* APPENDIX K

CLOSE QUARTERS COMBAT TECHNIQUES

A large portion of combat in built-up areas takes place at very close quarters, often between small groups of combatants within the confines of a single room. Because of this, individual combat actions can flare up quickly and be over in a matter of seconds. Success or failure is open determined by life or death decisions made and actions taken almost instinctively by individual soldiers and small teams as they encounter differing complex situations in each new room. One of the complexities often encountered particularly during OOTW, is the intermixing of combatants with noncombatants in the same building, often in the same rooms. Employing close quarters combat techniques is open the most effective means of achieving victory w bile minimizing friendly losses, avoiding unnecessary noncombatant casualties, and conserving ammunition and demolitions for subsequent operations.

K-1. BATTLE DRILLS AND CLOSE QUARTERS COMBAT

Close quarters combat techniques do not replace battle drills. They are techniques to be used when the tactical situation calls for room-by-room clearing of a relatively intact building in which enemy combatants and noncombatants may be intermixed. These techniques involve increased risk in order to clear a building methodically, rather than using overwhelming firepower to neutralize all its inhabitants. Certain close quarters combat techniques, such as methods of movement, firing stances, weapon positioning, and reflexive shooting, are useful for all combat in confined areas. Other techniques, such as entering a room without first neutralizing known enemy occupants, are appropriate in only some tactical situations. Generally, if a room or building is occupied by an alerted enemy force that is determined to resist, and if most or all noncombatants are clear, overwhelming firepower should be employed to avoid friendly casualties. In such a situation, supporting fires, demolitions, and fragmentation grenades should be used to neutralize a space before friendly troops enter. In some combat situations, however, the use of heavy supporting fires and demolitions would cause unacceptable collateral damage. In other situations, often during OOTW, enemy combatants are so intermixed with noncombatants that US forces cannot in good conscience use all their available supporting fires, and room-by-room clearing may be necessary. At such times, close quarters combat techniques are most appropriate.

K-2. PRINCIPLES OF CLOSE QUARTERS COMBAT

As in all other military operations, battles that occur at close quarters, such as within a room or hallway, must be planned and executed with care. Units must

train, practice, and rehearse close quarters combat techniques until each fire team and squad operates smoothly as a team. Each member of the unit must understand the principles of close quarters combat and the part his actions play in their successful execution. The principles of close quarters combat are *surprise, speed,* and *controlled violent action.*

a. *Surprise* is the key to a successful assault at close quarters. The fire team or squad clearing the room must achieve surprise, if only for seconds, by deceiving, distracting, or startling the enemy. Sometimes stun or flash grenades may be used to achieve surprise. These are more effective against a nonalert, poorly trained enemy than against alert, well-trained soldiers.

b. *Speed* provides a measure of security to the clearing unit. Speed lets soldiers use the first few vital seconds provided by surprise to their maximum advantage. In close quarters combat, speed does not mean incautious haste. It can best be described as "carefull hurry."

c. *Controlled violent action* eliminates or neutralizes the enemy while giving him the least chance of inflicting friendly casualties. Controlled violent action is not limited to the application of firepower only. It also involves a soldier mind-set of complete domination.

Each of the principles of close quarters combat has a synergistic relationship to the others. Controlled violence coupled with speed increases surprise. Hence, successful surprise allows increased speed.

K-3. FUNDAMENTALS OF CLOSE QUARTERS COMBAT

The ten fundamentals of close quarters combat address actions soldiers take while moving along confined corridors to the room to be cleared, while preparing to enter the room, during room entry and target engagement, and after contact. Team members must—

a. Move tactically and silently while securing the corridors to the room to be cleared. Carry only the minimum amount of equipment. Rucksacks and loose items carried by soldiers tire them and slow their pace, and cause noise.

b. Arrive undetected at the entry to the room in the correct order of entrance, prepared to enter on a single command.

c. Enter quickly and dominate the room. Move immediately to positions that allow complete control of the room and provide unobstructed fields of fire.

