

Chapter 3

Shoot, Move, and Communicate

The ability of an MP unit to shoot, move, and communicate ensures its ability to detect, disrupt, and defend against the enemy and immeasurably adds to its survivability and maneuverability. MP are structured to be strategically, operationally, and tactically agile to respond to the increased range of worldwide MP requirements.

SHOOT

3-1. It is important that MP understand their shooting capabilities and limitations. Just as important is the understanding of firing techniques and associated fire distribution, reacting to air and armor attacks, calling for fire, and obtaining various fire support.

UNDERSTAND FIRE TECHNIQUES

3-2. Fire techniques include fire from or at a moving vehicle, fire distribution and control, and suppressive fire.

Fire From or at a Moving Vehicle

3-3. The key to forward maneuver is firing on the enemy. When maneuvering, the fire element—

- Attempts to destroy or suppress the enemy.
- Covers and protects the maneuver element as it advances.
- Moves, when possible, into its firing position undetected. Fire from an unexpected direction

has a greater effect than fire from a known position.

3-4. Firing on the move is less accurate than firing from a halt. However, to halt and fire takes more time and is more dangerous. A stationary vehicle is more likely to be hit than a moving vehicle. The team leader must decide whether to fire while moving or to fire from a short halt. He bases his decision on sound judgment and evaluation of the threat.

3-5. Crew-served weapons engage all targets on the move with free gunfire. To deliver this type of fire, the gunner removes the traversing and elevating (T&E) mechanism from the bottom of the receiver, allowing the gun to move freely in any direction. Accurate firing with crew-served weapons while moving is affected by—

- The terrain.
- The vehicle's speed.
- The team's proficiency.

3-6. When aiming from a moving vehicle or at a moving vehicle, or both, the gunner must lead the target. The speed of the firing vehicle, the time of flight, and the *angle of engagement* affect the amount of lead required. The time of flight is the required time it takes the projectile to move from the firing vehicle to the target. The angle of engagement is the angle found between the centerline of the vehicle and the gun when laid on the target. When a round is fired from the flank of a moving vehicle, the round drifts in the same direction and at the same speed as the vehicle. The longer the flight time and the larger the engagement angle, the greater the drift. Thus, the gunner must apply more lead to the shot. If a lead is required and the gunner is traversing left to keep on target, the gunner must lead left. If the gunner is traversing right to keep on the target, the gunner must lead right. This is true whether the firing vehicle is moving, the target is moving, or both are moving. *Table 3-1* shows the responsibilities of an MP team when firing on the move.

Table 3-1. Team Responsibilities When Firing While Moving

Position	Actions
Team leader	<ul style="list-style-type: none"> • Directs the driver. • Keeps the gunner oriented. • Senses the impact of the rounds—long, short, left, or right of the target. • Identifies additional targets. • Assists the gunner with reloading, if required. • Observes the surrounding terrain.
Gunner	<ul style="list-style-type: none"> • Develops a <i>feel</i> for the moving vehicle. • Tracks the position of the target with the MK19 grenade machine gun (GMG) despite the movement of the vehicle. • Remains alert to the sounds of the engine and transmission. These sounds indicate the type of terrain over which the vehicle is traveling and helps the gunner anticipate vehicle movements.
Driver	<ul style="list-style-type: none"> • Tries to maintain a steady gun platform while the gunner engages the targets. • Attempts to time the gear and direction changes so they occur immediately after firing and do not interfere with accuracy. • Informs the gunner of obstacles in the vehicle's path that might affect the gun's accuracy. • Announces "depression," "turn," and the like to warn the gunner of vehicle movements. • Announces, "steady" to let the gunner know when the vehicle is once again on a stable platform. The gunner assumes he has a stable platform unless the driver informs him otherwise.

Distribute Fire

3-7. MP leaders must distribute the fires of their organic weapons to destroy or suppress enemy positions. The following are the two methods to distribute fire on a target:

- Point fire. Point fire (*Figure 3-1, page 3-4*) is directed against one target (such as a machine gun position) with all the troops firing at the

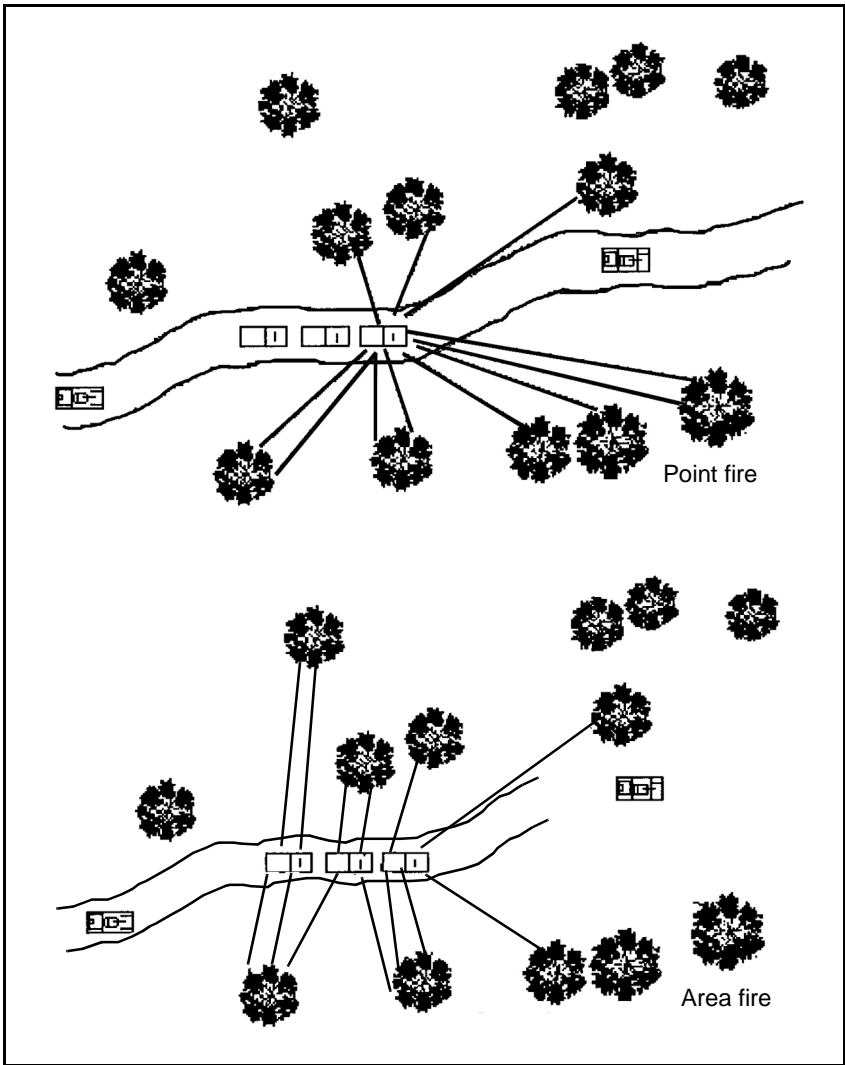


Figure 3-1. Fire Distribution

same target. Spreading out the base-of-fire element makes this type of fire particularly effective because the fire is directed from many sources.

- **Area fire.** Area fire (*Figure 3-1*) permits rapid cover of an entire area with fire from the left to the right and in depth, even if the enemy cannot be seen. This method is used without command and is the quickest and most effective way to bring all parts of a target under fire. Each member in the element is assigned a portion of the target. Fire is placed on likely locations for enemy positions rather than in a general area. If the leader wants fire on a wood line, he may shoot tracers to mark the center of the target. Soldiers to the left of the leader fire to the left of the tracers and soldiers to his right fire to the right of the tracers.

3-8. A rifleman fires his first shot on the part of the target that corresponds to his individual position. If he is left of the leader, he fires to the left of the leader's tracers. He then distributes his remaining shots over the part of the target extending a few meters right and left of his first shot. He covers the part of the target that he can hit without changing position.

3-9. A grenadier fires into the center of the target area of his team. He then distributes his shots over the remaining target area from the center to each side and from front to rear. A machine gunner covers part of the target depending on his position and how much of the target is in range. When possible, he covers the entire target of the team. When placing automatic suppressive fire on the enemy, the tendency is to shoot high. Therefore, he places the first bursts low and works up to the target. The squad leader tells the machine gunners where to shoot by assigning sectors of fire.

3-10. An MK19 gunner engages area targets with traversing and searching fire after the leader designates the width and depth of the target. If one MK19 GMG is being fired, the gunner engages the area target by adjusting his fire on the center of the mass, then

traverses and searches to either flank. When he reaches the flank, he reverses direction and traverses and searches in the opposite direction. If two MK19 GMGs are being fired as a pair, the point of the initial lay and adjustment for both guns is on the midpoint of the target. After adjusting the fire on the center of the mass, fire is distributed by applying direction and elevation changes that give the most effective coverage of the target area. Usually, the right gun (number 1) fires on the right half, and the left gun (number 2) fires on the left half. *Appendix G* describes the MK19 qualification and familiarization tables and provides a sample scorecard.

Control Fire

3-11. Fire control is an essential component of fire distribution. A platoon leader must know what means he will direct the fire element to use when engaging the targets. He will communicate directly or use prearranged signals to identify the location of the target to the other units. He may use sound signals (such as voice, a horn, or a whistle), but must remember that they are only good for short distances and that their reliability and range are reduced by battle noise, weather, terrain, and vegetation. Use a radio to direct the base-of-fire element or adjust fires from reference points or landmarks, because a radio offers immediate voice communication. For example, he may say, "From the burning scout vehicle, northwest 50 meters, machine gun position." If portable radio equipment is not available, he uses prearranged visual signals, such as smoke or flares. A smoke round from a grenade launcher, unless it is being used for some other purpose, and a smoke canister can be used as a signal. Use these items during reduced visibility in addition to aiming stakes, illumination, night-vision devices, infrared chemical lights, and so forth.

Use Fire Commands

3-12. Leaders use fire commands to direct fire. A fire command has the following six parts:

- Alert. The leader alerts the soldiers to receive further instruction. He alerts the soldiers by name or unit designation, some type of visual or sound signal, personal contact, or any other practical way.
- Direction. The leader tells the soldiers the general direction to the target. In some cases, he pinpoints a target. The following are the three ways the leader can give the direction to the target:
 - Points with his armor rifle.
 - Fires tracer ammunition at a target.
 - Uses either target reference points (TRPs) or easily recognized man-made objects or terrain features. He gives the general direction just before giving the reference points.
- Description. The leader describes the target briefly but accurately and always gives the formation of the enemy soldiers.
- Range. The leader tells the soldiers the range to the target in meters.
- Method of fire. The leader tells the soldiers which weapons to fire, the type and amount of ammunition to fire, and the rate of fire.
- Command to fire. The leader tells the soldiers when to fire by using an oral command or visual signal. When he wants to control the exact moment of fire, he says, "At my command" (then pauses until ready to commence firing). When he wants to start firing on completion of the fire command, he just says, "Fire."

