. These are points that pose a major threat to the patrol. They can be local political and religious headquarters, weapons containment areas, roads and routes that canalize movement and firepower. Add to this any area with a history of repeated confrontation or engagement with the local population. The danger is three dimensional and always "in range" because of the proximity of buildings to the patrol route. Thus, every patrol member must maintain acute situation awareness at all times. Even a brief period of inattention could lead to a serious casualty.

Although danger areas should be avoided, our mission may require us to enter them. We can deal with this reality by using good patrol formation, movement rate, etc. Here are some other precautions that relate to patrolling in danger areas:

- Designate near and far side rally points.
  - **S** Brief how you will use them during issue of the patrol order.
- Use the assault and security (A&S) teams to provide flank security for the headquarters unit and each other.
  - **S** HQ unit identifies danger area and takes up static position on near side of intersection. Individuals provide all-around security.
  - **S** A designated two-Marine element, consisting of one Marine from each A&S team move through the HQ unit and establish respective firing positions on the near side of the danger area covering the patrol's near side flanks.
  - **S** They are followed by a second pair (again, one Marine from each A&S team) who move across to the far side of the danger area and establish respective firing positions covering the patrol's far side flanks.

Reaction to Enemy Contact

Hostile Incident Indicators. Hostile incidents often seem to occur spontaneously, but there are indicators that can alert Marines to imminent danger. The most obvious indicators are the sudden absence of normal routines, patterns and attitudes of the local populace or the presence of abnormal activity. Some examples are:

- Observers on roof tops, in windows, etc., who appear to be tracking the patrol.
- Unusual absence of pedestrian traffic, empty porches, etc.
- Stores, markets, or street vendors closed suddenly or without explanation.
- Dramatic change in civilian attitude toward patrol members.
- Unfamiliar individuals or vehicles within the patrol area.
- Unfamiliar vehicles parked in the patrol area (potential car-bomb).
- Road blocks.
- Children throwing rocks at patrols to divert their attention.
- Vehicles riding unusually low due to overloading (ferrying people, weapons, explosives).
- Agitators trying to provoke an incident with patrol members.
- Civilians being asked by strangers to go up on their roof, etc.
- Absence of the usual stray dogs (dogs are adept at sensing danger and avoid it).
- Anti-American graffiti suddenly appearing in the patrol area.
- Pictures of enemy leaders or "martyrs" posted in the patrol area.
- Civilian workers failing to appear at US bases.
- Normal deliveries and/or pickups that are unusually late or early.
- Sudden change of civilian sentiment in newspaper articles, radio broadcasts.
- Families sending women and children to live elsewhere.

Tips on Reacting to Enemy Contact. When a platoon or squad is moving along a city street, contact with the enemy could happen at any time, even if the area has been declared secure. If a unit engages or is engaged by the enemy, there are two basic options that Marines may follow. The first and most preferred option is to immediately return fire and conduct a hasty attack to gain a

covered position inside of the building. The second and least preferred method is to remain outside of the building(s) and fight from the street.

- Gain a covered position. Immediately return fire if the sniper's position is spotted and enter buildings as quickly as possible. Use the basic principles of entry; however, speed of action is essential.
  - **S** Once inside, quickly scan the area and engage any threat. If no threat is present, acquire the enemy's positions and deliver carefully aimed shots to achieve fire superiority.
- Remain outside and fight. Do <u>not</u> use this option unless strict ROE prohibit the occupation of buildings without being fired on from that specific building—or—because of obstruction, obstacles, or booby traps. In such cases, seek whatever cover exists, quickly acquire the target(s) and return fire to gain fire superiority.

Tips on Reaction to a Sniper. Patrol members should constantly try to identify likely firing points and anticipate their reactions to a shooting. When a sniping occurs, keep in mind that it may be part of a plan to entice you into a reaction that drives you toward a larger, more lethal attack. In the pre-patrol briefing, review this possibility so you can build in immediate action drills (see below) in anticipation of spots where this could happen. On the other hand, urban snipers will normally have a clear withdrawal route, so they may be planning a one shot and leave episode. You have to plan for both of these possibilities.