d. Eliminate all enemy within the room by the use of fast, accurate, and discriminating fires.

e. Gain and maintain immediate control of the situation and all personnel in the room.

f. Confirm whether enemy casualties are wounded or dead. Disarm and segregate the wounded. Search all enemy casualties.

g. Immediately perform a cursory search of the room. Determine if a detailed search is required.

h. Evacuate all wounded and any friendly dead.

i. Mark the room as cleared, using a simple, clearly identifiable marking in accordance with the unit SOP.

j. Maintain security at all times and be prepared to react to more enemy contact at any moment. Do not neglect rear security.

K-4. INITIAL ACTIONS TO CLEAR A BUILDING

The initial actions to clear a building are no different during close quarters combat than during any other MOUT.

a. The unit isolates the building using direct or indirect fires before the lead element moves to the breach point. The unit—

(1) Covers mounted avenues of approach with anti armor weapons.

(2) Covers dismounted avenues of approach with automatic weapons.

b. The unit suppresses enemy fires and neutralizes suspected and likely enemy positions as the breach and clearing teams move into position. The unit obscures the movement of the breach and clearing teams to the building by using smoke.

c. Breach and clearing teams secure a foothold in the building. Teams move along covered and concealed routes and enter at the highest possible level of the building. The unit shifts fires to other floors or buildings as the clearing teams enter. If possible, clearing teams clear hallways and rooms from the top of the building down.

K-5. COMPOSITION OF THE CLEARING TEAM

Close quarters combat clearing techniques are designed to be executed by the standard four-man fire team. Because of the confined spaces typical of building- and room-clearing operations, units larger than squads quickly become unwieldy. When shortages of personnel demand it, room-clearing operations can be conducted by two- and three-man teams, but four-man teams are optimum. Using fewer personnel greatly increases the combat strain and the risks to the participants.

K-6. BREACHING

An integral part of close quarters combat is the ability to gain access quickly to the room to be cleared. Breaching techniques vary widely based on the type of construction encountered and the types of munitions available to the breaching force. Techniques range from simple mechanical breaching to complex, specialized demolitions.

a. A simple method of breaching is the *shotgun ballistic breach* for forced entry of standard doors. A 12-gauge shotgun loaded with buckshot or slugs can be used to breach most standard doors quickly. When done properly, the shotgun breach requires only a few seconds. The two standard shotgun breaching techniques are the *doorknob breach* and the *hinge breach*. When attempting either technique, the gunner approaches the door from an angle, avoiding standing in the area directly in front of the door. While holding the stock of the shotgun in the pocket of his shoulder, the gunner places the muzzle tightly against the door, aiming down at a 45-degree angle.

(1) For the doorknob breach, the aim point is a spot halfway between the doorknob and the frame, not at the doorknob itself. The gunner fires two quick shots in the same location, ensuring that the second shot is aimed as carefully as the first. Weak locks may fly apart with the first shot, but the gunner should always fire twice. Some locks that appear to be blown apart have parts still connected that will delay entry. If the lock is not defeated by the second shot, the gunner repeats the procedure.

(2) The hinge breach technique is performed much the same as the doorknob breach, except the gunner aims at the hinges. He fires three shots per hinge—the first at the middle, then at the top and bottom (Figure K-1). He fires all shots from less than an inch away from the hinge. Because the hinges are often hidden from view, the hinge breach is more difficult.



Figure K-1. Aim points for shotgun breach of a standard door.

Regardless of which technique the gunner uses, immediately after he fires, he kicks the door in or pulls it out. He then pulls the shotgun barrel sharply upward and quickly turns away from the doorway to signal that the breach point has been cleared. This rapid clearing of the doorway allows the following man in the fire team a clear shot at any enemy who may be blocking the immediate breach site.

b. Demolitions are often needed to defeat more elaborate barriers or to produce a desired effect to aid the initial entry. See Appendix L for a discussion of expedient demolitions for breaching common urban barriers.

c. Mechanical breaching is not addressed here, but it is an assumed capability within all units. Whether or not to take the time to defeat weak barriers, such as doors or windows, by means of crowbars, saws, sledgehammers, or axes is a decision that must be made based on the conditions of METT-T. Mechanical breaching should always be planned as a backup to a ballistic or explosive breach.

