

APPENDIX C

Obstacles

GENERAL

In combat, enemy units use obstacles to stop or slow their opponent's movement. Because of that, you may have to bypass or breach (make a gap through) those obstacles in order to continue your mission.

Two basic obstacles used by the enemy are minefield and wire obstacles. This appendix gives guidance on breaching and crossing minefield and wire obstacles.

CONTENTS	
GENERAL	C-1
HOW TO BREACH AND CROSS A MINEFIELD	C-2
HOW TO BREACH AND CROSS WIRE OBSTACLES	C-5

HOW TO BREACH AND CROSS A MINEFIELD

There are many ways to breach a minefield. One way is to probe for and mark mines to clear a footpath through the minefield.

PROBING FOR MINES

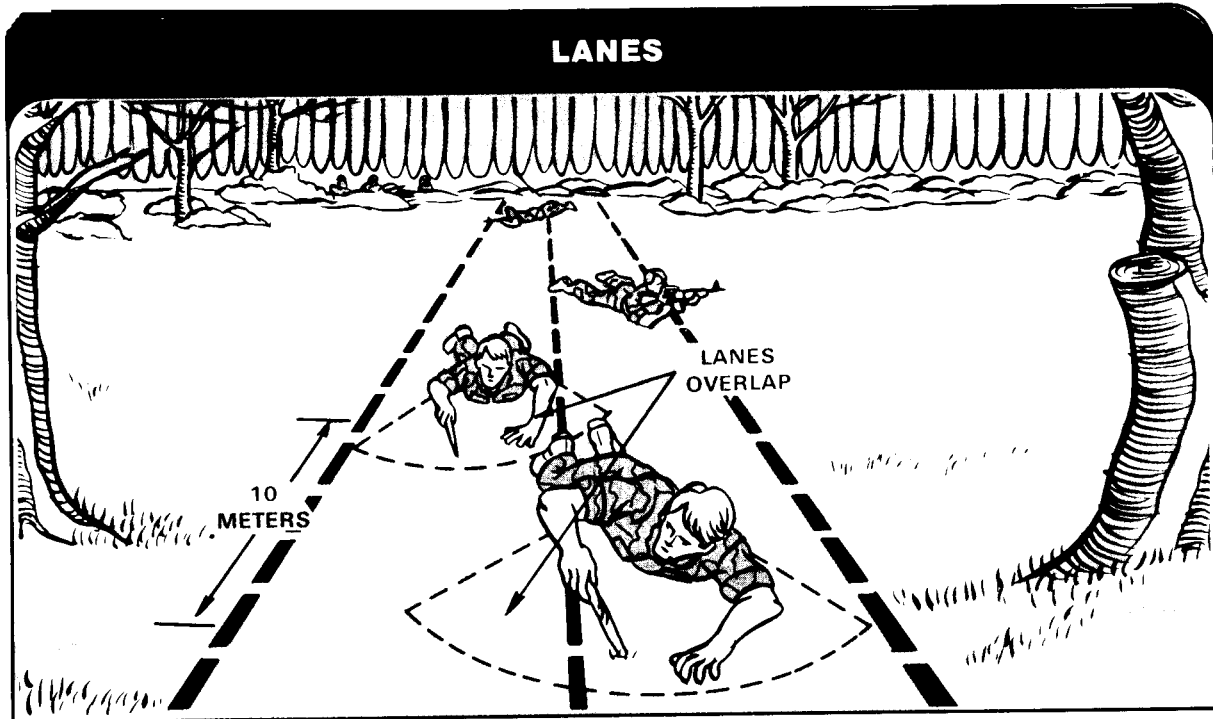
- Remove your helmet, load-carrying equipment (LCE), watch, rings, belt, dog tags, and anything else that may hinder movement or fall off.
- Leave your rifle and equipment with another soldier in the team.
- Get a wooden stick about 30 cm (12 in) long for a probe and sharpen one of the ends. Do not use a metal probe.
- Place the unsharpened end of the probe in the palm of one hand with your fingers extended and your thumb holding the probe.
- Probe every 5 cm (2 in) across a 1-meter front. Push the probe gently into the ground at an angle less than 45 degrees.
- Kneel (or lie down) and feel upward and forward with your free hand to find tripwires and pressure prongs before starting to probe.
- Put just enough pressure on the probe to sink it slowly into the ground. If the probe does not go into the ground.

MINE PROBE



pick or chip the dirt away with the probe and remove it by hand.

- Stop probing when a solid object is touched.
- Remove enough dirt from around the object to find out what it is.



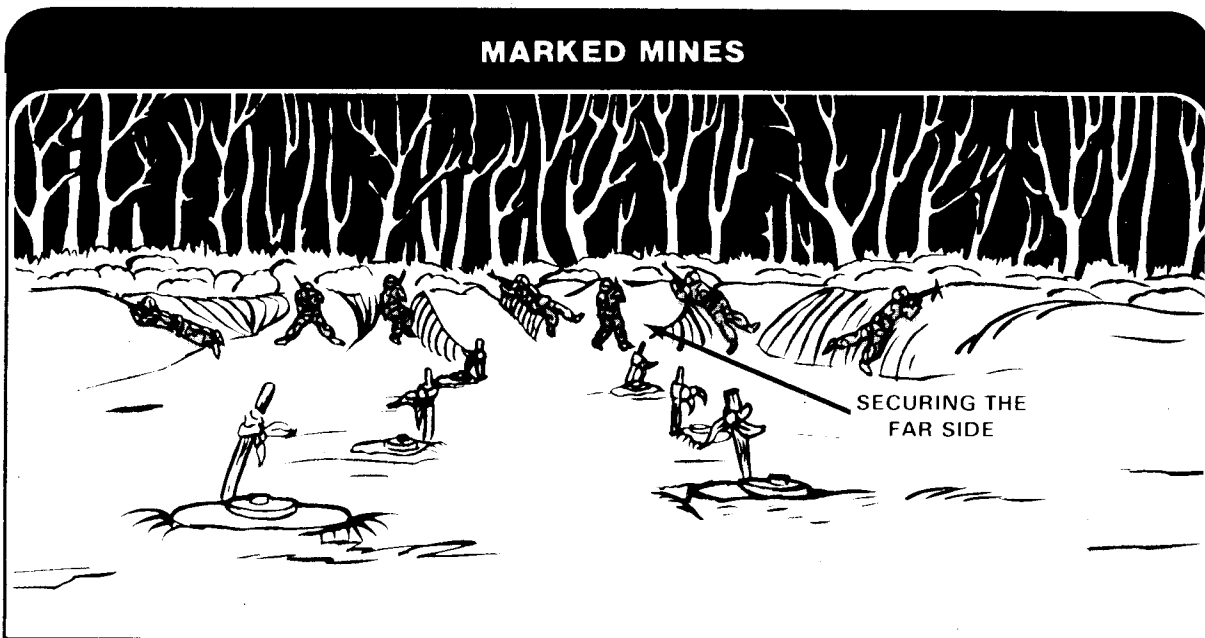
MARKING THE MINE

- Remove enough dirt from around it to see what type of mine it is.
- Mark it and report its exact location to your leader. There are several ways to mark a mine. How it is marked is not as important as having everyone understand the marking. A common way to mark a mine is to tie a piece of paper, cloth, or engineer tape to a stake and put the stake in the ground by the mine.



CROSSING THE MINEFIELD

Once a footpath has been probed and the mines marked, a security team should cross the minefield to secure the far side. After the far side is secure, the rest of the unit should cross.



HOW TO BREACH AND CROSS WIRE OBSTACLES

The enemy uses wire obstacles to separate infantry from tanks and to slow or stop infantry. His wire obstacles are similar to ours. To breach them, you should use wire cutters and bangalore torpedoes.

Breaching a wire obstacle may require stealth; for example, when done by a patrol. It may not require stealth during an attack. Breaches requiring stealth are normally done with wire cutters. Other breaches are normally done with bangalore torpedoes and wire cutters.

CUTTING THE WIRE

To cut through a wire obstacle with stealth

- Cut only the lower strands and leave the top strand in place. That makes it less likely that the enemy will discover the gap.



- Cut the wire near a picket. To reduce the noise of a cut, have another soldier wrap cloth around the wire and hold the wire with both hands. Cut part of the way through the wire between the other soldier's hands and have him bend the wire back and forth until it breaks. If you are alone, wrap cloth around the wire near a picket, partially cut the wire, and then bend and break the wire.

To breach an obstacle made of concertina:

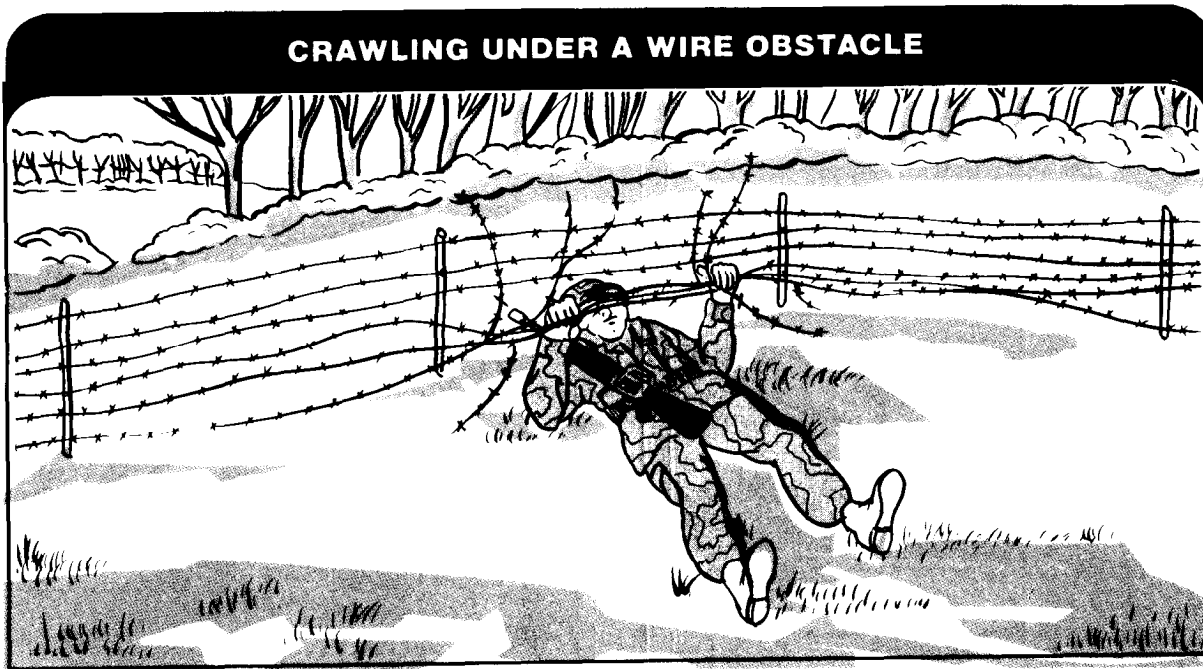
- Cut the wire and stake it back to keep the breach open.
- Stake the wire back far enough to allow room to crawl through or under the obstacle.



CROSSING THE WIRE

To crawl under a wire obstacle:

- Slide headfirst on your back.
- Push forward with your heels.
- Carry your weapon lengthwise on your body and steady it with one hand. To keep the wire from snagging on your clothes and equipment, let it slide along your weapon.
- Feel ahead with your free hand to find the next strand of wire and any trip wires or mines.



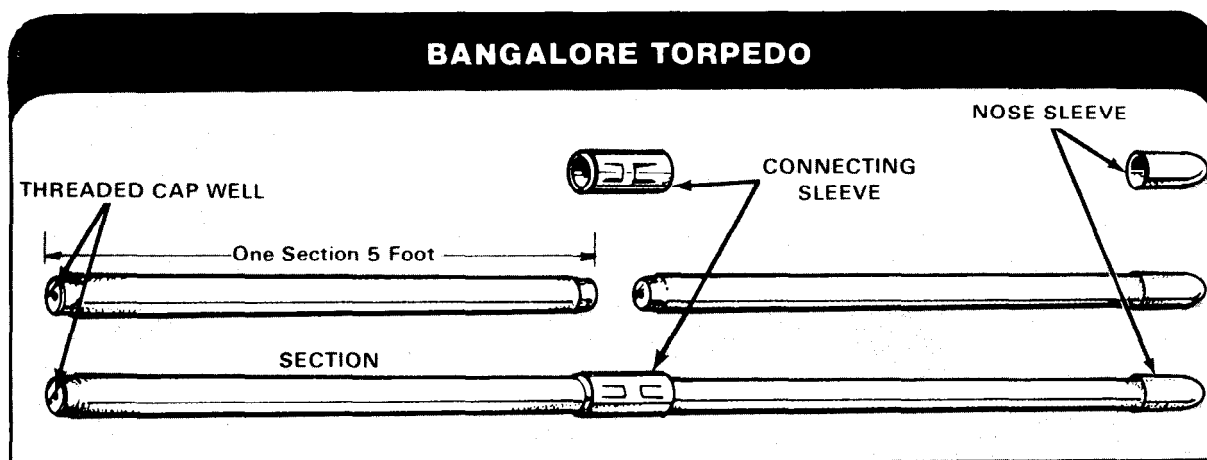
To cross over a wire obstacle:

- Stay crouched down low.
- Feel and look for tripwires and mines.
- Grasp the first wire strand lightly, and cautiously lift one leg over the wire.