Sniper Immediate Action (IA) Drills. The patrol's mission, location, size, and the position of the threat will normally determine whether the patrol will bypass or neutralize the sniper. If the sniper is to be neutralized (killed or captured), the patrol maneuvers by using planned and rehearsed IA drills. The goal is to cut off the shooter's escape and then deal with him. IA drills to neutralize a sniper are split into these three phases:

1. <u>Contact period</u>. This begins with the first shot. The patrol reacts immediately and positively to get *behind* the firing position in order to kill or capture the sniper. The contact period ends when the gunman is killed or captured, or the unit leader on the scene ends it because of lost contact with the gunman. The technique is the same for both squad and platoon-sized patrols.
   a. Unit in contact attempts to identify the firing position and maneuvers a designated marksman/counter-sniper team into position to return well aimed and controlled fires. This is

dependent on ROE. In any case, the patrol should positively confirm the firing point of the sniper. Other members of the patrol get in position to cover the marksman's engagement.

b. The unit leader determines appropriate cutoff positions and relays them to flanking teams.
c. The unit leader in contact sends initial contact report to the patrol leader, who relays information to higher headquarters.
d. The unit leader in contact retains eyes on the firing point, but does not enter it due to the possibility of booby traps.
e. Flank units/teams set up along likely escape routes.
f. The end of the contact period is signified by either a cease in sniper fire or neutralization of the gunman.

2. Immediate follow-up. Regardless of the fate of the gunman, isolation of the firing point is necessary to prevent reinforcement and to preserve forensic evidence (scent, maps, spent casings, etc.).
   a. Members of the contact unit/team, if not under fire, secure the area immediately surrounding the firing point.
      i. This becomes the security area.
   b. Flanking units/teams maintain their positions and prevent civilian access to the area.
   c. Patrol leader moves to link up with the contact unit/team (if not his own) and makes an estimate of the situation.
   d. Patrol leader sends SPOT REPORT to higher headquarters.
3. Subsequent follow-up. The aim of this is to use follow-on forces to clear the building of remaining resistance—exploit success—or obtain evidence that can be used to capture an escaped sniper.

   a. Patrol leader sets up in position where he can brief arriving units, reaction force commander, EOD personnel, etc..
   b. Once arriving units have been briefed, make your recommendations to higher headquarters via radio.
   c. No one is allowed into the secured/security area without the patrol leader's approval.

Reaction to a Decisive Engagement. If a patrol becomes decisively engaged from numerous firing positions, take the following immediate action:

- All patrol members move to available cover and return accurate fire on *identified* firing points.

- Patrol leader assesses the situation and decides to either assault the position, request a reaction force, or to break contact;
- Use appropriate MAGTF combined arms capabilities
- If the reaction force is requested, the engaged patrol maintains its position until the reaction force arrives.
  S then either clear occupied buildings or cover the patrol during its extract.

Tips for Breaking Contact. The Patrol Leader may be forced to break contact as a result of decisive engagement with the enemy. On the basis of his estimate of the situation, he will break contact in one of the following ways:

- As a patrol, with units/teams providing cover for movement defined by clock direction and distance.
- As individual units/team, taking separate routes out of the area then linking-up at a designated rally point that is a safe distance away from the engagement area.

As in any contact with enemy forces, use smoke to screen movement. Get supporting fires from the MAGTF as necessary to ensure a tactical retrograde. If allowed by the ROE, use riot control agents to disrupt any enemy pursuit.

When making a tactical decision, the maneuver and fires needed to effectively break contact can be that necessary to successfully attack.

Mounted Patrols

Characteristics of Mounted Patrols. The most obvious characteristic is speed. Additionally, mounted patrols capitalize on vehicle mobility and firepower. When LAVs and AAVs are used, ballistic protection is another advantage. The characteristics of mounted patrols include:

- May be motorized, mechanized, or armored vehicles.
  - Can be used in any combination.
  - Tracked vehicles provide better mobility than wheeled vehicles due to their significantly greater ability to negotiate obstacles and rubble.
- Generally have greater combat power than dismounted patrols.
  - Larger caliber weapons with sensors and accurate sighting devices.
  - Greater magazine capacity.
- Can cover larger areas faster than dismounted patrols.
  - Are better able to pursue a fleeting enemy.
- Have the ability to carry urban-specific engineer equipment.