K-7. BREACH POINT

Clearing team members must approach the breach point quickly, quietly, and in standard order. This approach preserves the element of surprise and allows for quick entry and domination of the room.

a. The order of movement to the breach point is determined by the method of breach and the intended actions at the breach point. The members of the fire team are assigned numbers 1 through 4, with the team leader always designated number 3. If one member of the clearing team is armed with the SAW rather than an M16 rifle or carbine, he should be designated number 4.

(1) The order of movement for a shotgun breach has the shotgunner up front, followed by the number 1 man, number 2 man, and then the number 3 man (team leader). After the door is breached, the shotgunner falls to the rear of the lineup and acts as the number 4 man.

(2) The order of movement for a demolition breach is number 3 (team leader), number 2, number 1, and then number 4. The team leader provides security at the doorway. The number 2 man carries the demolition charge and places it. Number 1 carries a fabricated blast shield. Number 4 provides rear security. After the demolition charge is placed, number 2 falls in behind number 1 (with the blast shield), and number 3 (team leader) falls in behind number 2, re-forming the standard 1, 2, 3, 4 configuration.

(3) If neither a shotgun nor a demolitions breach is required, the order of movement is the standard 1, 2, 3, 4 configuration.

b. The clearing team must always be alert. Team members provide security at the breach point and to the rear, laterally down corridors, and upward if near stairs or landings. The two basic techniques for moving down hallways are shown in Figure K-2. Hallway intersections are dangerous areas and should be approached cautiously as shown in Figures K-3 and K-4.

(1) The *serpentine technique* is used in narrow hallways. The number 1 man provides security to the front. His sector of fire includes any enemy soldiers who appear at the far end of the hall or from any doorways near the end. The number 2 and number 3 men cover the left and right sides of the number 1 man. Their sectors of fire include any soldiers who appear suddenly from nearby doorways on either side of the hall. They cover the number 1 man's flanks. The number 4 man, normally carrying the SAW, provides rear protection against any enemy soldiers suddenly appearing behind the clearing team.

(2) The *rolling-T technique* is used in wide hallways. The number 1 and number 2 men move abreast, covering the opposite side of the hallway from the one they are walking on. The number 3 man covers the far end of the hallway from a position behind the number 1 and number 2 men, firing between them. Once again, the number 4 man provides rear security.



Figure K-2. Hallway clearing techniques.



Figure K-3. T-shaped hallway intersection clearing positions.



Figure K-4. Hallway intersection clearing positions and sectors of fire.

K-8. INDIVIDUAL MOVEMENT AND WEAPONS CONTROL

As in all combat situations, the clearing team must move tactically and safely. Individuals who are part of a clearing team must move in a standard manner, using practiced techniques known to all.

a. When moving, team members hold their weapons with the muzzle pointed in the direction of travel. They keep the butt of the rifle in the pocket of their shoulder, with the muzzle slightly down to allow for unobstructed vision. Soldiers keep both eyes open and swing the muzzle with their head so that the rifle is always aimed where the soldier is looking.

b. Team members avoid "flagging," or leading, with the weapon when working around windows, doors, comers, or areas where obstacles must be negotiated. Flagging the weapon gives advance warning to anyone looking in the soldier's direction, making it easier for an enemy to grab the weapon. Soldiers must keep their weapons under control at all times.

c. Team members should keep weapons safe (selector switch on SAFE and index finger outside of trigger guard) until a hostile target is identified and engaged. After a team member clears his sector of all targets, he returns his weapon to the SAFE position.

d. If a soldier has a malfunction with his weapon during close quarters combat, he should immediately drop to one knee and conduct immediate action to reduce the malfunction. Once the weapon is operational, there is no need to return to the standing position to engage targets unless the soldier must move to another firing position. Valuable time is saved by resuming target engagement from the kneeling position. When other members of the team see a soldier drop to one knee, they know immediately that he has a malfunction and that they should engage targets in his sector.