Use Subsequent Fire Commands

3-13. These commands adjust or change information given in the initial fire command. Only the elements that change are given.

Terminate Fire

3-14. Fire is terminated by the command or signal for *cease fire, end of mission*.

Suppress Fires

3-15. When the fire element is in position, it lays a heavy volume of fire on the enemy to suppress them. When the leader senses that the enemy is suppressed, he instructs the fire element to reduce its rate of fire as long as it keeps the enemy suppressed. As the movement element nears its objective, the fire element increases the rate of fire to keep the enemy down. This lets the movement element close enough to assault the enemy before the enemy can react. When the assault begins, or on a signal, the fire element stops firing, shifts its fire to another target, or walks its fire across the objective in front of the movement element, and then shifts or ceases fire.

3-16. Positions for fire elements are located so that movement of the maneuver element does not mask their fires. Fire element positions are often higher and usually to the flank of the maneuver element. The maneuver element neither masks the fire of the fire element nor moves outside the protective umbrella provided by the fire. A platoon or squad can point fire at one target or an area of several targets. In both cases, the leader must control the fire. He must ensure that the fire is directed on the enemy, not on the maneuver element.

Use Nonlethal Weapons (NLW)

3-17. The Department of Defense (DOD) defines NLW as weapons that are explicitly designed and primarily employed to incapacitate personnel or material while minimizing fatalities, permanent injury to personnel, and undesired damage to property and the environment. Unlike conventional weapons that destroy the targets principally through blast, penetration, and fragmentation, NLW employ means other than gross physical destruction to prevent the target from functioning.

3-18. NLW doctrine and concepts of operation are designed to reinforce deterrence and expand the range of options available to commanders. They enhance the capability of US forces to accomplish the following objectives:

- Discourage, delay, or prevent hostile actions.
- Limit escalation.
- Take military action in situations where use of lethal force is not the preferred option.
- Protect US forces.
- Disable equipment, facilities, and personnel temporarily.

NOTE: The zero probability of producing fatalities or permanent injuries is not a requirement of NLW. However, while complete avoidance of these effects is not guaranteed or expected, when properly employed, NLW significantly reduce them as compared with physically destroying the same target.

3-19. When drafting the ROE, it must be clearly articulated and understood that the role of NLW is an additional means of employing force for the particular purpose of limiting the probability of death or serious injury to noncombatants or belligerents. However, the use of deadly force must always remain an inherent

right of individuals in instances when they, their fellow soldiers, or personnel in their charge are threatened with death or serious bodily harm. NLW add flexibility to the control of disturbances within the I/R facility and provide an environment where guard forces can permissively engage threatening targets (*Figure 3-2*) with limited risk of noncombatant casualties and collateral damage. Refer to *FM 90-40*.

3-20. The use of lethal force, employed under the standing ROE, will never be denied. At no time will forces be deployed without the ability to defend themselves against a lethal threat, nor will they forego normal training, arming, and equipping for combat. Nonlethal options are a complement to, not a replacement for, lethal force and seek to expand a proactive response across the range of military operations. Refer to *FM 90-40*.

3-21. The decision to use NLW against an adversary during a confrontation is delegated to the lowest possible level, preferably to the platoon or the squad. However, this requires that all personnel, not just the leaders, have a clear understanding of the ROE and the commander's intent. Refer to *FM 90-40*.

3-22. Commanders and public affairs officers must be prepared to address media questions and concerns regarding the use and role of NLW, and they must make it clear that the presence of NLW in no way indicates abandoning the option to employ deadly force in appropriate circumstances.

3-23. Advantages of Employing Nonlethal Weapons. NLW provide the commander with the flexibility to influence the situation favorably with reduced risk of noncombatant fatalities and collateral damage.

NLW	Meters												
	0	5	15	20	25	30	35	50	55	65	95	100	120
Modular crowd control munitions (MCCM)	Lethal zone			X	X	X	X	X	X	X	X	X	X
Stun hand grenade					X	X	X	X	X	X	X	X	X
12-gauge point		Lethal zone		Nonlethal zone			X	X	X	X	X	X	X
12-gauge area							X	X	X	X	X	X	X
40-millimeter point				Nonlethal zone			X	X	X	X	X	X	X
66-millimeter sting ball													X
66-millimeter flash bang													X
66-millimeter CS grenade												X	X

Figure 3-2. Range of Munitions Contained in a Nonlethal Capability Set

3-24. NLW can be more humane, be consistent with the political and social implications implicit in humanitarian missions, be used during peacekeeping missions, and facilitate post-incident stabilization by reducing internee alienation and collateral damage.

3-25. The force that properly employs nonlethal options gains advantages over those who rely on lethal options alone, because the degree of provocation required to employ these options is substantially less. This advantage provides a more proactive posture and quicker response as well as a diminished likelihood of having a situation escalate to a point where deadly force is required to resolve a conflict within the I/R facility.

3-26. NLW options are less likely to provoke others and the use of NLW, in fact, may provoke a negative response. However, demonstrated restraint greatly diminishes feelings of anger and remorse when deadly force is required after nonlethal options fail.

3-27. **Military Police Nonlethal Weapons.** I/R facility commanders consider the use of force options discussed in *Chapter 2* and *AR 190-14* when dealing with disruptions within the compound. Facility commanders are encouraged by *AR 190-14* to substitute nonlethal devices for firearms when it is considered adequate for MP to safely perform their duties. Currently, MP have such nonlethal options as riot-control agents chlorobenzul-malononitrile (CS) and oleoresin capsicum (OC), military working dogs (MWD), an MP club, and a riot baton for crowd control. There are other nonlethal devices currently being tested and fielded that will be available to the I/R commander in the future.

3-28. **Nonlethal Training.** Soldiers and their leaders must be trained in the correct employment of NLW available to them. Soldiers and their leaders must understand the limited use of these systems in environments with restrictive ROE. Their training must

be continuous at all levels to ensure that NLW are properly employed and that the leaders and the soldiers understand when and how to effectively employ them. They must understand that the incorrect application of NLW can have significant operational and political ramifications. Well-trained MP leaders, providing timely and clear guidance to MP soldiers using NLW, will ensure the mission's successful accomplishment.

3-29. Many NLW have both maximum effective and minimum safety ranges. Individuals struck short of the minimum safety range often suffer severe injuries or death while the effects of most nonlethal devices are greatly mitigated at longer ranges. In order to be effective, engage the threat within the *effective* zone, beyond the minimum safety range, and short of the maximum effective range.

3-30. When training with and planning for the use of NLW consider the following:

- Never apply NLW in a situation where deadly force is appropriate.
- Never apply NLW in a situation that will place troops in undue danger.
- Always cover NLW with deadly force.

3-31. **Nonlethal Tactics.** *FM 90-40* provides an in-depth discussion on the tactics associated with the employment of various NLW available to the commander, such as—

- Riot formations. Riot formations establish riot-control teams with a minimum response time. Because of the physical nature of riot control, individuals in riot control formations should not carry long rifles. Nonlethal attachments should follow closely behind the riot control formation. Lethal coverage should be provided for this entire formation. Refer to *FM 90-40*.

- Designated marksman. During a nonlethal engagement, the use of a designated marksman (DM) provides confidence and safety to those facing a riot. If a lethal threat is presented, the DM who is in an overwatch position and armed with a standard infantry rifle, mounted with a high-powered scope, can scan a crowd and identify agitators and riot leaders for apprehension as well as fire lethal rounds if warranted. Additionally, he is ideally suited for flank security and countersniper operations. Refer to *FM 90-40*.

React to An Air Attack

3-32. Passive and active air defense measures are used by MP to protect themselves from enemy air attacks during all missions.

3-33. **Passive Air Defense Measures.** MP employ passive air defense measures that include actions to avoid detection and air attack, and actions to limit damage if they are attacked. MP use active air defense measures to fight back against enemy aircraft. Enemy aircraft will attack and attempt to destroy any target seen. The passive air defense methods that limit enemy detection include—

- Concealment.
- Camouflage.
- Cover.

3-34. Dispersion is another passive air defense method. Its purpose varies from those of concealment, camouflage, and cover. While they are designed to hide MP and their vehicles and equipment from the view of the enemy, dispersion is employed to reduce the effects of an enemy air attack. Dispersion is important when MP are occupying a static position (such as a company TOC or platoon CP) or when they come under air attack. If MP come under air attack, they quickly disperse with

their vehicles, move to a concealed position, if possible, and stop. Stationary vehicles are more difficult for the enemy to detect than moving vehicles.

3-35. Early warning (quick recognition of enemy aircraft) is a passive air defense method that affords MP an opportunity to take cover and one that may lead into active air defense measures. The warning may come through communication channels, OP and listening posts (LPs), or from convoy air guards. A whistle, a voice, a radio, or any other method can provide a warning.

3-36. All OP/LPs watch for enemy aircraft as a standard duty. When air sighting, the first person to see an enemy aircraft shouts, "Aircraft," then, "Front (Right, Left, or Rear)." In a convoy, air guards are given sectors of the sky to observe for enemy aircraft. When an enemy aircraft is spotted, the predetermined alarm (such as a horn or hand signal) is given until all vehicles are aware of the situation.

3-37. When an alarm is given, all dismounted troops take cover at once. They go below ground level, if possible. If the aircraft is not firing, MP withhold their fire to avoid disclosing their position and they allow the aircraft to pass. They stay concealed until the all clear is given. The MP leader initiates a size, activity, location, unit, time, and equipment (SALUTE) report (or refer to the SOP) for the sighting of hostile aircraft.

3-38. **Active Air Defense Measures.** Although passive measures are the first line of defense against air attack, MP must be prepared to engage enemy aircraft. Low-flying hostile aircraft may appear suddenly from behind low hills, trees, or a haze. To gain surprise, they may attack with the sun behind them. Before MP fire at enemy aircraft, they must positively identify the aircraft as hostile. If the aircraft is making a firing run on the patrol, take cover and return fire. However, commanders may restrict active air defense when friendly aircraft are in the area.

3-39. In convoys, drivers alternately pull their vehicles off the road to the right and left, seeking concealment from air observation. Caution must be used if mines are a known threat. If the enemy aircraft is not attacking, the same actions stated earlier are taken. If the aircraft is attacking, MP dismount and seek cover away from the vehicle (the vehicle may be the aircraft's target) and return fire. All personnel remain under cover until the command is given to continue the mission.

3-40. Fire small arms at attacking aircraft during or after the first attack. MP direct fires to saturate the airspace through which the aircraft will fly without trapping the aircraft. For more detailed information refer to *FM 44-8*. When engaging hostile aircraft—

- Fire only on command unless under direct attack (being fired on by aircraft).
- Ensure that the direction of fire does not place rounds on friendly personnel, equipment, or positions.
- Deliver a large volume of fire.
- Lead a slow-moving aircraft and adjust fire by observing the flight of the rounds, especially if tracer rounds become available, using the free-gun technique of fire.
- Aim at the center mass of a grounded or hovering helicopter and a helicopter that is coming directly at your position. Cease-fire when the aircraft passes out of range.