- Lower your foot to the ground.
- Lift your other foot over the wire and lower it to the ground.
- Release the wire and feel for the next strand.
- To speed up a crossing, put boards or grass mats over the wire and cross on them.

USING A BANGALORE TORPEDO

A bangalore torpedo comes in a kit that has 10 torpedo sections, 10 connecting sleeves, and 1 nose sleeve. Use only the number of torpedo sections and connecting sleeves needed.



All torpedo sections have a threaded cap well at each end so that they may be assembled in any order. Use the connecting sleeves to connect the torpedo sections together. To prevent early detonation of the entire bangalore torpedo if you hit a mine while pushing it through the obstacle, attach an improvised (wooden) torpedo section to its end. That section can be made out of any wooden pole or stick that is the size of a real torpedo section. Attach the nose sleeve to the end of the wooden section.

After the bangalore torpedo has been assembled and pushed through the obstacle, prime it with either an electric or nonelectric firing system (app B).

Once the bangalore torpedo has been fired, use wire cutters to cut away any wire not cut by the explosion.

BANGALORE TORPEDO PLACEMENT



APPENDIX D

Urban Areas

GENERAL

Successful combat operations in urban areas require skills that are unique to this type of fighting. This appendix discusses some of those skills. For a more detailed discussion, see FM 90-10-1.

HOW TO MOVE

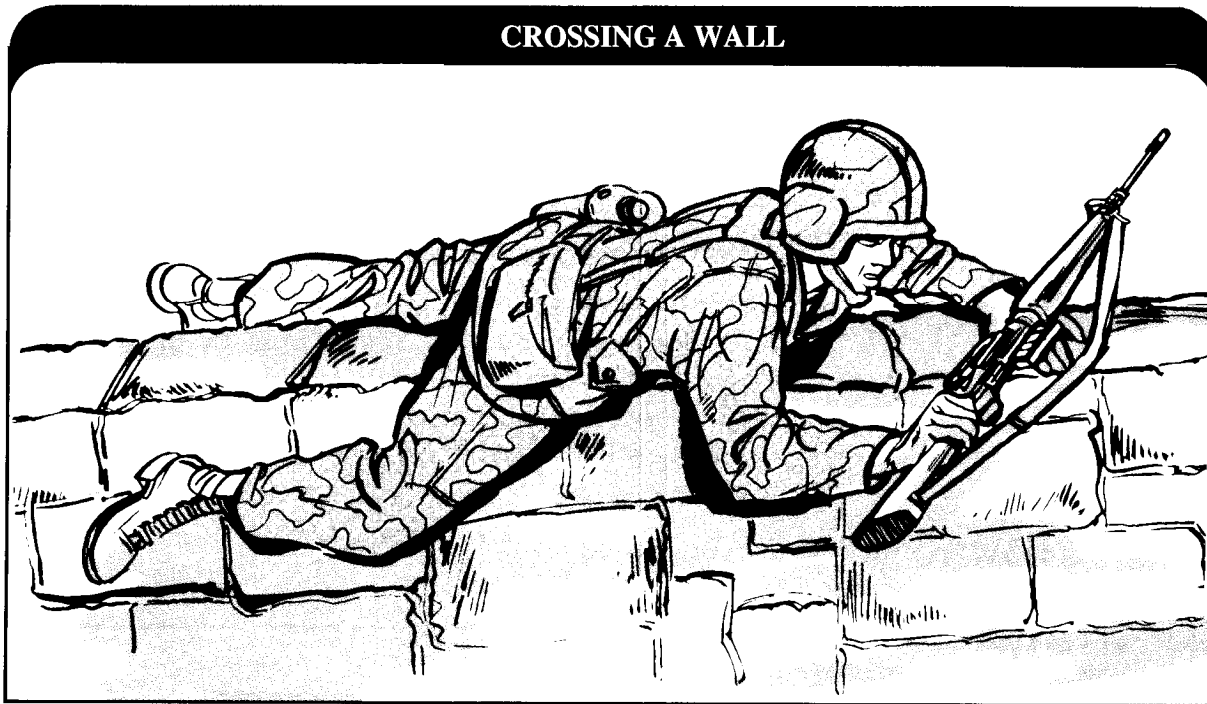
Movement in urban areas is a fundamental skill that you must master. To minimize exposure to enemy fire **while moving**:

- **Do not silhouette yourself, stay low, avoid open areas such as streets, alleys, and parks.**
- **Select your next covered position before moving.**
- **Conceal your movements by using smoke, buildings, rubble, or foliage.**
- **Move rapidly from one position to another.**
- **Do not mask your overwatching/covering fire when you move; and stay alert and ready.**

CONTENTS	
GENERAL	D-1
HOW TO MOVE	D-1
HOW TO ENTER A BUILDING	D-7
HOW TO USE HAND GRENADES	D-10
HOW TO USE FIGHTING POSITIONS	D-10

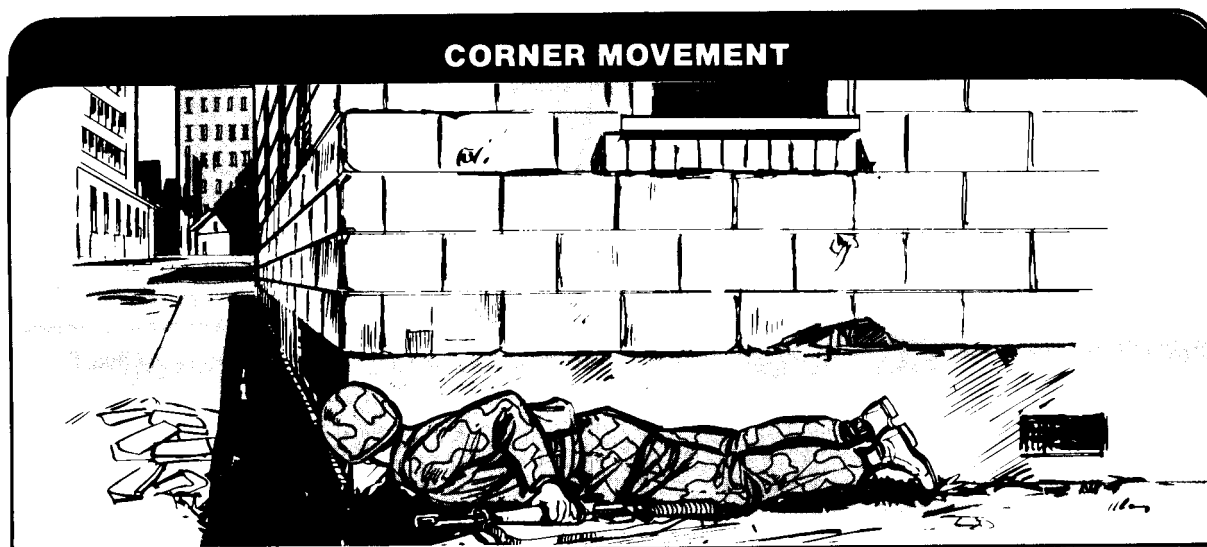
HOW TO CROSS A WALL

Always cross a wall rapidly. But first, find a low spot to cross and visually reconnoiter the other side of the wall to see if it is clear of obstacles and the enemy. Next, quickly roll over the wall, keeping a low silhouette. The rapid movement and low silhouette keep the enemy from getting a good shot at you.



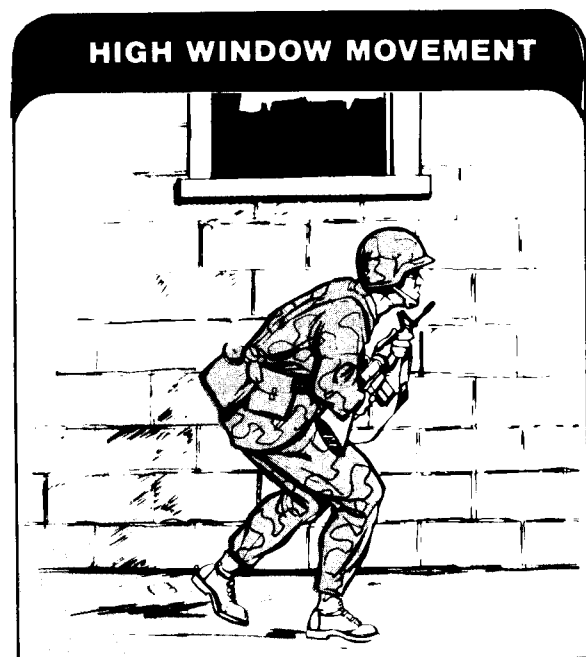
HOW TO MOVE AROUND A CORNER

Before moving around a corner, check out the area beyond it to see if it is clear of obstacles and the enemy. Do not expose yourself when checking out that area. Lie flat on the ground and do not expose your weapon beyond the corner. With your steel helmet on, look around the corner at ground level only enough to see around it. Do not expose your head any more than necessary. If there are no obstacles or enemy present, stay low and move around the corner.



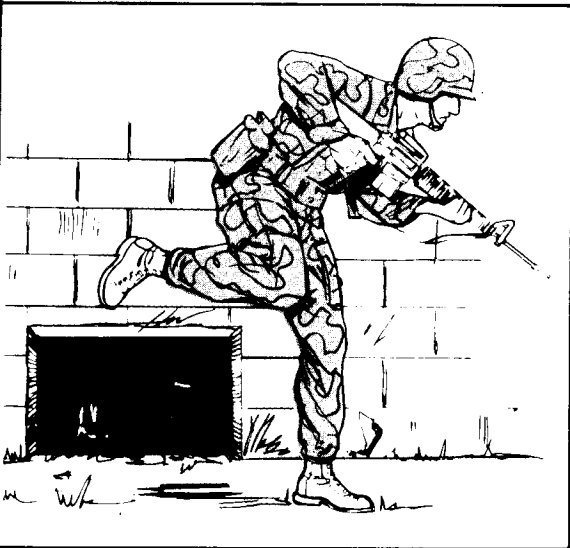
HOW TO MOVE PAST A WINDOW

When moving past a window on the first floor of a building, stay below the window level. Take care not to silhouette yourself in the window, and stay close to the side of the building.



When moving past a window in a basement, use the same basic techniques used in passing a window on the first floor. However, instead of staying below the window, step or jump over it without exposing your legs.

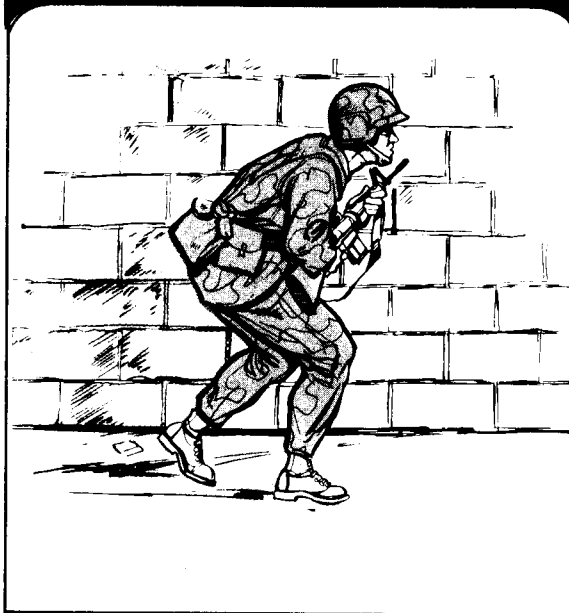
BASEMENT WINDOW MOVEMENT



HOW TO MOVE PARALLEL TO A BUILDING

When you must move parallel to a building, use smoke for concealment and have someone to overwatch your move. Stay close to the side of the building. Use shadows if possible, and stay low. Move quickly from covered position to covered position.