K-9. ACTIONS OUTSIDE THE POINT OF ENTRY

Actions outside the point of entry must be quick and well rehearsed. The doorway or breach point is a dangerous position. The clearing team is focused on entry and could be surprised by an enemy appearing unexpectedly in the corridor.

a. Clearing team members' positions relative to the door are important as are their weapons' carry positions. Team members stand as close to the entry point as possible, staying in a crouched position. They hold their weapons either in the high-carry or the low-carry position. They ensure the muzzle is not pointed at another team member.

b. All team members must signal one another that they are prepared before the team enters the room. The last man taps or squeezes the arm of the man in front of him, and each one passes this signal along. Team members avoid the use of a verbal signal, which may alert the enemy and destroy the element of surprise.

c. All individual equipment that is carried must be selected carefully and prepared properly to ensure that it is quiet and not cumbersome. Essential items only should be carried during close quarters combat. Protective vests and helmets should be worn by all team members. Additional protective equipment, such as gloves, kneepads, or goggles, may be worn, depending on the situation and the unit's level of training.



Figure K-5. Path of #1 man center door and corner door.

K-10. ACTIONS UPON ENTRY

The entire team should enter the room as quickly and as smoothly as possible and clear the doorway immediately.

a. The door is the focal point of anyone in the room. It is known as the "fatal funnel," because it focuses attention at the precise point where the individual team members are the most vulnerable. Moving into the room quickly reduces the chance that anyone will be hit by enemy fire directed at the doorway. The sequence of movements described below is shown in Figures K-5 through K-14.

b. On the signal to go, the clearing team moves through the door quickly and takes up positions inside the room that allow it to completely dominate the room and eliminate the threat. Team members stop movement only after they have cleared the door and reached their designated point of domination.

(1) The first man to enter moves in as straight a line as possible toward the comer for which he is responsible. He may then turn and move deep into the far corner of the room. The depth of his movement is determined by the size of the robin, any obstacles in the room such as furniture, and by the number and location of enemy and noncombatants in the room (Figure K-5).

(2) The second man enters and moves toward the corner



Figure K-6. Path of #2 man, center door and corner door.

(3) The number 3 man (team leader) buttonhooks inside the room at least 1 meter from the door, but between the number 1 man and the door (Figure K-7).



Figure K-7. Path of #3 man, center door and corner door.

(4) The squad leader can either use the number 4 man (normally the SAW gunner) as rear security at the breach site, or he can have him enter with the remainder of the team. If he enters, the number 4 man moves in the direction of the number 2 man and buttonhooks in the same way between the number 2 man and the door (Figure K-8).



Figure K-8. Path of #4 man, center door and corner door.

c. To make close quarters combat techniques work, each member of the team must know his sector of fire and how his sector overlaps and links with the sectors of the other team members. Team members do not move to the point of domination and then engage their targets. They engage targets as they move to their designated point. However, engagements must not slow movement to their points of domination. Team members may shoot from as short a range as 1 to 2 inches. They engage the most immediate enemy threats first. Examples of immediate threats are enemy personnel who—

- Are armed and prepared to return fire immediately.
- Block movement to the position of domination.
- Are within arm's reach of a clearing team member.
- Are within 3 to 5 feet of the breach point.



Figure K-9. Points of domination and sectors of fire (four-man team)

d. Each clearing team member has a designated sector of fire that is unique to him initially but expands to overlap sectors of the other team members.

(1) The number 1 and number 2 men are initially concerned with the area along the wall on either side of the door or entry point. This area is in their path of movement, and it is their primary sector of fire. Their alternate sector of fire is the wall that they are moving toward, sweeping back to the far corner.