3-41. Slow-moving rotary-winged aircraft that are on the ground, hovering, taking off, or landing are most successfully engaged by the MK19. The MK19 GMG's 40-millimeter ammunition is fired at a relatively slow speed and has a high trajectory at a long distance. The MK19 GMG rounds that do not hit the aircraft will detonate on impact with the ground. The location of friendly elements within range of the weapon must be

considered at all times. *Figure 3-3* depicts the rules for selecting aiming points of various aircraft.

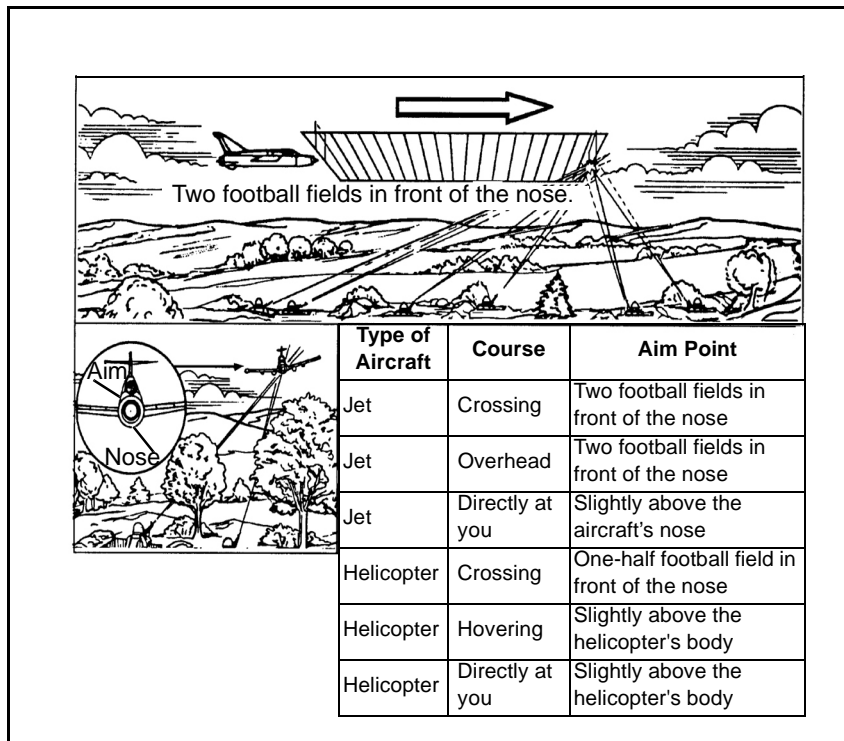


Figure 3-3. Rules for Selecting the Aim Point

REACT TO ARMOR

3-42. MP maneuver and operate in much of the battle space and can expect to encounter pockets of by-passed enemy armor within the rear area. MP engage enemy armor targets only for self-defense or when total surprise can be achieved. MP place antiarmor weapons on avenues of approach to defend against enemy armor. After initial contact, MP relocate immediately to avoid the fast-moving enemy armor and its firepower.

3-43. The (M136) antitank (AT) 4 provides antiarmor capability for MP teams. The AT4 is primarily employed against light armored vehicles, such as personnel carriers. It has a very limited capability against main battle tanks. The AT4 is issued as ammunition rather than as an individual weapon. It is carried and employed in addition to the basic weapon of MP.

3-44. The most stable firing positions for the AT4 are standing supported, prone, and prone supported. Whenever possible, use a supported position which provides more stability and aids in aiming.

Engage Armored Vehicles

3-45. The four methods to engage armored vehicles with the AT4 are—

- Single firing.
- Sequence firing.
- Pair firing.
- Volley firing.

3-46. Refer to *Table 3-2* for a description of the four methods. The best methods of engaging armored vehicles are pair and volley. Regardless of the method used, the closer the target, the better the chance for a first-round hit. Aim for the center mass of the target. The most vulnerable spots of armored vehicles are the top and the rear. The sides of the armored vehicles can also be penetrated.

3-47. An armored vehicle without the protection of dismounted infantry is vulnerable to a close attack by well-armed dismounted units. When an armored vehicle is buttoned up, visibility of the crew is restricted. This provides an opportunity for an armor-killer team to approach the vehicle with less risk of detection. The types of vehicles and the methods to engage enemy armored vehicles are—

- **Stationary targets.** Place the center post at the center of the visible mass for stationary targets. The firer does the same for vehicles that are moving toward or away from him.
- **Slow-moving targets.** Place the center post on the front leading edge of the vehicle (less than 10 miles per hour [mph]). This method is also applied to oblique moving targets.
- **Fast-moving targets.** These targets are moving more than 10 mph. If the target is moving to the left, place the right lead post at the center of the mass. If the target is moving toward the right, place the left lead post at the center of the mass.

Table 3-2. Methods of Engagement with the Light Antiarmor Weapon (LAW)/AT4

Method	Gunners	Firing Sequence	Probability of a Hit
Single firing	One	One gunner fires one AT4 at the target.	Low. Use only at ranges up to 200 meters for AT4s. Regardless of the method used, the closer the target the better the chances of a hit.
Sequence firing	One	One gunner fires two or more AT4s in turn. He prepares several weapons for firing before engaging the target. He gets the weapon, estimates the sight picture, and shoots the weapon in turn.	Good. If the first round misses, the gunner adjusts the range and the lead of the succeeding rounds until he gets a hit and fires until the target is destroyed.
Pair firing	Two or more	Each gunner fires one or more AT4s at a target, one at a time. They prepare several weapons for	Better. Two or more gunners track the target at one time, letting them get a target hit sooner. They can be ready to shoot as soon as an earlier

Table 3-2. Methods of Engagement with LAW/AT4 (Continued)

Method	Gunners	Firing Sequence	Probability of a Hit
		firing before engaging the target.	round hits. The first gunner sees a target, identifies it, and states the estimated range and lead to use. For example, the gunner, on spotting a fast-moving scout reconnaissance vehicle, says, "BMP 150 meters; fast target." He then fires at the target. If the first gunner misses, the second gunner gives a revised range and lead. This continues until one gets a hit. Once the correct range or lead has been found, all the gunners fire until the target is destroyed.
Volley firing	Two or more	Each gunner fires one or more AT4s on command or on signal until the target is destroyed. They prepare several weapons for firing before engaging the target.	This is the best method of engagement for an AT4 because the gunners shoot more rounds at a target at one time. This method is used only when the range and lead to the target have been determined. Range can be determined by using the map, pacing, or the results of pair firing after a target has been hit.

Estimate the Range of the Targets

3-48. A gunner has a better chance of hitting a target with the AT4 if he knows the range to the target. Determining the range is a learned skill and must be mastered by anyone who fires the AT4. Methods of range determination include—

- Using range finders.
- Measuring the distance on a map.

- Pacing.
- Firing the pair and sequence method.
- Using visual range estimation.

3-49. Visual range estimation is the least desirable method of range determination because of its inaccuracy. However, in the offense or in a hasty defense, it may be the only method available.

Disable Armored Vehicles

3-50. Armored vehicles are hard to destroy when firing at their front. Use the following three ways to disable them:

- **Mobility kill.** In this disabling method, the vehicle has stopped moving because a track or road wheel has been destroyed, or the vehicle has been hit in the engine compartment. The vehicle can no longer move but can return fire.
- **Firepower kill.** When a firepower kill has occurred, the main gun cannot return fire because of a hit in the turret, knocking out its capability to fire. The vehicle can still move, thus enabling it to get away.
- **Catastrophic kill.** In this kill, the vehicle is destroyed. To obtain a catastrophic kill, firers prepare to fire a second or third shot to destroy the vehicle.

CALL FOR FIRE

3-51. A call for fire is used to obtain fire support from other units. Fire support may be needed in the rear area if the enemy endangers key units or facilities. Fire support may come from mortars, artillery, Army aviation, and US Air Force aircraft. Before a mission, the commander will outline the TRPs and the priority of fires in the OPORD that will affect the call for fire

response time. All MP must know how to call for and adjust fire. To call for fire the—

- Leader tells the RTO that a target has been seen.
- RTO initiates the call for fire while the target location is being determined.
- RTO sends the information as it is determined instead of waiting until a complete call for fire has been prepared.

3-52. MP may either go directly to the fire direction center (FDC) of the firing unit for artillery fire support or relay communications to MP leaders, the rear area CP fire support element, or when so directed, a TCF.

Use an Initial Call for Fire

3-53. Artillery fire support can provide the rear area with on-order fires to assist in countering threat incursions. A standard call-for-fire message is used to obtain artillery or other fire support. Regardless of the method of the target location used, the call for fire consists of six elements transmitted in three parts. There is a break and a read back after each part.

3-54. **First Transmission.** Send elements one and two during the first transmission.

- Element 1 includes the identification of the observer. This element tells the FDC who is calling and clears the net for the remainder of the call.
- Element 2 includes the WO. The type of fire support mission and the method of locating the target are identified in this element. See *Table 3-3* for the types of fire missions.

3-55. **Second Transmission.** Element 3 is sent during this transmission and includes the target's location. A target location may be provided by the grid coordinate

Table 3-3. Types of Artillery-Fire Missions

Mission	Description
Adjust fire	This mission is used when the observer is uncertain of the exact location of the target. The observer says, "Adjust fire."
Fire for effect	The observer uses this mission when he is certain of the location of the target. He is requesting a first-round fire for effect in this mission to validate the desired effect on the target with little or no adjustment. The observer says, "Fire for effect."
Suppress	This mission is used to quickly bring fire only on a preplanned target. A target description is not provided when requesting this mission. It is a simplified call for fire and is sent in one transmission. An example of what an observer may say is, "P25—this is P59—suppress AB2502—over."
Immediately suppress	This mission is similar to that of suppression. The difference is a planned target or a target of opportunity is firing at friendly soldiers or aircraft in this mission. The observer may say, "P25—this is P59—immediate suppression AB2503—over."

(normally six digits), a polar plot, or a shift from a known position method.

3-56. Third Transmission. Send elements 4, 5, and 6 during this transmission.

- Element 4 includes the target's description. A brief description of the target is given to the FDC using size, nature, activity, protection (SNAP). SNAP represents the size or shape, the nature or nomenclature, the activity, and the protection or posture of the target.
- Element 5 includes the method of engagement. This element consists of the type of adjustments, danger close, trajectory, ammunition, and distribution. The observer specifies how he wants to attack the target.

- Element 6 includes the methods of fire and control. The observer states who will give the command for fire to begin. If the observer wishes to control the time of firing, he will say, "At my command." If the observer does not say this, the FDC will fire as soon as the element is ready.

