U.S. ARMY CADET COMMAND

CADET HANDBOOK

"START STRONG"

CADET SUMMER TRAINING
2014

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CADET HANDBOOK

This publication is generally comprised of extracts from FM 3-21.8 Infantry Rifle Platoon and Squad, but references multiple sources. It provides the standard operating procedures for infantry platoons and squads for Cadet Summer Training and focuses on ROTC Cadet use. The procedures included in this handbook apply unless leadership makes a decision to deviate from them based on METT-TC. Deviations from this handbook must be narrow and apply only to specific situations.

Send recommendations for change with a summary letter to:

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CHAPTER 1 THE ARMY LEADER: CHARACTER,PRESENCE, INTELLECT

SECTION I – LEADERSHIP DIMENSIONS
(ADRP 6-22, Pg 3-1, 1 AUG 12)

1. . Character, comprised of a person's moral and ethical qualities, helps determine what is right and gives a leader motivation to do what is appropriate, regardless of the circumstances or consequences. An informed ethical conscience consistent with the Army Values strengthens leaders to make the right choices when faced with tough issues. Army leaders must embody these values and inspire others to do the same. Character is essential to successful leadership. It determines who people are, how they act, helps determine right from wrong, and choose what is right. Elements internal and central to a leader's core are—

- Army Values.
- Empathy.
- Warrior Ethos and Service Ethos.
- Discipline.

a. Army Values: Values are principles, standards, or qualities considered essential for successful leaders. Values are fundamental to help people discern right from wrong in any situation.
Loyalty (LO): Bears true faith and allegiance to the U.S. Constitution, the Army the Unit and other Soldiers
Duty (DU): Fulfills professional, legal and moral obligations
Respect (RE): Treats others as they should be treated; promotes dignity, consideration and fairness
Selfless Service (SS): Places welfare of others and Army priorities before self
Honor (HO): Adheres to the Army's publicly declared code of values
Integrity (IT): Does what is legally and morally right; honest in word and deed
Personal Courage (PC): Faces fear, danger or adversity; manifests physical and moral courage

b. Empathy - The ability to see something from another person's point of view, to identify with and enter into another person's feelings and emotions The propensity to experience something from another person's point of view, identify with and enter into another person's feelings and emotions and the desire to care for and take care of Soldiers and others.

c. Warrior Ethos The internal shared attitudes and beliefs that embody the spirit of the Army profession **-** I will always place the mission first, I will never accept defeat, I will never quit, I will never leave a fallen comrade

d. Discipline – Mental attitude and state of training which renders obedience instinctive; founded upon respect for and loyalty to proper authority; Control of one's own behavior according to Army Values; mindset to obey and enforce good orderly practices in administrative, organizational, training, and operational duties.

2. Presence - The impression made on others which contributes to a leader's success; the image that a leader projects.

Military and Professional Bearing (MB) - Projecting a commanding presence and professional image of authority

Fitness (PF) - Having sound health, strength, and endurance that supports one's emotional health and conceptual abilities under stress

Confidence (CF) - Projecting self-confidence and certainty; demonstrates composure and poise; calm and collected; possesses self control of emotions

Resilience (RS) - Showing a tendency to recover quickly while maintaining a mission and organizational focus

3. Intellect - The ability to draw on mental tendencies and resources that shape conceptual abilities and impact on effectiveness

Mental Agility (MA) - Flexibility of mind, a tendency to anticipate or adapt to ever changing conditions; improvisation

Sound Judgment (SJ) - Assesses situations and draws feasible conclusions; makes sound and timely decisions

Innovation (IN) - Ability to introduce something new; original in thoughts and ideas; creative

Interpersonal Tact (IP) - Effectively interacts with others; possesses the capacity to understand personal interactions with others; awareness of how others see you

Expertise (EX) - Possessing facts, beliefs, and logical assumptions in relevant areas; technical, tactical, cultural, and geopolitical knowledge

4. Core Leader Competencies: Works to **lead** others; **develop** themselves, their subordinates, and organizations in order to **achieve** mission accomplishment

a. Leads - Application of character, presence, intellect, and abilities while guiding others toward a common goal and mission accomplishment

Leads Others (LD) - Motivates, inspires, and influences others to take initiative, work toward a common purpose, and accomplish critical tasks to achieve unit objectives

Builds Trust (BT) – Establishes conditions of effective influence and creates a positive environment

Extends Influence beyond COC (EI) – Uses indirect means to influence others outside normal chain of command: involves negotiation, conflict resolution and mediation

Leads by Example (LE) - Provides the example to others; serves as a role model; maintains high standards in all aspects of behavior and character

Communicates (CO) - Clearly expresses ideas to ensure understanding, actively listens to others, and practices effective communication techniques

b. Develops - Taking actions to foster teamwork, encourage initiative, and to accept personal responsibility while demonstrating care

Creates a Positive Environment/Fosters Esprit de Corps (PE) - Creates a positive and ethical environment

Prepares Self (PS) - Self-study; self-development toward becoming multi-skilled; ensures preparation for leadership

Develops Others (DO) - Encourages and supports others to grow as individuals and teams; prepares others for success; makes the organization more versatile

Stewards the Profession (SP) – As part of leader developmental responsibilities, they must prepare themselves and act to promote long-term stewardship of the Army

c. Achieves - Sets objectives and focuses on mission accomplishment

Gets Results (GR) - Structuring what needs to be done so results are consistently produced; developing and executing plans while providing direction, guidance, and clear priorities towards mission accomplishment; manages the resources required for mission accomplishment

SECTION II – CREEDS AND OATHS

The Soldier's Creed:

I am an American Soldier.
I am a Warrior and a member of a team.
I serve the people of the United States and live the Army Values.
I will always place the mission first.
I will never accept defeat.
I will never quit.
I will never leave a fallen comrade.
I am disciplined, physically and mentally tough, trained and proficient in my warrior tasks and drills. I always maintain my arms, my equipment and myself.
I am an expert and I am a professional.
I stand ready to deploy, engage, and destroy the enemies of the United States of America in close combat.
I am a guardian of freedom and the American way of life.
I am an American Soldier.

Cadet Creed

I am an Army Cadet. Soon I will take an oath and become an Army Officer committed to DEFENDING the values which make this Nation great. HONOR is my touchstone. I understand MISSION first and PEOPLE always.
I am the PAST: the spirit of those WARRIORS who have made the final sacrifice.
I am the PRESENT: the scholar and apprentice Soldier enhancing my skills in the science of warfare and the art of leadership.
But above all, I am the FUTURE: the future WARRIOR LEADER of the United States Army. May God give me the compassion and judgment to lead and the gallantry in battle to WIN.
I WILL do my duty.

NCO Creed

No one is more professional than I. I am a noncommissioned officer, a leader of Soldiers. As a noncommissioned officer, I realize that I am a member of a time honored corps, which is known as "The Backbone of the Army". I am proud of the Corps of noncommissioned officers and will at all times conduct myself so as to bring credit upon the Corps, the military service and my country regardless of the situation in which I find myself. I will not use my grade or position to attain pleasure, profit, or personal safety.

Competence is my watchword. My two basic responsibilities will always be uppermost in my mind—accomplishment of my mission and the welfare of my Soldiers. I will strive to remain technically and tactically proficient. I am aware of my role as a noncommissioned officer. I will fulfill my responsibilities inherent in that role. All Soldiers are entitled to outstanding leadership; I will provide that leadership. I know my Soldiers and I will always place their needs above my own. I will communicate consistently with my Soldiers and never leave them uninformed. I will be fair and impartial when recommending both rewards and punishment.

Officers of my unit will have maximum time to accomplish their duties; they will not have to accomplish mine. I will earn their respect and confidence as well as that of my Soldiers. I will be loyal to those with whom I serve; seniors, peers, and subordinates alike. I will exercise initiative by taking appropriate action in the absence of orders. I will not compromise my integrity, nor my moral courage. I will not forget, nor will I allow my comrades to forget that we are professionals, noncommissioned officers, leaders!

Oath of Commissioned Officers

I, _____, having been appointed an officer in the Army of the United States, as indicated above in the grade of _____ do solemnly swear (or affirm) that I will support and defend the Constitution of the United States against all enemies, foreign and domestic, that I will bear true faith and allegiance to the same; that I take this obligation freely, without any mental reservations or purpose of evasion; and that I will well and faithfully discharge the duties of the office upon which I am about to enter; So help me God."

SECTION III – CUSTOMS AND COURTESIES

(From Field Manual 7-21.13, CHG 1,The Soldier's Guide, 20 September 2011)

The Army is an organization that instills pride in its members because of its history, mission, capabilities, and the respect it has earned in the service of the Nation. A reflection of that pride is visible in the customs, courtesies, and traditions the Army holds. Adherence to them connects us with Soldiers throughout America's history.

A. Customs

The Army has its own customs, both official and social. Some have been handed down from the distant past while others are of comparatively recent origin. Those customs that endure stand on their own merits. As a long established social organization, the Army observes a number of customs that add to the interest, pleasure, and graciousness of Army life.

Often it is these customs and traditions, strange to the civilian eye but solemn to the Soldier, that keep the man in the uniform going in the unexciting times of peace. In war they keep him fighting at the front. The fiery regimental spirit fondly polished over decades and centuries possesses him in the face of the enemy. [The Soldier] fights for the regiment, his battalion, his company, his platoon, his section, his comrade.

A custom is an established practice. Customs include positive actions—things you do, and taboos—things you avoid. All established arts, trades, and professions, all races of people, all nations, and even different sections of the same nation have their own practices and customs by which they govern a part of their lives. Many Army customs compliment procedures required by military courtesy, while others add to the graciousness of garrison life. The breach of some Army customs merely brands the offender as ignorant, careless, or ill bred. Violations of other Army customs, however, will bring official censure or disciplinary action. The customs of the Army are its common law. These are a few:

- Never criticize the Army or a leader in public.
- Never go "over the heads" of superiors—don't jump the chain of command.
- Never offer excuses.
- Never "wear" a superior's rank by saying something like, "the first sergeant wants this done now," when in fact the first sergeant said no such thing. Speak with your own voice.
- Never turn and walk away to avoid giving the hand salute.
- Never run indoors or pretend you don't hear (while driving, for example) to avoid standing reveille or retreat.
- Never appear in uniform while under the influence of alcohol.
- If you don't know the answer to a superior's question, you will never go wrong with the response, "I don't know sir, but I'll find out."

B. Courtesies

Courtesy among members of the Armed Forces is vital to maintain discipline. Military courtesy means good manners and politeness in dealing with other people. Courteous behavior provides a basis for developing good human relations. The distinction between civilian and military courtesy is that military courtesy was developed in a military atmosphere and has become an integral part of serving in uniform. Most forms of military courtesy have some counterpart in civilian life. For example, we train Soldiers to say "sir" or "ma'am" when talking to a higher ranking officer. Young men and women are sometimes taught to say sir to their fathers or ma'am to their mothers and likewise to other elders. It is often considered good manners for a younger person to say sir or ma'am when speaking to an older person. The use of the word sir is also common in the business world, such as in the salutation of a letter or in any well-ordered institution.

Military courtesy is not a one-way street. Enlisted personnel are expected to be courteous to officers and likewise officers are expected to return the courtesy. Mutual respect is a vital part of military courtesy. In the final analysis, military courtesy is the respect shown to each other by members of the same profession. Some of the Army's more common courtesies include rendering the hand salute, standing at attention or parade rest, or even addressing others by their rank.

THE HAND SALUTE

The salute is not simply an honor exchanged. It is a privileged gesture of respect and trust among Soldiers. Remember the salute is not only prescribed by regulation but is also recognition of each other's commitment, abilities, and professionalism.

Some historians believe the hand salute began in late Roman times when assassinations were common. A citizen who wanted to see a public official had to approach with his right hand raised to show that he did not hold a weapon. Knights in armor raised visors with the right hand when meeting a comrade. This practice gradually became a way of showing respect and, in early American history, sometimes involved removing the hat. By 1820, the motion was modified to touching the hat, and since then it has become the hand salute used today. You salute to show respect toward an officer, flag, or our country.

The salute is widely misunderstood outside the military. Some consider it to be a gesture of servility since the junior extends a salute to the senior, but we know that it is quite the opposite. The salute is an expression that recognizes each other as a member of the profession of arms; that they have made a personal commitment of self-sacrifice to preserve our way of life. The fact that the junior extends the greeting first is merely a point of etiquette—a salute extended or returned makes the same statement.

The Salute - 1LT Thompson and his platoon's newest NCO, SGT Jemison, were walking toward the orderly room one morning. As they turned the corner and approached the building, PFC Robertson walked out carrying a large box. PFC Robertson said, "Good morning, sir," and kept walking past the two. As his hands were occupied, he didn't salute. But 1LT Thompson saluted and replied with the unit motto, "First Tank!" After the Soldier had passed, SGT Jemison asked the lieutenant why he saluted since the Soldier did not. "He did by rendering the greeting of the day. If I had been carrying something and he wasn't, he would have saluted. It's a privilege, not a chore," said 1LT Thompson. "It's just as important for me to return a salute as for a Soldier to render it."

The way you salute says a lot about you as a Soldier. A proud, smart salute shows pride in yourself and your unit and that you are confident in your abilities as a Soldier. A sloppy salute might mean that you're ashamed of your unit, lack confidence, or at the very least, that you haven't learned how to salute correctly.

In saluting, turn your head and eyes toward the person or flag you are saluting. Bring your hand up to the correct position in one, smart motion without any preparatory movement. When dropping the salute, bring your hand directly down to its natural position at your side, without slapping your leg or moving your hand out to the side. Any flourish in the salute is improper.

The proper way to salute when wearing the beret or without headgear is to raise your right hand until the tip of your forefinger touches the outer edge of your right eyebrow (just above and to the right of your right eye). When wearing headgear, the forefinger touches the headgear slightly above and to the right of your right eye. Your fingers are together, straight, and your thumb snug along the hand in line with the fingers. Your hand, wrist, and forearm are straight, forming a straight line from your elbow to your fingertips. Your upper arm (elbow to shoulder) is horizontal to the ground.

All Soldiers in uniform are required to salute when they meet and recognize persons entitled (by grade) to a salute except when it is inappropriate or impractical (in public conveyances such as planes and buses, in public places such as inside theaters, or when driving a vehicle).

A salute is also rendered:

• When the United States National Anthem, "To the Color," "Hail to the Chief," or foreign national anthems are played.
• To uncase National Color outdoors.
• On ceremonial occasions such as changes of command or funerals.
• At reveille and retreat ceremonies, during the raising or lowering of the flag.
• During the sounding of honors.
• When pledging allegiance to the US flag outdoors.
• When turning over control of formations.
• When rendering reports.
• To officers of friendly foreign countries.
• Salutes are not required when:
• Indoors, unless reporting to an officer or when on duty as a guard.
• A prisoner.
• Saluting is obviously inappropriate. In any case not covered by specific instructions, render the salute.
• Either the senior or the subordinate is wearing civilian clothes.

In general, you don’t salute when you are working (for example, under your vehicle doing maintenance), indoors (except when reporting), or when saluting is not practical (carrying articles with both hands, for example). A good rule of thumb is this: if you are outdoors and it is practical to salute, do so. Outdoors includes theater marquees, shelters over gas station pumps, covered walkways, and other similar shelters that are open on the sides.

OTHER COURTESIES

Military courtesy shows respect and reflects self-discipline. Consistent and proper military courtesy is an indicator of unit discipline, as well. Soldiers demonstrate courtesy in the way we address officers or NCOs of superior rank. Some other simple but visible signs of respect and self-discipline are as follows:

• When talking to an officer of superior rank, stand at attention until ordered otherwise.
• When you are dismissed, or when the officer departs, come to attention and salute.
• When speaking to or being addressed a noncommissioned officer of superior rank, stand at parade rest until ordered otherwise.

• When an officer of superior rank enters a room, the first Soldier to recognize the officer calls personnel in the room to attention but does not salute. A salute indoors is rendered only when reporting.
• When an NCO of superior rank enters the room, the first Soldier to recognize the NCO calls the room to "At ease."
• Walk on the left of an officer or NCO of superior rank.
• When entering or exiting a vehicle, the junior ranking Soldier is the first to enter, and the senior in rank is the first to exit.
• When outdoors and approached by an NCO, you greet the NCO by saying, "Good morning, Sergeant," for example.
• The first person who sees an officer enter a dining facility gives the order "At ease," unless a more senior officer is already present. Many units extend this courtesy to senior NCOs, also.
• When you hear the command "At ease" in a dining facility, remain seated, silent and continue eating unless directed otherwise.

When you report to an officer of superior rank, approach the officer to whom you are reporting and stop about two steps from him, assuming the position of attention. Give the proper salute and say, for example, "Sir, Private Smith reports." If you are indoors, use the same procedures as above, except remove your headgear before reporting. If you are armed, however, do not remove your headgear.
A Soldier addressing a higher ranking officer uses the word sir or ma'am in the same manner as a polite civilian speaking with a person to whom he wishes to show respect. In the military service, the matter of who says sir or ma'am to whom is clearly defined; in civilian life it is largely a matter of discretion. In the case of NCOs and Soldiers, we address them by their rank because they've earned that rank.
Simple courtesy is an important indicator of a person's bearing, discipline, and manners. It is a fact that most people respond positively to genuine politeness and courtesy. Walk down a street in most towns and cities and see the response you get from people when you just say "good morning." It is no different for Soldiers. Some units substitute the greeting with their unit motto, such as "Deeds, not Words," or "Keep up the Fire." These reiterate pride in the unit and demonstrate the discipline and professionalism of a unit's Soldiers. When I walk up to a Soldier he should go to parade rest. Not because I'm better than he is, but because he respects who he is and who I am based on what we both do. It's professionalism.
SMA Jack L. Tilley

RENDERING HONOR TO THE FLAG
The flag of the United States is the symbol of our nation. The union, white stars on a field of blue, is the honor point of the flag. The union of the flag and the flag itself, when in company with other flags, are always given the honor position, which is on the right. Some of the rules for displaying the flag are as follows:
• All Army installations will display the flag of the United States outdoors.
• Continental United States (CONUS) Army installations will fly only one flag of the United States at a time except as authorized by the commanding generals of major Army commands.
• Installations will display the flag daily from reveille to retreat.
• When a number of flags are displayed from staffs set in a line, the flag of the United States will be at the right; to the left of an observer facing the display. If no foreign national flags are present, the flag of the United States may be placed at the center of the line providing it is displayed at a higher level.
• When the flag of the United States is displayed with state flags, all of the state flags will be of comparable size.