The problems associated with mounted patrols include:

- Easier to be channelized into killing zones.
- Cannot use the 3-Dimensional aspect of the urban areas.
  - Generally confined to roads or wide, passable surfaces.
- Armored vehicles need additional protection (e.g., reactive armor, sandbags, wire mesh, etc.) to negate attacks from sides, rear and top.

Patrol Organization. Mounted patrols are generally organized in the same manner as a dismounted patrol—assault, security, support and command and control elements. Also, they maintain unit integrity when positioning personnel to specific vehicles. Figure 8 illustrates a notional squad size patrol that is task organized with three vehicles. This is not *the* doctrinal formation, but is one way to effectively organize.

- Assault and security team A.
  - Driver, Fire Team Leader, Gunner, A-Gunner.
- Assault and support team B.
  - Driver, Fire Team Leader, Gunner, A-Gunner.

- Command/HQ unit.
  - Driver, Fire Team Leader, Squad Leader, Gunner, A-Gunner.

Mounted Urban Patrolling Principles.

- Ensure mutual support and depth by maintaining constant observation among vehicles.
- Coordinate supporting fire plan with any dismounted units in the area.
- Maintain all-around security.
  - Be wary of temptation to de-emphasize rear security because of your speed of movement.
- Plan for and maintain positive communication between vehicles.
  - Plan to use easily recognizable visual signals to overcome urban canyon electronic interference or threat jamming.
  - Plan how smoke will be used—including its color.
- Adjust patrol routes and speeds to promote deception and pattern avoidance.

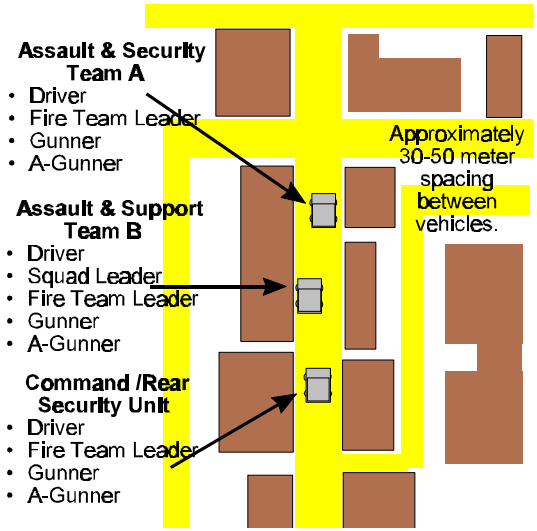

Figure 8 Notional Mounted Patrol

Tips on Mounted Patrols. Our experiments exposed the lack of attention to the following tactics that can lead the mounted patrol into fatal errors:

- Maintain 360° security when moving and at the halt.
- Never enter the area via the route you will use to exit.

Employment of Mounted Patrolling.

- Vehicles travel at a moderate rate of speed with the lead vehicle stopping *only* to investigate those areas that:
  - pose a potential threat, or
  - support the essential tasks of the patrol.
- When vehicles must stop,

- S designate crew members to dismount to provide security,
- S keep the vehicle gunner at the ready, and
- S ensure the driver is in the driver's seat with the engine running.

- Use a vehicle speed of 15-20 miles per hour to allow for adequate observation and quick reaction.
- Only move vehicles at high speed when responding to an incident.
- Maintain distances of approximately 30-50 meters, or at a range that visual contact and mutual support is ensured.
  - S As one vehicle turns a corner, slow down to ensure that the other vehicle remains in contact and to retain mutual support.

Mobile Patrol Immediate Action Drills. The driving forces that control your reaction are the mission and the safety of your Marines. These are closely followed by the ROE for the situation. Figure 9 illustrates one approach to the general IA guidelines. This applies to a three vehicle patrol in a previously permissive environment *(which accounts for the absence of the flank security that would be present under other circumstances)*:

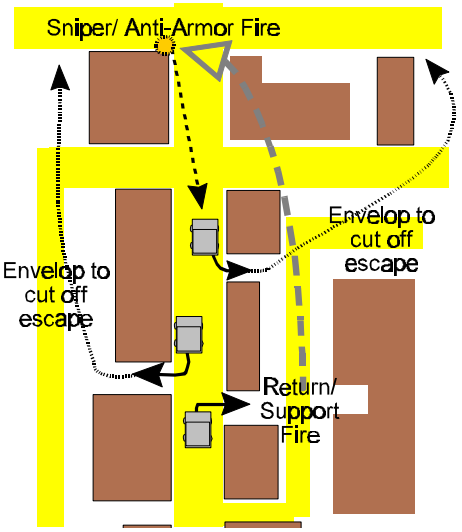

Figure 9 Mounted Patrol IA Drill

- Sniper/Anti-Armor Weapon.
  - S Once contact is made, make positive confirmation of the position or direction from which the fire came.
  - S Move the vehicles quickly out of the line of direct fire while returning fire if the firing position can be identified.
  - S Use a reaction force to envelop or cut off a sniper or anti-armor gunner's avenue of escape.
- Decisive Engagement.
  - S If vehicles are caught in an area where they become decisively engaged, the vehicles must suppress the enemy while moving out of the potential kill zone as quickly as possible.

  - S Move to a covered position while requesting a reaction force, or supporting fires, as appropriate to the situation and ROE.
- Improvised Explosive Devices.
  - S Move vehicles out of the kill zone as quickly as possible to a covered position and either deploy a reaction force or call for support.
  - S Those trapped in the kill zone will seek cover and return fire. Use adjacent forces to restrict any movement in or out of the area. Improvised Explosive Device SOP will dictate actions at that point.
- Barricades.
  - S If the patrol runs into a barricade, it must rapidly move to an alternate route and report to higher HQ. Chances are that the barricade is covered by enemy fire or threat demolitions.
  - S Request engineer support to remove the barricade—if it supports mission requirements—while the patrol cordons off the area and provides security.
  - S Do <u>not</u> try to clear the barricade without engineer support. It may be mined or booby trapped.

The key to success for mounted patrols are:
- mutual support,
- all-around security
- positive communications,
- patrol routes and speeds that are adjusted to promote deception, and pattern avoidance.

Speed and shock are weapons for mounted patrols. It may be best to immediately assault through the firing position. Hit them head-on. If tanks are present, it may be best to immediately smash through a barricade from which the patrol is receiving fire.

Subterranean Patrols

The Threat from Underground Features. Enemy forces can successfully use subterranean avenues of approach to infiltrate friendly force positions. To guard against this, Marines will be required to conduct subterranean patrols or counter hostile subterranean operations.

Unit commanders should always seek information on the nature and the location of subterranean features. While sewers and drains come immediately to mind, there are many more urban subterranean features from which a threat can be mounted:

- Underground transportation systems such as subways, trains, tunnels, and large vehicular tunnels.
- Underground commercial structures such as malls and parking lots.
- Maintenance access tunnels.
- Electrical grid / utility lines.
- Pedestrian passages.
- Sewer drainage systems and waterways.
- Natural underground passages.

Underground Networks. There are two types of underground networks that are designed to interconnect and can bear significant traffic. These are sewers and subways.

- All sewers generally follow street patterns and flow in a slightly downward slope that may increase as the sewer progresses. Sewers are separated into three types: sanitary, storm, or combined systems.
  - Sanitary sewers carry human waste and are usually too small to permit entry.
  - Storm sewers function to remove rainfall from the streets and are usually large enough for people and small vehicles to enter. They are usually dry when there has been no recent precipitation.
  - Combined systems found in older cities, merge the two functions creating a large sewer that remains partially full at all times.
- Subways. Most large cities have extensive subway systems of various sizes.
  - Subways are usually built under major roadways and may have potentially hazardous electrified rails and power leads.

  - Subways often have underground stations that connect to subterranean malls or storage areas.
  - Utility and maintenance tunnels are often found near subways.
  - Older cities may have extensive catacombs below street level and underneath buildings.

Disadvantages of Subterranean Features. There are two types of disadvantages in conducting a subterranean operation. They are natural and combat related.