(2) The number 3 and number 4 men start at the center of the wall opposite their point of entry and sweep to the left if moving toward the left, or to the right if moving toward the right. They stop short of their respective team member (either the number 1 man or the number 2 man).

e. While the team members move toward their points of domination, they engage all targets in their sector. Team members must exercise fire control and discriminate between hostile and non combatant occupants of the room. Shooting is done without stopping, using reflexive shooting techniques. Because the soldiers are moving and shooting at the same time, they must move using careful hurry. They do not rush with total disregard for any obstacles. Figure K-9 shows all four team members at their points of domination and their overlapping sectors of fire.

f. When full four-man teams are not available for room clearing, three-man and two-man teams can be used. Figures K-10 and K-11 show the paths, points of domination, and sectors of fire for a three-man clearing team. Figures K-12 and K-13 show the same thing for a two-man team.



Figure K-10. Points of domination and sectors of fire (three-man team).



K-16



Figure K-12. Points of domination and sectors of fire (two-man team, corner door).



Figure K-13. Points of domination and sectors of fire (two-man team, center door).

K-11. REFLEXIVE SHOOTING

During close quarters combat, there is little or no margin for error. Too slow a shot at an enemy, too fast a shot at a noncombatant or inaccurate shots can all be disastrous for the clearing team. Proper weapon carry technique, stance, aiming, shot placement, and trigger manipulation constitute the act of *reflexive shooting*. This method of shooting is the only way for the clearing team members to consistently succeed without excessive casualties.

a. **Weapon Ready Positions.** The two weapon ready positions are low ready and high ready.

(1) *Low ready position.* The butt of the weapon is placed firmly in the pocket of the shoulder with the barrel pointed down at a 45-degree angle. This is the safest carry position. It should be used by the clearing team while inside the room, except when actually entering and clearing.

(2) *High ready position.* The butt of the weapon is held under the armpit, with the barrel pointed slightly up, keeping the front sight assembly under the line of sight but within the gunner's peripheral vision. To engage a target, the gunner pushes the weapon out as if to bayonet the target. When the weapon leaves the armpit, he slides it up into the firing shoulder. This technique is best suited for the lineup outside the door.



Figure K-14. The low ready position for the M16A2.



Figure K-15. The high ready position for the M16A2.

b. **Stance**. The feet are kept about shoulder-width apart. Toes are pointed straight to the front (direction of movement). The firing side foot is slightly

staggered to the rear of the non-firing side foot. Knees are slightly bent and the upper body is leaned slightly forward. Shoulders are square and pulled back, not rolled over or slouched. The head is up and both eyes are open. When engaging targets, the gunner holds the weapon with the butt in the pocket of his shoulder.

c. **Aim.** The four aiming techniques all have their place during combat in built-up areas, but the aimed quick-kill technique is the one most often used in close quarters combat.

(1) *Slow aimed fire.* This technique is the most accurate. It consists of taking up a steady, properly aligned sight picture and squeezing off rounds. It is normally used for engagements beyond 25 meters or when the need for accuracy overrides speed.

(2) **Rapid aimed fire.** This technique features an imperfect sight picture in which windage is critical but elevation is of lesser importance. When the front sight post is in line with the target, the gunner squeezes the trigger. This technique is used against targets out to 15 meters and is fairly accurate and very fast.

(3) *Aimed quick kill.* This technique consists of using a good spot weld and placing the front sight post flush on top of the rear peep sight. It is used for very quick shots out to 12 meters. Windage is important, but elevation is not critical with relation to the target. This technique is the fastest and most accurate. With practice, soldiers can become deadly shots at close range.

(4) **Instinctive fire.** This technique is the least desirable. The gunner focuses on the target and points the weapon in the target's general direction, using muscle memory to compensate for lack of aim. This technique should be used only in emergencies.

d. **Shot Placement** In close quarters combat, enemy soldiers must be incapacitated immediately. Shots that merely wound or that are mortal but do not incapacitate the target instantaneously are only slightly better than clean misses. Members of clearing teams should concentrate on achieving solid, well-placed head shots. This shot placement is difficult for some soldiers to learn, having been taught previously to aim at center of mass.