When the flag is being raised in the morning, you should stand at attention on the first note of "Reveille" and salute. In the evening "Retreat" is played prior to "To the Colors." ("Colors" refer to the flag of the United States and can also include the unit flag). When you hear the first note of "Retreat" come to the position of attention and face the flag (or the direction the music is coming from if the flag is not visible). Render the hand salute at the first note of "To the Colors." You normally face the flag when saluting,

unless duty requires you to face in some other direction. At the conclusion of the music, resume your regular duties. If you are involved in some duty that would be hampered by saluting, you do not need to salute.

When in a formation or a group, the senior Soldier present will call the group to "Attention" and then "Parade, Rest" at the first note of "Retreat." That Soldier will then call the group to "Attention" and "Present, Arms" at the first note of "To the Colors" and then "Order, Arms" at the conclusion. When in civilian clothing, the only change is to place your right hand over your heart instead of saluting. Vehicles in motion should stop. If you are in a car or on a motorcycle, dismount and salute. If you are with a group in a military vehicle or bus, remain in the vehicle. The individual in charge will dismount and salute. These honors also apply to the national anthems of foreign countries during ceremonies or parades. When you are passing or being passed by colors that are being presented, paraded, or displayed, salute when the colors are six paces from you. Hold the salute until the colors are six paces beyond you.

The Pledge of Allegiance is not recited in military formations or in military ceremonies. At other functions where the Pledge of Allegiance is recited, a Soldier in uniform silently stands at attention facing the flag and renders the hand salute. If indoors a Soldier in uniform silently stands at attention facing the flag. Where other participants are primarily civilians or in civilian attire, Soldiers in uniform indoors may recite the pledge if they desire. A Soldier in civilian clothing recites the pledge while standing at attention, facing the flag with the right hand over the heart. Male Soldiers in civilian clothing should remove headgear with their right hand and hold it over the left shoulder so that the right hand is over the heart.

SECTION IV - DUTIES AND RESPONSIBILITIES
(FM 3-21.10 Chap 1, Sect IV JUL06)

COMPANY COMMANDER (CO) - leads by personal example and responsible for everything the company does or fails to do. Principle duties include the key areas of tactical employment, training, administration, personnel management, maintenance, force protection, and sustainment of the company. Given the asymmetrical, noncontiguous environment, the commander must now integrate and synchronize a greater mix of forces for full spectrum operations, including other combined arms and combat support elements, civil affairs (CA), psychological operations (PSYOP), interpreters, media, unmanned aerial system (UAS) and robotics teams. Among other things, the commander:

- Mission Command through subordinate leaders.
- Employs the company to accomplish its mission according to battalion commander's intent and concept.
- Selects the best location to maneuver the platoons and other elements.
- Conducts mission analysis and troop-leading procedures (TLP) and issues operation orders for company tactical operations.
- Maintains and expresses situation awareness and understanding.
- Resources the platoons and other elements and requests battalion support when needed.
- Ensures the company command post (CP) effectively battle tracks the situation and status.
- Provides timely and accurate tactical picture to battalion commander and subordinate units.
- Implements measures for force protection, security, and accountability of forces and systems.
- Develops the leadership and tactical skill of platoon leaders.

CST Cadet Company Commander

-Coordinate with the company cadre for detailed instructions.
-Organize, control and move the Cadet Company.
-Develop a Cadet OPORD for the days of training. Publish the OPORD to Cadet PLs.
-Promote effective time management.
-Properly and efficiently manage subordinates.

EXECUTIVE OFFICER (XO) - Second in command. Primary role is to assist the commander in mission planning and accomplishment. Assumes command of the company as required and ensures that tactical reports from platoons are forwarded to battalion tactical operations center (TOC). Locate where to maintain communications with the company commander and battalion. Along with the 1SG, plans and supervises the company's sustainment operations; ensures that pre-combat inspections are complete. Plans and coordinates logistical support with agencies external to the company while the 1SG does the same internally. Prepares, or aids in preparing, paragraph four of the company operation order (OPORD). Assist the company commander in planning the mission. Coordinate with higher headquarters, adjacent and supporting units. May aid in control of critical events of the battle such as a passage of lines, bridging a gap, breaching an obstacle or may assume control of a platoon attached to the company during movement. Might lead a quartering party, an element consisting of representatives of various company elements whose purpose is to precede the company and reconnoiter, secure, and mark an assembly area. The XO might lead a detachment with other tactical tasks, including shaping or sustaining force leader in a company raid, attack, control company machine guns, or mortar section. May also—

- Lead the reserve. Lead the detachment left in contact during a withdrawal.
- Control attachments to the company.
- Serve as movement control officer.

CST Cadet Company XO

- Coordinate with cadre support staff for supplies, transportation and equipment to support training.
- Perform duties as assistant to the CO.
- Act as CO in the absence of the commander.
- Act as liaison between PLs and CO.
- Coordinate and follow up as the CO directs.
- Supervise distribution of supplies and equipment.
- Establish bivouac sites.
- Serve as the Company Safety Officer (prepare OPORD's safety paragraph).

FIRST SERGEANT (1SG) - leads by personal example and is responsible for everything the company does or fails to do. The senior noncommissioned officer (NCO) and normally the most experienced Soldier in the company. 1SG is the commander's primary tactical advisor and expert on individual and NCO skills. Helps the commander plan, coordinate, and supervise all activities that support the unit mission. Operates where the commander directs or where can best influence a critical point or what is viewed as the unit's decisive point. In addition:

- Supervises routine operations, including enforcing tactical standing operating procedures; planning and coordinating both training and full spectrum operations; and administering replacement operations, logistics, maintenance, communications, field hygiene, and casualty evacuation operations.

- Supervises, inspects, and influences matters designated by the commander as well as areas that depend on expertise such as Soldier care, force protection, security, and accountability.

- Assists the XO and keeps self prepared to assume the XO's duties, if needed.

- Leads task-organized elements or subunits for the company's shaping effort or designated missions.

CST Cadet Company 1SG

- Organize the company for formations.
- Organize details to accomplish company tasks.
- Prepare and submit morning personnel reports.
- Monitor Cadet sick call and account for all absences during the day.
- Control the company's movement.
- Supervise field mess feeding.
- Perform other duties as the CO may direct.
- Enforce First Call and Lights Out.
- Utilize Cadet PSGs to accomplish company-wide requirements.

PLATOON LEADER (PL) - Responsible for the entire platoon does or fails to do. In the conduct of duties, consults platoon sergeant in all matters related to the platoon. The PL knows Soldiers and therefore how to employ the platoon and its organic and supporting weapons. During operations, the platoon leader—

- Leads platoon in supporting higher headquarters missions. They will base actions on assigned mission and intent and concept of higher commanders.
- Maneuvers squads and fighting elements.
- Synchronizes the efforts of squads.
- Looks ahead to the next "move" for the platoon.
- Requests and controls supporting assets.
- Employs C2 systems available to the squads and platoon.
- Ensures 360-degree, three-dimensional security is maintained
- Controls the emplacement of key weapon systems.
- Issues accurate and timely reports.
- Places self where most needed to accomplish the mission.
- Assigns clear tasks and purposes to squads.
- Understands the mission and commanders' intent two levels up (the company and battalion).

The platoon leader works to develop and maintain situational understanding (SU) by:

- attempting to know what is happening in the present in terms of friendly, enemy, neutral, and terrain situations.

- knowing the end-state that represents mission accomplishment

- determining critical actions and events that must occur to move unit from present to end-state

-assessing risk throughout all phases of operations

CST Cadet Platoon Leader

- Coordinate with the CO and XO.
- Control platoon organization.
- Complete all required platoon tasks.
- Establish platoon plan of action.
- Create and issue platoon operations orders (OPORD).
- Conduct platoon inspections and rehearsals.
- Organize physical training activities.

PLATOON SERGEANT (PSG) - Senior NCO in the platoon and second in command. The PSG sets the example in everything. Tactical expert in Infantry platoon and squad operations, including maneuver of platoon-sized elements and employment of all organic and supporting weapons. Advises the PL in all administrative, logistical, and tactical matters. Responsible for the care of personnel, weapons, and equipment of the platoon. As second in command, assumes duties as assigned by the PL. Traditionally—

- Ensures platoon is prepared to accomplish mission, to include supervising pre-combat checks and inspections.
- Prepares to assume the role and responsibilities of platoon leader.
- Acts where best needed to help mission command the engagement (either in base of fire or with assault element).
- Receives squad leaders' administrative, logistical, and maintenance reports, and requests for rations, water, fuel, and ammunition.
- Coordinates with higher headquarters to request logistical support (usually 1SG or XO).
- Manages platoon's combat load prior to operations and monitors logistical status during operations.
- Establishes and operates platoon's casualty collection point (CCP), including directing platoon medic and aid/litter teams in moving casualties; maintains platoon strength levels information; consolidates and forwards platoon's casualty reports; receives and orients replacements.
- Employs digital mission command systems available to the squads and platoon.
- Understands the mission and commanders intent two levels up (the company and battalion).

CST Cadet Platoon Sergeant

- Assist the PL.
- Coordinate with Cadet 1SG and Cadet SLs.
- Organize platoon formations.
- Account for platoon attendance.
- Prepare and submit morning reports.
- Control sick call and account for absences.
- Supervise issue/turn in of supplies and equipment.
- Supervise barracks maintenance.
- Control movement of the platoon.

SQUAD LEADER (SL) - Senior Infantryman in the squad, is responsible for all the squad does or fails to do. Directs team leaders and leads by personal example. Has authority over subordinates and overall responsibility for those subordinates' actions. Centralized authority enables the SL to act decisively while maintaining troop discipline and unity. Even in the course of carefully-planned actions, must accomplish assigned missions using initiative without constant guidance from above. Responsible for the care of personnel, weapons, and equipment. During operations, the squad leader—

- Is SME on all battle drills and individual drills?
- Is SME in squad's organic weapons employment and the employment of supporting assets?
- Knows weapon effects, surface danger zone(s) (SDZ), and risk estimate distance(s) (RED) for all munitions.
- Effectively uses control measures for direct fire, indirect fire, and tactical movement.
- Controls movement of squad and its rate and distribution of fire (including call for and adjust fire).
- Fights the close fight by fire and movement with two fire teams and available supporting weapons.
- Selects the fire team general locations and sectors in the defense.
- Communicates timely and accurate spot reports (SPOTREPs) and status reports, including—
- Size, activity, location, unit, time, and equipment (SALUTE) SPOTREPs.

- Status to PL (including squad location and progress, enemy situation, enemy killed in action [KIA], and security posture).
- Status of ammunition, casualties, and equipment to the PSG.
- Employs digital C2 systems available to the squad and platoon.
- Operates in any environment to include the urban environment.
- Conducts troop-leading procedures (TLP).
- Assumes duties as the PSG or PL as required.
- Understands the mission and commander's intent two levels up (platoon and company).

CST Cadet Squad Leader

- Ensure the squad is in proper uniform with proper equipment for training.
- Lead and supervise up to 13 squad members.
- Ensure that the squad draws all necessary equipment and rations required for training.
- Personally prepare and inspect the squad for all missions.
- Keep squad accountability and report to the PSG.
- Control movement of the squad.
- Prepare and submit reports.
- Prepare and issue the squad operation order (OPORD).

TEAM LEADER (TL) - Leads team members by personal example. Has authority over subordinates and overall responsibility for their actions. Centralized authority enables the TL to maintain troop discipline and unity and to act decisively. Under the fluid conditions of close combat, the TL must accomplish assigned missions using initiative without needing constant guidance from above. The TL's position on the battlefield requires immediacy and accuracy in all of his actions. TL is a fighting leader who leads the team by example. Responsible for all the team does or fails to do. Responsible for the care of the team members, weapons, and equipment. During operations, the team leader—

- Is the SME on all of the team's weapons and duty positions and all squad battle drills.
- Leads his team in fire and movement.
- Controls the movement of the team and its rate and distribution of fire.
- Employs digital C2 systems available to the squad and platoon.
- Ensures security of team's sector.
- Assists the squad leader as required.
- Is prepared to assume the duties of the squad leader and platoon sergeant.
- Enforces field discipline and preventive medicine measures (PMM).
- Determines team's combat load and manages its available classes of supply as required.
- Understands the mission two levels up (squad and platoon).
- When maneuvering the team, the team fights using one of three techniques:
  (1) Individual movement techniques (IMT, the lowest level of movement).
  (2) Buddy team fire and movement.
  (3) Fire team fire and movement (maneuver).
- Determines a suitable technique based on the effectiveness of the enemy's fire and available cover and concealment. The more effective the enemy's fire, the lower the level of movement. Because the team leader leads his team, he is able to make this assessment firsthand. Other leaders must be sensitive to the team leader's decision on movement.

CST Cadet Team Leader

- Ensure the team is in proper uniform with proper equipment for training.
- Lead and supervise up to 6 team members.
- Ensure that the team draws all necessary equipment and rations required for training.
- Personally prepare and inspect the team for all missions.
- Keep team accountability and report to the SL.
- Control movement of the team.
- Prepare and submit reports.

SECTION V – LEADERSHIP VIGNETTES

Vignette #1: Professionalism in Combat-Beyond the Call of Duty

Smith, Paul Ray
Sergeant First Class, U.S. Army
Company B, 11th Engineer Battalion, 3d Infantry Division, 3d Infantry Division
Place and Date of Action: Baghdad, Iraq, April 4, 2003

Sergeant First Class Smith was engaged in the construction of a prisoner of war holding area when his Task Force was violently attacked by a company-sized enemy force. Realizing the vulnerability of over 100 fellow soldiers, Sergeant First Class Smith quickly organized a hasty defense consisting of two platoons of soldiers, one Bradley Fighting Vehicle and three armored personnel carriers. As the fight developed, Sergeant First Class Smith braved hostile enemy fire to personally engage the enemy with hand grenades and anti-tank weapons, and organized the evacuation of three wounded soldiers from an armored personnel carrier struck by a rocket propelled grenade and a 60mm mortar round. Fearing the enemy would overrun their defenses, Sergeant First Class Smith moved under withering enemy fire to man a .50 caliber machine gun mounted on a damaged armored personnel carrier. In total disregard for his own life, he maintained his exposed position in order to engage the attacking enemy force.

Vignette #2w: I Will Never Leave a Fallen Comrade

MSG Gordon, Gary and SFC Shughart, Randall U.S. Army
Sniper Team Member, Task Force Ranger, United States Army Special Operations Command
Date of Action: October, 1993

During a raid in Mogadishu in October 1993, Master Sergeant Gary Gordon and Sergeant First Class Randall Shughart, leader and member of a sniper team with Task Force Ranger in Somalia, were providing precision and suppressive fires from helicopters above two helicopter crash sites. Learning that no ground forces were available to rescue one of the downed aircrews and aware that a growing number of enemy were closing in on the site, Gordon and Shughart volunteered to be inserted to protect their critically wounded comrades. Their initial request was turned down because of the danger of the situation. They asked a second time; permission was denied. Only after their third request were they inserted. Gordon and Shughart were inserted one hundred meters south of the downed chopper. Armed with only their personal weapons, the two noncommissioned officers fought their way to the downed fliers through intense small arms fire, a maze of shanties and shacks, and the enemy converging on the site. After Gordon and Shughart pulled the wounded from the wreckage, they established a perimeter, put themselves in the most dangerous position, and fought off a series of attacks. The two warriors continued to protect their comrades until they had depleted their ammunition and were themselves fatally wounded. Their actions saved the life of an Army pilot.

Vignette #3: Hand-to-Hand Combat & Suicide Bombers

Prosser, Robert
Command Sergeant Major, U.S. Army
1st Battalion, 24th Infantry Regiment- Stryker Brigade - Deuce Four
Place and Date of Action: August 19, 2004

It was Aug. 19, and Prosser's commander, Lt. Col. Erik Kurilla, had been shot down in front of him. Bullets hit the ground and walls around him. Prosser charged under fire into a shop, not knowing how many enemy fighters were inside. There was one, and Prosser shot him four times in the chest, then threw down his empty rifle and fought hand-to-hand with the man. The insurgent pulled Prosser's helmet over his eyes. Prosser got his hands onto the insurgent's throat, but couldn't get a firm grip because it was slick with blood. "Unable to reach his sidearm or his knife, and without the support of any other American soldiers," "Sergeant Major Prosser disarmed and subdued the insurgent by delivering a series of powerful blows to the insurgent's head, rendering the man unconscious. "You can't forget that you had to hurt somebody Prosser noted." "This all happened in about 30 seconds of a 20-year career. A lot of it has to do with God himself, with love of the job, love of man, love of Soldiers." Command Sgt. Maj. Robert Prosser stood at attention as a narrator read a description of his Silver Star-worthy actions. There was another Silver Star recipient, Staff Sgt. Shannon Kay for his actions on Dec. 11, 2004. He helped save the lives of seven members of his squad after they were attacked by a suicide bomber and insurgents with rockets and mortars at a traffic checkpoint. He and others used fire extinguishers to save their burning Stryker vehicle and killed at least eight enemy fighters. Throughout the fight, Kay refused medical attention despite being wounded in four places, according to battalion records.