3-57. At a minimum, a call for fire must include the first four elements. Untrained observers need to send only the first four elements, and the FDC will decide the methods of engagement, fire, and control. Every MP must know that in order to put indirect fire on a target, the following information must be given to the FDC:

- Who he is.
- Where and what the target is.
- How close the target is to friendly troops.
- Where the target is in relation to his or other known positions.
- The direction from himself to the target. Determine the direction during—
 - Daylight with the mini-eye safe-laser infrared observation set (MELIOS), AN/PVS-6. The lightweight laser rangefinder is capable of determining ranges 50 through 9,995 meters. Refer to *TM 11-5860-202-10*.
 - Hours of darkness with the infrared (IR) illuminator, AN/PEQ-2A. The AN/PEQ-2A is for use with night vision devices (NVD) and can be used as either a handheld illuminator or pointer or can be weapon-mounted. In the weapon-mounted mode, the AN/PEQ-2A can be used to accurately direct fire as well as illuminate and designate targets. This item is fully waterproof and can be taken down to extended depths without risk of leakage.

3-58. Determining the direction to a target is an essential skill for the observer. Direction is an integral part of terrain map association, adjustment of fire, and

target location. Use the following paragraphs to manually determine the direction to a target.

- Use a compass. Using an M2 or lensatic compass, the forward observer (FO) can measure the direction. The FO will add or subtract the grid of magnetic (GM) angle to determine the grid direction to send to the FDC.
- Scale from a map. Using a protractor or an observed fire (OF) fan, the FO can scale the direction from a map to an accuracy of 10 mils.
- Measure from a reference point. Using a reference point with a known distance, the FO can measure the angle between the reference point and the target and add or subtract the measured angle to or from the known direction to determine the direction to the target. The angle between the reference point and the target can be measured with binoculars or with the hand measurement technique depicted in *Figure 3-4*.
- Estimate. With a thorough terrain-map analysis, the FO can estimate the direction by visualizing the 8-cardinal directions (north [N], northeast [NE], east [E], southeast [SE], south [S], southwest [SW], west [W], and northwest [NW]).

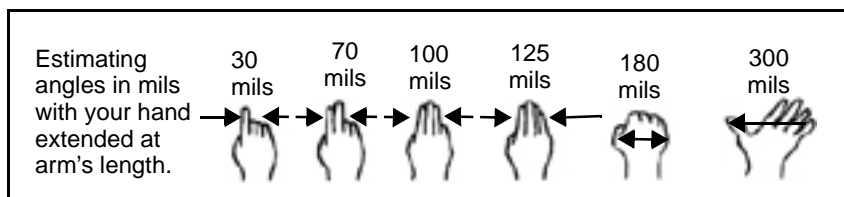


Figure 3-4. Determine the Direction to a Target

NOTE: The observer tries to be as accurate as possible, and the use of mils is preferred. All measured directions sent to the FDC will be rounded to the nearest 10 mils.

Identify the Elements of a Call for Fire

3-59. FDC personnel will help in the call for fire and subsequent adjustments by asking leading questions to obtain the information needed. Refer to *FM 6-30* for call for fire. The elements of a call for fire include the following:

- Observer identification. The observer identification tells who you are. Use the call signs from the signal operating instructions (SOI).
- Warning order. The WO alerts the firing units of the—
 - Type of mission. This includes adjusting fire, firing for effect, suppressing fire, and immediately suppressing fire.
 - Size of element to fire. Omission indicates a request for one field artillery (FA) battery. If the fire mission requires an element larger than a FA battery, state the size needed, such as 2 FA batteries (battalions).
 - Method of the target's location. The grid has no announcement. Announce the word "polar" for the polar plot. Shift from a known point by announcing the word "shift" followed immediately by the designation (target number) of the known point.
- Target location. The target location enables the FDC to plot the target.
 - Grid: Two-character, 6-digit grid, such as NA123456.
 - Polar: Direction (grid azimuth) and distance (meters) to the target from the observer's position. Give the difference in elevation if there is a vertical shift of over 35 meters between the observer and the target.
 - Shift from a known point or the direction to the target (grid azimuth). The three types of shifts are the lateral shift (left or right) in

meters, the flange shift (add or drop) in meters, and the vertical shift (up or down) over 35 meters from the known point and target.

- Target description. The target description helps the FDC to select the type and the amount of ammunition. A word picture of the target (for example, the number and type of vehicles or personnel observed).
- Method of engagement. The method of engagement tells the FDC how to attack the target, which includes the following:
 - Type of engagement. Area fire is standard without a request. Request precision fire only to destroy a point target.
 - Trajectory. A low-angle trajectory is standard without a request. An high-angle trajectory is at the request of the observer or when required due to masking terrain.
 - Danger close. Danger close is announced when applicable.
 - Ammunition. Ammunition is the type of projectile, the type of fuse action, and the volume of fire desired in the fire-for-effect phase stated in rounds per howitzer.
 - Distribution. Distribution is the type of sheaf desired and parallel is standard without request.
- Method of fire and control. The method of fire and control tells the FDC how you want to control the delivery and adjustment of the fire.
 - Method of fire. In area fire, the adjustment normally is conducted with one howitzer or with the center gun of a mortar platoon or section. If for any reason the observer

determines that *platoon right (left)* will be more appropriate, he may request it. Adjusting at extreme distances may be easier with two guns firing. The normal interval of time between rounds fired by a platoon or battery right (left) is 5 seconds. If the observer wants some other interval, he may so specify.

- Method of control. Use the following methods of control: *Fire when ready* is standard and no request is required; use *at my command* when weapons fire at the observer's command; use *cannot observe* when fire will not be observed; use *time on target* when rounds land at a specified time; use *continuous illumination* when the FDC will determine when to fire; use *coordinated illumination* when illumination rounds are fired only when the target is engaged; use *cease loading* when missions have two or more rounds in effect, causing the firing unit to stop loading rounds; and use *check firing* when there is a temporary halt in firing.
- Danger close. Include the term *danger close* in the method-of-engagement portion of the call for fire when the target is within 400 meters of any friendly troops or mortars and 600 meters for field artillery. When adjusting naval gunfire, announce "danger close" when the target is located within 750 meters when using naval guns that are 5 inches or smaller. For naval guns larger than 5 inches, announce "danger close" when the target is within 1,000 meters. The creeping method of adjustment will be used exclusively during danger close missions. The FO makes range changes by creeping the rounds to the target using corrections of less than 100 meters.

Plot a Target Location

3-60. Selecting a targeting method includes giving the directions in mils, degrees, or cardinal points of the compass (N, NE, S, SW, E, SE, W, and NW). Give a deviation of left or right and the distance in meters. Use the following paragraphs when plotting a target location:

3-61. Grid. Determine a 2-character, 6-digit grid for the target. Then, determine a grid direction to the target, and send it after the call for fire and before any subsequent corrections.

3-62. Polar. Determine the grid direction to the target. Determine the distance from the observer to the target. Determine if any significant vertical interval exists.

3-63. Shift. Refer to *Figure 3-5* and determine—

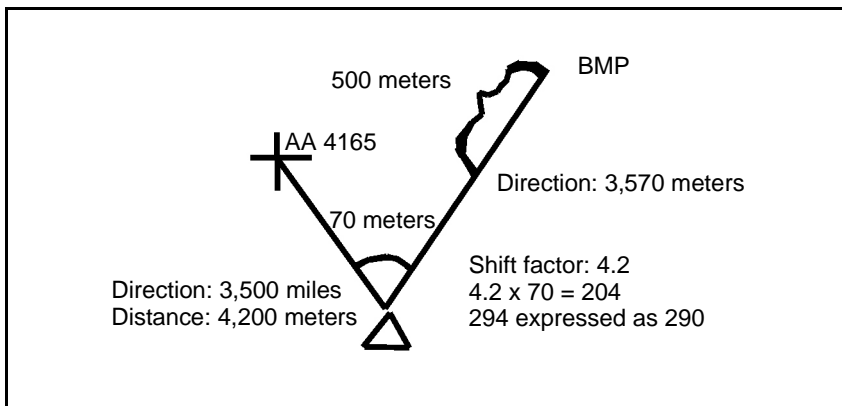


Figure 3-5. Call for Fire Elements

- The grid direction to the target.
- The lateral shift to the target from the known point. $W = R \text{ times } m$ (mil relation formula), when—

$$W = R \times m$$

W = width of the lateral shift (the unknown)

R = shift factor, the distance to the known point divided by 1,000 and expressed to one decimal place

m = measured angle in mils from the known point to the target

- The range shift from the known point to the target.
- Any significant vertical interval that may exist.

Example of plotting a target location: Complete target location – direction 3,570, right 290, add 500

Adjust Fire

3-64. The objective in adjusting fire is to move the center of the impact to within 50 meters of the center of the target. The observer accomplishes this by sending the FDC subsequent corrections, which are deviation (lateral) and range corrections. The FDC can talk the observer through the adjustments if they are necessary. The burst is moved to, and kept on, the observer target line in order to get a positive range spotting. The observer target line is the line of sight (an imaginary line) between the observer and the target. When range spotting cannot be determined, the observer makes a request for a lateral correction to place the burst on the observer target line.

3-65. The observer makes range corrections to bracket the target between two successive rounds. The successive bracketing technique is used. After the first definite range spotting is determined, a correction is sent to the FDC to establish a bracket of known distance around the target (such as, one round over the target and one round short of the target). The observer then successively splits this bracket until he is within 50 meters of the target and calls for fire for effect.

3-66. Hasty bracketing is used if the nature of the target dictates that effective fires are needed faster than the

above procedures can provide. Hasty bracketing depends on a thorough terrain analysis to give the observer an accurate initial-target location. A bracket is obtained on the first correction in a manner like that used for successive bracketing. Once the initial bracket is established, it is used as a yardstick to find subsequent corrections. The observer sends the FDC the correction to move the rounds to the target and calls for fire for effect. Hasty bracketing improves with observer experience and judgment. Fire for effect consists of one or more rounds from each gun of the unit firing at the target. Dispersion of the guns will cause the rounds to saturate the area with shell fragments. To end a fire mission, the observer states, "End of mission," and reports the results of the fire for effect. The observer may say, "End of mission, three T-62s neutralized, estimate two casualties, over."

Illuminate the Battlefield

3-67. Battlefield illumination can provide MP with enough light to aid in ground operations at night. Illumination can—

- Mark the targets for CAS.
- Increase visibility in areas of suspected enemy activity.
- Furnish the direction to the patrol activity.

3-68. Illumination is called for and adjusted like other indirect fires except the methods of engagement, fire, and control differ. The observer requests illuminating shells. The methods of fire and control differ in that the adjustment is based on how much visibility is needed in the target area. If the observer calls for—

- "Illumination," the observer gets one round from one gun.
- "Illumination, two guns," the observer gets one round each from two guns. The rounds will burst simultaneously.

- "Illumination, range and lateral spread," the observer gets one round each from four guns. The rounds will burst simultaneously in a diamond pattern.

3-69. The initial request for illumination must include the—

- Date when the illumination is needed, if illumination is replanned.
- Purpose of the illumination.
- Requested time and duration of the illumination (for example, three minutes at 2150 hours or three minutes on call).
- Grid reference and, if needed, the height of the points or areas to be illuminated.
- Method of controls (any restrictions in the time and the place before and during the operation).