PARALLEL MOVEMENT



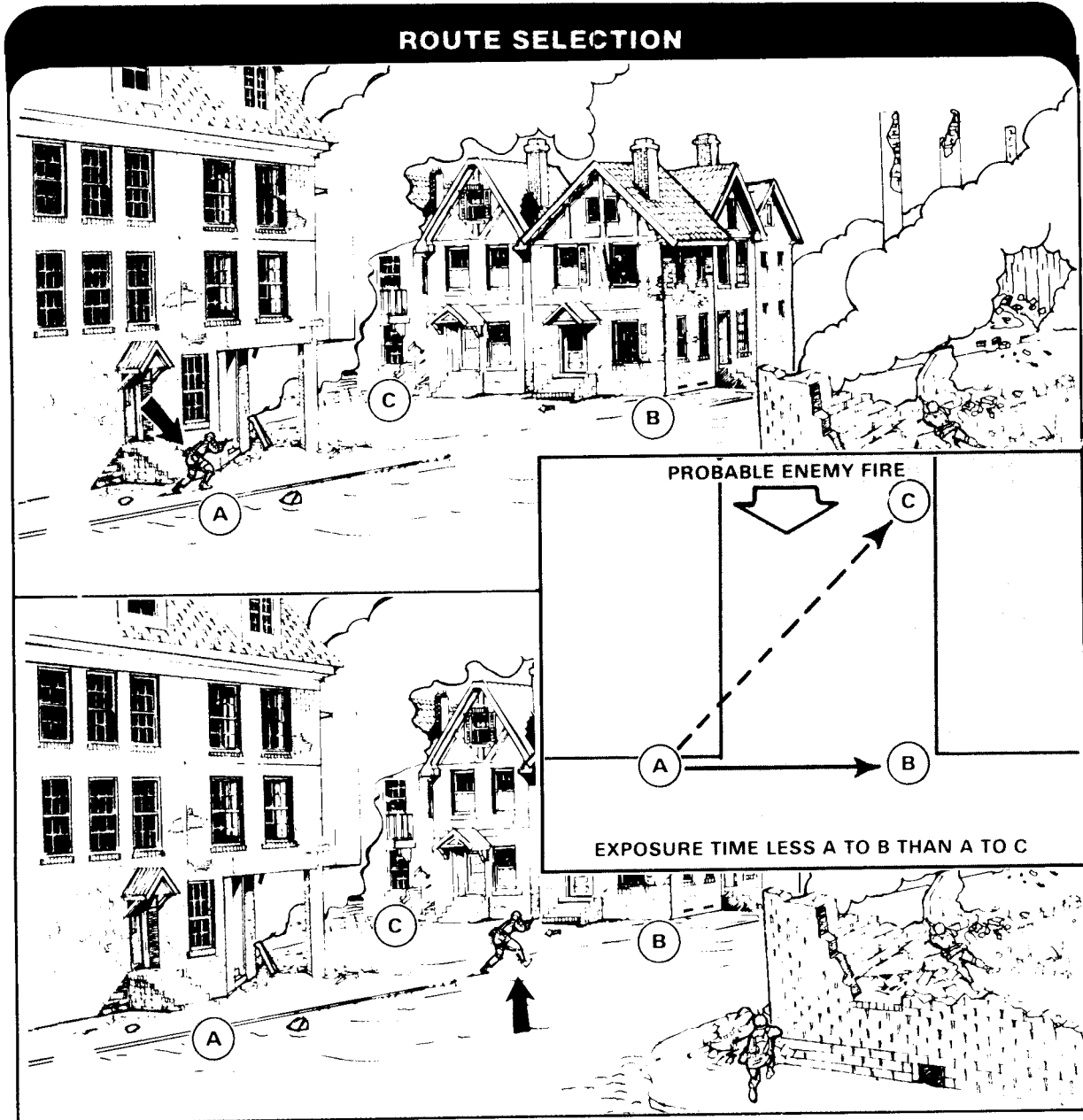
HOW TO CROSS OPEN AREAS

Whenever possible, you should avoid kill zones such as streets, alleys, and parks. They are natural kill zones for enemy machine guns. When you must cross an open area, do it quickly. Use the shortest route across the area. Use smoke to conceal your move and have someone overwatch you.

If you must go from point A to point C, as depicted in the illustration, do not move from point A straight to point C. This is the longest route across the open area and gives the enemy more time to track and hit you.

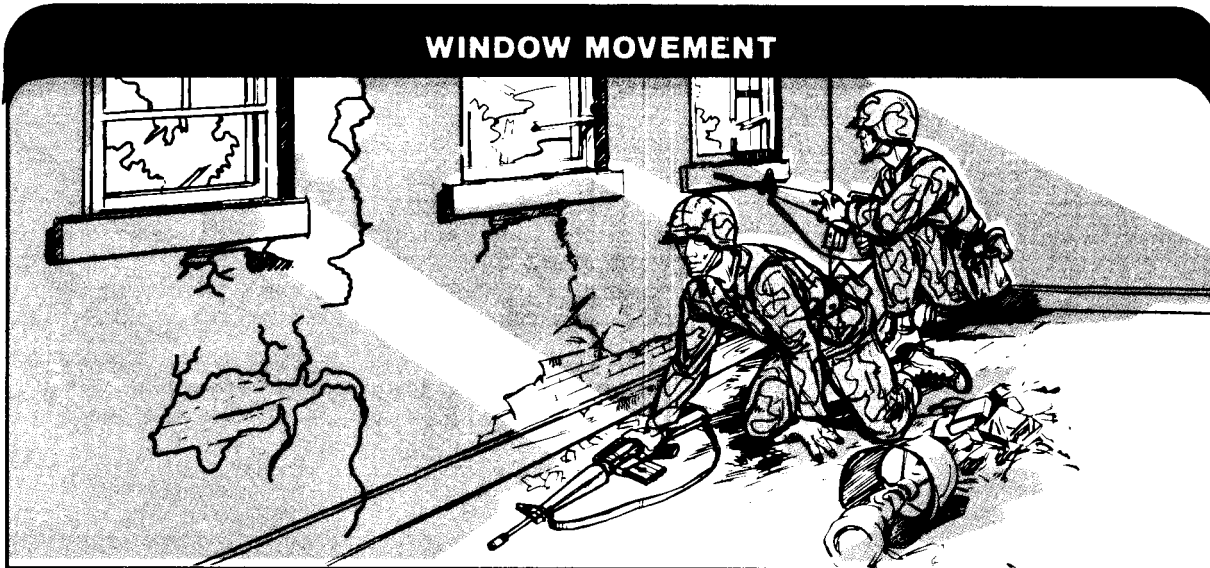
Instead of going from point A straight to point C, select a place (point B) to move to, using the shortest route across the open area.

Once on the other side of the open area, move to point C using the techniques already discussed.

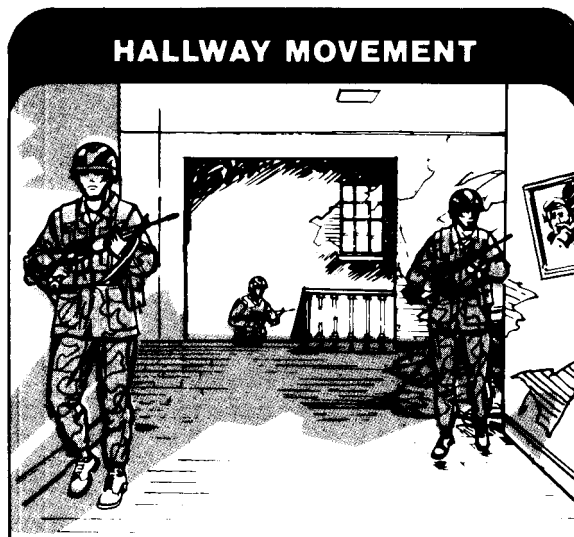


HOW TO MOVE IN A BUILDING

When moving in a building, do not silhouette yourself in doors and windows. Move past them as discussed for outside movement.



If forced to use a hallway, do not present a large target to the enemy. Hug the wall and get out of the hallway quickly.



HOW TO ENTER A BUILDING

When entering a building, take every precaution to get into it with minimum exposure to enemy fire and observation. Some basic rules are:

- Select an entry point before moving.
- Avoid windows and doors.
- Use smoke for concealment.
- Make new entry points by using demolitions or tank rounds.
- Throw a hand grenade through the entry point before entering.

- Quickly follow the explosion of the hand grenade.
- Have your buddy overwatch you as you enter the building.
- Enter at the highest level possible.

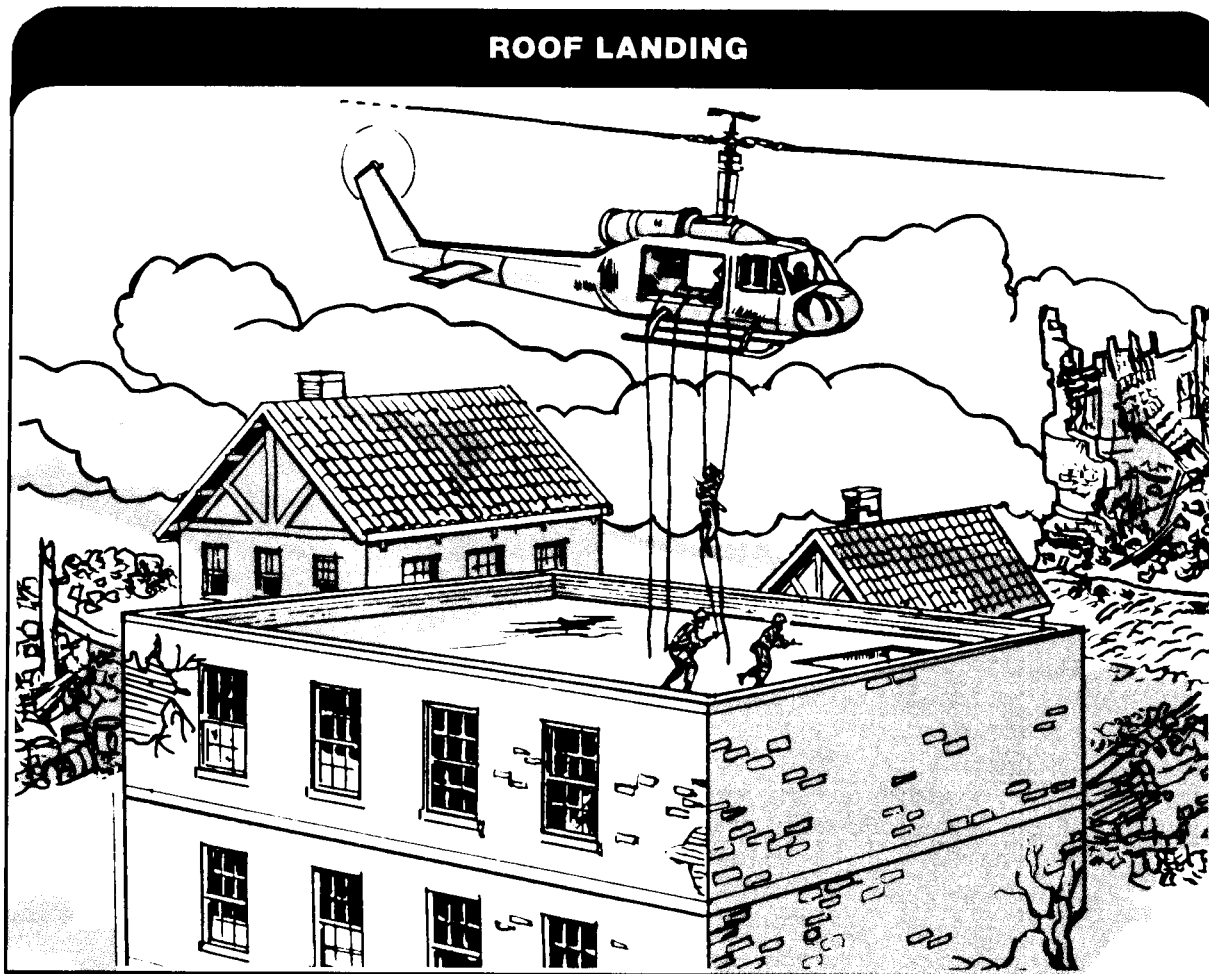
HIGH LEVEL ENTRIES

The preferred way to clear a building is to clear from the top down. That is why you should enter at the highest level possible. If a defending enemy is forced down to the ground level, he may leave the building, thus exposing himself to the fires outside the building.



If the enemy is forced up to the top floor, he may fight even harder than normal or escape over the roofs of other buildings.

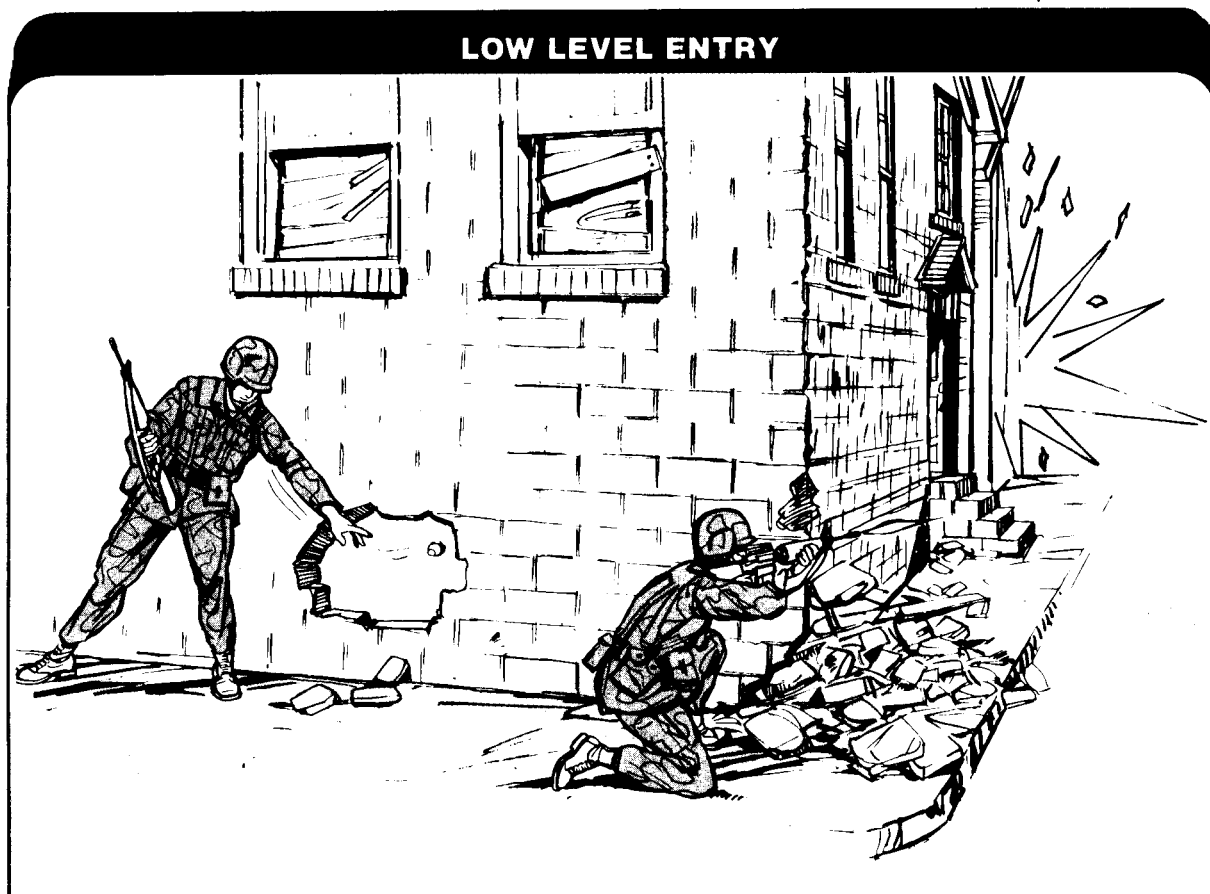
You can use ropes, ladders, drain pipes, vines, helicopters, or the roofs and windows of adjoining buildings to reach the top floor or roof of a building. In some cases, you can climb onto another soldier's shoulders and pull yourself up. You can attach a grappling hook to one end of a rope and throw the hook to the roof, where it can snag something to hold the rope in place.