CHAPTER 2 – ARMY BASICS

SECTION I – MILITARY TIME

Military Time.
The military operates off a 24-hour clock, beginning at midnight (which is 0000 hours). So, 1:00 AM is 0100 hours, 2:00 AM is 0200 hours and so-on up until 11:00 PM which is 2300 hours. The below table is a quick reference.

Civilian Time	Military Time
Midnight (12:00 AM)	0000 hrs
1:00 AM	0100 hrs
2:00 AM	0200 hrs
3:00 AM	0300 hrs
4:00 AM	0400 hrs
5:00 AM	0500 hrs
6:00 AM	0600 hrs
7:00 AM	0700 hrs
8:00 AM	0800 hrs
9:00 AM	0900 hrs
10:00 AM	1000 hrs
11:00 AM	1100 hrs
12:00 PM	1200 hrs
1:00 PM	1300 hrs
2:00 PM	1400 hrs
3:00 PM	1500 hrs
4:00 PM	1600 hrs
5:00 PM	1700 hrs
6:00 PM	1800 hrs
7:00 PM	1900 hrs
8:00 PM	2000 hrs
9:00 PM	2100 hrs
10:00 PM	2200 hrs
11:00 PM	2300 hrs

Minutes are listed in the third and 4th number position. So, 5:15 AM is 0515 hrs. 12:17 AM is 0017 hrs. 10:30 PM is 2230 hrs.

SECTION II– CLASSES OF SUPPLY

CLASSES (CL) OF SUPPLY
CL I - Subsistence (food, water)
CL II - Clothing, individual equipment, tools and tent packages
CL III - Petroleum, oil and lubricants (POL)
CL IV - Construction materials
CL V - Ammunition
CL VI - Personal demand items (sundry packs)
CL VII - Major end items
CL VIII - Medical supplies
CL IX - Repair parts

SECTION III – ARMY ORGANIZATION

Army Organization

A. The United States Army is made up of three parts -- The Active Army, the Army National Guard, and the U.S. Army Reserve. The members of the Active Army are on full-time duty. The reserve components, including the National Guard and the Reserve, receive military training and are ready to be called to active duty if necessary.

B. Army units can be organized in a number of different ways. The following organization is fairly typical.

Individual Soldier. The Soldier is the foundation of the Army Organization; Soldiers are trained in a myriad of common warrior tasks and are further specialized into Military Occupation Specialties (MOS). Some examples of MOSs are:

11B Infantryman
13B Cannon Crewmember
15V Observation/Scout Helicopter Repairer
18Z Special Forces Operations Senior Sergeant

Team or Crew. The team or crew is the smallest unit; it is usually made up of 4 Soldiers. A Sergeant is the Team Leader.

Squad. The squad consists of 2 - 3 teams; it is usually made up of 8 to 12 Soldiers. A Staff Sergeant is the Squad Leader.

Platoon. The platoon consists of 3 or 4 squads; it ranges from 15-45 Soldiers. A Lieutenant is the Platoon Leader. A SFC is the Platoon SGT.

Company/Troop/Battery. The company, troop, or battery consists of 3 to 6 platoons; it ranges from 50-450 Soldiers. A Captain is the Company Commander. The Company First Sergeant is the Senior NCO in the Company.

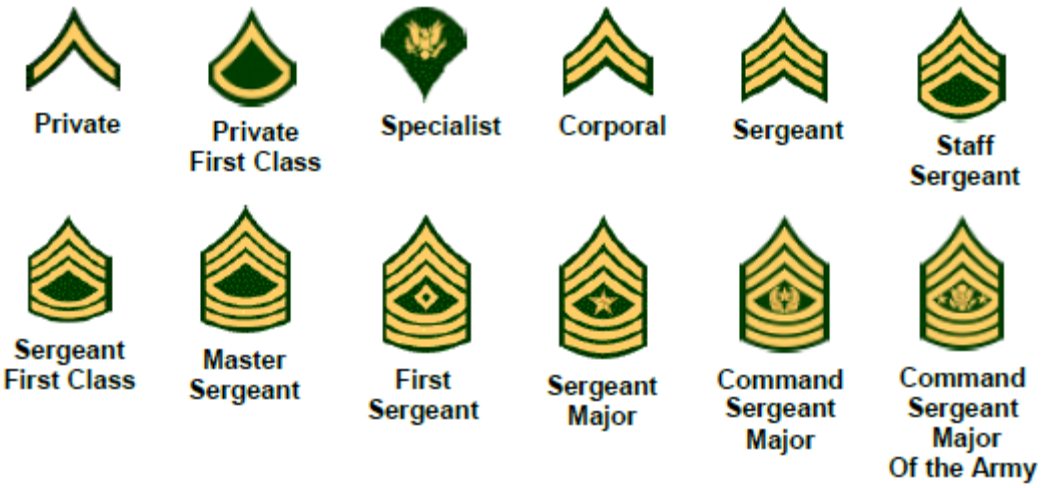
Battalion/Squadron. The battalion or squadron consists of 3 to 6 companies and a staff. A Lieutenant Colonel is the Battalion Commander. The CSM is the Senior NCO in the Battalion and the Command Sergeant Major (CSM).

Brigade/Regiment. The brigade or regiment consists of 3 to 6 battalion and a staff. A Colonel is the Brigade Commander. The CSM is the Senior NCO in the Brigade/Regiment and the Command Sergeant Major (CSM).

Division. The division consists of 3 to 5 brigades, separate battalions, and a staff. A Major General is the Division Commander. The CSM is the Senior NCO in the Division and the Command Sergeant Major (CSM).

SECTION IV – RANK/INSIGNIA

Enlisted. Enlisted ranks range from Private to Command Sergeant Major of the Army. The enlisted rank insignia and methods of addressing are below.



Privates (PVT) and Privates First Class (PFC) are addressed as "Private (last name)".

Specialists (SPC) are addressed as "Specialist (last name)".

Corporals (CPL) are addressed as “Corporal (last name)”.

Sergeants (SGT), Staff Sergeants (SSG), Sergeants First Class (SFC) and Master Sergeants (MSG) are all addressed as "Sergeant (last name)".

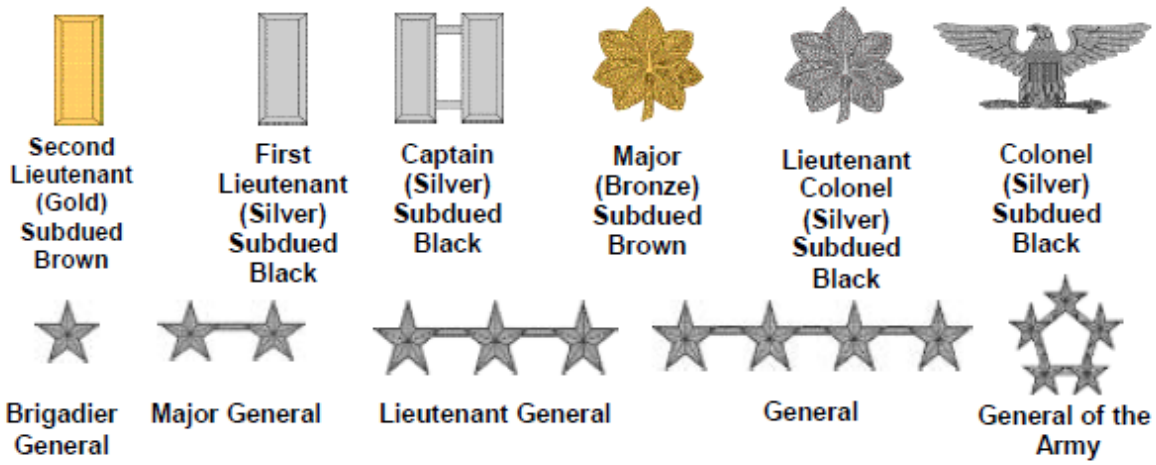
First Sergeants (1SG) are addressed as “First Sergeant (last name)”.

Sergeants Major (SGM) and Command Sergeants Major (CSM) and are addressed as “Sergeant Major (last name)”.

Warrant Officers. Warrant Officer ranks range from Warrant Officer One to Chief Warrant Officer Five. Warrant Officer rank insignia and methods of addressing are below.

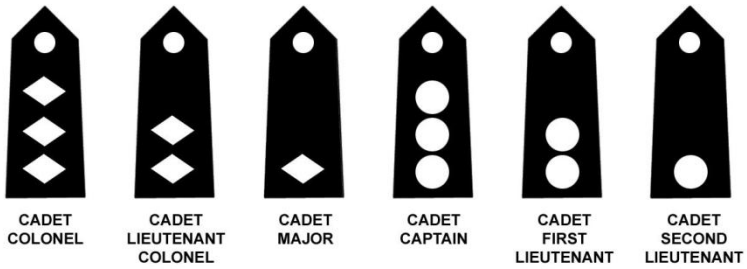
Warrant Officers are addressed as "Mr. (last name)" or Ms. (last name)".

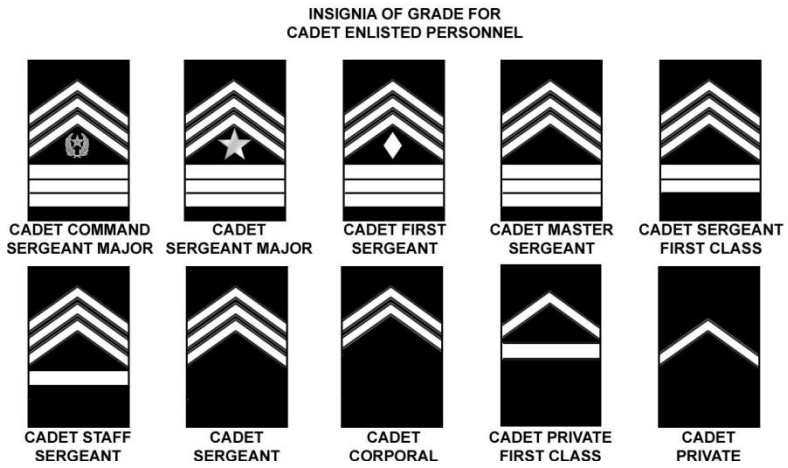
Officers. Officer ranks range from Second Lieutenant to Five-Star General (General of the Army). Officer rank insignia and methods of addressing are below.



Second Lieutenants (2LT) and First Lieutenants (1LT) are addressed as “Lieutenant (last name)".
Captains (CPT) are addressed as “Captain (last name)”.
Majors (MAJ) are addressed as “Major (last name)”.
Lieutenant Colonels (CST) and Colonels (COL) are addressed as “Colonel (last name)”.
All Generals are addressed as "General (last name)" regardless of the number of stars.

Cadet Rank





SECTION V – DEPLOYMENT PACKING LIST

This packing list consists of items on the CST Cadet Checklist (CCC 145-05) and is supplemented by a CST CIF draw.

Basic Issue Items (BII) are the items issued by the government at the university, CST Central Issue Facility (CIF) and the regiment. Additional Authorized Items (AAI) are not required items but can be purchased at the cadet's expense to aid training or increase convenience. CST or the government will not pay for any of these items, but here are some suggested (not limited to) AAIs: moisture wicking socks, gloves other than US Army issue i.e. Nomex, however palm must be leather(tan, black, green, ACU pattern), commercial boots, etc.

1. **CARRIED OR WORN**
   a. ACU (COMPLETE), **BOOTS
   b. HELMET, KEVLAR OR ACH (Name in Block Letter Professional Looking with Permanent Marker and Sewn on is Authorized. No other marking is authorized.)
   c. ID TAGS worn IAW AR 670-1 W/MED TAGS (If required)
   d. MOLLE FLC (FIGHTING LOAD CARRIER), TO INCLUDE:
      1) POUCH, 30RD MAGAZINE, 3 EA
      2) MAGAZINES, 4 EA
      3) POUCH, CANTEEN, 2 EA
      4) CUP, CANTEEN (Inside left canteen cover)
      5) FIRST-AID CASE W/DRESSING (Front right of vest) (OPTIONAL ITEM)
      6) FLASHLIGHT Elbow type or Mini-Mag w/red lens & extra batteries. (Mini-Mag inside left ammo pouch, elbow type secured in grenade carrier on left ammo pouch OR to LBV in same spot using 550 cord.)
      7) POUCH, GRENADE, 2 EA

8) LENSATIC COMPASS (In right grenade pouch, secured with lanyard to waist belt)
9) EARPLUG CASE W/EARPLUGS (Inside left ammo pouch)
10) CAMO STICK/COMPACT (Green, Loam or ACU color) (Inside left ammo pouch)

e. CADET HANDBOOK (waterproof inside pocket of FLC or in ACU cargo pocket when not wearing LBV)
f. M-16 RIFLE W/BLANK ADAPTER (Store blank adapter inside left ammo pouch)
g. MAP AND PROTRACTOR (Right trouser cargo pocket)
h. NOTEBOOK W/PEN & PENCIL(Left cargo pocket)
i. KNEE & ELBOW PADS (WHEN DIRECTED) or (IN RUCK WHEN NOT WORN)
j. GLOVES, LEATHER (WHEN DIRECTED) or (IN RUCK WHEN NOT WORN)
k. EYE PROTECTION (WHENEVER WEARING ACH/HELMET)
l. WATCH
m. PACE COUNT BEADS (ATTACHED TO FLC)
n. WHISTLE (ATTACHED TO FLC)

2. RUCK SACK

a. BAG, WATERPROOF
1) ACU TOP & BOTTOM, 1 EA
2) T-SHIRTS, TAN (3 EA MINIMUM), SOCKS (3 PR MINIMUM)
3) POLY PRO COLD WEATHER TOP
4) PERSONAL HYGIENE KIT (FEMALES include feminine/hygiene products)
5) BATH TOWEL (Dark Solid Color)
6) WASHCLOTH, 2 EA (Dark Solid Color)
7) BRA, 2 EA (FEMALES)
8) COTTON UNDERWEAR, 3 EA (OPTIONAL)

b. LINER, PONCHO
c. PARKA W/W(right sustainment pouch)
d. WEAPONS CLEANING KIT(inside Center Pocket)
e. 550 CORD (inside top flap approximately 5 meters)
f. PATROL CAP(inside top flap, Worn or in Ruck)
g. TERRAIN MODEL KIT
h. BUNGEE CORDS, 4 EA
i. MREs, 2 EA (ISSUED BY REGIMENT WHEN REQUIRED)
j. TRASH BAGS, 2 EA (in center pocket)
k. INSECT REPELLENT/SUNSCREEN COMBINATION IN ZIPLOC BAG
l. FOOT POWDER IN ZIPLOC BAG
m. CARRIER, HYDRATION w/BLADDER (secured under top flap of rucksack or Worn)
n. PAD, SLEEPING (secured on top of rucksack)
o. MOLLE SLEEP SYSTEM includes: STUFF SACK(Black), BIVY COVER (Gore-Tex), PATROL SLEEPING BAG(Green)
p. MOSQUITO HEAD NET(IF ISSUED in center pocket)
q. REFLECTIVE BELT (secured around outside of rucksack WHEN DIRECTED)
r. SEWING KIT, MOLESKIN, HAND SANTITIZER, FLEECE CAP, CHAP STICK, NECK GATOR and any AAI.
s. ASSAULT PACK
t. PONCHO
u. **COMBAT BOOTS, 1PR**
v. LAUNDRY BAG

3. A BAG

a. BAG, WATERPROOF:
   1) ACU TOP & BOTTOM, 4 EA
   2) SOCKS, 4 EA (recommended more due to field time)
   3) UNDERSHIRT, 4 EA (recommended more due to field time)
   4) COTTON UNDERWEAR, 4 EA (recommended more due to field time)
   5) T-SHIRT, IPFU, 2 EA
   6) TRUNKS, IPFU, 2 EA
   7) BATH TOWEL, 2 EA
   8) WASHCLOTH
   9) WHITE SOCKS, 2 EA

b. PADLOCK
c. SHOWER SHOES
d. RUNNING SHOES
e. BRA (Females)
f. TROUSERS W/W
g. LAUNDRY BAG, 1 EA
h. SET OF VELCRO (Name Tapes/US Flag/Unit Patch)
i. DUFFLE BAG (Shoe Tag provided by the REGT and each PLT will have a different marking to help identify Platoon movement to AA/TTBs.)
j. BUTT PACK from MOLLE KIT
k. COMBAT BOOTS (OPTIONAL placement during Patrolling phase)
l. ADDITIONAL PERSONAL HYGIENE ITEMS

4. ASSAULT PACK – (WHEN WORN) will contain but not limited to 1 MRE, 2 PR socks, 1 T-Shirt, Wet Weather Top, Poncho, Poncho Liner, Weapons Cleaning Kit and additional items according to mission requirements.