OBTAIN ARMY AVIATION FIRE SUPPORT

3-70. Army aviation provides the echelon commander with the ability to move combat resources across the battle space with little regard for the terrain's barriers. These units can provide surveillance or screen over a wide area in adverse weather and at night. Attack helicopter units provide the sustainment area with highly maneuverable antiarmor firepower. They are ideally suited for situations in which rapid reaction time is critical.

Control the Fire

3-71. While en route to a target area, the attack helicopter will contact the caller on the radio. For example, "1L22, this is 1X47, fire team arrives at estimated target area in 4 minutes, over." At this time, a call for fire is transmitted consisting of—

- The target's location and description.

- The proximity of the friendly unit to the target. The words *danger close* must be included when a friendly unit is 600 meters or less from the target. *Danger close* is required because some types of ordnance cannot be used in close proximity to friendly ground forces. When *danger close* is included, MP must mark the unit's location. The method of marking should be one that least reveals the position to the enemy, such as using panels or mirrors.
- The protection of the friendly units (such as good fighting positions, hasty positions, or exposed positions).
- The direction of the friendly unit from the target (cardinal direction).
- Other friendly fire support considerations, including artillery and mortars firing in the area and tactical aircraft (attack direction and altitude).
- Dangers to the flight. Report locations of known or suspected enemy antiaircraft weapons or other dangers to the flight (wires in the target's area, enemy artillery fire impacting in the target's area, or enemy aircraft).

3-72. When the helicopter arrives over the objective, the helicopter's fire team contacts the caller. The caller marks the target and states the method of adjustment. The caller can use the three following methods to mark the target:

- A reference either to a prominent terrain feature that can be identified from the air or to a known point.
- A direction to the target from a reference point, stated in mils or degrees.
- References to friendly fire (such as smoke grenades, tracers, smoke streamers, mortars, artillery, or marking rockets).

Use the Fire Adjustment Method

3-73. The three methods used to adjust the fire of a fire team are impact-observed, impact sound, and observer target. The preferred methods of adjustment for an attack helicopter in support of a ground force are impact observed and impact sound. Once established, the caller does not change the method of adjustment unless the situation dictates. If the method of adjustment is changed, the caller informs the fire team. When any adjustment is 50 meters or less, the observer transmits the adjustment and calls for fire for effect.

3-74. When using the impact-observed method of adjustment, the observer estimates the direction to the target by using a cardinal heading. He estimates the distance from the point of impact to the target in meters. When the observer cannot see the point of impact, he may use the impact sound method of adjustment. For this method of adjustment, the observer transmits, "Adjust fire. Impact sound. Over." The impact sound method differs from the impact-observed method in that the observer senses by sound, rather than sees, the direction of the impact and makes his corrections accordingly.

3-75. Although the impact-observed method is most preferred for adjusting the fire of the attack helicopters, the observer target method, which is less desirable, may be used. When using the observer target method, the observer must mark his location, possibly compromising his location.

3-76. To use the observer target method, the observer senses the direction, left or right, and the distance, in meters, from the impact to a point on the observer target line. Then, he senses the position of the point on the observer target line relative to the target, long or short, and the distance along the observer target line to the target. The sensing of the observer must be converted to corrections, such as right, left, add, and drop, and

transmitted to the fire team. The chance of error for this method is greater than for the other methods. Unobserved rounds are handled the same as for the other methods. An example of an exchange of information between an observer and a fire team using the observer target method follows:

- Observer: "Left, five-zero. Add 100. Fire for effect. Over."
- Fire team: "Roger. Out." (The team commits against the target.)

3-77. When the target is suppressed or destroyed, the following transmission would occur:

- Observer: "End of mission. Target suppressed (destroyed). Over."
- Fire team: "End of mission. Out."

3-78. Reference points are used to visually locate the target. The eyes of the pilot are led to the reference point and from the reference point to the target, sometimes through a series of decreasingly obvious reference points. It is much harder for a pilot to find a target than to keep a target in sight. Any reference point must stand out or contrast with its surroundings.

Adjust Fire

3-79. Attack helicopter fire allows the pilot to observe the impact and effect of the ordnance on the target. This simplifies the adjustment procedure. However, the observer must still be prepared to adjust direct aerial fire. When adjusting aerial fire—

- Establish a reference point. The point of impact of the first round is the recommended reference point.
- Adjust for target strike. Do not try to bracket the target. The helicopter crew has direct visual contact with the target and needs only specific directions to fix the location.

- Transmit the corrections.

3-80. The following is a typical exchange of information between the observer and the fire team:

- Observer: "Adjust fire. Impact observed. Over."
- Fire team: "Impact observed. Out." (The team fires at the target.)
- Observer: "Northwest, seven-five. Over."
- Fire team: "Roger. Out." (The team fires at the target.)
- Observer: "North, three-zero. Fire for effect. Over."
- Fire team: "Roger. Out" (The team commits against the target.)
- Observer: "End of mission. Target suppressed (destroyed), over."
- Fire team: "End of mission. Over."

3-81. If the observer does not see the impact, the transmission would be—

- Observer: "Unobserved. Over."
- Fire team: "Unobserved. Over." (The team fires at the target.)

3-82. Adjustments continue until the mission is accomplished. *Table 3-4* shows how to direct a pilot to the target.

Table 3-4. Directing the Pilot to the Target

Ways of Directing the Pilot		How Used
Ammunition	Smoke rounds	Mortars, artillery, or grenade launchers. Phosphorous is usually the best because smoke clouds blossom quickly and are highly visible.
	Ordnance	Ordnance impacting the ground may be an adequate reference point.

Table 3-4. Directing the Pilot to the Target (Continued)

Ways of Directing the Pilot		How Used
	Illumination rounds	Good for guiding the strike aircraft to the target at night, but will not pinpoint small targets if the flares function at the usual height
	Trace fire	Used at night. The intersection of the two streams of traces or the impact point of one stream marks the target.
Fires	Grass or other	Sometimes used near the target as a night reference
Recognizable known points	Terrain features or landmarks	If clearly visible from the air, it can help when used with another location method (streams, roads, bridges, tree lines, cultivated areas, prominent hills).
	Friendly positions	When clearly recognizable from the air, it may be used day or night for locating close-in targets.

OBTAIN AIR FORCE TACTICAL-AIRCRAFT FIRE SUPPORT

3-83. During major enemy incursions in the rear area, fighter aircraft may be available to support ground operations by providing immediate CAS. CAS consists of air attacks against enemy targets that are close to the friendly forces. CAS requires detailed coordination with the maneuver of the ground forces to be effective. The coordination must be responsive, integrated, and controlled. Typical CAS targets are—

- Enemy troop concentrations.
- Fixed positions.
- Armored units of immediate concern to the ground forces.

3-84. CAS missions are flown at the request of the command level. They are planned, directed, and

controlled by the Air Force through the Tactical Air Control System.

3-85. Air Force support is directed through a forward air controller who, in turn, talks to the pilots. The controller can be in an aircraft or operating on the ground. In most cases, the controller will come forward to a point where he can see the target. Once the target is in sight, he can adjust the aircraft to the target. If the controller cannot see the target, the observer will have to tell him how it can be identified. The observer must make sure that the controller knows where all the friendly elements close to the target are located.

3-86. If the observer is unable to talk to a forward air controller, he must contact a fire-support team operating in the maneuver area. Fire support teams have the equipment to talk directly to the pilots of the aircraft and are trained observers for CAS.

Mark Friendly Positions

3-87. Friendly positions are marked during close air strikes if there is no danger of compromise to enemy observers. This may require only a message (such as "All friendly positions are south of the target. Nearest are 500 meters."). As a rule, a mark is usually necessary when friendly troops are within 300 meters of the target. Marking of friendly positions may be overt or covert and include the following:

- **Weapons fire.** Weapons fire is useful as a signal if it is distinguishable from other types of fire. Tracers are especially useful.
- **Smoke.** Smoke grenades are the most commonly used overt marker, but they have limitations. Wind may move the smoke away from the source. Red and white smoke show up well with most backgrounds while some colors blend with their background.

- **Mirrors.** Signal mirrors and panels are probably the best covert ground-to-air devices for attracting attention. When the operator is proficient and the sun is shining, pilots can see a mirror flash for many miles away. Mirror signaling requires practiced training.
- **Balloons.** Balloons make a good covert marking system for use above a thick forest canopy.
- **Flares.** Rockets or 40-millimeter flares are good for attracting attention at night. If flares are fired in the direction of the aircraft, they can be mistaken as ground fire.
- **Lights.** Strobe lights produce a bright pulsing flash that is visible at night from 2 to 5 kilometers. Vehicle lights, such as unshielded red taillights, are visible to a pilot for several kilometers at night. Chemical glow lights may also be used.
- **Ground commander's pointer.** The pointer is a handheld device that is invisible to the naked eye, but its beam is visible through NVDs. It may be used by ground troops to clearly show air elements the location of friendly elements.

Select Attack Headings

3-88. A fighter aircraft is more likely to destroy its target if it attacks along the long axis of the target. Once the fighter aircraft knows where all the friendly units are and where the target is, the forward air controller tells the fighter pilot which attack heading to use. However, if the controller cannot see the target, the observer may have to recommend a direction of approach. The observer must remember that fighters should not attack across friendly positions.

3-89. An attack toward friendly units is undesirable because of ordnance dispersal patterns. An attack from behind and over friendly lines is also undesirable for

several reasons. Some fighters dump empty cartridges overboard as they strafe. An empty 20-millimeter case weighs 114 grams and hits the ground at 167 kilometers per hour. An even greater hazard would be an inadvertent bomb release as the pilot repeatedly selects and arms his weapons systems while in the attack pattern.

MOVE

3-90. Movement by MP teams, squads, or platoons in combat is dependent on the mission, the terrain, and the likelihood of enemy contact. MP apply the fundamentals of movement which include—

- Moving on covered and concealed routes.
- Avoiding likely ambush sites.
- Enforcing camouflage, noise, and light discipline.
- Maintaining all-around security, to include air guards.
- Using formations and movement techniques based on METT-TC.

3-91. In addition to applying the fundamentals of movement, MP leaders ensure that they—

- Maximize the capabilities of HMMWVs and ASVs. This includes considering the speed, mobility, and firepower of the vehicles. Fire and move both vehicles as a weapon system.
- Make contact with the enemy using the smallest force possible. MP move with a small force in the lead with the rest of the unit ready to react. A team leads a squad and a squad leads a platoon. One team leads another when two vehicles are moving. This prevents the whole unit from being pinned down by enemy fire and provides the unit with the flexibility to maneuver.

- Use the terrain. The terrain offers natural cover against enemy fire and conceals them from enemy observation. MP leaders must devote constant attention to protect vehicles and prevent them from skylining. MP make use of all natural cover and concealment when moving or stopped. When MP do stop, they stagger their vehicles on the roadway.
- Control subordinate elements. MP leaders issue clear and complete orders to subordinate elements in order to maintain control. They issue OPODs, which cite MP actions to be taken on contact and the immediate actions the teams should accomplish. The OPODs also explains how the MP leader will direct subordinate elements through the use of hand and arm signals, pyrotechnics, and other visual signals.