- Natural Disadvantages.
  - Sewers may fill rapidly during rainstorms—especially if the area electrical system is off line and the drainage pumps are not operating properly.
  - Snow melt and the resulting runoff may restrict operations in underground drainage systems during cold weather.
  - Sanitary sewers that have become blocked may build up methane gas which is flammable and explosive.
  - Poor ventilation can be a problem in subterranean features. Also, smoke and other heavy substances may displace oxygen.
  - Underground areas are excellent breeding grounds for disease and rodents. Personal hygiene and immunization is especially important. Small wounds can easily become infected.
  - The lack of light and near total darkness in many subterranean systems will have a negative psychological effect on personnel and will make navigation difficult. Light sources may disclose the users position if they are not used cautiously during tunnel clearing operations.

Marines must be alert to signs of lack of oxygen and psychological duress. They must know the shortest route to fresh air and light.

- Combat-Related Disadvantages.
  - The noise and effect of weapons is amplified inside subterranean systems. Bullets and shrapnel ricochet off of walls and along the sides of tunnels. Weapon noise may temporarily deafen Marines.
  - Adequate cover is often not available inside of confined tunnels.
  - Chemical agents will persist for a longer period of time inside subterranean features due to the lack of wind and sunlight necessary to break down the chemical compounds.

- **S** Flame weapons are more dangerous inside subterranean features as they will follow the walls around corners as well as consume oxygen inside the underground area.

Tips on Individual Equipment. As you select your equipment, consider the mission of the patrol, the size of the underground passage and the potential to encounter obstacles. Overburdened Marines will have difficulty negotiating obstacles and will fatigue quickly, jeopardizing the success of the mission. When you are forced to leave some gear behind, make provisions for follow on forces to bring it forward, if you are not planning on returning to your point of entry. Here are some guidelines for equipping a tunnel-clearing team:

- The patrol leader should carry a small red lens flashlight and a notebook for recording information and for drawing a basic map of the subterranean system.
- All Marines carry field protective masks, white lens flashlights, gloves, and personal weapons. Wear helmets to protect the head from unseen obstructions. Wear body armor unless you cannot fit in the tunnel with it.
- M-9 pistols are the preferred weapon for tunnel teams as they are easily employed with one hand and are very maneuverable in a tight area. Carry extra magazines in the flak vest's pockets.
- If available, carry IR chemlights and night vision devices. They work very well together. The patrol leader could use the IR light on the AN/PVS-7B night-vision device to read notes and maps when there is no other light source available.
- If there is a possibility of chemical agents existing in the system, the point man should carry the M-256 chemical agent detection kit to test the area.

Tips on Special Equipment. This includes a tool for opening manhole covers and for removing mines and booby traps. Patrols should also have some means of marking their route, (e.g., spray paint, chalk, chem lights, heavy cord). Carry a field telephone and several hundred meters of comm wire to provide communication to the remainder of the unit stationed at the entrance of the tunnel.

- Ensure that slings are taped down; or use 550 cord to wrap or tie equipment to reduce noise inside tunnel.
- Plan to spread load equipment across the clearing team and—if the mission allows—rotate the burden at various points in the patrol.

Task Organization. Organize your fire team or squad into an Assault Element, a Support Element, and a Security Element. Keep the number of Marines in the tunnel team to the minimum essential to accomplish the mission. Too many Marines could hinder one another, and unnecessarily complicate command and control. If a large patrol is necessary to meet mission requirements, break the patrol into the same three elements with the advance guard/point in the assault element. Dispersion is important to maintain noise discipline and to prevent multiple casualties from a single attack.

Basic Tunnel Clearing Procedures.

Illumination.

- Underground combat requires light sources such as illumination grenades, flares, flashlights, chemlights and NVG's. Therefore, you must establish a simple, effective illumination plan. Make sure that all members of the patrol understand the plan *before* entering the tunnel.

Opening.

- The entrance of the subterranean feature can be anything from a manhole cover to a large door. You may have to forcefully open it. If necessary, have the main body of the unit create diversions so your efforts can go undetected. After opening the tunnel—by whatever means necessary—allow about 15 minutes for a security check and to allow the tunnel to air out. If a threat is present, your options range from throwing a grenade through the entrance and sealing it, or assaulting the enemy to gain a foothold inside.

Entry.

- The point man—with a rope tied around his waist—enters the tunnel to check its size and condition. Plan this to last for 10 minutes. If he does not return to the entrance in that time, then you pull him up or back to the entrance. This *could* mean the air in there is not good so you may have to use protective masks. It could also mean that he encountered other forms of trouble. This is why the initial entry uses this type of timed action.
  - **S** After the point man secures the inside of the tunnel's entrance, the remainder of the team can enter.
  - **S** Maintain security at the entrance so that your return or escape route is not blocked.