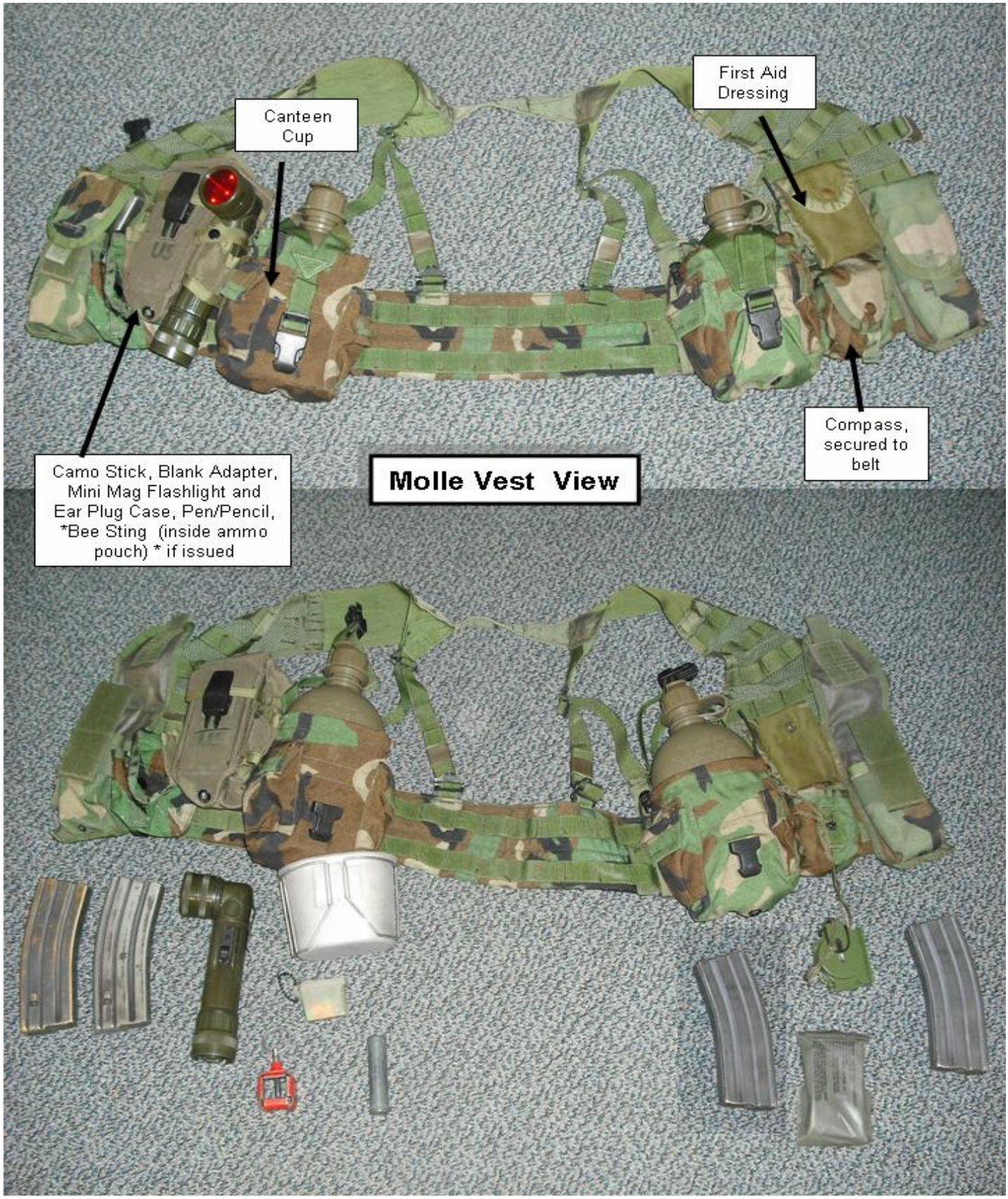
5. B BAG

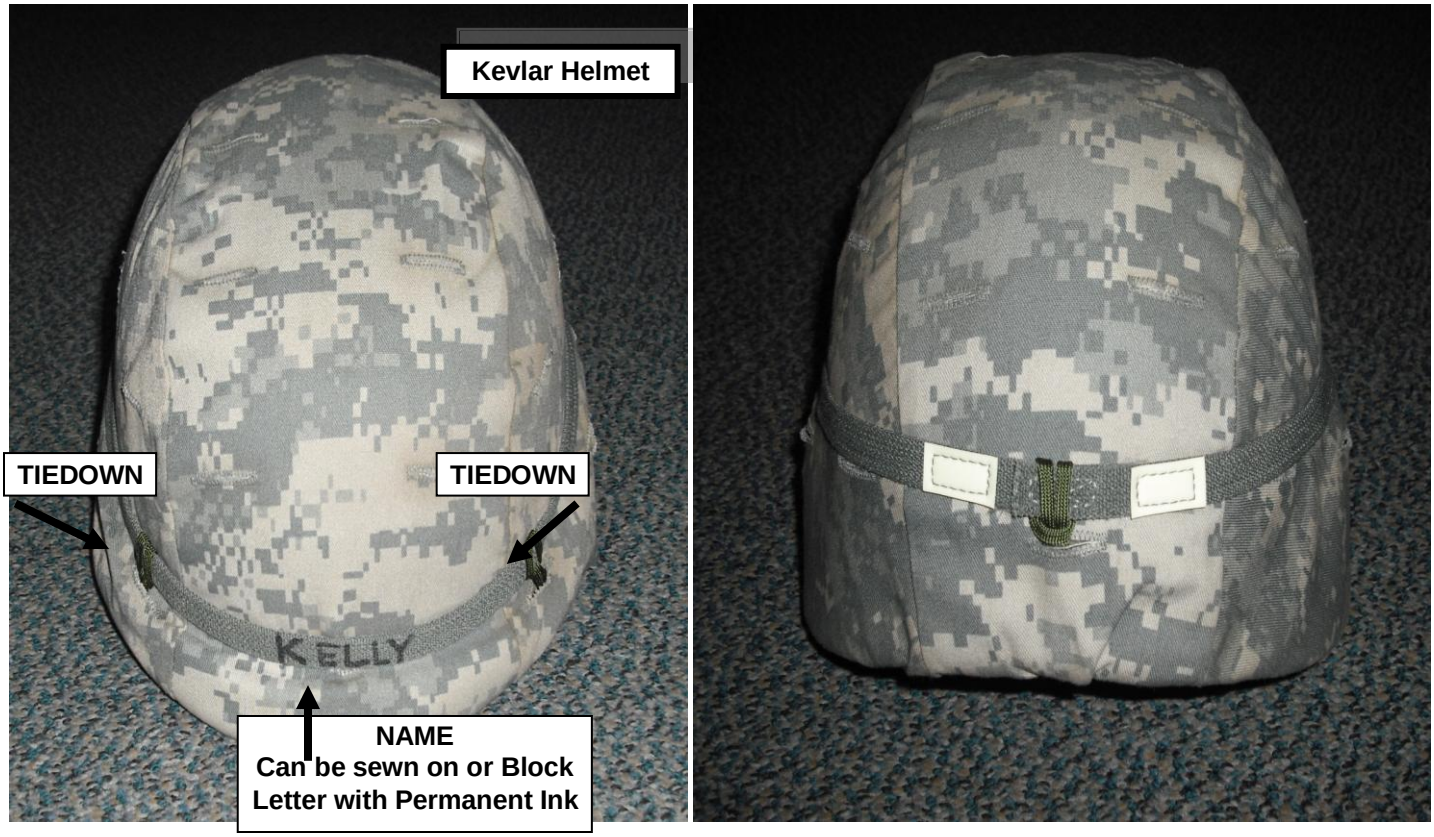
a. COTTON UNDERWEAR, BRA (Females)
b. ACU TOP & BOTTOM
c. T-SHIRT, IPFU, TRUNKS, IPFU
d. WHITE SOCKS, 4PR
e. PADLOCKS, 2 EA
f. T-SHIRT, TAN, 2EA
g. SOCKS, 2 EA
h. PATROL CAP

***ARMY COMBAT BOOTS** – (HOT WEATHER AND TEMPERATE WEATHER) MADE OF TAN ROUGH SIDE OUT CATTLEHIDE LEATHER WITH A PLAIN TOE AND TAN RUBBER OUTSOLES. THE BOOTS ARE LACED DIAGONALLY WITH TAN LACES, WITH THE EXCESS LACE TUCKED INTO THE TOP OF THE BOOT UNDER THE BLOUSED TROUSERS, OR WRAPPED AROUND THE TOP OF THE BOOT. METAL CLEATS AND SIDE TABS, AND SEWN-IN OR LACED-IN ZIPPER INSERTS ARE NOT AUTHORIZED. A RUBBER OUTSOLE IS THE ONLY OUTSOLE MATERIAL THAT CURRENTLY MEETS THE NEED FOR DURABILITY AND TRACTION ON SURFACES. OTHER MATERIALS (THAT MAY BE OF A LIGHTER WEIGHT) MAY HAVE SIGNIFICANT PROBLEMS IN THESE AREAS.

****OPTIONAL/COMMERCIAL BOOTS** - SOLDIERS MAY WEAR COMMERCIAL BOOTS OF A DESIGN SIMILAR TO THAT OF THE ARMY COMBAT BOOT (TAN), 8 TO 10 INCHES IN HEIGHT AS AUTHORIZED BY THE COMMANDER. THE BOOTS MUST BE MADE OF TAN ROUGH SIDE OUT CATTLEHIDE LEATHER, WITH A PLAIN TOE, AND HAVE A TAN, RUBBER OUTSOLE. SOLDIERS MAY WEAR OPTIONAL BOOTS IN LIEU OF THE STANDARD ISSUE ARMY COMBAT BOOTS (TAN) - HOT WEATHER AND TEMPERATE WEATHER; HOWEVER, THEY DO NOT REPLACE ISSUE BOOTS AS A MANDATORY POSSESSION ITEM. OPTIONAL BOOTS ARE NOT AUTHORIZED FOR WEAR WHEN THE COMMANDER ISSUES AND PRESCRIBES STANDARD ORGANIZATIONAL FOOTWEAR FOR SAFETY OR ENVIRONMENTAL REASONS. UNAUTHORIZED BOOTS INCLUDE BUT ARE NOT LIMITED TO CORCORAN JUMP BOOTS, TANKERS BOOTS, BOOTS W/ ZIPPERS OR ANY OTHER BOOTS NOT IN COMPLIANCE WITH AR 670-1.


Cadet Uniform
Eye protection w/clear lenses
Cadet Handbook (Inside pocket of FLC)
Compass in grenade pouch secured to waist belt
Right Cargo: MAP, Protractor
Camo Stick, Blank Adapter, Mini Mag or Army Elbow type Flashlight, Ear Plug Case, Pen/Pencil, Bee Sting Kit (if issued)


Canteen Cup
First Aid Dressing
Compass, secured to belt
Camo Stick, Blank Adapter, Mini Mag Flashlight and Ear Plug Case, Pen/Pencil, *Bee Sting (inside ammo pouch) * if issued
Molle Vest View


Kevlar Helmet
TIEDOWN
TIEDOWN
KELLY
NAME
Can be sewn on or Block
Letter with Permanent Ink

ACH Helmet

Ruck Sack Packing List Items – (Front View)

Ruck Sack Packing List Items – (Side View)

Ruck / Packing Notes:

- Some items may be worn, such as the Knee Pads, Elbow Pads, Gloves, and Glove Inserts are shown in the Worn. Uniform and the Ruck Packing list photos but these items are accounted for on the Ruck Weight.

-Training Committee along with CST Leadership will direct what is required for each training site.

- The Patrol Pack will be either empty, inside the Ruck Sack or be attached to the Ruck Sack or used separately.

- Ruck Sack is a 3 day minimum pack.

- Cadets will restock out of their A Bag.

- Not Required, but Additional Authorized Items (AAI) may be shown on List.

A Bag Notes:

- The A Bag is a Duffle Bag which will be marked by a shoe tag and provided by the REGT. CST will have shoe tags to help identify platoon integrity, when Cadets move TO and FROM Garrison, AA, TTB and to Garrison.

- Some items may be worn, in the A Bag, or in the laundry.

- The A Bag is basically a 4 day pack where the Cadets may resupply their Ruck Sack.

- Pack enough personal hygiene items to sustain 14 days

- Not Required, but Additional Authorized Items (AAI) may be shown on List.

- DISREGARD boots in this picture. They belong in the Ruck.

- DISREGARD the parka, Gortex and poly pro cold weather bottom in this picture. They are not required at Fort Knox.

B Bag Notes:

- Any other civilian clothing will be placed in the B Bag which includes personal items not to be used in the field.

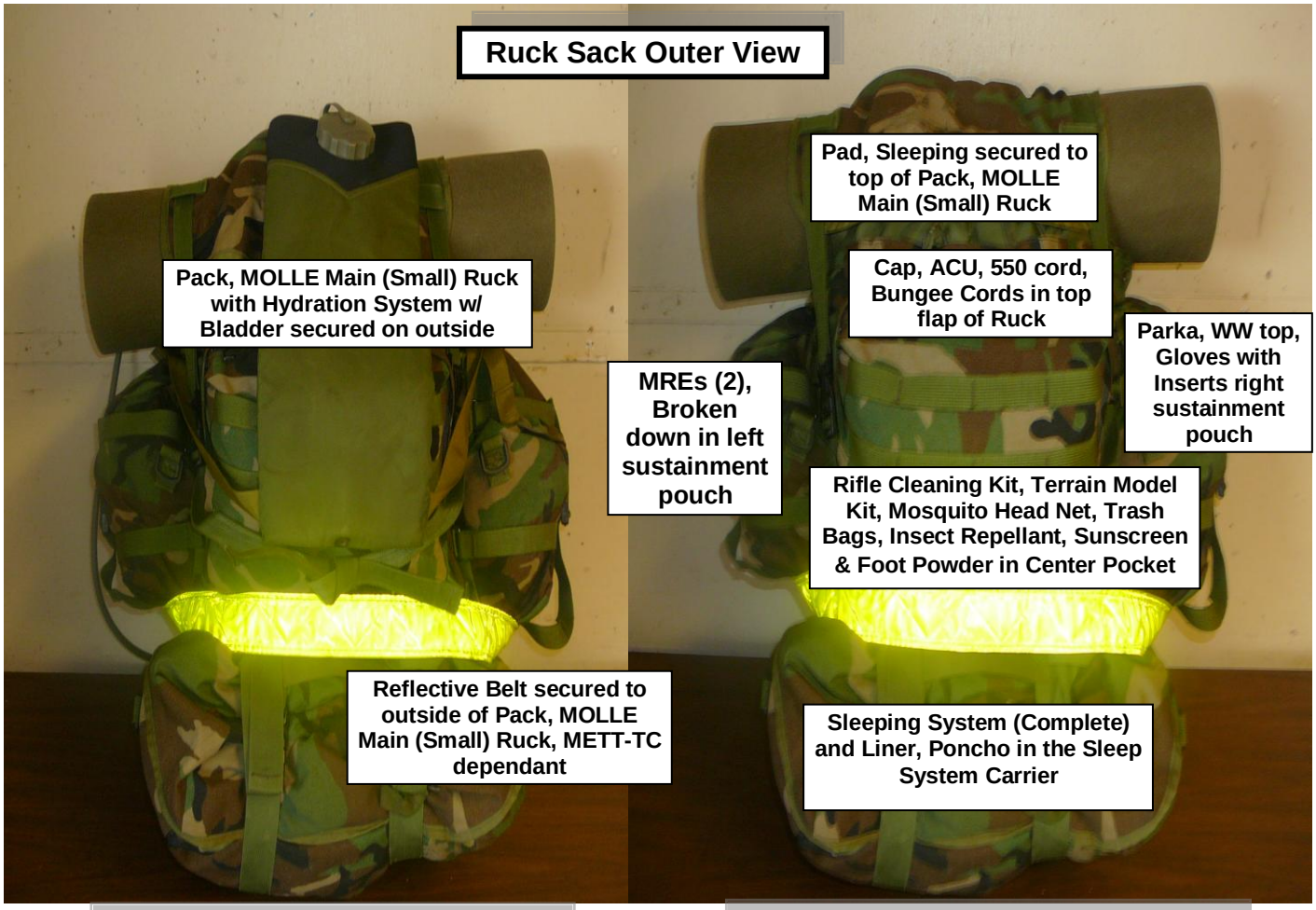
- A set of ACUs will be set aside in the B Bag for graduation.

- If applies, the EOCST Commissionee's equipment (See CC Cir 145-5 App C).

- Not required, but Additional Authorized Items (AAI) may be shown on List.

- Reflective Belt in B Bag is AAI and Not Required.

- DISREGARD IPFU jacket and pants in this picture. They are not necessary at Fort Knox.