USE MOVEMENT TECHNIQUES

3-92. Movement techniques are designed to minimize the exposure of the platoon to enemy fire and to place the platoon in a good position to react to enemy contact. They provide varying degrees of control, security, and flexibility. The selection of their use is based on METT-TC and the likelihood of enemy contact. Their effective use results in the platoon's contact with the enemy with the smallest platoon element.

3-93. MP employ the following three techniques of movement on the battlefield:

- Traveling.
- Traveling overwatch.
- Bounding overwatch.

3-94. While these techniques provide a standard method of movement, the leader must use common sense and sound judgment when employing them as he performs his missions and encounters different situations. The decision of which technique to use is based on terrain

considerations and whether enemy contact is not likely, possible, or expected. The techniques are used in both the mounted and dismounted modes of movement.

Traveling

3-95. An MP leader selects the traveling method of movement when contact with the enemy is not likely and speed is required. This technique allows the lead and trail elements to move together as a unit. It is the fastest but least secure movement technique. Movement is continuous, and interval and dispersion are maintained between the squads as terrain and weather permit. The platoon does not intend to engage in combat, but it is dispersed to prevent destruction in case of unexpected air or ground attack. The distance between the vehicles is based on the factors of METT-TC. This method of movement, with MP mounted, is depicted in *Figure 3-6*.

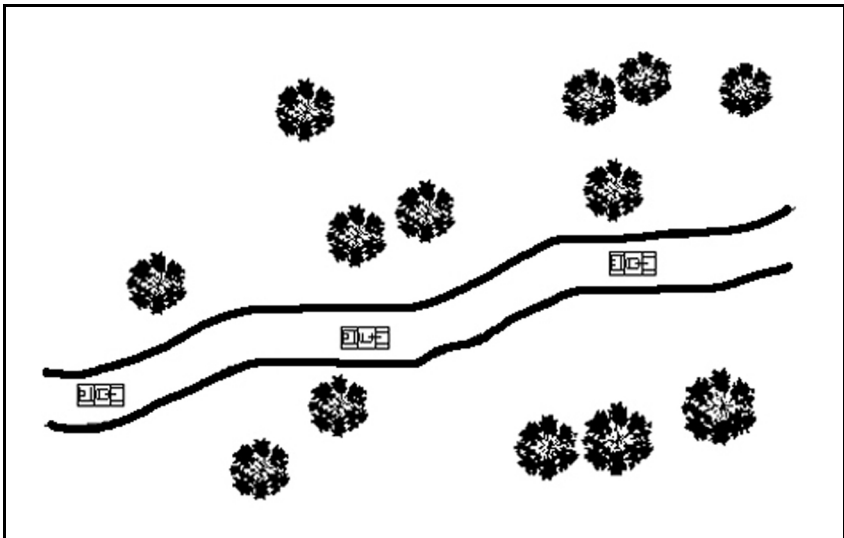


Figure 3-6. Traveling

Traveling Overwatch

3-96. Use the traveling overwatch method of movement when contact with the enemy is possible and speed is desirable. The lead element moves continuously along the best, covered and concealed routes for protection from possible enemy observation and direct fire. The trail element moves at variable speeds, continuously overwatching. It normally maintains contact with the lead element and may stop periodically for better observation. The trail element tries to stay one terrain feature behind the lead element, but close enough to provide immediate suppressive fire and maneuver for support. However, it remains far enough to the rear to avoid contact with the same enemy force that is engaging the lead element. This technique, with MP mounted, is depicted in *Figure 3-7*.

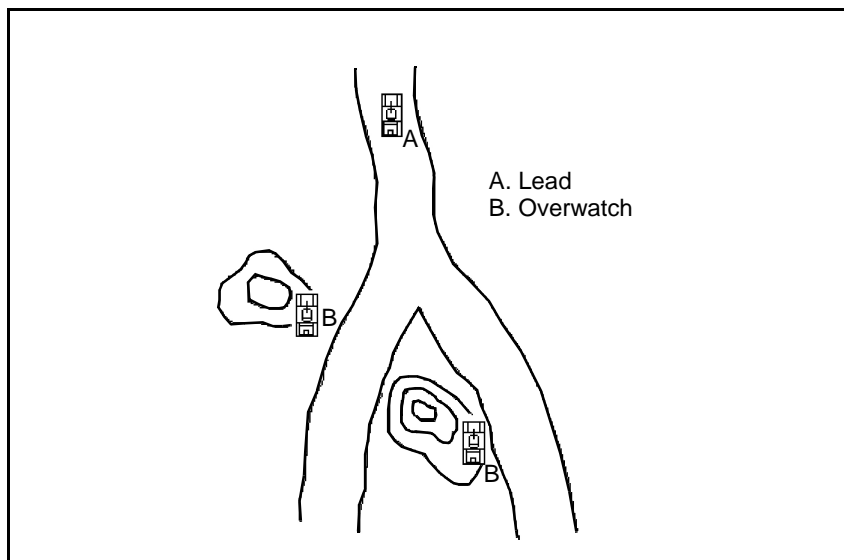


Figure 3-7. Traveling Overwatch

Bounding Overwatch

3-97. When MP expect to make contact with the enemy, they select the bounding overwatch method of movement. It is the slowest, but safest method of movement. In bounding overwatch, the trail element occupies a good, covered and concealed position to overwatch the lead elements. While one element moves, another is always stopped in position to overwatch the bounding element. Although, bounding overwatch is used when enemy contact is expected, use it when time is available regardless of the likelihood of enemy contact. It provides for immediate, direct suppressive fire on an enemy force that engages the bounding element with direct fire. A three-vehicle team uses the V-formation with bounding overwatch. The lead elements advance to a point (first move) where they can support the advance of the overwatch element. On signal, the overwatch element moves forward to a position abreast of the lead elements (second move) and halts. During its move, it is overwatched by both lead elements. The lead elements then move forward, secured by the overwatch. Maximum use is made of folds of the earth and concealment to mask movement from likely enemy positions. MP are mounted in this method of movement as shown in *Figure 3-8*.

PLATOON LEADER RESPONSIBILITIES

3-98. In the conduct of most tactical missions, the MP platoon moves as separate squads under the C² of the platoon leader. Regardless of which movement technique is directed, the platoon leader issues the squads an order explaining what each squad will do. This action becomes more critical as the likelihood of enemy contact increases. The platoon leader tells, and if possible, shows the squads—

- The enemy situation as he knows or suspects it to be.

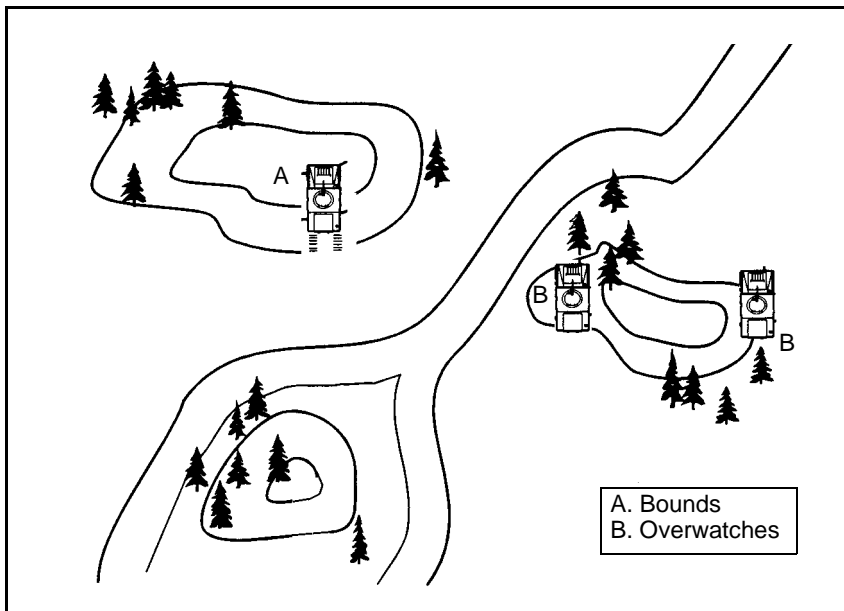


Figure 3-8. Bounding Overwatch

- The next overwatch position (objective for the bounding element).
- The route of the bounding element to that position.
- What he wants the squad to do after the bounding element gets to the next position.

USE EXTENDED AND TEMPORARY HALTS

3-99. When an MP platoon moves as an element, it uses the coil formation for extended halts. This formation provides the platoon with 360-degree observation and fields of fire. The coil is always executed from either the column or staggered column formation. The platoon uses the four-team organization. The lead team assumes the 12 o'clock position (the direction of travel). Teams occupy the 3, 6, and 9 o'clock positions in twos, facing in the

appropriate direction. Ensure that there are 50 to 100 meters between the team's vehicles. The interval between the teams will be 100 to 200 meters (terrain dependent). The HQ element occupies the center of the formation. Each platoon must have its own SOP for the formation based on its METL, war plans, and most common organization; it should practice the SOP as a drill to ensure correct execution. *Figure 3-9* depicts an MP platoon in a coil formation.

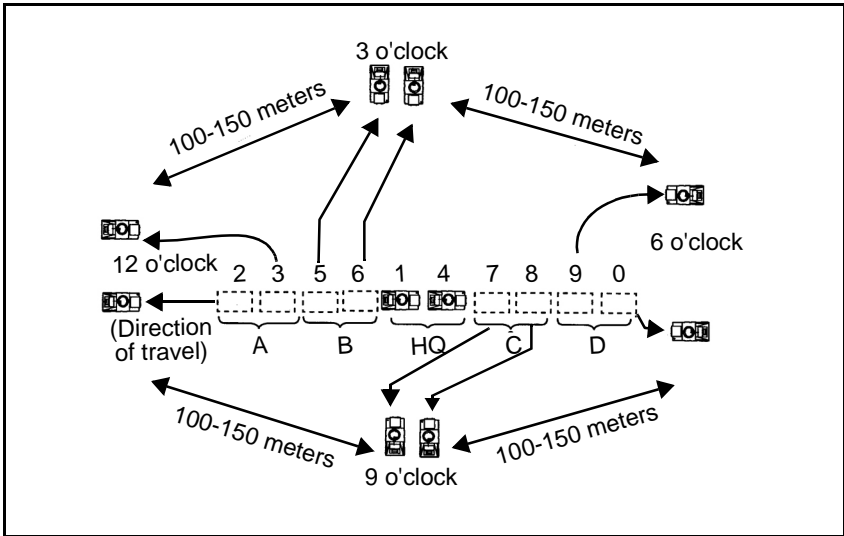


Figure 3-9. Platoon Coil Formation

3-100. MP use the herringbone formation for temporary halts from the march column. It provides them with a 360-degree observation and field of fire (*Figure 3-10*).