LOW LEVEL ENTRIES

There will be times when you can't enter from an upper level or the roof. In such cases, entry at the ground floor may be your only way to get into the building. When making low level entries, avoid entries through windows and doors as much as possible. They are often booby trapped and are probably covered by enemy fire.

When making low level entries, use demolitions, artillery, tanks, antitank weapons, or similar means to make an entry point in a wall. Before entering the entry point, throw a cooked-off hand grenade through the entry point to reinforce the effects of the first blast.



HOW TO USE HAND GRENADES

When fighting in built-up areas, use hand grenades to clear rooms, hallways, and buildings. Throw a hand grenade before entering a door, window, room, hall, stairwell, or any other entry point. Before throwing a hand grenade, let it cook off for 2 seconds. That keeps the enemy from throwing it back before it explodes.

To cook off a hand grenade remove your thumb from the safety lever; allow the lever to rotate out and away from the grenade; then count one thousand one, one thousand two, and throw it.

The best way to put a grenade into an upper-story opening is to use a grenade launcher.

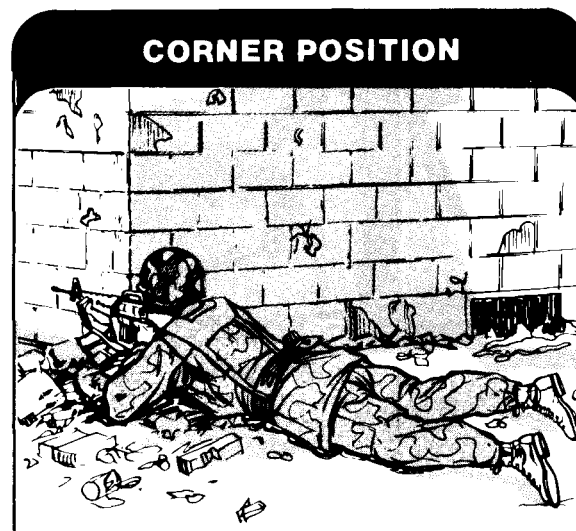
When you throw a hand grenade into an opening, stay close to the building, using it for cover. Before you throw the hand grenade, select a safe place to move to in case the hand grenade does not go into the opening or in case the enemy throws it back. Once you throw the hand grenade, take cover. After the hand grenade explodes, move into the building quickly.

HOW TO USE FIGHTING POSITIONS

Fighting positions in urban areas are different from those in other types of terrain. They are not always prepared as discussed in **chapter 2**. In some cases, you must use hasty fighting positions which are no more than whatever cover is available.

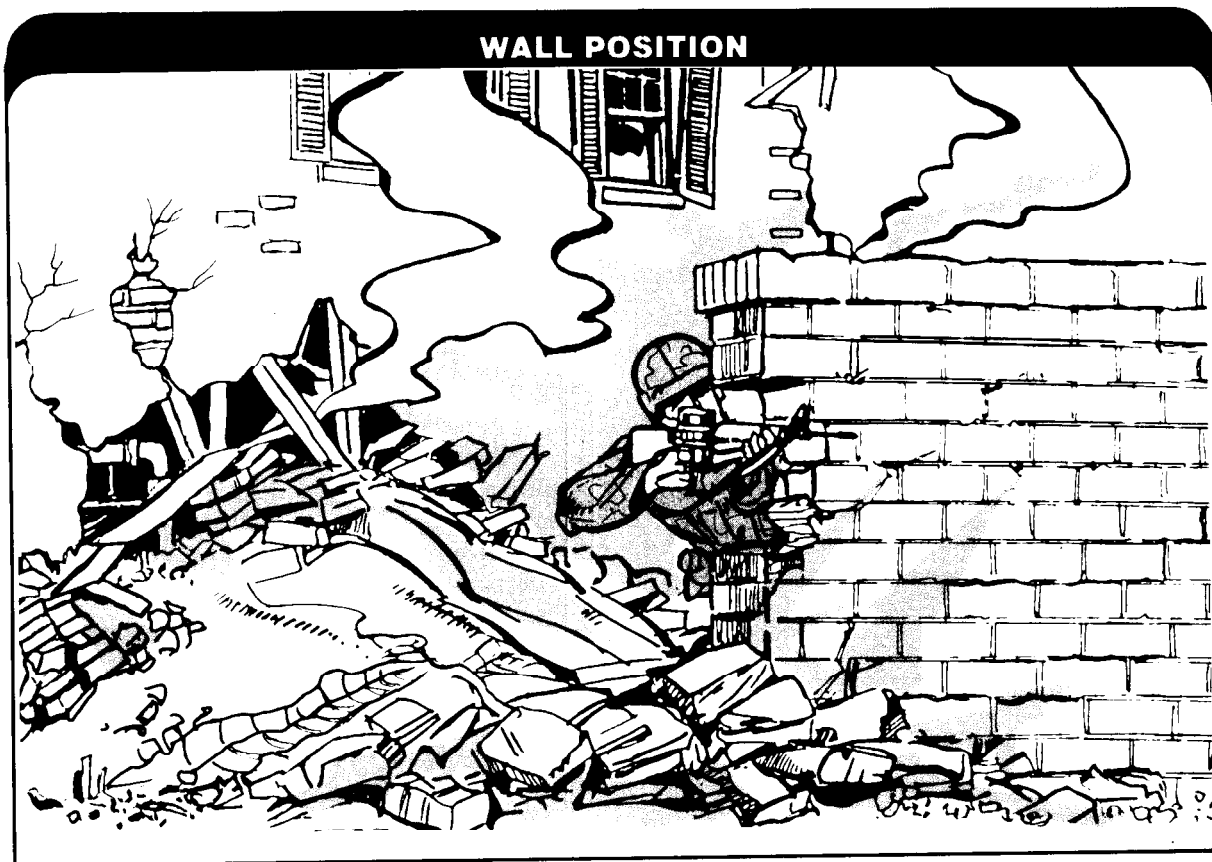
CORNERS OF BUILDINGS

When using a corner of a building as a fighting position, you must be able to fire from either shoulder. Fire from the shoulder that lets you keep your body close to the wall of the building and expose as little of yourself as possible. If possible, fire from the prone position.



WALLS

When firing from behind a wall, fire around it if possible, not over it. Firing around it reduces the chance of being seen by the enemy. Always stay low, close to the wall, and fire from the shoulder that lets you stay behind cover.



WINDOWS

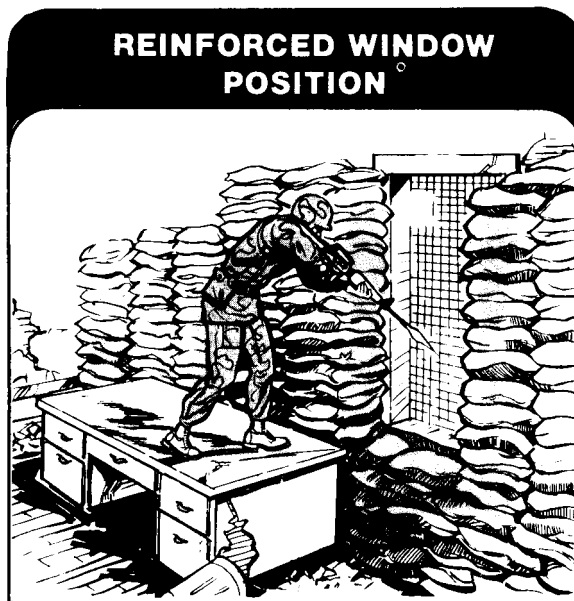
When using a window as a fighting position, do not use a standing position, as it exposes most of your body. Standing may also silhouette you against a light-colored interior wall or a window on the other side of the building. Do not let the muzzle of your rifle extend beyond the window, as that may give away your position. The enemy may see the muzzle or the flash of the rifle.

The best way to fire from a window is to get well back into the room. That prevents the muzzle or flash from being seen. Kneel to reduce exposure.



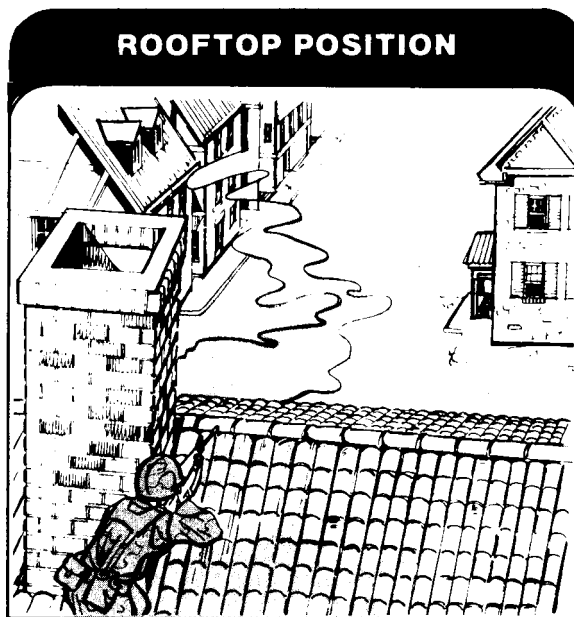
To improve the cover provided by a window, barricade the window but leave a small hole to fire through. Also barricade other windows around your position. That keeps the enemy from knowing which windows are being used for fighting positions. Use boards from the interior walls of the building or any other material to barricade the window. The barricade material should be put on in an irregular pattern so that the enemy cannot determine which window is being used.

Place sandbags below and on the sides of the window to reinforce it and to add cover. Remove all the glass in the window to prevent injury from flying glass.