Ruck with Camelback Hydration System

Ruck without Camelback Hydration System

Average Cadet Gear Weight — **Average Weight (LBS) of Equipment**

A. Soldier with Boots and ACUs (with Wallet/pen/paper) 5 LBS

B. Weight of Soldier with Kevlar/ACH and MOLLE System Worn w/water 10 LBS

C. Weight of Soldier with Kevlar/MOLLE System Worn w/water and Ruck complete 45 LBS

Total Weight of Equipment 60 LBS

*****NOTE:**

***RUCK SACK WILL NOT EXCEED 45 LBS**

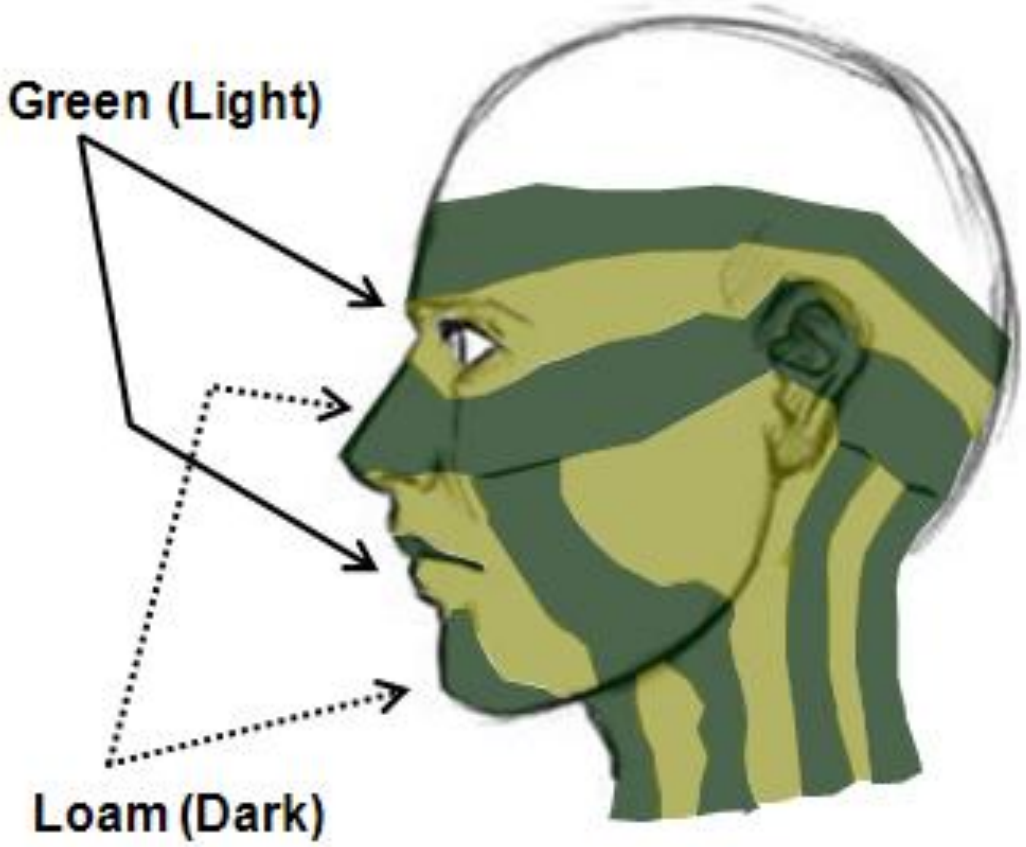
****ALL ITEMS NOT WORN OR LISTED ON PACKING LIST WILL BE SECURED IN REGIMENTAL CONNEX ALONG WITH B BAG**

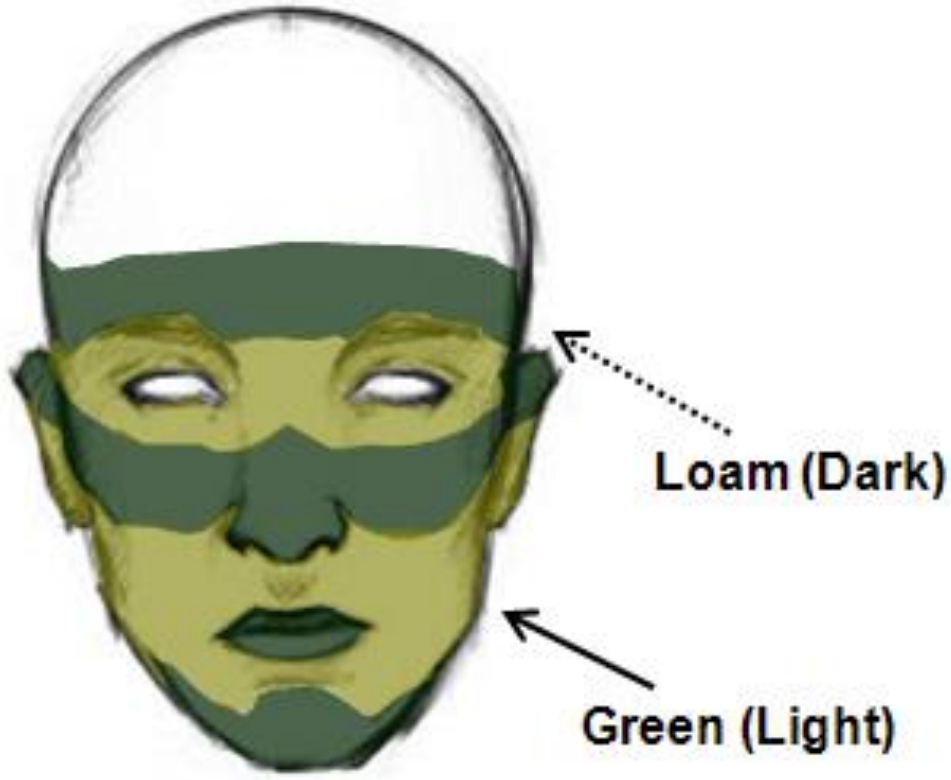
Medical Color Coded Zip Ties are provided by REGT: This is referenced in CST SOP, Section R

Green – All other Allergies
White – Previous Cold Weather Injury
Red – Previous Heat Injury
Yellow – Bee Allergy
Blue – Weak Swimmer

SECTION VII- FACE PAINT

(ATTP 3-34.39, Camouflage, Concealment, & Decoys, NOV 10)





- Exposed skin reflects light and may draw attention. Even very dark skin requires camouflage because natural oils, will reflect light. Paint sticks cover these oils and help blend skin with the background.

- Avoid using oils or insect repellent to soften the paint stick because doing so makes skin shiny and defeats the purpose of paint.

- Cadets applying paint should work in pairs and help each other. Self-application may leave gaps, such as behind ears and exposed skin on the neck.

Use the following technique:

- Paint high, shiny areas (forehead, cheekbones, nose, ears, chin) with a dark color.

- Paint low, shadow areas with a light color.

Paint exposed skin (back of neck, arms, hands) with an irregular pattern.

SECTION VIII - TRAINING SAFETY

1. TRAINING SAFETY LIST

a. Incorporate the buddy system into all training and other events. Ensure buddy teams understand the importance of individual safety overwatch. (e.g. recognition and first aid for heat/cold injuries)

b. Designate safety officers to assist in the planning and execution of training.

c. Use training SOPs that include the use of the Risk Assessment Management Program (RAMP). Continuously update them.

d. Check appropriate qualifications for instructors, trainers, drivers, lifeguards, etc.

e. Require special or preliminary training prior to engaging in medium or high risk training. (e.g. PMI)

f. Establish/enforce appropriate uniform and equipment requirements and prohibitions

g. Announce the dangers inherent in a training event (risks associated with terrain, off - limits areas, weather, animals, vegetation, water, vehicles, equipment, weapons, ammunition and pyrotechnics.)

h. Announce the location and responsibilities of safety personnel

i. Announce the location/use of safety equipment/materials.

j. Announce the type of medical support, evacuation plans and medical facility to be used if evacuation is needed. Make known emergency radio frequencies/call-signs and telephone numbers.

k. Conduct safety briefings for all participants prior to and during training as needed.

l. Establish reporting procedures for unsafe acts/conditions and accidents.

m. Integrate sensitive items (weapons, night vision equipment, COMSEC, etc.) in RAMP and incorporate appropriate operational and security safeguards.

2. HAZARD REPORTING

a. All soldiers and cadets will correct identified hazards if they are capable of doing so without endangering themselves or others.

b. Where soldiers and cadets cannot correct a hazard, they will report it to their supervisors or to the regiment/committee Safety Coordinator. Such reports may also be submitted directly to the CST Safety Office or other appropriate points within the command.

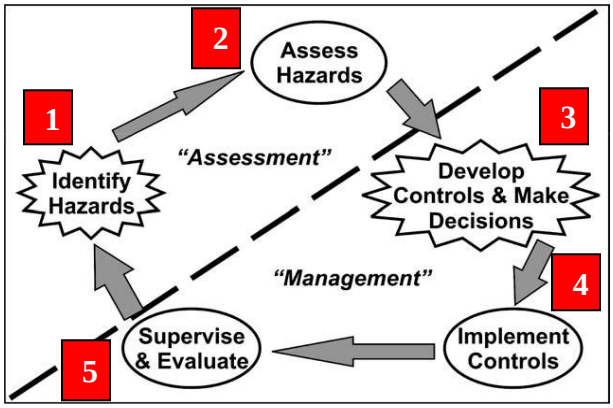
c. A formal method of reporting of unsafe or unhealthy working conditions is the completion of DA Form 4755 (Employee Report of Alleged Unsafe or Unhealthy Working Conditions). Normally reports will be signed. However, anonymous reports will be investigated in the same manner as those signed.

Submission may be made directly to the CST Safety Office or through supervisory and command channels.

d. All hazard reports will be investigated, and the originator (if known) will be notified in writing within 10 working days of receipt of the report. Notification will include the results of the investigation or an interim response of actions taken or anticipated.

e. If investigation determines that a hazardous condition does not exist, the reply to the soldier will include the basis for that determination and a point of contact for further explanation.

SECTION IX – COMPOSITE RISK MANAGEMENT PROCESS
(MSL 401 Revised Officership Track, Section 6 2008)



RISK ASSESSMENT MATRIX						
		Probability				
Severity		Frequent A	Likely B	Occasional C	Seldom D	Unlikely E
Catastrophic	I	E	E	H	H	M
Critical	II	E	H	H	M	L
Marginal	III	H	M	M	L	L
Negligible	IV	M	L	L	L	L
E – Extremely High		H – High		M – Moderate		L – Low

Hazard Probability

Frequent – Occurs very often, known to happen regularly. Examples: vehicle rollovers, rear-end collisions, and heat injury during a battalion physical training run with hot weather or non-acclimated Soldiers.

Likely – Occurs several times, a common occurrence. Examples: improvised explosive devices (IEDs), wire strikes for aircraft, and unintentional weapons discharges.

Occasional – Occurs sporadically, but is not uncommon. Examples: unexploded ordnance (UXO) and fratricide.

Seldom – Remotely possible, could occur at some time. Usually several things must go wrong for it to happen. Examples: heat-related death or electrocution.

Unlikely – Can assume will not occur, but not impossible. Examples might include detonation of containerized ammunition during transport.

Hazard Severity

Catastrophic:

- Complete mission failure or the loss of ability to accomplish a mission
- Death or permanent total disability
- Loss of major or mission-critical systems or equipment
- Major property or facility damage
- Severe environmental damage
- Mission-critical security failure
- Unacceptable collateral damage.

Critical:

- Severely degraded mission capability or unit readiness
- Permanent partial disability or temporary total disability exceeding three months
- Extensive major damage to equipment or systems
- Significant damage to property or the environment
- Security failure
- Significant collateral damage.

Marginal:

- Degraded mission capability or unit readiness
- Minor damage to equipment or systems, property, or the environment
- Lost days due to injury or illness not exceeding three months
- Minor damage to property or the environment.

Negligible:

- Little or no adverse impact on mission capability

- First aid or minor medical treatment
- Slight equipment or system damage, but fully functional or serviceable
- Little or no property or environmental damage.

Risk Tolerance

Extremely High Risk – Loss of ability to accomplish the mission if hazards occur during mission. Risk associated with this mission, activity, or event may have severe consequences beyond those associated with this specific operation or event. The decision to continue must be weighed carefully against the potential gain to be achieved by continuing this COA.

High Risk – Significant degradation of mission capabilities in terms of required mission standard, inability to accomplish all parts of mission, or inability to complete mission to standard if hazards occur during the mission. This implies that if a hazardous event occurs, serious consequences will occur. The decision to continue must be weighed carefully against the potential gain to be achieved by continuing this COA.

Moderate Risk – Expected degraded mission capabilities in terms of the required mission standard that will result in reduced mission capability if hazards occur during mission.

Low Risk – Expected losses have little or no impact on accomplishing the mission. Injury, damage, or illness are not expected, or may be minor and have no long term impact or effect.

Risk Controls

1. Educational (awareness) Controls – These controls are based on the knowledge and skills of units, organizations, or individuals. It includes their awareness of the hazard and control. Effective educational control is implemented through individual and collective training that ensures performance to standard.

2. Physical Controls – These take the form of barriers and guards or signs to warn individuals, units, or organizations that a hazard exists. Special controller or oversight personnel also fall into this category.

3. Avoidance/Elimination Controls – These controls include positive action to prevent contact with an identified hazard or the total elimination of the hazard. To be effective, each control developed must meet the following criteria:

- **Suitability**. It must remove the hazard or mitigate (reduce) the residual risk to an acceptable level.
- **Feasibility**. The unit must have the capability to implement the control.
- **Acceptability**. The benefit gained by implementing the control must justify the cost in resources and time. The assessment of acceptability is largely subjective.

Table A-1. Worksheet Instructions

Item	Instruction
1 through 4	Self explanatory.
5	Subtask relating to the mission or task in block1.
6	Hazards – Identify hazards by reviewing METT-TC factors for the mission or task. Additional factors include historical lessons learned, experience, judgment, equipment characteristics and warnings, and environmental considerations.
7	Initial Risk Level– Includes historical lessons learned; intuitive analyses, experience, judgment, equipment characteristics and warnings; and environmental considerations. Determine initial risk for each hazard by applying risk assessment matrix (Figure 2-4). Enter the risk level for each hazard.
8	Controls – Develop one or more controls for each hazard that will either eliminate the hazard or reduce the risk (probability and/or severity) of a hazardous incident. Specify who, what, where, why, when, and how for each control. Enter controls.
9	Residual Risk Level– Determine the residual risk for each hazard by applying the risk assessment matrix (Figure 2-4). Enter the residual risk level for each hazard.
10	How to Implement – Decide how each control will be put into effect or communicated to the personnel who will make it happen (written or verbal instruction; tactical, safety, garrison SOPs, rehearsals). Enter controls.
11	How to Supervise (Who) –Plan how each control will be monitored for implementation (continuous supervision, spot-checks) and reassess hazards as the situation changes. Determine if the controls worked and if they can be improved. Pass on lessons learned.
12	Was Control Effective – Indicate "Yes" or "No." Review During AAR.
13	Overall Risk Level – Select the highest residual risk level and circle it. This becomes the overall mission or task risk level. The commander decides whether the controls are sufficient to accept the level of residual risk. If the risk is too great to continue the mission or task, the commander directs development of additional controls or modifies, changes, or rejects the COA.
14	Risk Decision Authority – Signed by the appropriate level of command.

COMPOSITE RISK MANAGEMENT WORKSHEET

For use of this form, see FM 5-19; the proponent agency is TRADOC.

1. MISN/TASK	3a. DTG BEGIN	3b. DTG END	3. DATE PREPARED (YYYYMMDD)

4. PREPARED BY

a. LAST NAME	b. RANK	c. POSITION

5. SUBTASK	6. HAZARDS	7. INITIAL RISK LEVEL	8. CONTROLS	9. RESIDUAL RISK LEVEL	10. HOW TO IMPLEMENT	11. HOW TO SUPERVISE (WHO)	12. WAS CONTROL EFFECTIVE?

Additional space for entries in items 5 through 11 is provided on Page 2.

13. OVERALL RISK LEVEL AFTER CONTROLS ARE IMPLEMENTED (Check one)

☐ LOW ☐ MODERATE ☐ HIGH ☐ EXTREMELY HIGH

14. RISK DECISION AUTHORITY

a. LAST NAME	b. RANK	c. DUTY POSITION	d. SIGNATURE

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Sample

ITEMS 5 THROUGH 12 CONTINUED:

5. SUBTASK	6. HAZARDS	7. INITIAL RISK LEVEL	8. CONTROLS	9. RESIDUAL RISK LEVEL	10. HOW TO IMPLEMENT	11. HOW TO SUPERVISE (WHO)	12. WAS CONTROL EFFECTIVE?

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Sample

CHAPTER 3 MISSION COMMAND

SECTION I: MISSION COMMAND INTRODUCTION

1. Mission command is the exercise of authority and direction by the commander using mission orders to enable disciplined initiative within the commander's intent to empower agile and adaptive leaders in the conduct of unified land operations.

2. Unified land operations is the Army's operational concept. This concept is based on the central idea that Army units seize, retain, and exploit the initiative to gain a position of relative advantage over the enemy. This is accomplished through decisive action—the simultaneous combination of offensive, defensive, and stability operations (or defense support of civil authorities) that set the conditions for favorable conflict resolution.

3. Mission Command is exercised by Army commanders; it blends the art of command and the science of control while integrating the war fighting functions to conduct the tasks of decisive action. Mission command has six fundamental principles:

- ❑ Build cohesive teams through mutual trust.
- ❑ Create shared understanding.
- ❑ Provide a clear commander's intent.
- ❑ Exercise disciplined initiative.
- ❑ Use mission orders.
- ❑ Accept prudent risk.

4. This fundamental philosophy places people, rather than technology or systems, at the center. It effectively accounts for the nature of military operations. Throughout operations, unexpected opportunities and threats rapidly present themselves. Operations require responsibility and decision making at the point of action. Through mission command, commanders initiate and integrate all military functions and actions toward a common goal—mission accomplishment.

5. The exercise of mission command is based on mutual trust, shared understanding, and purpose. Commanders understand that some decisions must be made quickly at the point of action. Therefore, they concentrate on the objectives of an operation, not how to achieve it. Commanders provide subordinates with their intent, the purpose of the operation, the key tasks, the desired end state, and resources. Subordinates then exercise disciplined initiative to respond to unanticipated problems. Every Soldier must be prepared to assume responsibility, maintain unity of effort, take prudent action, and act resourcefully within the commander's intent.

6. Effective commanders understand that their leadership guides the development of teams and helps to establish mutual trust and shared understanding throughout the force. Commanders allocate resources and provide a clear intent that guides subordinates' actions while promoting freedom of action and initiative.

7. Subordinates, by understanding the commander's intent and the overall common objective, are then able to adapt to rapidly changing situations and exploit fleeting opportunities. When given sufficient latitude, they can accomplish assigned tasks in a manner that fits the situation. Subordinates understand that they have an obligation to act and synchronize their actions with the rest of the force. Likewise, commanders influence the situation and provide direction, guidance, and resources while synchronizing

operations. They encourage subordinates to take bold action, and they accept prudent risks to create opportunity and to seize the initiative.

8. Mutual trust is shared confidence among commanders, subordinates, and partners. Effective commanders build cohesive teams in an environment of mutual trust. There are few shortcuts to gaining the trust of others. Trust takes time and must be earned. Commanders earn trust by upholding the Army values and exercising leadership, consistent with the Army's leadership principles.