USE GRAPHIC CONTROL MEASURES

3-101. MP leaders use graphic control measures to regulate or direct the movement, positions, and fire of the platoon. Control measures—

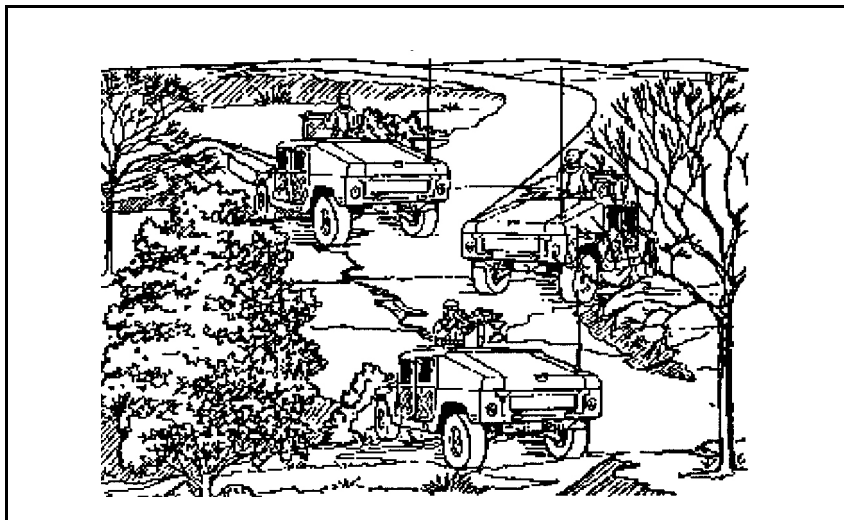


Figure 3-10. Herringbone Formation

- Are not intended to restrict the exercise of initiative (the function of command). Leaders use control measures to clarify their intent, focus the platoon and squad effort, and ensure synchronization. Each control measure should have a specific purpose that contributes to mission accomplishment. If a control measure fails the purpose test, leaders should not use it.
- Can be drawn on a map, an overlay, a sketch, or a terrain model. Leaders should strive to keep control measures easily identifiable and simple. Graphic control measures may include the AA, the route, the release point (RP) and start point (SP), checkpoints, and so forth. *FM 101-5-1* discusses control measures and provides examples of their use.

CROSS A DANGER AREA

3-102. Danger areas are specific areas where there may be potential danger because of the increased risk of detection. Plan a way in which the patrol crosses danger areas to reduce the chances of a fight. MP make specific plans for crossing each known danger area and general plans for crossing unexpected danger areas. Patrols must be able to quickly modify these plans to fit the tactical situation. Typical danger areas include the following:

- Curves and blind spots on roads and trails.
- Streams.
- Open areas.
- Hill tops.

3-103. MP move cautiously at danger areas, using the bounding overwatch or variations of it to cross them. The MP leader decides how a patrol will cross danger areas based on the—

- Amount of time available.
- Size of the patrol.
- Size of the danger area.
- Fields of fire into the area.
- Amount of security available.

3-104. To cross a danger area, a patrol must designate nearside and farside rally points, secure the nearside and farside, and cross the danger area.

3-105. A small patrol may cross all at once, in pairs, or one element at a time. A large patrol normally crosses its elements one at a time. The leader positions security teams far enough out on both flanks and to the rear of the crossing point to give warning of the approaching enemy and to overwatch the crossing element. Once flank and rear security are positioned, the team crosses the danger area. The team crosses quickly, reconnoiters, and secures the far side of the danger area. The area on

the farside must be large enough for a full patrol employment. When the team leader knows the farside is safe, he signals the rest of the patrol to cross. As each element crosses, it moves to an overwatch position or to the farside rally point until told to continue movement. When the patrol has crossed the danger area, the security teams cross and rejoin the patrol.

3-106. Open areas frequently afford the patrol the opportunity to observe the enemy from long ranges. Conversely, they often require that the patrol be exposed to possible enemy observation and fire for long periods of movement. The leader must make maximum use of the terrain and employ effective observation techniques to avoid exposing the patrol to a well-concealed and camouflaged enemy.

3-107. Before moving across a large open area, the patrol takes a thorough visual scan of the area. This should be done both dismounted and mounted, using all available optics. This scan focuses not only on finding potential enemy positions, but also on locating covered and concealed routes for bounding and a covered and concealed position to move to. If time and terrain permit, use dismounted troops to move to the far side of the open area and secure it. In very large open areas, use of dismounts may not be feasible because of the distances between covered and concealed positions.

3-108. Once the area has been cleared using visual means and/or dismounts, the squad or platoon moves across it. The patrol uses bounding overwatch because of the likelihood of enemy contact. If the open area is very large, the overwatch vehicle remains stationary until the bounding vehicle has moved a distance equal to half the effective range of the weapon system of the overwatching vehicle. When that point is reached, the overwatch vehicle must move out, even if the bounding vehicle has not yet reached a position of cover and concealment.

MOVE WHILE IN CONTACT

3-109. Maneuver is the technique used for moving while in contact with the enemy. Maneuver involves two actions that occur at the same time. One element moves to a position where it can engage the enemy while another element supports that movement with a base of fire. A patrol maneuvers to move forward, either to close with the enemy or to gain a better position for firing at the enemy. MP can also maneuver to get more information on the position and strength of the enemy. When the position of the enemy is unknown, it may result in an unexpected encounter known as a *chance contact*. MP use maneuver to move away and withdraw safely.

3-110. When maneuver begins, the MP leader most often goes with the base-of-fire element and controls its fire. The base-of-fire element covers the movement element by shooting at the enemy position. The movement element advances within the supporting range of the base-of-fire element, taking a position from which it can fire on the enemy. The movement element then becomes the base-of-fire element, and the former base-of-fire element begins moving. Depending on the distance to the enemy position and the amount of cover and concealment available, the base-of-fire element and the movement element alternate roles as needed to continue moving.

3-111. MP can maneuver mounted, dismounted, or in a combination of both. A fire element using the MK19 GMG will have difficulty moving dismounted. MP move mounted when the terrain protects them from enemy fire, and look for covered and concealed routes.

3-112. When receiving direct fire, the movement element uses maneuver while the base-of-fire element suppresses enemy fire. If the movement element is not receiving direct fire, it uses bounding overwatch or maneuvers internally.

3-113. MP of a dismounted movement element move based on the intensity of the enemy's fire. When facing intense enemy fire with little or no cover, MP may be forced to crawl. They will use the low or high crawl depending on the situation, the need for speed, and the example set by the leader. Although crawling is slow, it reduces exposure to enemy observation and fire. When MP are not moving forward, they place suppressive fires on the enemy. They may need to advance all the way into and through enemy positions by crawling.

3-114. Dismounted MP can use short rushes from one covered position to another when enemy fire allows brief exposure. To do this they should—

- Advance by short rushes to avoid the enemy's fire.
- Try to stay up no more than 3 to 5 seconds. This keeps the enemy from having time to track and engage them.
- Select the next covered position before beginning the rush.
- Rush from cover to cover.
- Not hit the ground just because 3 to 5 seconds are up.

3-115. MP of a mounted maneuver element move based on enemy fire and the terrain. When they move, they should—

- Use the terrain to mask their movement.
- Move quickly between protected positions so that the enemy cannot engage their vehicles.
- Dismount when the terrain no longer provides protection.

EXECUTE ACTIONS ON CONTACT

3-116. When MP encounter enemy forces, they must quickly execute actions on contact. Whether they remain undetected or are identified by the enemy, MP must

first take measures to protect themselves, find out what they are up against, and then decide on a COA. To properly execute actions on contact, MP must take action consistent with the following fundamentals of reconnaissance:

- Remain focused on the reconnaissance objective.
- Report quickly and accurately.
- Maintain contact with the enemy.
- Retain the freedom to maneuver.
- Develop the situation rapidly.

3-117. The platoon leader specifies the actions on contact for the platoon. These specific instructions include the engagement criteria and the desired COA, based on the size and activity of the enemy force encountered. By knowing these details ahead of time, MP can develop the situation more rapidly and arrive at and execute the desired COA. The platoon strives to make contact with the smallest possible element. Visual contact in which the enemy is observed, but MP remain undetected, is the goal. This gives the platoon the greatest possible flexibility to maneuver and develop the situation.

3-118. The steps that make up the actions on contact must be thoroughly trained and rehearsed so that the platoon can react instinctively as a team whenever it encounters enemy forces. The four steps which are executed to allow the platoon to accomplish its mission according to the reconnaissance fundamentals are—

- Deploy and report.
- Evaluate and develop the situation.
- Choose a COA.
- Execute a COA.

Deploy and Report

3-119. The MP patrol that gains initial visual contact with the enemy deploys to covered terrain that has good observation and fields of fire. The MP patrol in visual contact sends a report using the SALUTE format. If the element in contact is unable to report or cannot report quickly, another squad or team must report. The elements not in contact temporarily halt in covered terrain, monitor the report, and plot the situation on their maps. The platoon or patrol leader immediately determines the COA.

Evaluate and Develop the Situation

3-120. The patrol concentrates on defining what they are up against. If they have not sent a SPOTREP at this point, they initially focus on getting enough information to send one. If the enemy has not detected them and time is available, the patrol attempts to confirm or determine in detail the enemy's size, composition, activity, orientation, and the locations of the enemy's weapon systems. They search for any additional information regarding the enemy that can help define the situation and update the SPOTREP.

Choose a Course of Action

3-121. Once the patrol has developed the situation and the platoon or patrol leader has enough information to make a decision, he selects a COA. The COA will be within the capabilities of the patrol and allow the patrol to continue the commander's concept of the operation. The platoon or patrol leader considers various possible COAs, including—

- Breaking contact and bypassing the enemy. This COA may be selected when the enemy sees the

patrol before the patrol sees them and comes under—

- Sniper fire. In this situation, the patrol returns fire in the direction of the sniper and conducts the maneuver (fire and movement) to break contact with or destroy the sniper.
- Indirect fire. The patrol quickly gets out of the impact area and does not seek cover, as it may be pinned down by doing so. By continuing to move, the patrol is more difficult to hit. The patrol uses the clock system (described later) to break contact.
- Ambush. In an ambush, a patrol takes immediate action. Personnel in the kill zone return fire immediately and quickly move out of the kill zone. Elements not in the kill zone lay down a base of fire (and smoke if available) to support the withdrawal of the elements in the kill zone. The patrol breaks contact and reorganizes at the last rally point. After or while the elements in the kill zone are being extracted, the leader decides whether to destroy the ambush element or break contact based on the situation and the mission. If no guidance is given, the immediate action of the patrol is geared to breaking contact.
- Maintaining contact to support a hasty attack. This COA is appropriate when the MP patrol discovers enemy elements that the higher HQ wants destroyed. The patrol cannot destroy the enemy because it does not have the combat power (level III threat) or because it has other tasks to perform. In this situation, the patrol maintains contact and continues to develop the situation, focusing on supporting the hasty attack by a TCF. The patrol conducts additional reconnaissance and monitors any changes in the

enemy's situation. It focuses on information to support a friendly hasty attack.