(1) The only shot placement that guarantees immediate and total incapacitation is one roughly centered in the face, below the middle of the forehead, and above the upper lip. Shots to the side of the head above the horizontal line passing through the ear opening to just below the crown of the skull and from the cheekbones rearward to the occipital lobe are also effective. With practice, accurate shot placement can be achieved. (See Figure K-16 for proper shot placement.)

(2) Shots to the spinal column below the jaw and above the sternum can neutralize a target immediately. However, the spinal column is a narrow target and misses by only a few centimeters may cause no immediate reaction or a delayed reaction in the target. Even though severely wounded, the enemy soldier may be able to return effective fire.

(3) Shots to the center of the chest that enter the lung/heart region are normally fatal but may take several seconds to incapacitate the target. During this time, the opponent may be able to return effective fire. This region of the



body may also be shielded by military equipment or protective vests that can often deflect or absorb rounds and prevent immediate incapacitation.

Figure K-16. Proper shot placement.

(4) Shots to the abdomen or lower extremities are rarely effective in rendering an opponent immediately incapable of returning fire, even if they are ultimately fatal.

e. **Trigger Manipulation.** Rapid, aimed, semiautomatic fire is the most effective method of engaging targets during close quarters combat. As each round is fired from the aimed quick-kill position, the weapon's recoil makes the front sight post move in a small natural arc. The gunner should not fight this recoil. He should let the weapon make the arc and immediately bring the front sight post back onto the target and take another shot. This two-shot combination is known as a *double tap*. Soldiers must practice the double tap until it becomes instinctive. Clearing team members continue to fire double taps until the target goes down. If there are multiple targets, team members double tap each one and then return to reengage any enemy left standing or who are still trying to resist.

(1) Controlled three-round bursts fired from the M16A2 rifle are better than fully automatic fire, but they are only slightly faster and not as accurate or effective as rapid, aimed semiautomatic fire.

(2) Fully automatic fire with the M16A2 rifle or carbine is rarely effective and may lead to unnecessary noncombatant casualties. Not only is fully automatic fire inaccurate and difficult to control, but it also rapidly empties ammunition magazines. A clearing team member who has expended his ammunition while inside a room with an armed, uninjured enemy soldier will become a casualty unless his fellow team members can quickly intervene.

K-12. TARGET DISCRIMINATION

Target discrimination is the act of quickly distinguishing between combatant and noncombatant personnel and engaging only the combatants. US forces engage in close quarters combat in order to apply discriminating combat power and limit unnecessary casualties among noncombatants. Therefore, target discrimination is vital in close quarters combat. If there is no need for selective engagements, that is, only combatants attempting to resist are present, a much less discriminating use of firepower is possible. However, even if an area is known to be free of noncombatants, other soldiers moving through the area may be mistaken as enemy and engaged unless clearing team members are disciplined and well-trained in fire control and target discrimination. Even with well-trained, disciplined soldiers, close quarters combat can result in unintentional casualties among noncombatants. Commanders must recognize this and take steps to relieve the stress it causes soldiers.

K-13. SAFETY AND FORCE PROTECTION

Close quarters combat is extremely dangerous, and even training for it can be hazardous. Only well-trained, disciplined soldiers will be able to execute these techniques successfully. In training and in combat, safety and force protection are vital command considerations. a. Leaders at all levels must enforce safe handling of weapons and demolitions. The concern that individual soldiers not be injured in accidents is essential to mission accomplishment. Unintentional and unsafe weapons fire or detonation of explosives or munitions can jeopardize the mission of the clearing team and subsequently the entire unit.

b. Soldiers engaged in close quarters combat should wear all of their protective equipment.