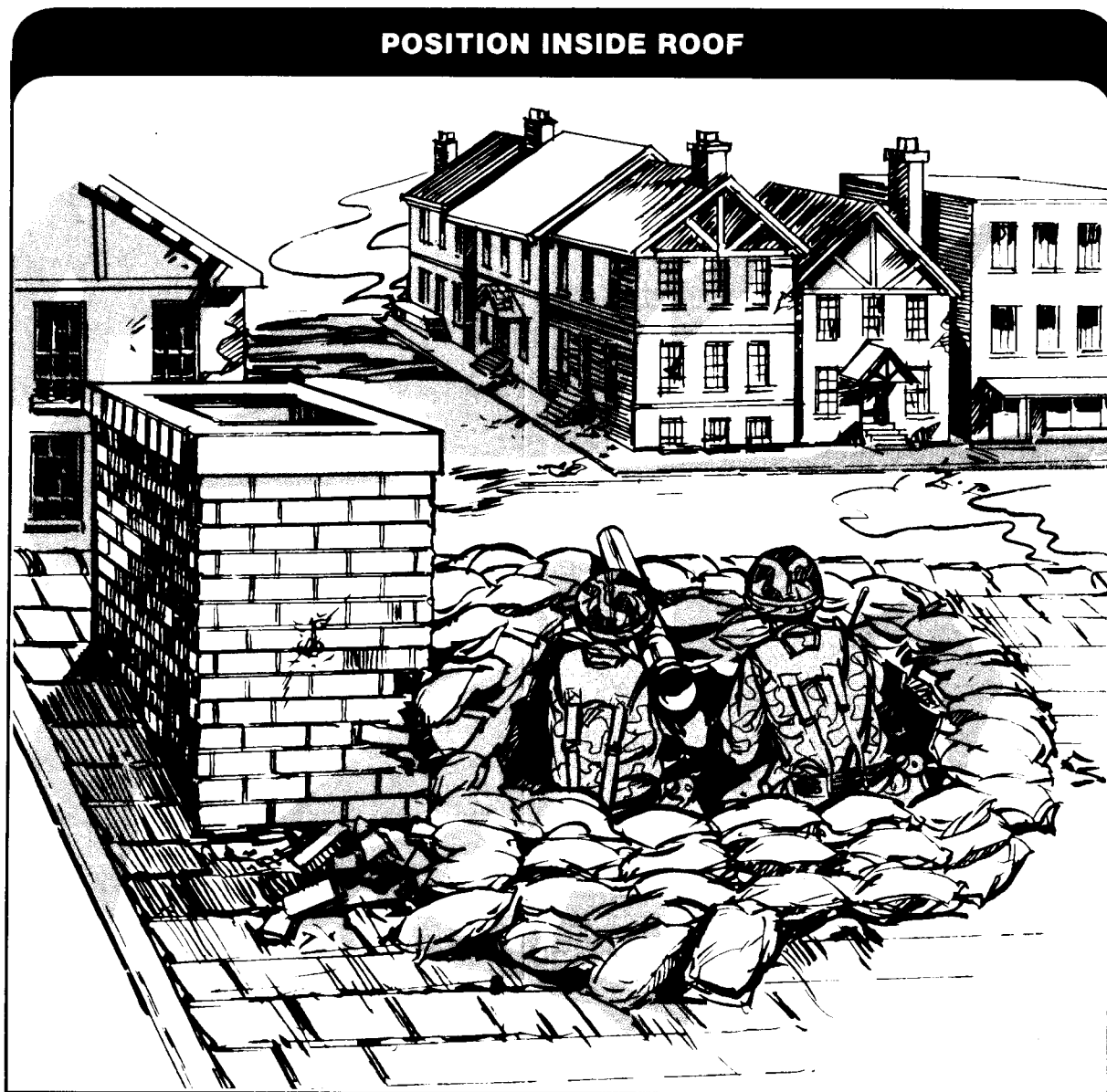


PEAKS OF ROOFS

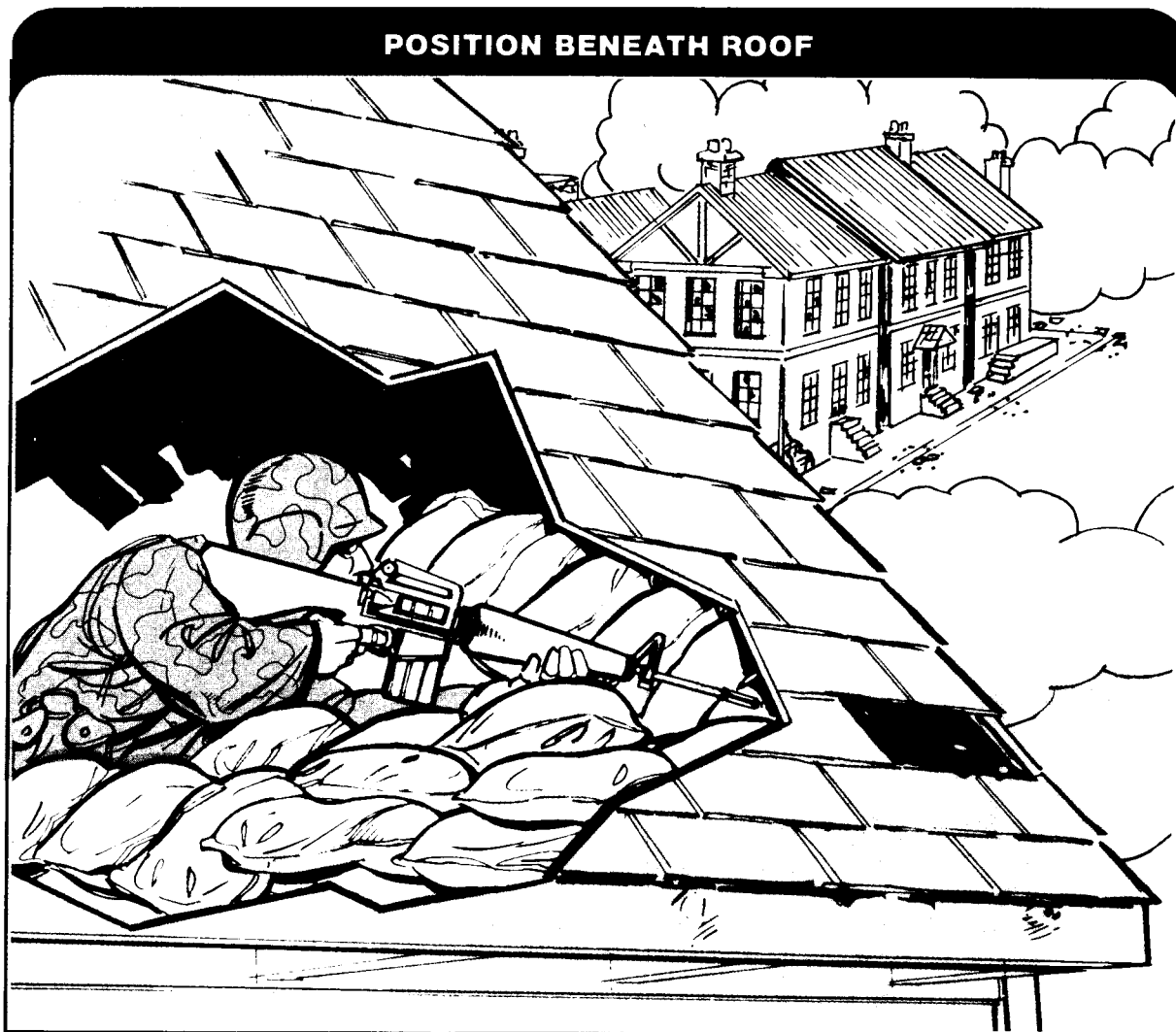
A peak of a roof can provide a vantage point and cover for a fighting position. It is especially good for a sniper position. When firing from a rooftop, stay low and do not silhouette yourself.



A chimney, smokestack, or any other structure extending from a roof can provide a base behind which you can prepare a position. If possible, remove some of the roofing material so that you can stand inside the building on a beam or platform with only your head and shoulders above the roof. Use sandbags to provide extra cover.



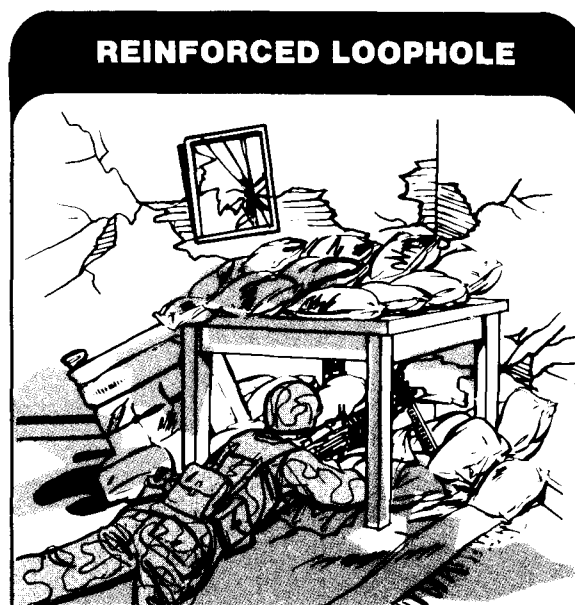
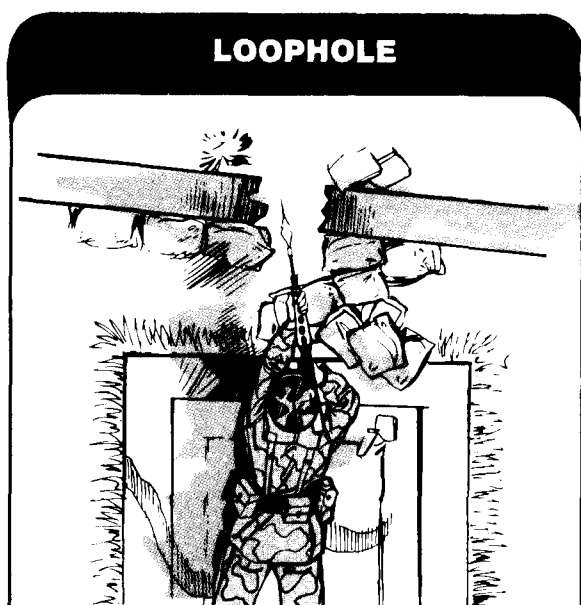
If there are no structures extending from a roof, prepare the position from underneath the roof and on the enemy side. Remove enough of the roofing material to let you see and cover your sector through it. Use sandbags to add cover. Stand back from the opening and do not let the muzzle or flash of your rifle show through the hole. The only thing that should be noticeable to the enemy is the missing roofing material.



LOOPHOLES

A loophole blown or cut in a wall provides cover for a fighting position. Using loopholes reduces the number of windows that have to be used. Cut or blow several loopholes in a wall so the enemy cannot tell which one you are using. When using a loophole, stay back from it. Do not let the muzzle or flash of your rifle show through it.

To reinforce a loophole and add cover, put sandbags around it. If you will be firing from a prone position on the second floor, put sandbags on the floor to lie on. That will protect you from explosions on the first floor. Use a table with sandbags on it or some other sturdy structure to provide overhead cover. That will protect you from falling debris.



APPENDIX E

Tracking

GENERAL

In all operations, you must be alert for signs of enemy activity. Such signs can often alert you to an enemy's presence and give your unit time to prepare for contact. The ability to track an enemy after he has broken contact also helps you regain contact with him.

TRACKER QUALITIES

Visual tracking is following the path of men or animals by the signs they leave, primarily on the ground or vegetation. Scent tracking is following men or animals by their smell.

Tracking is a precise art. You need a lot of practice to achieve and keep a high level of tracking skill. You should be familiar with the general techniques of tracking to enable you to detect the presence of a hidden enemy and to follow him, to find and avoid mines or booby-traps, and to give early warning of ambush.

CONTENTS	
GENERAL	E-1
TRACKER QUALITIES	E-1
FUNDAMENTALS OF TRACKING	E-2
DISPLACEMENT	E-2
STAINING	E-6
WEATHERING	E-7
LITTERING	E-8
CAMOUFLAGE	E-8
INTERPRETATION/IMMEDIATE USE INTELLIGENCE	E-8
TRACKING TEAMS	E-9
TRACKER DOGS	E-10
COUNTERTRACKING	E-10

With common sense and a degree of experience, you can track another person. However, **you must develop the following traits and qualities:**

- **Be patient.**
- **Be able to move slowly and quietly, yet steadily, while detecting and interpreting signs.**
- **Avoid fast movement that may cause you to overlook signs, lose the trail, or blunder into an enemy unit.**
- **Be persistent and have the skill and desire to continue the mission even though signs are scarce or weather or terrain is unfavorable.**
- **Be determined and persistent when trying to find a trail that you have lost.**
- **Be observant and try to see things that are not obvious at first glance.**
- **Use your senses of smell and hearing to supplement your sight.**
- **Develop a feel for things that do not look right. It may help you regain a lost trail or discover additional signs.**
- **Know the enemy, his habits, equipment, and capability.**

FUNDAMENTALS OF TRACKING

When tracking an enemy, you should build a picture of him in your mind. Ask yourself such questions as: How many persons am I following? How well are they trained? How are they equipped? Are they healthy? How is their morale? Do they know they are being followed?

To find the answer to such questions, use all available signs. A sign can be anything that shows you that a certain act took place at a particular place and time. For instance, a footprint tells a tracker that at a certain time a person walked on that spot.

The six fundamentals of tracking are:

- **Displacement.**
- **Staining.**
- **Weathering.**
- **Littering.**
- **Camouflaging.**
- **Interpretation and/or immediate use intelligence.**

Any sign that you find can be identified as one or more of the first five fundamentals. In the sixth fundamental, you combine the first five and use all of them to form a picture of the enemy.

DISPLACEMENT

Displacement takes place when something is moved from its original position. An example is a footprint in soft, moist ground. The foot of the person that left the print displaced the soil, leaving an indentation in the ground. By studying the print, you can determine many facts. For example, a print that was left by a barefoot person or a person with worn or frayed footgear indicates that he may have poor equipment.