- Conducting a hasty attack. If contact is made and the MP patrol and the enemy element become aware of each other at the same time and at such a close range that maneuver is not feasible, the patrol may make an immediate assault. The elements nearest the enemy open fire and shout, "contact, front (right, left, or rear)." The patrol moves swiftly into the assault. It stops the assault if the enemy withdraws and breaks contact. If the enemy fights, the assault is continued until the patrol can break contact, the enemy is destroyed, or the enemy breaks contact. In most cases, the patrol cannot, or should not, mass its combat power to defeat an enemy force. If the patrol concentrates, it risks losing the capability to complete its mission and jeopardizes its ability to conduct subsequent missions. If the patrol attacks an enemy, it should only attack small dismounted formations or lightly-armored or unarmored reconnaissance vehicles. Except in self-defense, patrols should avoid attacking heavily armored vehicles or large formations.
- Establishing a hasty defense. The patrol will establish a hasty defense if it cannot bypass the enemy, all the teams are fixed or suppressed, and the patrol no longer has the ability to break contact by maneuver. Patrols should use a hasty defense when the enemy executes a hasty attack. The patrol maintains contact or fixes the enemy in place until additional combat power arrives or the patrol is ordered to move. If the patrol is required to conduct a hasty defense, the commander then becomes responsible for continuing to develop the situation.

Execute a Course of Action

3-122. The platoon leader updates his SPOTREP to the commander with any new information and then recommends a COA to the commander. The commander approves or disapproves the recommended COA based on how it will affect the parent unit's mission.

3-123. If the commander has anticipated the enemy situation the platoon is reporting, he will already have addressed the contingency in the OPORD and given guidance to his subordinates on what COA the platoon executes. In such a case, the platoon leader can evaluate the situation, choose a COA consistent with the higher commander's intent or concept, and execute it without further guidance. He keeps the commander informed of what he is doing as he executes the COA.

BREAK CONTACT

3-124. To break contact with the enemy without disorder, use the clock system. Use this system when the patrol and a larger enemy element see each other at the same time. The patrol must break contact or be destroyed. The direction the patrol moves is always 12 o'clock. When contact is made, the leader shouts a direction and distance to move (such as "4 o'clock, 300 meters" tells the patrol to move in the direction of 4 o'clock for 300 meters). If contact is broken, the patrol rallies at the designated distance and continues with the mission. If contact is not broken, then another direction and distance is given. This action continues until contact is broken. The leader can also use the clock system to shift or direct fire at a certain location.

CONSOLIDATE AND REORGANIZE

3-125. Once enemy resistance has ceased or the platoon or patrol has broken contact, leaders must quickly take steps to consolidate and prepare to defend against a counterattack. In consolidating on the objective, all-

around security is critical because the enemy might counterattack from any direction. The leader must evaluate the terrain thoroughly. Platoons and patrols use the following two techniques when consolidating:

- **Clock technique.** In using this method, the leader designates either a compass direction or the direction of attack as 12 o'clock. He then uses clock positions to identify the left and right boundaries for squads. The leader positions key weapons along the most likely avenue of approach based on his assessment of the terrain (*Figure 3-11*).

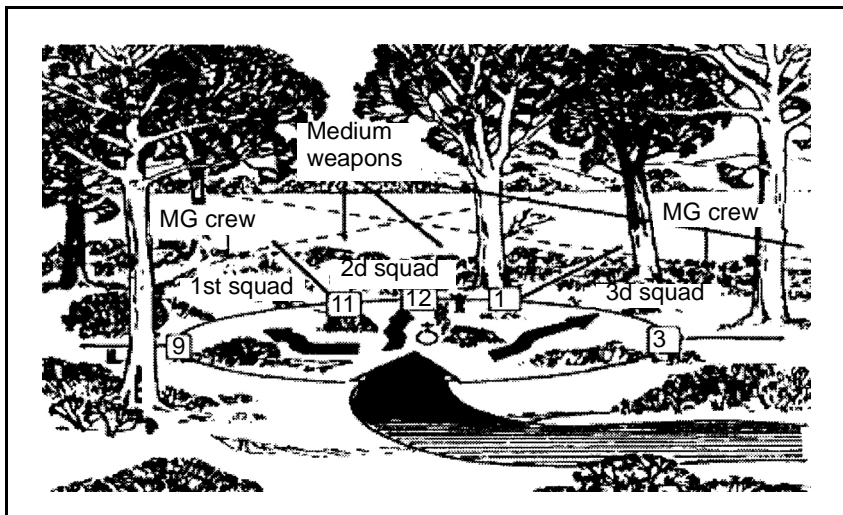


Figure 3-11. Clock Technique

- **Terrain feature technique.** In a similar manner, the leader identifies obvious terrain features (*Figure 3-12, page 3-58*) as the left and right limits for squads. In both techniques, he ensures that squad sectors of fire overlap each other and provide mutual support for adjacent units.

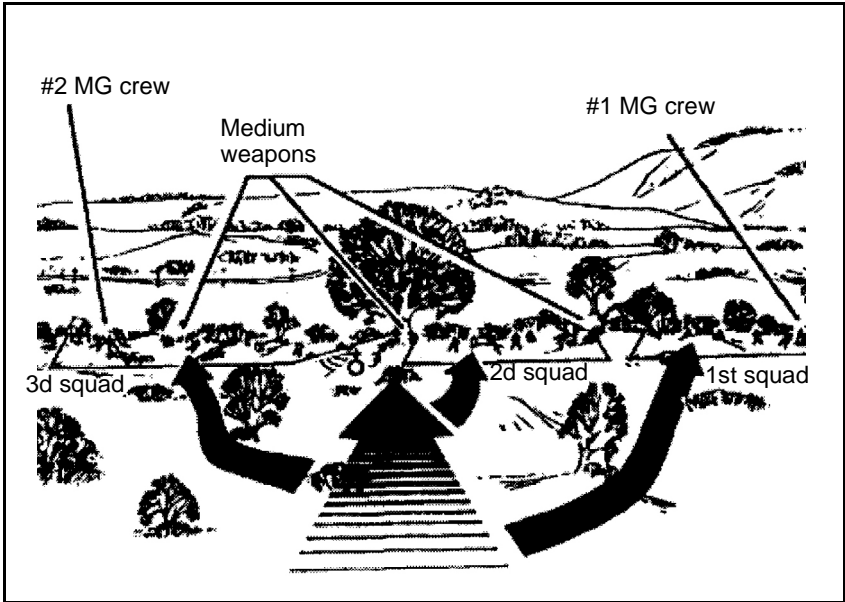


Figure 3-12. Terrain Feature Technique

3-126. Once platoons or patrols have consolidated, they begin to reorganize. Platoons reorganize to continue the mission. Reorganization involves the following:

- Reestablishing C².
- Remanning key weapons and redistributing ammunition and equipment.
- Clearing the objective of casualties and EPWs.
- Assessing and reporting the status of platoon personnel, ammunition, supplies, and essential equipment.

COMMUNICATE

3-127. On the battlefield, you must be able to communicate. Communication is the means through which battle command is exercised. MP on the

battlefield must be able to communicate to maintain C² of their elements, call for fire or request other support, and respond to orders. The chain of command and succession of command must be known throughout the organization. There must be open lines of communication up, down, and laterally. Situations on the battlefield can change rapidly, and losing the ability to communicate for even a short duration can have a major impact on an operation. Commanders must provide for redundancy in means of communications. MP companies have the capability to place backup communication systems at key locations within an area of responsibility. METT-TC and the battlefield situation usually determine communication means. MP use any combination of the following systems:

- Sight and sound.
- Messenger.
- Wire and radio.

USE SIGHT-AND-SOUND SIGNALS

3-128. Visual signals are useful for sending prearranged messages over short distances, during radio silence, or when jamming interferes with radio transmissions. Arm-and-hand signals, flashlights, and pyrotechnics may send quick visual signals. Visual signals have some disadvantages, which include the following:

- They are less effective when visibility is limited.
- They may be seen and intercepted or imitated by the enemy.
- They may be masked by terrain features, reducing the chance of a message being received.
- They are easy to misunderstand.

NOTE: To overcome this last disadvantage, each man in the unit must be able to send, receive, and understand messages using visual signals.

3-129. Although arm-and-hand and light signals are standard throughout the Army, the meaning of pyrotechnic signals must be set in the C² portion of the OPORDs and in the SOI. To ensure that a pyrotechnic message was correctly received, confirm the message by some other means as soon as possible. For more information on visual signals, refer to *FM 21-60*.

3-130. Sound signals, like visual signals, work well only for short distances. Simple devices (such as whistles, horns, gongs, and explosives) may be used. Sound signals can be used to—

- Attract attention.
- Transmit prearranged messages.
- Spread alarms.

3-131. A well-known sound signal is the use of metal-on-metal to indicate an NBC hazard or attack. Battlefield noise may blend with or override sound signals, causing confusion and misunderstandings. Sound signals—

- Must be simple to understand.
- May be restricted for security reasons.
- Can be intercepted by the enemy.

USE MESSENGERS

3-132. Using messengers is the most secure way to communicate long messages and documents. However, it is also the slowest and messengers are vulnerable to enemy action. When using a messenger—

- Put the message in writing.
- Make the text clear, concise, and complete.
- Choose the most expedient transportation on hand.
- Encode the message (using the operational code in the SOI) if there is a risk that the messenger might be captured.

- Send a second messenger by a different route if a backup message is needed.

USE WIRE AND RADIO COMMUNICATION

3-133. Often, wire communication is more useful than radio. It is hard to jam, and unlike radio, more than one person can talk at one time. It is used most often for communicating with static posts. Wire communications cannot be secured and may be cut by the enemy. When a wire line has to be checked, MP are sent out in pairs. One MP looks for the cut and the other MP provides overwatch security. The enemy can take prisoners by cutting a line and capturing the soldiers who go to repair it.

3-134. Use a radio to communicate with mobile or distant elements. A secure voice radio is best. The enemy can intercept messages on an unsecured radio net. Regardless of the radio type, if the transmission is heard, the enemy may be able to detect the location of the radio or learn what the unit is doing. Keep the transmissions short. Know and use signal security and electronic counter-countermeasures. MP deny the enemy information from friendly telecommunications by following the SOI. To keep transmissions secure, MP—

- Authenticate all transmissions.
- Use only authorized codes.
- Use secure voice transmissions.
- Use encoded messages.

3-135. The enemy is kept from disrupting radio communications, and friendly emitters are protected from enemy detection, location, and identification by—

- Setting radios at low power.
- Placing antennas where terrain blocks the enemy's interception.
- Using remote radios and antennas.
- Using directional antennas.

- Using wire whenever possible.
- Observing listening silence.
- Using short transmissions.
- Using a random transmission schedule.
- Transmitting only when there is a need to do so.