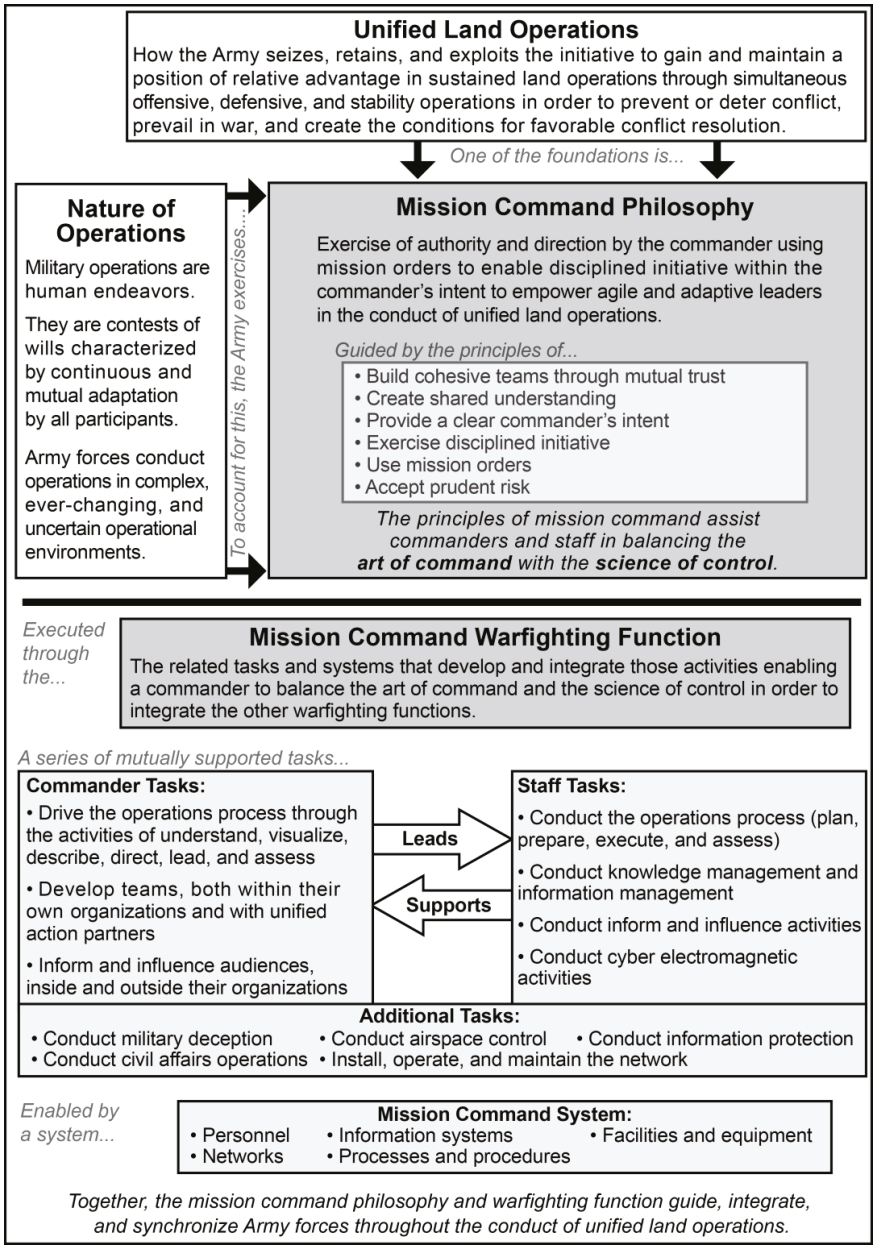


Figure 1. The exercise of mission command

SECTION II – TROOP LEADING PROCEDURES
(FM 3-21.8 Ch 5 MAR07; FM 3-21.10 Ch 2-1 JUL06; ATTP 5-0.1 SEP11)

ASSUMPTION OF COMMAND - When it is necessary for a new leader to assume command of the platoon, as the situations allows, they will accomplish the following tasks:

a. Inform higher headquarters of the change

b. Reestablish the platoon chain of command and ensure all subordinates are made aware of changes

c. Check the platoon's security and the emplacement of key weapons

d. Check the platoon's equipment and personnel status

e. Pinpoint the platoon's location

f. Assess the platoon's ability to continue the mission

g. Inform higher command of assessment

h. Continue the mission / initiate Troop Leading Procedures

TROOP LEADING PROCEDURES

1. **Receive the Mission**

(1) Give confirmation brief to higher CDR.

(a) Brief the higher CDR's intent, mission, the COO, and assigned tasks.

(b) Obtain clarification on any portions of plan

(2) Perform Initial assessment of situation and allocate time available for planning and prep (METT-TC)

2**. Issue a Warning Order**

(1) Contains as much detail as possible.

(2) Follows the 5-para OPORD format.

(3) Initial WARNO normally includes: mission; time and place for issuing OPORD; elements participating in the operation; specific tasks not addressed in SOPs; timeline.

3. **Make a Tentative Plan**. Conduct Mission analysis following the METT-TC format:

Mission- Analyze highers' missions/intent, COO, Tasks/your mission, Constraints.
Enemy- Analyze enemy situation. (composition, disposition, strengths, COAs)
Terrain and Weather. Analyze military aspects of terrain and weather:
Terrain:
Observation and Fields of Fire
Avenues of Approach
Key Terrain
Obstacles
Cover and Concealment
Weather:
Visibility, Winds, Precipitation, Cloud cover, Temperature/humidity

Troops Available. Determine combat potential.

Time Available- Analyze avail. time through mission accomplishment. Monitor, assess, and update throughout.

Civil considerations- Analyze ASCOPE: areas, structures, capabilities, organizations, people, and events. How may these affect your mission?

COA Development.

(1) Aims to determine 1 or more ways to accomplish the mission.

(2) Normally develop 2 or more, but if time-constrained, develop only 1.

(3) COA(s) must be suitable, feasible, acceptable, distinguishable, complete.

(4) To develop COA, focus on AOO and conduct reverse planning:

(a) Analyze Relative Combat Power

(b) Generate Options

(c) **Develop a Concept of Operations**

(d) Assign Responsibilities

(e) Prepare COA Statements and Sketches

(f) War gaming of COA(s)

(g) COA Comparison and Selection

4. **Initiate movement**

5. **Conduct Reconnaissance**

(a) Personally observe the AO if possible.

(b) Minimum action is a thorough map/aerial imagery recon

6. **Complete the Plan**

(a) Incorporate results of recon into OPORD

(b) Prepare overlays, refine IDF target list, coordinate sustainment with signal requirements, update tentative plan.

(c) At lower levels, may entail only confirming/updating info in tentative plan.

(d) If time allows, make final coordination with adjacent units and Higher HQ prior to issuing the order.

7. **Issue the Operations Order**

(a) Small-unit orders normally issued verbally and supplemented by graphics

(b) Follows the standard 5-paragraph OPORD format

(c) Typically, leaders below company level do not issue a commander's intent. They reiterate the intent of their higher and next higher commanders

(d) Issued ideally with a view of the Obj. If not feasible, use sand table, detailed sketch, maps, and other products to depict the AO and situation.

8. **Supervise and Refine**

(a) Throughout TLP, monitor mission prep., refine plan, coordination with adjacent units, supervise and assess preparation.

(b) Conduct Confirmation brief with subordinates. Ensure subordinates know the mission, the commander's intent, the concept of the operation, and their assigned tasks

(c) Crucial component is Rehearsals. (NOTE: Security must be maintained during rehearsals.)

(1) Leaders conduct rehearsals to:

- Practice essential tasks
- Identify weaknesses or problems in the plan

- Coordinate. subordinate element actions
- Improve soldier understanding of the COO
- Foster confidence among Soldiers

(2) Rehearsal Types [Chap 8, ATTP 5-0.1]

- Back-brief (Given to Cdr after subordinates given time to complete plan)
- Combined arms
- Support
- Battle drill or SOP (Most common for PLTs, SQDs, Sections)

(3) Rehearsal Techniques:

- Full-Dress (preferred if time permits)
- Reduced Force (key leaders)
- Terrain Model
- Sketch Map
- Map
- Network

(4) The leader should establish a priority for rehearsals based on available time. The priority of rehearsals flows from the decisive point of the operation. Thus the order of precedence is:

- Actions on the objective
- Actions on enemy contact
- Special teams
- Movement techniques
- Others as required

(d) Inspect personnel and equipment.

- SLs should conduct initial inspections shortly after receipt of the WARNO
- A leader (TL/APL/PSG) should conduct spot checks throughout the preparation
- The unit leader(s) (SL/ PL/APL/PSG) conduct final inspections
- Inspections should include:
  - Weapons and ammunition
  - Uniforms and Equipment
  - Mission-essential equipment
  - Soldier understands the mission and their specific responsibilities
  - Communications
  - Rations and water
  - Camouflage

Deficiencies noted during earlier inspections

SECTION III – ORDERS
(ATTP 5-0.1 SEP11)

Commanders direct operations and communicate their vision, commander's intent, and decisions through plans and orders. Effective plans and orders clearly describe how the commander intends to combine offensive, defensive, and stability or civil support operations throughout the conduct of operations. They synchronize subordinate activities in time, space, and purpose to achieve objectives and accomplish missions. Plans and orders not only direct subordinate units but provide information to facilitate coordination among organizations outside the command. Effective plans and orders account for those joint, interagency, intergovernmental, multinational, and host-nation organizations involved in the operation.

The amount of detail provided in a plan or order depends on several factors, including the cohesion and experience of subordinate units and complexity of the operation. Effective plans and orders encourage subordinate's initiative by providing the what and why of tasks to subordinate units, and leave the how to perform the tasks to subordinates. (Paragraphs 2-73 through 2-80 discuss mission orders in detail.) To maintain clarity and simplicity, the base plan or order is kept as short and concise as possible. Detailed information and instructions are addressed in annexes as required.

1. ORDERS GROUP

a. Platoon Orders – at a minimum, the following individuals will attend platoon orders:

(1) Platoon leader
(2) Platoon sergeant
(3) Squad leaders
(4) Platoon FO
(5) PLT Medic
(6) Attachment leaders

b. Squad Orders – at a minimum, the following individuals will attend squad orders:

(1) Squad leader
(2) Team leaders

2. ORDERS FORMATS

a. Warning Order (WARNOs do not have to follow a specific format, but the 5 paragraph OPORD format is a good guide)

(1) Contains as much detail as possible.
(2) Follows the 5-para OPORD format.
(3) Initial WARNO normally includes: mission; time and place for issuing OPORD; elements participating in the operation; specific tasks not addressed in SOPs; timeline.

b. Fragmentary Order (FRAGO) - Include all five OPORD paragraph headings and differ from OPORDs only in the degree of detail provided.

c. Operations Orders (OPORD) – The following are adjusted OPORD formats to accommodate the CST training environment.

(1) Situation
(2) Mission
(3) Execution
-Concept of Operations
-Tasks to Subordinate Units
(4) Sustainment
(5) Command and Signal

d. Performance Steps

1. **Develop the SITUATION paragraph**.

a. Weather and light data.
(1) Light conditions:
(a) Begin morning nautical twilight (BMNT).
(b) Sunrise.
(c) Sunset.
(d) End evening nautical twilight (EENT).

(e) Moonrise.
(f) Moonset.
(g) Percent of illumination.
(2) Weather forecast for the operation.
(3) Effects of the weather and light conditions on the operation.
(a) Trafficability.
(b) Visibility.
(c) Effect on the lasers and the thermals.
b. Terrain.
(1) Obstacles, hills, valleys, road types and conditions, streams, rivers, bridges, and built-up areas.
(2) Avenues of approach.
(a) Size of unit that can be supported.
(b) Start and end point.
(c) Objective.
(3) Key terrain (discuss how friendly and / or threat forces may attempt to use it to their advantage).
(4) Observation and fields of fire.
(5) Cover and concealment.
(6) Engagement areas (EA).
(7) Overall effect of terrain on the operation
c. Enemy forces.

Note: In this subparagraph, it should be noted that there will be groups or individuals in the area of operations
(AO) that present a threat or may be hostile to friendly forces, but are not included as the enemy. Criminal gangs,
religious factions, desperate refugees, or those inhabitants upset with the local situation, present circumstances that will complicate operations, but do not warrant the same response as enemy combatants.

(1) Identification.
(2) Activity.
(3) Location.
(4) Disposition.
(5) Strength.
(6) Composition, to include type and capabilities of equipment.
(7) Other threat information critical to the upcoming operation, to include:
(a) Chemical, nuclear, field artillery, and obstacle capabilities.
(b) Air defense artillery (ADA).
(c) Aviation, including helicopters.
(d) Electronic warfare.
(8) Most probable threat courses of action (COA).
(9) Most dangerous threat COA.
d. Friendly forces, including the following items as applicable:
Note: In this subparagraph individuals or groups that are non-hostile or have provided help to friendly forces should
be included. Nongovernmental, religious or ethnic groups, or local inhabitants may routinely support operations with intelligence and information about enemy or threat forces in the area.

(1) Mission of higher headquarters (company team / troop) including commander's intent and scheme of maneuver.

Note: This may include a review of the task force or squadron scheme of maneuver or commander's intent.

(2) Combat Identification (CID) equipment or procedures / mission of adjacent units (left, right, front, rear)

(3) ID - mission of reserves in higher headquarters.

(4) ID - mission of supporting units with a direct support (DS) / reinforcing (R) role to higher headquarters (field artillery, engineer, ADA).

(5) Which higher headquarters element has priority of fires.

(6) Close air support (CAS) allocated to higher headquarters, including number of sorties available.

e. Attachments and detachments to the platoon and higher.

2. **Develop the MISSION paragraph**.

Note: This is the WHO, WHAT, WHEN, WHERE, and WHY which states essential task(s) to be accomplished by the entire unit, to include on-order missions, and clearly defines the platoon's objective.

3. **Develop the EXECUTION paragraph**.

a. Commander's intent.

b. Concept of the operation; the sequence of subparagraphs is:

Note: The concept statement further explains and expands on your (and / or the commander's) intent, particularly his vision of HOW he will conduct the operation and WHO he will assign to execute it.

(1) Scheme of maneuver.

Note: The scheme of maneuver is how the platoon will maneuver to kill the enemy or to accomplish its mission.

It conforms to the commander's intent. In offensive operations, it specifies the unit's formation, movement technique, routes or avenues of advance, and plans for direct fire and overwatch. In defensive operations, it specifies the platoon engagement plan, battle positions, orientation of weapons, and the plan for movement to subsequent positions. It should also include combat identification measures taken by friendly forces.

Note: Force protection steps should be included under this paragraph. Routinely, in peacetime training, a sixth paragraph is included to outline overall safety measures for the mission.

(2) Fires, as follows:

(a) Purpose for field artillery and mortar fires or aviation fires (how fires will be used to support the maneuver).

(b) Priority of fires within the unit.

(c) Allocation of final protective fires (FPF).

(d) Preparation starting time and duration of fires.

(e) Triggers (trigger line / point or event).

(f) Description of threat fires in the AO.

(g) Special fire allocation / use (smoke, illumination, and CAS.

(h) Restrictions.

(3) Engineer support (obstacles, mines, and fortifications), as follows:

(a) Priority of engineer effort (mobility, counter-mobility, survivability).
(b) Priority of engineer support.
(c) Obstacle overlay and obstacle list.
(d) Logistical constraints.
(e) On-order missions.

c. Specific instructions.

Note: Specific missions are listed in "battle sequence" for each vehicle, including attached elements. Include movement techniques, flank coordination requirements, other details, and be-prepared missions.

d. Coordinating instructions, as follows:

(1) Time schedule for critical events, including:
(a) Rehearsals confirmation briefing (backbriefs).
(b) Pre-combat inspection.
(c) First movement.
(d) Arrival of any attachments / detachments.
(e) Boresighting.

(2) Movement instructions.

(3) Passage of lines, including:
(a) Contact points.
(b) Passage points.
(c) Lanes, to include identification / markings.

(4) Actions at danger areas.

(5) Actions on expected contact.

(6) Rally points.

(7) Rules of engagement (ROE) / rules of interaction (ROI).

(8) Intelligence requirements, to include priority intelligence requirements (PIR).

(9) Air defense warning and weapons control status.

(10) Mission-oriented protective posture (MOPP) level and operational exposure guidance (OEG) data.

(11) Any changes regarding battlesight and battlecarry.

(12) Be-prepared tasks or other general information not provided in concept of the operation or specific instructions.

4. **Develop the SUSTAINMENT paragraph**.

a. Location and movement plan of the company / troop trains (initial and subsequent grids).

b. Material and services.

(1) Supply.
(a) Priorities of supply.
(b) Resupply points and prestock sites.
(c) Ration cycle.
(d) Location of task force trains.

(2) Transportation.
(a) Supply routes.
(b) Logistics release points (LRP).
(c) Priorities established on the main supply route (MSR).

(3) Services: handling of killed in action (KIA).

(4) Maintenance.
(a) Maintenance procedures.
(b) Vehicle evacuation.

(c) Task force unit maintenance collection point (UMCP) location.

c. Medical evacuation and treatment.
   (1) Location of company / troop medics.
   (2) Location of battalion / squadron aid station.
   (3) Procedures for treatment and evacuation of wounded.
   (4) Aero medical evacuation information.
   (5) Location of the ambulance exchange points.
   (6) Handling of contaminated wounded.

d. Personnel.
   (1) Handling and disposition instructions for enemy prisoners of war (EPW).
   (2) EPW guard instructions.
   (3) Location of EPW collection point.
   (4) Instructions for ROI.
   (5) Number of expected replacements.
   (6) Cross-leveling procedures.

e. Miscellaneous.