(1) Soft body armor, such as the standard Army-issue Kevlar vest, is effective in preventing death or serious injury from high-velocity fragments that strike the torso area. Although the Kevlar protective vest is effective, flexible, and relatively comfortable, it is not designed to stop bullets. As a rule, soft body armor will stop some low-power handgun rounds but not rifle or carbine ammunition.

(2) Some versions of hard body armor will stop almost any round fired at it. They tend to be heavy and stiff but have been proven effective during close quarters combat. If a commander knows his unit will be conducting lengthy close quarters combat, he should request a special issue of threat level III protective equipment. This equipment is excellent, but soldiers must train and rehearse wearing it before they enter combat. All close quarters combat is tiring, and soldiers wearing threat level III vests will tire or overheat more quickly.

(3) The standard Army Kevlar helmet and ballistic protective eyeglasses have also been proven to significantly reduce casualties during close quarters combat. Histoically, eye injuries caused by small metal fragments or pieces of stone or concrete have been a large percentage of casualties during combat in built-up areas.

(4) Hard plastic knee and elbow protectors are available upon special request. They are useful, especially during prolonged search and clear operations. They prevent injury from rubble and broken glass when kneeling or prone.

c. Detailed knowledge of weapons and munitions effects is important to the safety of members of the clearing team, as well as to mission accomplishment. Most interior walls of buildings do not stop rifle fire. Fragments from grenades often penetrate interior walls. Standard home furnishings or office furniture offer little protection from high-velocity rounds. Excessive amounts of demolitions used to breach a wall may knock it down instead, perhaps even bring the roof of the building down also.

K-14. CLOSE QUARTERS COMBAT DURING DARKNESS

Mission accomplishment is the most important criterion of night operations, not the use of special equipment. All the specialized night vision equipment in the US armory cannot replace a trained, skilled soldier intent on mission accomplishment. Even in today's era of high technology, no failsafe system exists that allows an individual soldier to effectively identify and engage targets in total darkness. The commander must carefully consider the situation and the equipment available to him before he decides whether to use visible, invisible, or no artificial light during close quarters combat.

a. **Equipment.** Some specialized night vision equipment is available to the soldier now; other equipment will be available in the future.

(1) *AN/PAQ-4 aiming light.* This device projects a pulsing dot of IR light along the weapon's line of sight. The dot is invisible to the naked eye, but it can be seen by personnel wearing night vision goggles. Gunners with weapons equipped with the AN/PAQ-4 aiming light simply place the projected spot on the target and fire.

(2) *AN/PVS-5 and AN/PVS-7 night vision goggles.* These goggles are lightweight, battery-powered passive devices worn on the head. Each has an IR-emitting light source for close-up illumination.

(3) **Tactical lights.** These devices are small, lightweight, battery-powered white lights that can be attached to weapons. The light is activated by either a pressure switch or an on/off switch. An IR filter can be attached to most tactical lights to provide covert illumination. The most common example of a tactical light is sold under the name Maglite. This light can be attached to weapons using hose clamps or heavy tape. They must be checked periodically, because they can loosen and shift.

(4) **Red dot sights.** These devices are lightweight, battery-powered optical sights attached to the top of the weapon. A red dot in the sight aligns the weapon and the target. These sights are for use in low light levels, not total darkness. They do not assist in identifying targets.

(5) **Active laser devices.** These devices are lightweight, battery-powered, visible light-emitting sights. The device projects a red dot onto the target that corresponds to the point of bullet impact. These devices are not effective in sunlight.

(6) *Various thermal weapons sights.* In the near future, thermal weapons sights will be available to detect targets in total darkness.

b. **Use of White Light.** Although not covert, white light has several advantages:

- The equipment is readily available and reliable.
- No additional training is required.
- It offers the fastest means of identifying targets and searching a room.
- It allows color vision.

The main disadvantage is that an active light source can compromise a clearing team's position inside a room or building. Another disadvantage is that a light may be activated too soon and alert the enemy to the clearing team's presence.