HOW TO ANALYZE FOOTPRINTS

Footprints show **the following:**

- **The direction and rate of movement of a party.**

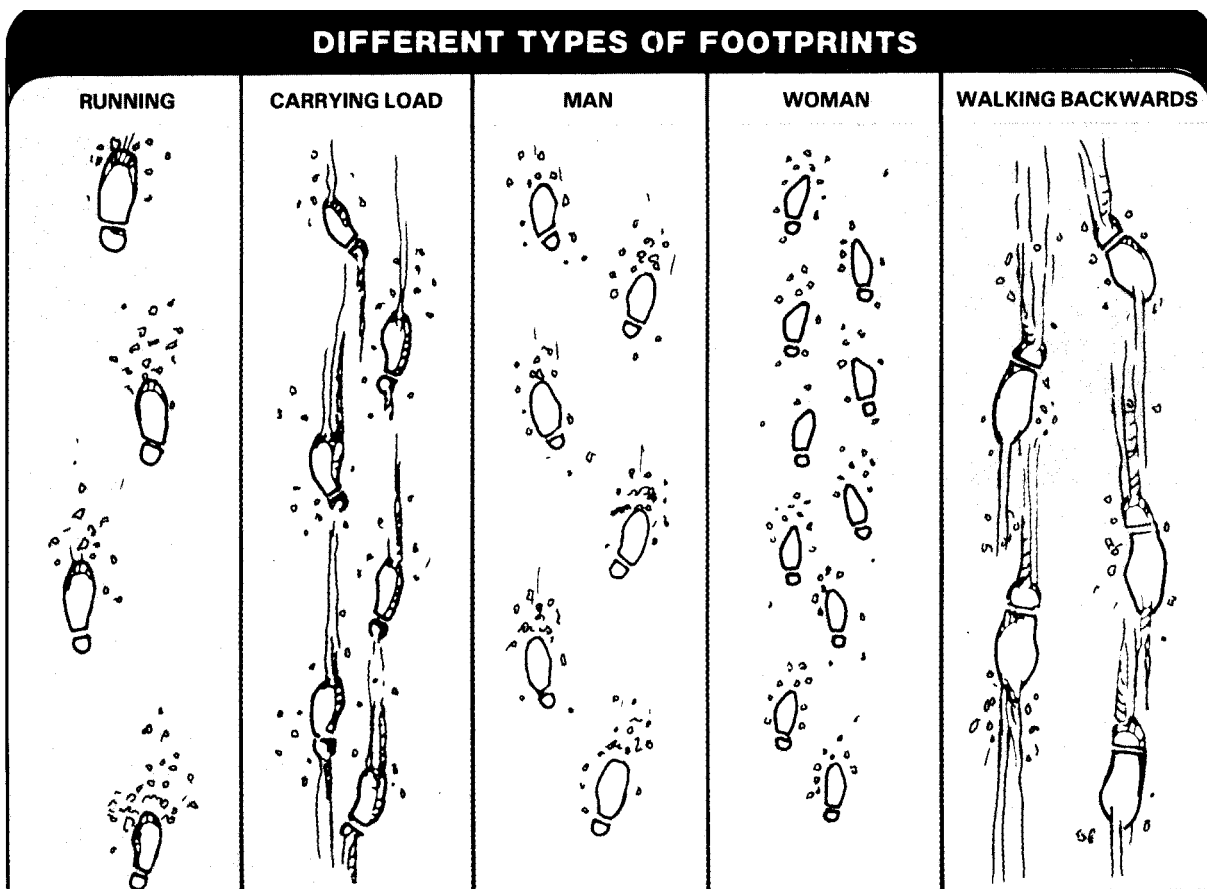
- The number of persons in a party.
- Whether or not heavy loads are carried.
- The sex of the members of a party.
- Whether the members of a party know they are being followed.

If the footprints are deep and the pace is long, the party is moving rapidly. Very long strides and deep prints, with toe prints deeper than heel prints, indicate that the party is running. If the prints are deep, short, and widely spaced, with signs of scuffing or shuffling,

a heavy load is probably being carried by the person who left the prints.

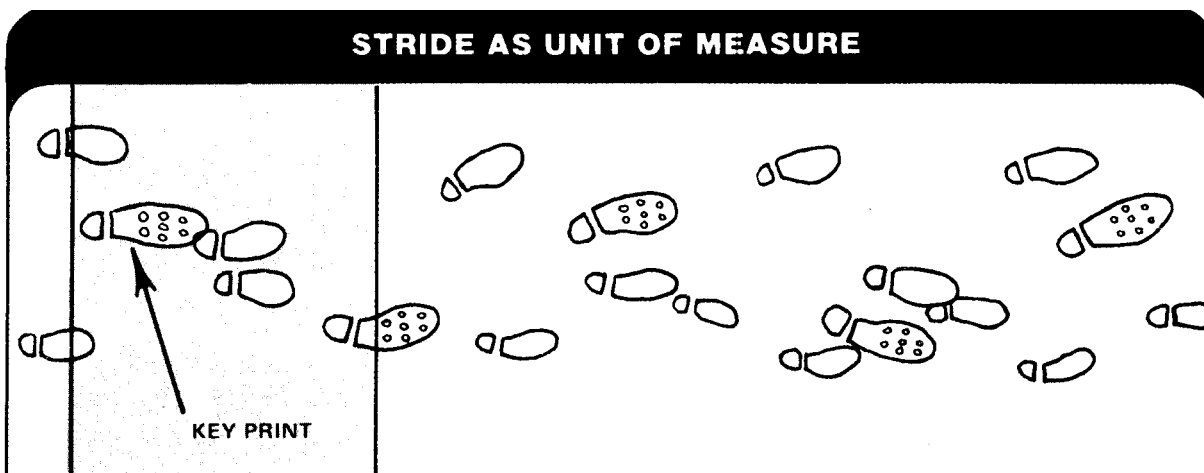
You can also determine a person's sex by studying the size and position of the footprints. Women generally tend to be pigeon-toed, while men usually walk with their feet pointed straight ahead or slightly to the outside. Women's prints are usually smaller than men's, and their strides are usually shorter.

If a party knows that it is being followed, it may attempt to hide its tracks. Persons walking backward have a short, irregular stride. The prints have an unusually deep toe. The soil will be kicked in the direction of movement.



The last person walking in a group usually leaves the clearest footprints. Therefore, use his prints as the key set. Cut a stick the length of each key print and notch the stick to show the print width at the widest part of the sole. Study the angle of the key prints to determine the direction of march. Look for an identifying mark or feature on the prints, such as a worn or frayed part of the footwear. If the trail becomes vague or obliterated, or if the trail being followed merges with another, use the stick to help identify the key prints. That will help you stay on the trail of the group being followed.

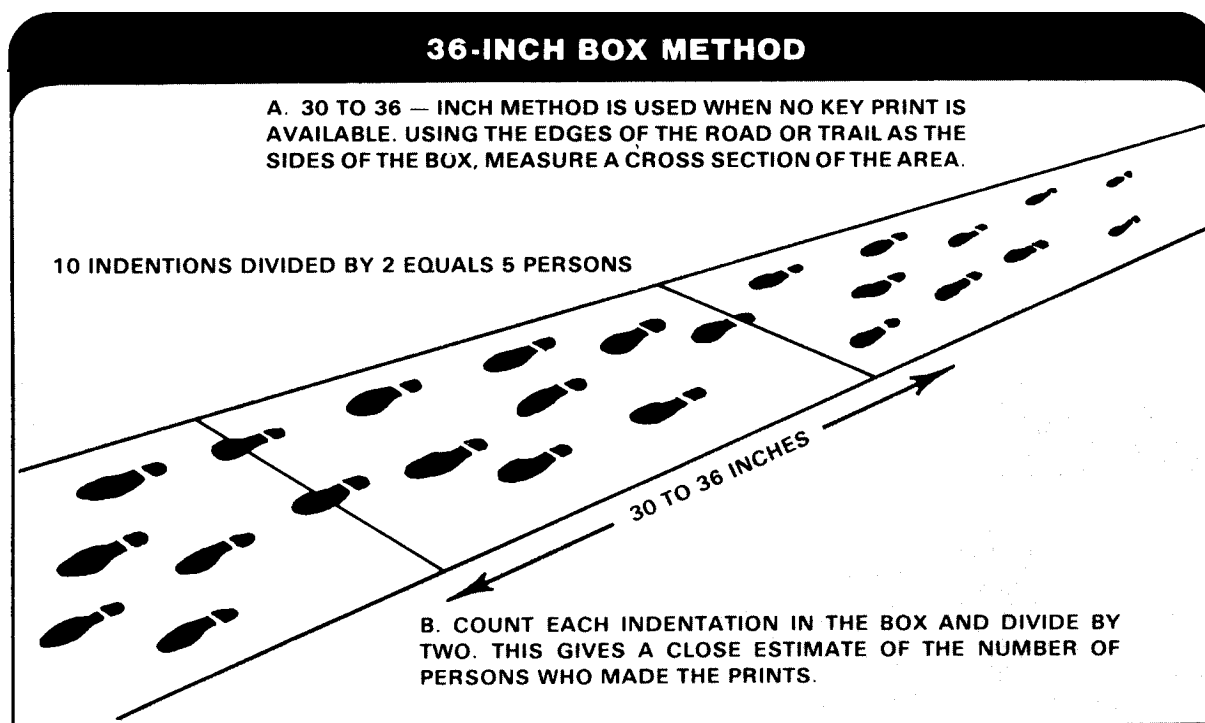
Use the box method to count the number of persons in the group. There are two ways to use the box method — **the stride as a unit of measure method** and **the 36-inch box method**.



The stride as a unit of measure method is the most accurate of the two. Up to 18 persons can be counted using this method. Use it when the key prints can be determined. To use this method, identify a key print on a trail and draw a line from its heel across the trail. Then move forward to the key print of the opposite foot and draw a line through its instep. This should form a box with the edges of the trail forming two sides, and the drawn lines forming the other two sides. Next, count every print or partial print inside the box to determine the

number of persons. Any person walking normally would have stepped in the box at least one time. Count the key prints as one.

To use the 36-inch box method, mark off a 30- to 36-inch cross section of a trail, count the prints in the box, then divide by two to determine the number of persons that used the trail. (Your M16 rifle is 39 inches long and may be used as a measuring device.)



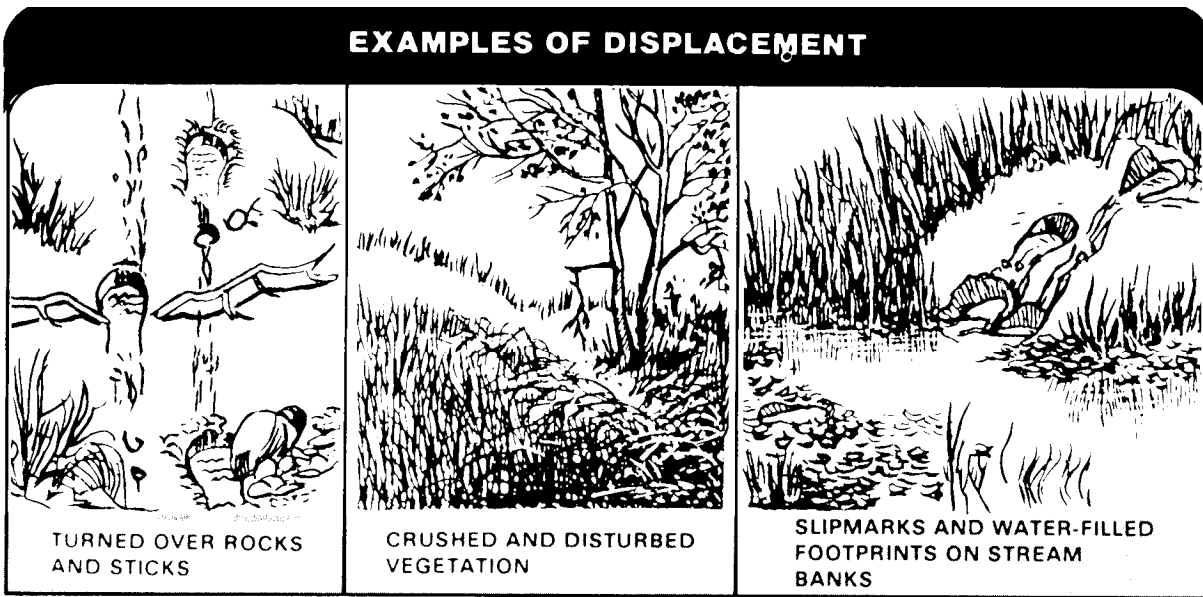
OTHER SIGNS OF DISPLACEMENT

Footprints are only one example of displacement. Displacement occurs when anything is moved from its original position. Other examples are such things as foliage, moss, vines, sticks, or rocks that are moved from their original places; dew droplets brushed from leaves; stones and sticks that are turned over and show a different color underneath; and grass or other vegetation that is bent or broken in the direction of movement.

Bits of cloth may be torn from a uniform and left on thorns, snags, or the ground, and dirt from boots may make marks on the ground.

Another example of displacement is the movement of wild animals and birds that are

flushed from their natural habitats. You may hear the cries of birds that are excited by strange movements. The movement of tall grass or brush on a windless day indicates that something is moving the vegetation from its original position.



When you clear a trail by either breaking or cutting your way through heavy vegetation, you displace the vegetation. Displacement signs can be made while you stop to rest with heavy loads. The prints made by the equipment you carry can help to identify its type. When loads are set down at a rest halt or campsite, grass and twigs may be crushed. A sleeping man may also flatten the vegetation.

In most areas, there will be insects. Any changes in the normal life of these insects may be a sign that someone has recently passed through the area. Bees that are stirred up, and holes that are covered by someone moving over them, or spider webs that are torn down are good clues.

If a person uses a stream to cover his trail, algae and water plants may be displaced in

slippery footing or in places where he walks carelessly. Rocks may be displaced from their original position, or turned over to show a lighter or darker color on their opposite side. A person entering or leaving a stream may create slide marks, wet banks, or footprints, or he may scuff bark off roots or sticks. Normally, a person or animal will seek the path of least resistance. Therefore, when you search a stream for exit signs, look for open places on the banks or other places where it would be easy to leave the stream.

STAINING

A good example of staining is the mark left by blood from a bleeding wound. Bloodstains often will be in the form of drops left by a wounded person. Blood signs are found on the ground and smeared on leaves or twigs.

You can determine the location of a wound on a man being followed by studying the bloodstains. If the blood seems to be dripping steadily, it probably came from a wound on his trunk. A wound in the lungs will deposit bloodstains that are pink, bubbly, frothy. A bloodstain deposited from a head wound will appear heavy, wet, and slimy, like gelatin. Abdominal wounds often mix blood with digestive juices so that the deposit will have an odor. The stains will be light in color.