5. **Develop the COMMAND AND SIGNAL paragraph**.
   a. Command.
      (1) Location of:
         (a) Phase line (PL) during the operation.
         (b) Commander.
         (c) Executive officer (XO).
         (d) Tactical operations center (TOC).
         (e) Tactical command post (TAC CP).
      (2) Succession of command.
   b. Signal.
      (1) Signal operating instructions (SOI) index and edition in effect.
         (a) Key frequencies.
         (b) Key call signs.
         (c) Current item number identifier.
      (2) Appropriate fills, time, and change over data.
      (3) Listening silence instructions.
      (4) Challenge and password.
      (5) Special signals, to include use of pyrotechnics.
      (6) Code words.

OPERATION ORDER

1. Situation.

a. Area of Operations

(1) Terrain

(2) Weather

b. Enemy Forces.

c. Friendly Forces.

(1) Higher Headquarters' Mission and Intent.

(a) Higher HQ Two Levels Up.

1. Mission

2. Commander's Intent

(b) Higher HQ.

1. Mission

2. Commander's Intent [If this level has intent statement]

(2) Missions of Adjacent Units:

(a) Left Unit:

(b) Right Unit:

(c) Front Unit:

(d) Rear Unit:

d. Civil Considerations

e. Attachments and Detachments

2. Mission.

3. Execution.

a. Concept of Operations

b. Scheme of Movement and Maneuver

c. Scheme of Fires

d. Tasks to Subordinate Units

e. Coordinating Instructions

(1) Commander's Critical Information Requirements (CCIR)

(2) Rules of Engagement (ROE)

(3) Other Coordinating Instructions

(a) Operational Timeline

4. Sustainment

a. Logistics
b. Personnel
c. Health Systems Support

5. Command and Signal

a. Command

(1) Location of Commander
(2) Succession of Command

b. Control

(1) Command Posts

(2) Reports

c. Signal

(1) Frequencies and Call Signs

(a) Frequencies

(b) Call Signs

(2) Passwords
(a) Number Combination
(b) Challenge/Password
(c) Running Password

3. CLASSES (CL) OF SUPPLY

CL I - Subsistence (food, water)

CL II - Clothing, individual equipment, tools and tent packages

CL III - Petroleum, oil and lubricants (POL)

CL IV - Construction materials

CL V – Ammunition

CL VI - Personal demand items (sundry packs)

CL VII - Major end items

CL VIII - Medical supplies

CL IX - Repair parts

CHAPTER 4 – LAND NAVIGATION
(TC 3-25.26 15 NOV13, MSL 301/302 2008)

SECTION I – MAP INFORMATION AND COLORS

INTRODUCTION TO MAP READING

The purpose of a map is to visualize an area of the earth's surface with pertinent features properly positioned. The map's legend contains the symbols most commonly used in a particular series or on that specific topographic map sheet. The legend should be referred to each time a new map is used. Every effort is made to design standard symbols that resemble the features they represent. If this is not possible, symbols are selected that logically imply the features they portray. For example, an open-pit mining operation is represented by a small black drawing of a crossed hammer and pickax.

Definitions:

- Map – A graphic representation of a portion of the earth's surface drawn to scale, as seen from above.
- Grid Lines – A series of horizontal and vertical lines on a map that form a grid pattern of identical squares which represent an area of one square kilometer on the earth's surface. Grid lines are numbered from 00 to 99 in a repeating pattern. The grid line numbering system runs continually from the left to the right and from the bottom to the top of the map. Grid lines allow the user to formulate grid coordinates which represent a specific point on the earth's surface.
- Contour Lines – A contour line represents an imaginary line on the ground, above or below sea level. All points on a contour line are at the same elevation and indicate the vertical distance above or below sea level. Every fifth contour line is an Index Contour Line which will include a number indicating the elevation on that line.
- Scale – The scale note is a representative fraction that gives the ratio of a map distance to the corresponding distance on the earth's surface. For example, the scale note 1:50,000 indicates that one unit of measure on the map equals 50,000 units of the same measure on the ground.
- Declination Diagram – A diagram that depicts the angular relationships of true north, grid north and magnetic north.
- Marginal Information – Marginal information is generally located in the areas above and below the map. It describes symbols used and other data that assist in the interpretation of the map.
- Colors – On a standard large-scale topographic map, the colors used and the features they represent are:

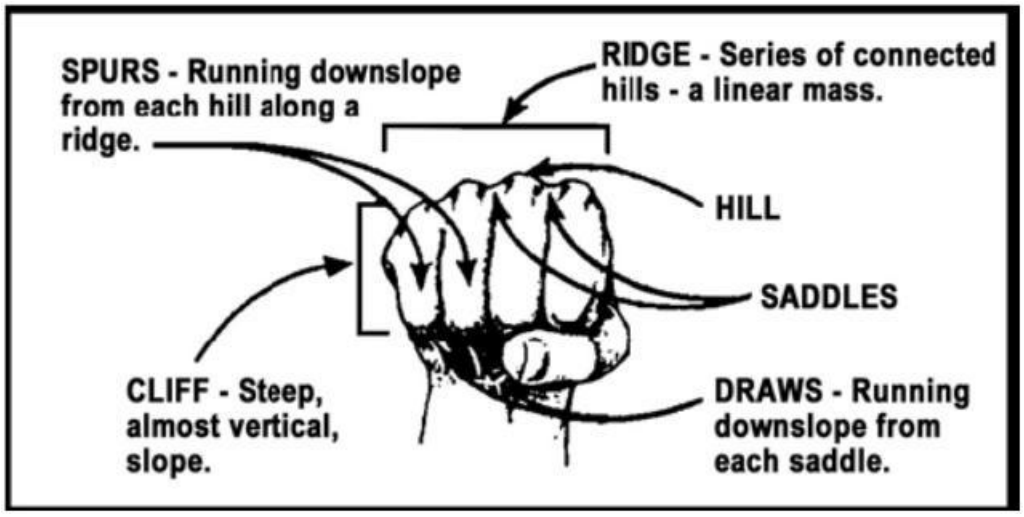
  - **Black.** Black indicates cultural (man-made) features such as buildings and roads, surveyed spot elevations, and all labels.
  - **Red-Brown**. The colors red and brown are combined to identify cultural features, all relief features, non-surveyed spot elevations, and elevation such as contour lines on red-light readable maps.
  - **Blue**. Blue identifies hydrography or water features such as lakes, swamps, rivers, and drainage.
  - **Green.** Green identifies vegetation with military significance such as woods, orchards, and vineyards.
  - **Brown.** Brown identifies all relief features and elevation such as contours on older edition maps, and cultivated land on red-light readable maps.
  - **Red.** Red classifies cultural features such as populated areas, main roads, and boundaries on older maps.
  - **Other**. Occasionally, other colors may be used to show special information. As a rule, these are indicated in the marginal information.

SECTION II – IDENTIFY TERRAIN FEATURES

TERRAIN FEATURES

All terrain features are derived from a complex landmass known as a mountain or ridgeline. The term ridgeline is not interchangeable with the term ridge. A ridgeline is a line of high ground, usually with changes in elevation along its top and low ground on all sides, from which a total of 10 natural or man-made terrain features are classified.

Ridgeline

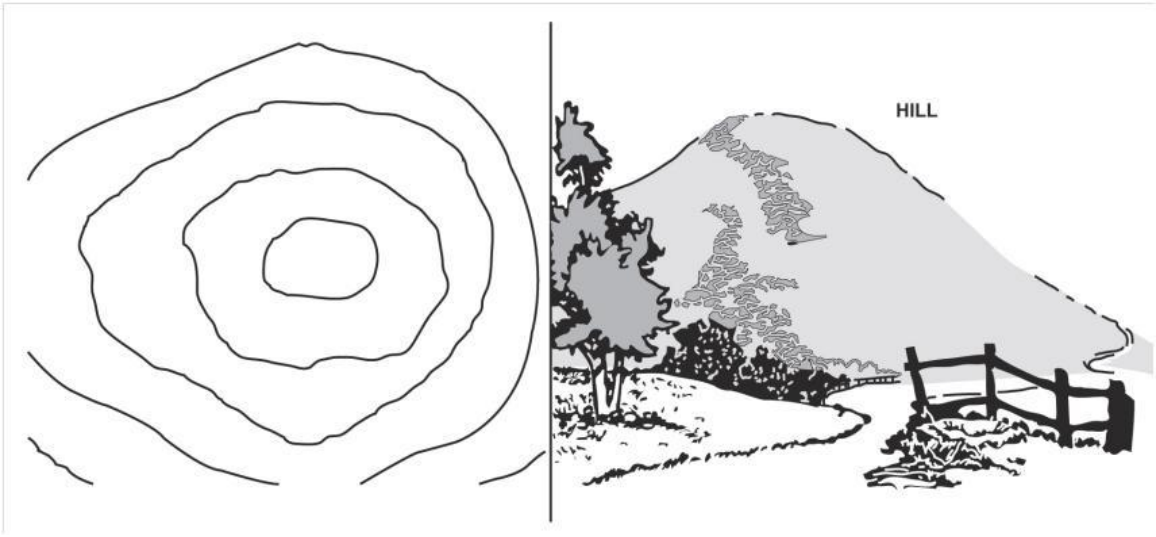


Using fist to explain terrain features.

MAJOR TERRAIN FEATURES

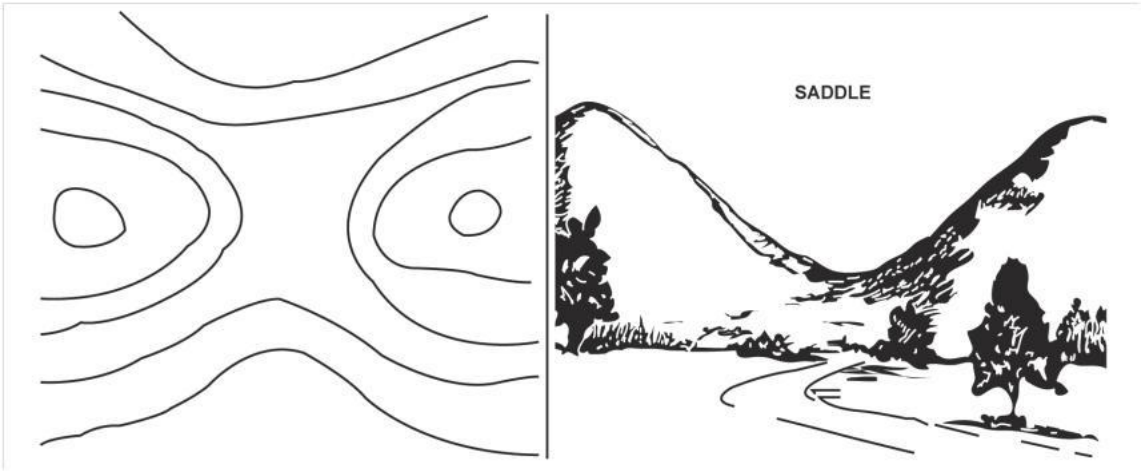
Major terrain features are hills, saddles, valleys, ridges, and depressions. They are uniquely represented on maps.

A hill is an area of high ground. From a hilltop, the ground slopes down in all directions. A hill is shown on a map by contour lines forming concentric circles. The inside of the smallest closed circle is the hilltop.



HILL

A saddle is a dip or low point between two areas of higher ground. A saddle is not necessarily the lower ground between two hilltops; it may be simply a dip or break along a level ridge crest. If you are in a saddle, there is high ground in two opposite directions and lower ground in the other two directions. A saddle is normally represented as an hourglass.

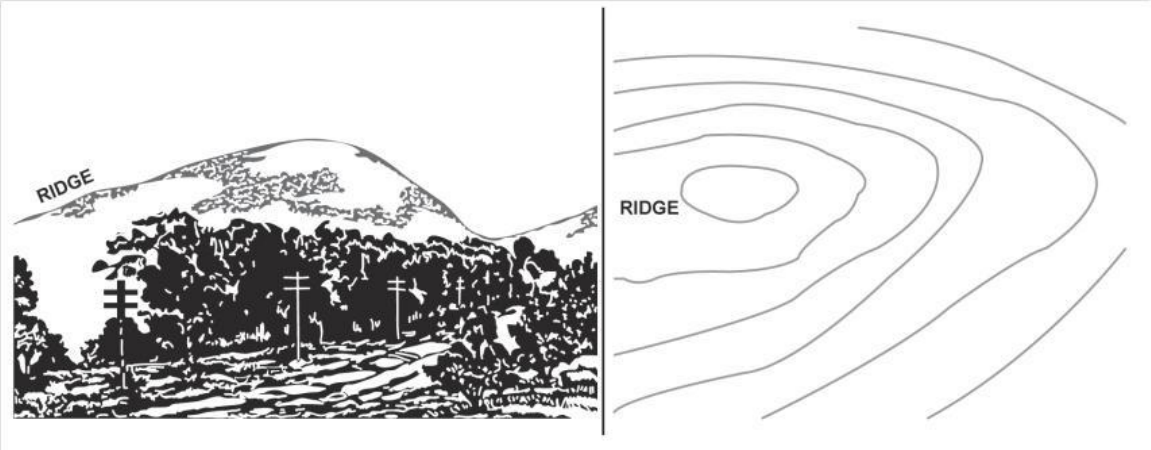


SADDLE

A valley is a stretched-out groove in the land, usually formed by streams or rivers. It begins with high ground on three sides and usually has a course of running water through it. If standing in a valley, three directions offer high ground, while the fourth direction offers low ground. Depending upon its size and where a person is standing, it may not be obvious that there is high ground in the third direction, but water flows from higher to lower ground. Contour lines forming a valley are either U-shaped or V-shaped. To determine the direction water is flowing, look at the contour lines. The closed end of the contour line (U or V) always points upstream or toward high ground.

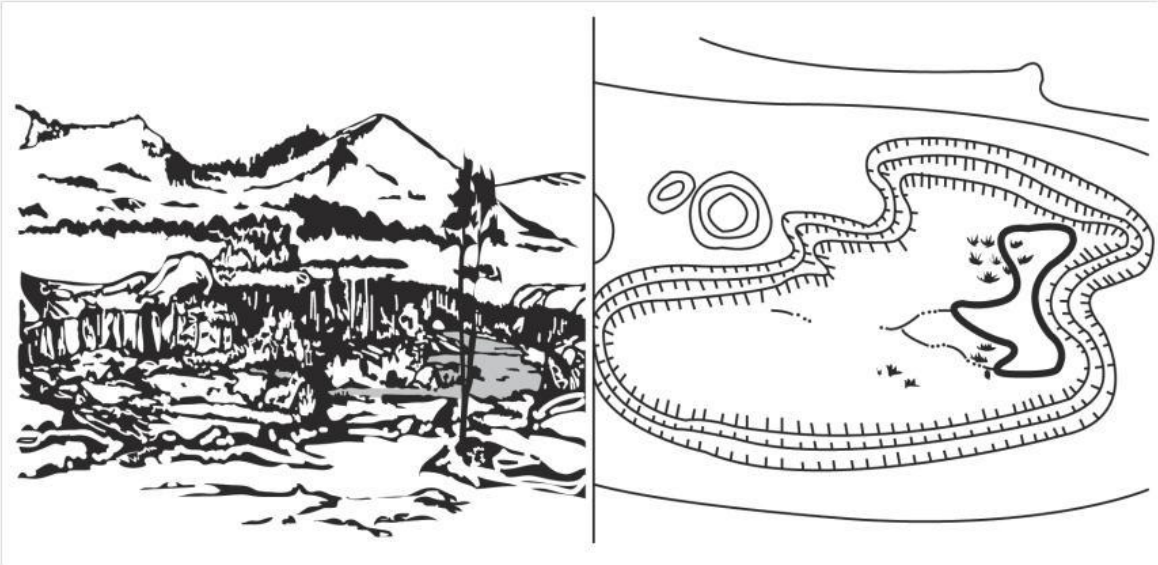
VALLEY

A ridge is a sloping line of high ground. The centerline of a ridge normally has low ground in three directions and high ground in one direction, with varying degrees of slope. If a ridge is crossed at right angles, a Soldier climbs steeply to the crest and then descends steeply to the base. When moving along the path of the ridge, depending on the geographic location, there may be either an almost unnoticeable slope or a very obvious incline. Contour lines forming a ridge tend to be U-shaped or V-shaped. The closed end of the contour line points away from high ground.



RIDGE

A depression is a low point in the ground or a sinkhole. It could be described as an area of low ground surrounded by higher ground in all directions, or simply a hole in the ground. Usually, only depressions that are equal to or greater than the contour interval is shown. On maps, depressions are represented by closed contour lines that have tick marks pointing toward low ground.