Movement.

- When the team is moving inside the tunnel, keep the point man about 10 meters in front of the team leader. The remainder of the patrol maintains a five meter interval. If there is fast moving water or slippery footing, use a safety line tied between personnel. To improve footing, personnel can wrap “chicken wire” or “screen wire” to their boots.
- As the tunnel-clearing team progresses, the rear security element marks the route. The point man should move slowly and steadily, always checking for booby traps and pieing off corners as he approaches them (See Figure 10). Rotate point men as space in the subterranean feature allows.

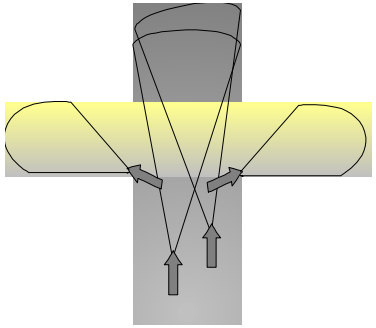

Figure 10 Pieing the Tunnel Corners

- Conduct periodic security halts to listen for the enemy, to conduct chemical agent tests, and to allow the team leader to draw a map of the underground area or write notes. Solid intelligence is extremely important, so elements of information should not be trusted only to memory.
- If a manhole is encountered, open it carefully to cross check your location. You might be able to look on the tunnel wall next to the manhole cover for markings that identify your exact location. They are sometimes marked to aid maintenance workers. Use a mirror tied to a stick to avoid enemy fire that may be covering a manhole.
- Never stop the patrol in a long, straight stretch. Always move them to a turn or a corner to conduct a security halt. This will give the unit some sort of cover if enemy contact is made.

Engagement.

- If the enemy must be engaged, maximize the violence of your reaction.
- Employ bends or corners of subterranean features for cover. If the mission calls for it, be prepared to assault through the threat.
- If the mission calls for it, use standard retrograde tactics to return to the entry point.

Post Patrol Activity.

- Once the tunnel-clearing team returns, *all* Marines should participate in a detailed debrief. This facilitates getting accurate and timely intelligence to higher headquarters.

- The tunnel-clearing team members may be used by a follow on force as guides. However, the tunnel would have to be secured again once the force leaves it. A claymore mine positioned at the limit of advance may provide a degree of security, but the enemy could remove the device when the Marines leave.

Defending Tunnels and Subterranean Features. Tunnels can be blocked and secured in the same manner as buildings and rooms. For example, when ROE permit, you can use mines, booby traps (see *X-File 3-35.5 Urban Defense* for US Treaty restrictions and DOD policy on mines and booby-traps), early-warning devices, concertina wire, and mantraps. And, you can cover these obstacles with fire to increase their effectiveness. Command-detonated claymore mines can be employed to cover an obstacle belt.

- If Marines are to occupy fixed fighting positions *inside* a subterranean feature, then construct the defensive position on a platform to protect against flooding.
- Be very cautious when employing light devices in the tunnel so you do not reveal your position to the enemy.
- Plan to use grenades, mines and explosives sparingly as they will have adverse effects on friendly forces, such as ruptured eardrums and wounds from flying debris in the confined space.
- Gases found in sewers (generally methane gas) can be ignited by the blast effects of munitions.
- If possible, friendly personnel should be outside the tunnels or out of range when grenades or demolitions are used.

Listing of X-Files

X-Files		
Title	**X-File #**	**Publication Status**
Urban Attacks	3-35.1	Published
Combat Squad Leader	3-35.2	Published
Battle Watch Captain	3-35.3	May 1999
Urban Defense	3-35.5	Published
Urban Patrolling	3-35.6	Published
Security Operations	3-35.7	February 1999
Combined Arms in MOUT	3-35.8	February 1999
Battalion and Below Comm.	3-35-9	March 1999
Directed Energy Weapons	3-35.10	In staff review
Humanitarian/Disaster Relief	3-35.11	In staff review
Urban Sustainment	3-35.12	January 1999
Tactical Instrumentation	3-35.13	January 1999