Staining can also occur when a person walks over grass, stones, and shrubs with muddy boots. Thus, staining and displacement together may give evidence of movement and indicate the direction taken. Crushed leaves may stain rocky ground that is too hard for footprints.

Roots, stones, and vines may be stained by crushed leaves or berries when walked on. Yellow stains in snow may be urine marks left by personnel in the area.

In some cases, it may be hard to determine the difference between staining and displacement. Both terms can be applied to some signs. For example, water that has been muddied may indicate recent movement. The mud has been displaced and it is staining the water. Stones in streams may be stained by mud from boots. Algae can be displaced from stones in streams and can stain other stones or bark.

Water in footprints in swampy ground may be muddy if the tracks are recent. In time, however, the mud will settle and the water will clear. The clarity of the water can be used to estimate the age of the prints. Normally, the mud will clear in 1 hour. That will vary with terrain.

WEATHERING

Weather may either aid or hinder tracking. It affects signs in ways that help determine how old they are, but wind, snow, rain, and sunlight can also obliterate signs completely.

By studying the effects of weather on signs, you can determine the age of the sign. For example, when bloodstains are fresh, they may be bright red. Air and sunlight will change the appearance of blood first to a deep ruby-red color, and then to a dark brown crust when the moisture evaporates. Scuff marks on trees or bushes darken with time. Sap oozes from fresh cuts on trees but it hardens when exposed to the air.

FOOTPRINTS

Footprints are greatly affected by weather. When a foot displaces soft, moist soil to form a print, the moisture holds the edges of the print intact and sharp. As sunlight and air dry the edges of the print, small particles that were held in place by the moisture fall into the print, making the edges appear rounded. Study this process carefully to estimate the age of a print. If particles are just beginning to fall into a print, it is probably fresh. If the edges of the print are dried and crusty, the prints are probably at least an hour old. The effects of weather will vary with the terrain, so this information is furnished as a guide only.

A light rain may round out the edges of a print. Try to remember when the last rain occurred in order to put prints into a proper time frame. A heavy rain may erase all signs.

Wind also affects prints. Besides drying out a print, the wind may blow litter, sticks, or leaves into it. Try to remember the wind activity in order to help determine the age of a print. For example, you may think, "It is calm now, but the wind blew hard an hour ago. These prints have litter blown into them, so they must be over an hour old." You must be sure, however, that the litter was blown into the prints, and was not crushed into them when the prints were made.

Trails leaving streams may appear to be weathered by rain because of water running

into the footprints from wet clothing or equipment. This is particularly true if a party leaves a stream in a file. From this formation, each person drips water into the prints. A wet trail slowly fading into a dry trail indicates that the trail is fresh.

WIND, SOUNDS, AND ODORS

Wind affects sounds and odors. If the wind is blowing from the direction of a trail you are following, sounds and odors are carried to you. If the wind is blowing in the same direction as the trail you are following, you must be cautious as the wind will carry your sounds toward the enemy. To find the wind direction, drop a handful of dry dirt or grass from shoulder height.

To help you decide where a sound is coming from, cup your hands behind your ears and slowly turn. When the sound is loudest, you are probably facing the origin of sound. When moving, try to keep the wind in your face.

SUN

You must also consider the effects of the sun. It is hard to look or aim directly into the sun. If possible, keep the sun at your back.

LITTERING

Poorly trained units may leave trails of litter as they move. Gum or candy wrappers, ration cans, cigarette butts, remains of fires, or human feces are unmistakable signs of recent movement.

Weather affects litter. Rain may flatten or wash litter away, or turn paper into pulp. Winds may blow litter away from its original location. Ration cans exposed to weather will rust. They first rust at the exposed edge where they were opened. Rust then moves in toward the center. Use your memory to determine the age of litter. The last rain or strong wind can be the basis of a time frame.

CAMOUFLAGE

If a party knows that you are tracking it, it will probably use camouflage to conceal its movement and to slow and confuse you. Doing so, however, will slow it down. Walking backward, brushing out trails, and moving over rocky ground or through streams are examples of camouflage that can be used to confuse you.

The party may move on hard surfaced, frequently traveled roads or try to merge with traveling civilians. Examine such routes with extreme care, because a well-defined approach that leads to the enemy will probably be mined, ambushed, or covered by snipers.

The party may try to avoid leaving a trail. Its members may wrap rags around their boots, or wear soft-soled shoes to make the edges of their footprints rounder and less distinct. The party may exit a stream in column or line to reduce the chance of leaving a well-defined exit.

If the party walks backward to leave a confusing trail, the footprints will be deepened at the toe, and the soil will be scuffed or dragged in the direction of movement.

If a trail leads across rocky or hard ground, try to work around that ground to pick up the exit trail. This process works in streams as well. On rocky ground, moss or lichens growing on the stones could be displaced by even the most careful evader. If you lose the trail, return to the last visible sign. From there, head in the direction of the party's movement. Move in ever-widening circles until you find some signs to follow.

INTERPRETATION/IMMEDIATE USE INTELLIGENCE

When reporting, do not report your interpretations as facts. Report that you have seen

signs of certain things, not that those things actually exist.

Report all information quickly. The term "immediate use intelligence" includes information of the enemy that can be put to use at once to gain surprise, to keep the enemy off balance, or to keep him from escaping an area. A commander has many sources of intelligence. He puts the information from those sources together to help determine where an enemy is, what he may be planning, and where he may be going.

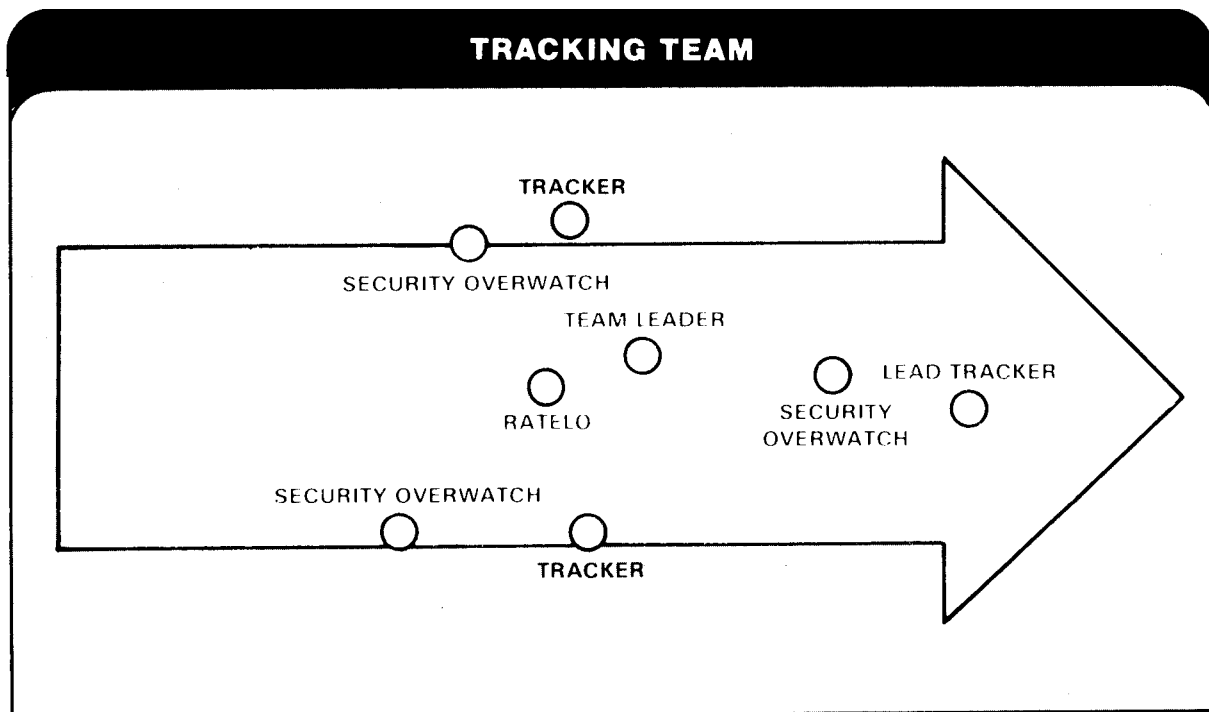
Information you report gives your leader definite information on which he can act at once. For example, you may report that your leader is 30 minutes behind an enemy unit, that the enemy is moving north, and that he is now at a certain place. That gives your leader information on which he can act at once. He could then have you keep on tracking and move another unit to attack the enemy. If a trail is

found that has signs of recent enemy activity, your leader can set up an ambush on it.

TRACKING TEAMS

Your unit may form tracking teams. The lead team of a moving unit can be a tracking team, or a separate unit may be a tracking team. There are many ways to organize such teams, and they can be any size. There should, however, be a leader, one or more trackers, and security for the trackers. A typical organization has three trackers, three security men, and a team leader with a radiotelephone operator (RATELO).

When a team is moving, the best tracker should be in the lead, followed by his security. The two other trackers should be on the flanks, each one followed and overmatched by his security. The leader should be where he can best control the team. The RATELO should be with the leader.



TRACKER DOGS

Tracker dogs may be used to help track an enemy. Tracker dogs are trained and used by their handlers. A dog tracks human scent and the scent of disturbed vegetation caused by man's passing.

Tracker dogs should be used with tracker teams. The team can track visually, and the dog and handler can follow. If the team loses the signs, then the dog can take over. A dog can track faster than a man tracks, and a dog can track at night.

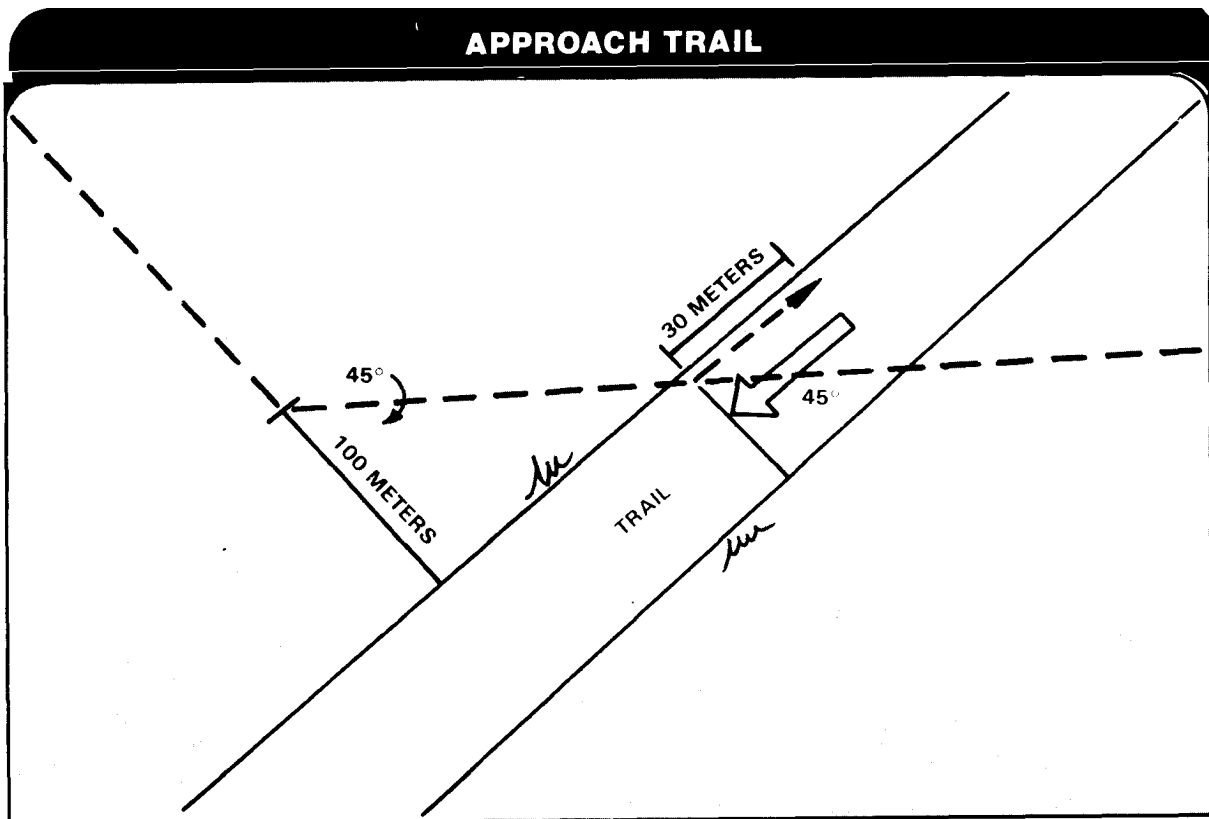
A tracker dog is trained not to bark and give away the team. It is also trained to avoid baits, cover odors, and deodorants used to throw it off the track.

COUNTERTRACKING

In addition to knowing how to track, you must know how to counter an enemy tracker's efforts to track you. Some countertracking techniques are discussed in the **following paragraphs**:

- **While moving from close terrain to open terrain, walk past a big tree (30 cm [12 in] in diameter or larger) toward the open area for three to five paces. Then walk backward to the forward side of the tree and make a 90-degree change of direction, passing the tree on its forward side. Step carefully and leave as little sign as possible. If this is not the direction that you want to go, change direction again about 50 meters away using the same technique. The purpose of this is to draw the enemy tracker into the open area where it is harder for him to track. That also exposes him and causes him to search the wrong area.**
- **When approaching a trail (about 100 meters from it), change your direction of movement and approach it at a**

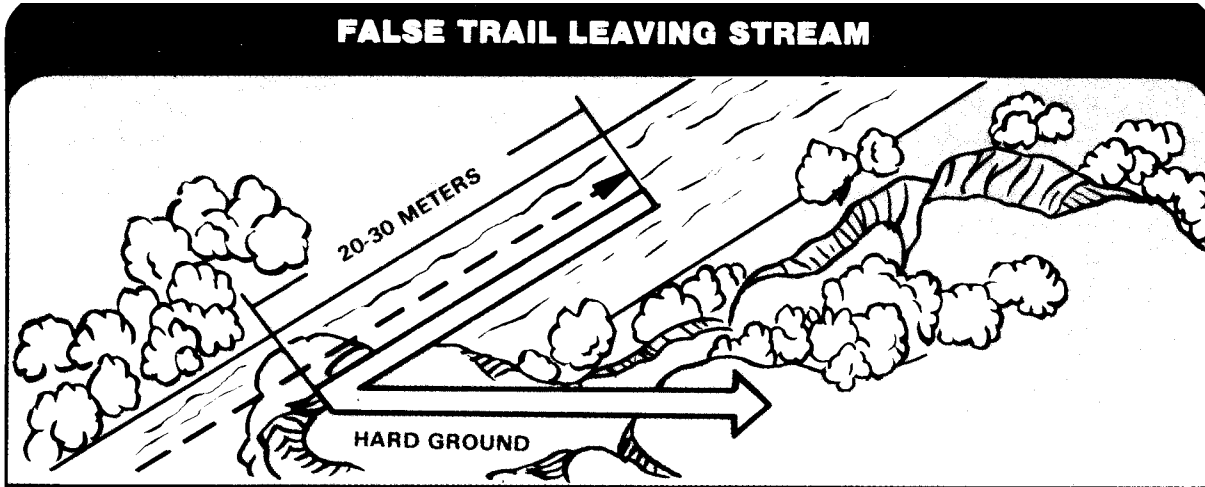
45-degree angle. When arriving at the trail, move along it for about 20 to 30 meters. Leave several signs of your presence. Then walk backward along the trail to the point where you joined it. At that point, cross the trail and leave no sign of your leaving it. Then move about 100 meters at an angle of 45 degrees, but this time on the other side of the trail and in the reverse of your approach. When changing direction back to your original line of march, the big tree technique can be used. The purpose of this technique is to draw the enemy tracker along the easier trail. You have, by changing direction before reaching the trail, indicated that the trail is your new line of march.



E-11

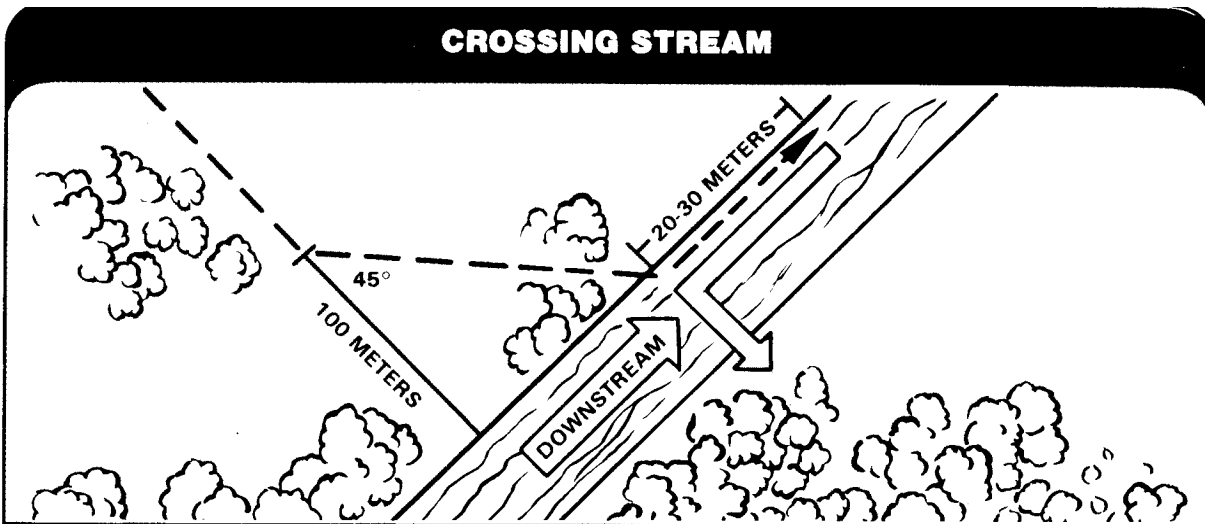
- To leave a false trail and to get an enemy tracker to look in the wrong direction, walk backward over soft ground. Continue this deception for about 20 to 30 meters or until you are

on hard ground. Use this technique when leaving a stream. To further confuse the enemy tracker, use this technique several times before actually leaving the stream.

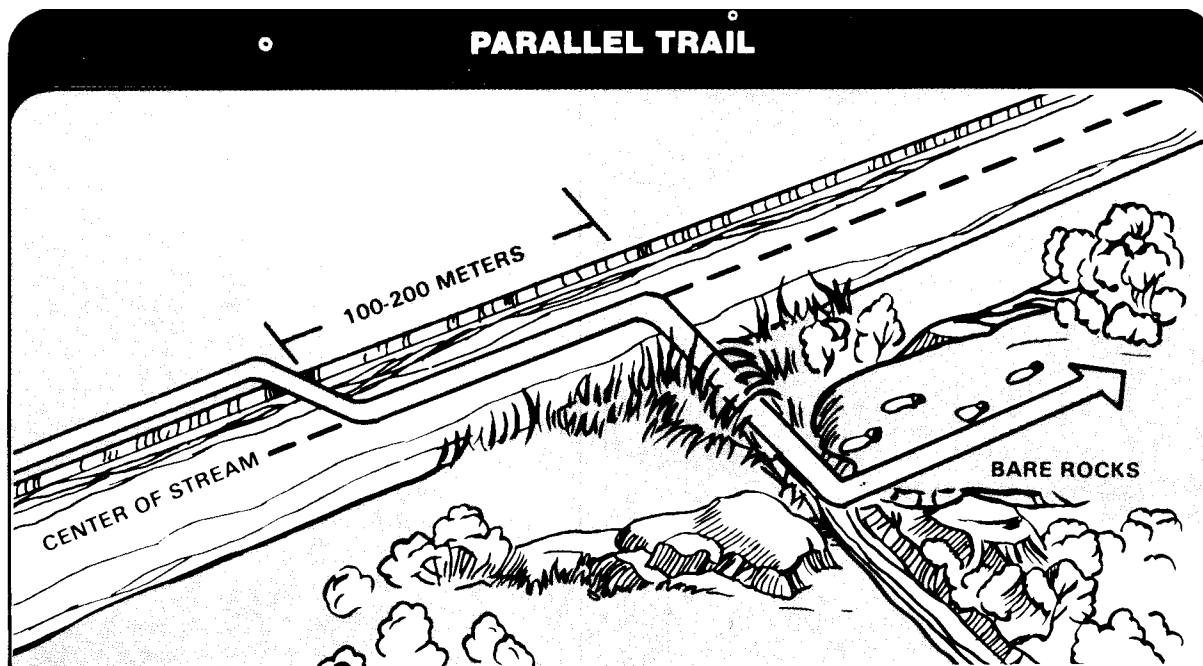


- When moving toward a stream, change direction about 100 meters before reaching the stream and approach it at a 45-degree angle. Enter the stream and proceed down it for at least 20 to 30 meters. Then move back upstream and leave the stream in your

initial direction. Changing direction before entering the stream may confuse the enemy tracker. When he enters the stream, he should follow the false trail until the trail is lost. That will put him well away from you.



- When your direction of movement parallels a stream, use the stream to deceive an enemy tracker. Some tactics that will help elude a tracker are as follows:
 - Stay in the stream for 100 to 200 meters.
 - Stay in the center of the stream and in deep water.
 - Watch for rocks or roots near the banks that are not covered with moss or vegetation and leave the stream at that point.
 - Walk out backward on soft ground.
 - Walk up a small, vegetation-covered tributary and exit from it.
- When being tracked by an enemy tracker, the best bet is to either try to outdistance him or to double back and ambush him.



APPENDIX F

Survival, Evasion, Resistance, And Escape

GENERAL

Continuous operations and fast-moving battles increase your chances of becoming temporarily separated from your unit. Whether you are separated from a small patrol or a large unit, your mission after being separated is to **rejoin your unit**.

This appendix provides techniques to help you find your way back to your unit. For a more detailed discussion, see FM 21-76.

SURVIVAL

Survival is the action of staying alive in the field with limited resources. You must try to survive when you become separated from your unit, are evading the enemy, or during the time you are a prisoner. Survival requires a knowledge of how to live off the land and take care of yourself.

CONTENTS	
GENERAL	F-1
SURVIVAL	F-1
RESISTANCE	F-2
SECURITY	F-4

EVASION

Evasion is the action you take to stay out of the hands of the enemy when separated from your unit and in an enemy area. There are several courses of action you may take to avoid capture and rejoin your unit.

You may stay in your current position and wait for friendly troops to find you. This may be a good course of action if you are sure that friendly units will continue to operate in the area, and if there are a lot of enemy units in this area.

You may break out to a friendly area. This may be a good course of action if you know where a friendly area is, and if the enemy is widely dispersed.

You may move farther into enemy territory to temporarily conduct guerrilla-type operations. This is a short-term course of action to be taken only when other courses of action are not feasible. This may be a good course of action when the enemy area is known to be lightly held, or when there is a good chance of linking up with friendly guerrillas.

You may combine two or more of these. For example, you may stay in your current position until the enemy moves out of the area and then break out to a friendly area.

There may be times when you will have to kill, stun, or capture an enemy soldier without alerting other enemy in the area. At such times, a rifle or pistol makes too much noise, and you will use a silent weapon. Some silent weapons are:

- The bayonet.
- The garotte (a choke wire or cord with handles).
- Improvised clubs.

In day or night, the successful use of silent weapons requires great skill and stealthy movement.

RESISTANCE

The Code of Conduct is an expression of the ideals and principles which traditionally have guided and strengthened American fighting men and the United States. It prescribes the manner in which every soldier of the United States armed forces must conduct himself when captured or when faced with the possibility of capture.

You should never surrender of your own free will. Likewise, a leader should never surrender the soldiers under his command while they still have the means to resist.

If captured, you must continue to resist in every way you can. **Some rules to follow are:**

- **Make every effort to escape and to help others escape.**
- **Do not accept special favors from the enemy.**
- **Do not give your word not to escape.**
- **Do nothing that will harm a fellow prisoner.**
- **Give no information except name, rank, social security number, and date of birth.**
- **Do not answer any questions other than those concerning your name, rank, social security number, and date of birth.**

ESCAPE

Escape is the action you take to get away

from the enemy if you are captured. The best time for you to escape is right after you are captured. You will probably be in your best physical condition at that time. Prison rations are usually barely enough to sustain life, certainly not enough to build up a reserve of energy. The physical treatment, medical care, and rations of prison life quickly cause physical weakness, night blindness, and loss of coordination and reasoning power.

The following are other reasons for **making an early escape**:

- **Friendly fire or air strikes may cause enough confusion and disorder to provide a chance of escape.**
- **The first guards you have probably will not be as well trained in handling prisoners as guards farther back.**
- **Some of the first guards may be walking wounded who are distracted by their own condition.**
- **You know something about the area where you are captured and may know the locations of nearby friendly units.**
- **The way you escape depends on what you can think of to fit the situation.**
- **The only general rules are to escape early and escape when the enemy is distracted.**

Once you have escaped, it may not be easy to contact friendly troops — even when you know where they are. You should contact a friendly unit as you would if you were a member of a lost patrol. You should time your movement so that you pass through enemy units at night and arrive at a friendly unit at dawn. A good way to make contact is to find a ditch or

shallow hole to hide in where you have cover from both friendly and enemy fire. At dawn, you should attract the attention of the friendly unit by waving a white cloth, shouting, showing a panel, or some other way. This should alert the friendly unit and prepare it to accept you. After the unit has been alerted, you should shout who you are, what your situation is, and ask for permission to move toward the unit.

SECURITY

In combat, you must always think of security. You must do everything possible for the security of yourself and your unit.

The following are some basic things to do for security:

- Be awake and alert.
- Stay dressed and ready for action.
- Keep your equipment packed when it is not being used.
- Keep your equipment and weapon in good operating condition.
- Use camouflage.
- Move around only when necessary. Stay as quiet as possible.
- Look and listen for enemy activity in your sector.
- Use lights only when necessary.
- Do not write information about an operation on your map.
- Do not take notes or papers about an operation into combat.
- Do not take personal items into combat.
- Do not leave trash lying about.
- Tie or tape down equipment to keep it from rattling.
- Use challenge and password.
- Do not give military information to strangers.
- Remember the Code of Conduct.