DEPRESSION

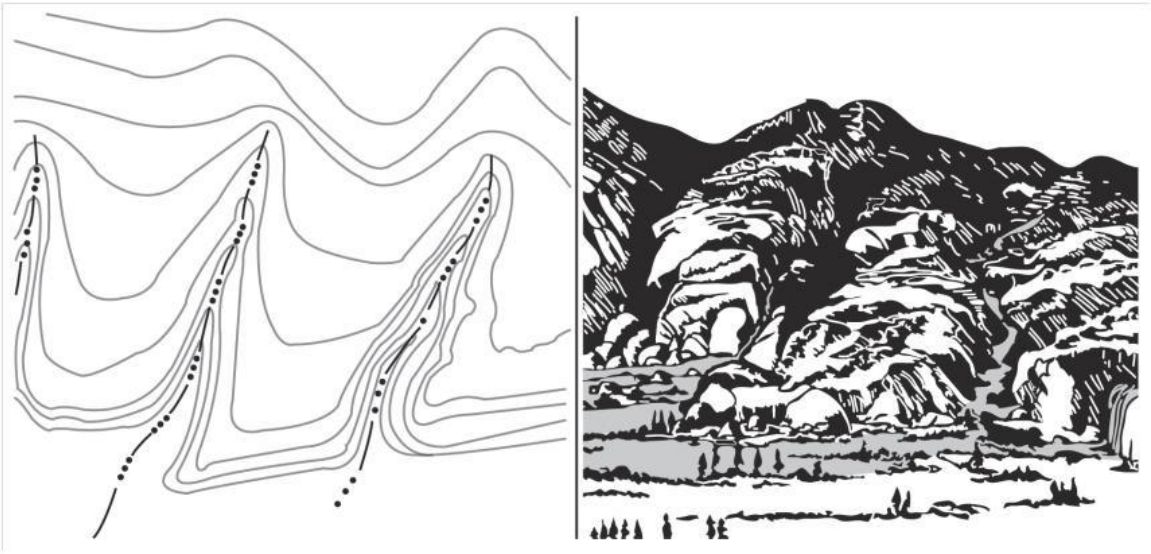
MINOR TERRAIN FEATURES

Minor terrain features include draws, spurs, and cliffs. They are represented on maps in unique ways.

A draw is a stream course that is less developed than a valley. In a draw, there is essentially no level ground and little or no maneuver room within its confines. In a draw, the ground slopes upward in three directions and downward in the other direction. A draw could be considered as the initial formation of a valley. The contour lines depicting a draw are U-shaped or V-shaped, pointing toward high ground.

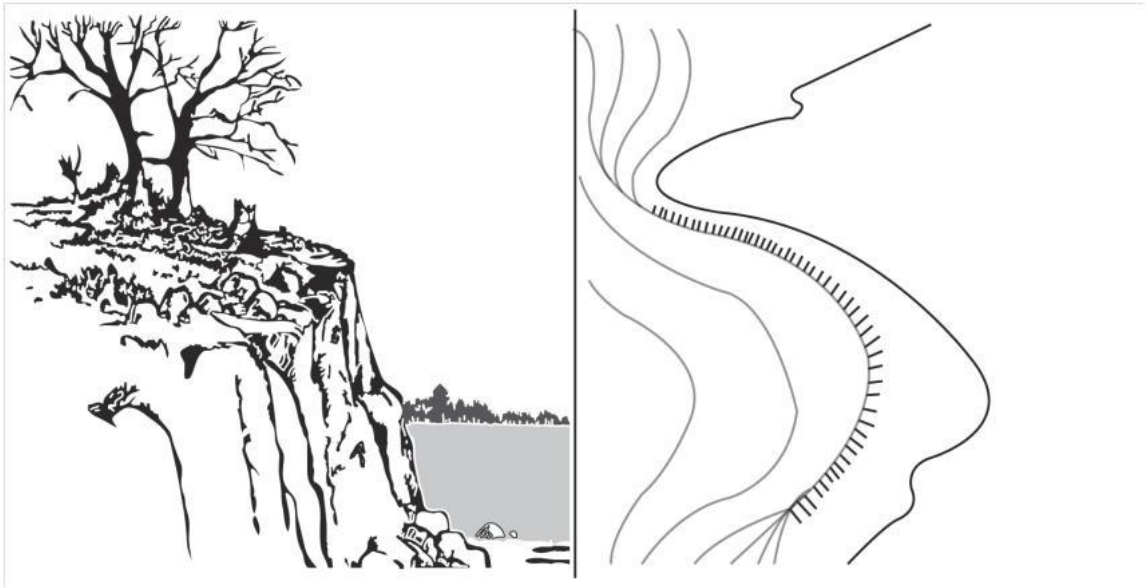
DRAW

A spur is a short, continuous sloping line of higher ground normally jutting out from the side of a ridge. A spur is often formed by two roughly parallel streams cutting draws down the side of a ridge. The ground slopes down in three directions and up in one. Contour lines on a map depict a spur with the U or V pointing away from high ground.



SPUR

A cliff is a vertical or near-vertical feature that is an abrupt change of the land. When a slope is so steep that the contour lines converge into one "carrying" contour of contours, this last contour line has tick marks pointing toward low ground.



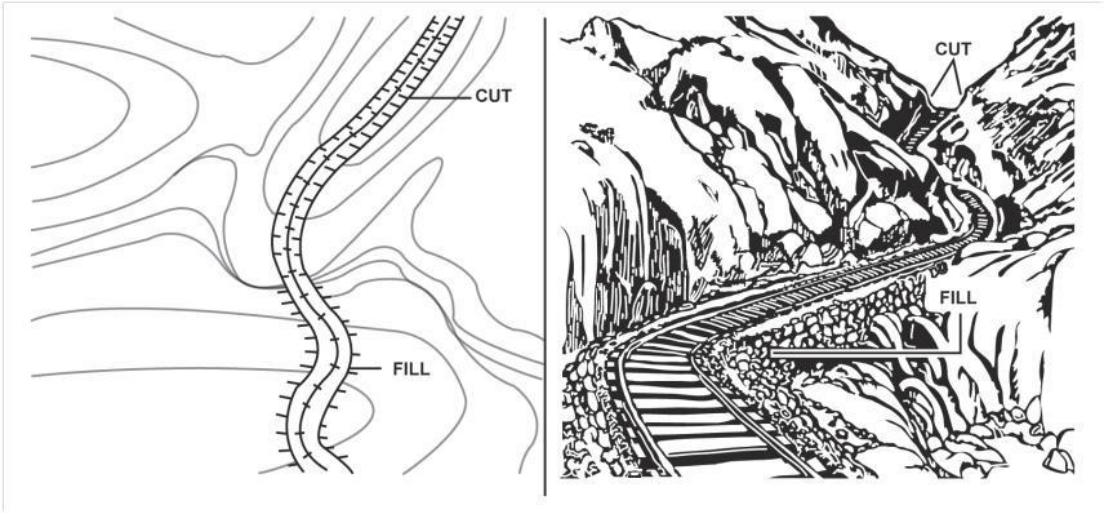
CLIFF (with tick marks)

Cliffs are also shown by contour lines very close together and, in some instances, touching each other.

CLIFF (without tick marks)

SUPPLEMENTARY TERRAIN FEATURES

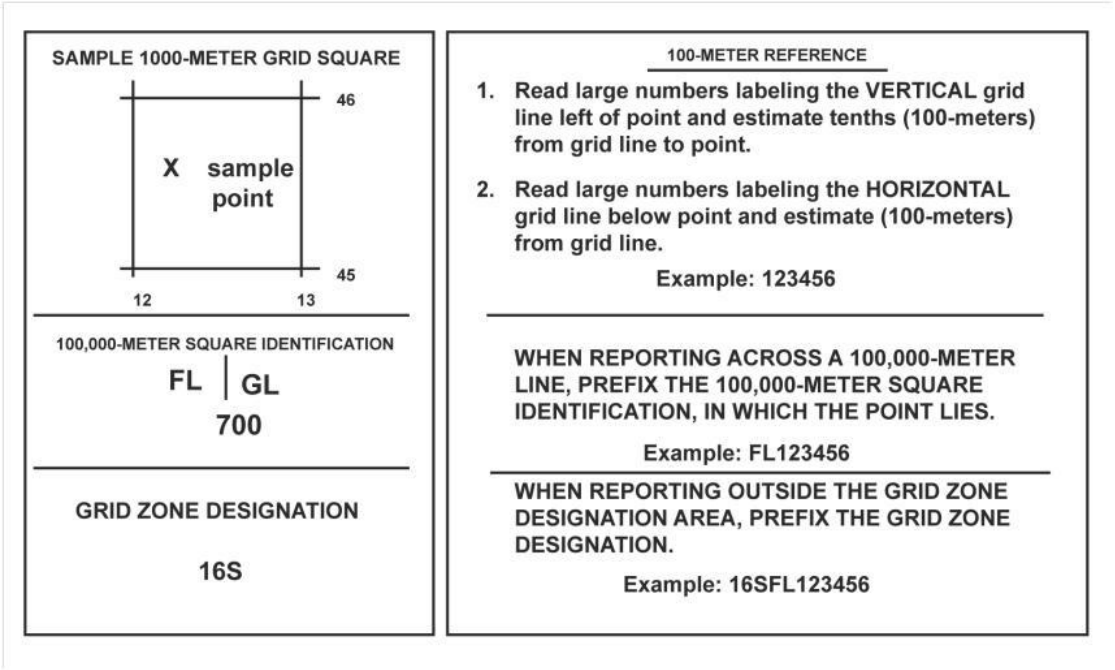
Supplementary terrain features include cuts and fills. A cut is a man-made feature resulting from cutting through raised ground, usually to form a level bed for a road or railroad track. Cuts are shown on a map when they are at least 10 feet high, and they are drawn with a contour line along the cut line. This contour line extends the length of the cut and has tick marks that extend from the cut line to the roadbed, if the map scale permits this level of detail. A fill is a man-made feature resulting from filling a low area, usually to form a level bed for a road or railroad track. Fills are shown on a map when they are at least 10 feet high, and they are drawn with a contour line along the fill line. This contour line extends the length of the filled area and has tick marks that point toward lower ground. If the map scale permits, the length of the fill tick marks are drawn to scale and extend from the base line of the fill symbol.



CUT and FILL

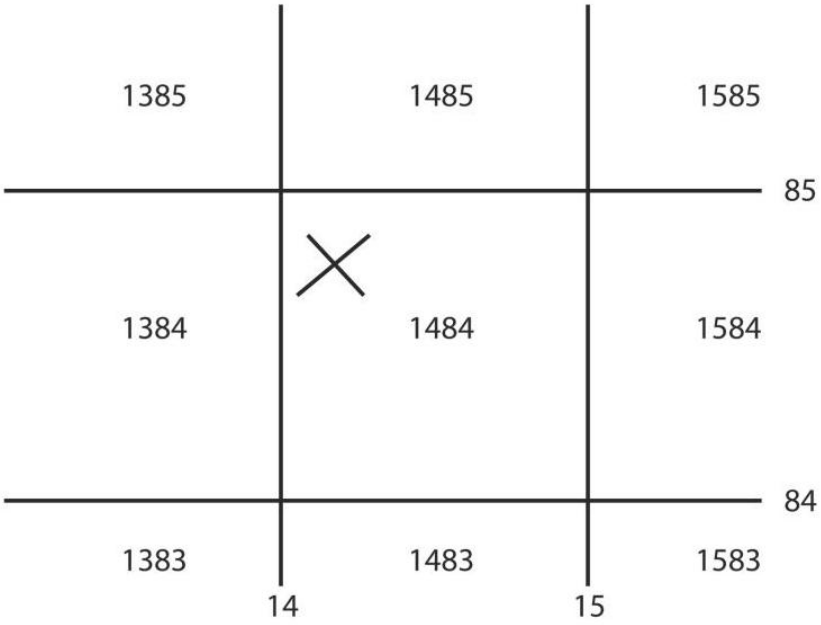
SECTION III – GRID COORDINATES

All grid coordinates are preceded by their two letter 100,000-Meter Square Identification. The grid reference box in the margin of your map will show the 100,000-Meter Square Identifications that are included on your map. In the example below you will see that the map in question has two such identifications FL and GL. The line between them indicates that these identifications are divided along the vertical grid line marked 00. If you were to look at the map you would see the numbering of the vertical grid lines at the bottom and top of each line. In this case, area to the left of the 00 grid line will have the FL identification while the area to the right will have the GL identification. Note that each map can be different. Some maps may show a pair of 100,000 meter square identifications stacked with a horizontal line running between them. This indicates the identifications are separated by a horizontal grid line (00). Other maps may have 4 identifications or perhaps only one depending on the portion of the earth's surface they represent.



Grid reference box

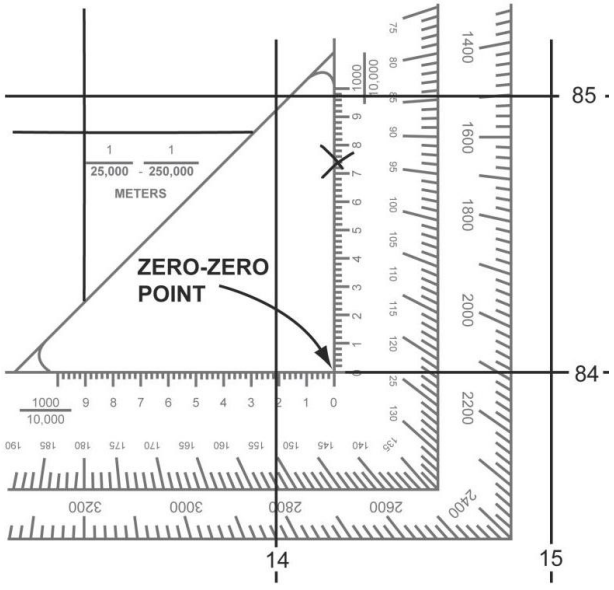
Grid lines on a map are numbered from left to right and bottom to top. We say that we read a map **RIGHT and UP**. This is easily illustrated when we determine a four digit grid coordinate. In determining the 4 digit grid coordinate for the X in the example below we will read RIGHT to the vertical (north-south) grid line that precedes the desired point (these are the first two digits of the grid coordinate). Then by referring to the horizontal (east-west) grid lines numbered at either side of the map, move UP to the horizontal grid line that precedes the desired point (these are the third and fourth digits of the grid coordinate). The X is located at 1484. If the grid reference block in the previous example were applied here you could see that the X is to the right of the vertical (north-south) grid line and therefore would have a 100,000-Meter Square Identification of GL. The correct 4 digit grid coordinate would then be GL1484. This example also gives the 4 digit grid coordinates for the adjoining grid squares. It should also be noted that the 4 digit grid coordinate is not very accurate, locating a point to within 1000 meters.



A protractor (GTA 05-02-012) assists in determining the location of a point with much greater accuracy.

DETERMINE GRIDS WITH A COORDINATE SCALE

In order to use the coordinate scale for determining grid coordinates, the map user has to make sure that the appropriate scale is being used on the corresponding map, and that the scale is right side up. To ensure the scale is correctly aligned, place it with the zero-zero point at the lower left corner of the grid square. Keeping the horizontal line of the scale directly on top of the east-west grid line, slide it to the right until the vertical line of the scale touches the point for which the coordinates are desired. When reading coordinates, examine the two sides of the coordinate scale to ensure that the horizontal line of the scale is aligned with the east-west grid line, and the vertical line of the scale is parallel with the north-south grid line. The scale is used when precision of more than 100 m is required. To locate the point to the nearest 10 m, measure the hundredths of a grid square RIGHT and UP from the grid lines to the point. Point X is about 21-hundredths or 210 m RIGHT and 73-hundredths or 730 m UP. The coordinates to the nearest 10 m are 14218473.



Placing a coordinate scale on a grid

RECORDING AND REPORTING GRID COORDINATES

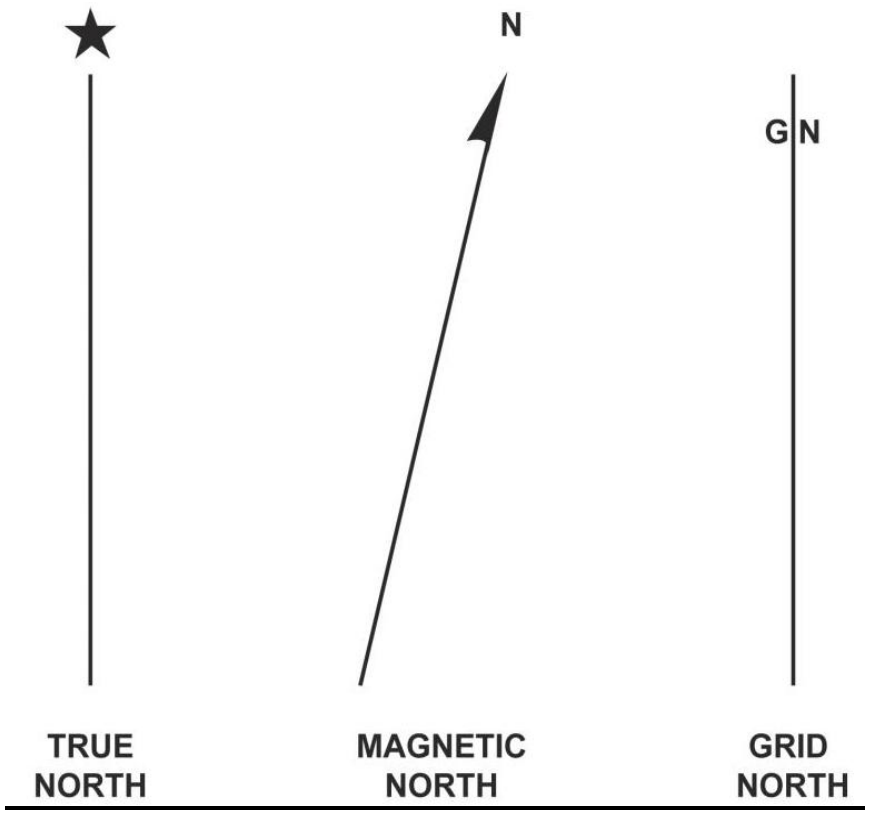
Coordinates are written as one continuous number without spaces, parentheses, dashes, or decimal points; they always contain an even number of digits. Therefore, whoever is to use the written coordinates knows where to make the split between the RIGHT and UP readings. It is a military requirement that the 100,000-m square identification letters be included in a point designation. Normally, grid coordinates are determined to the nearest 100 m (six digits) for reporting locations. With practice, this can be done without using plotting scales. The location of targets and other point locations for fire support are determined to the nearest 10 m (eight digits).

SECTION IV – DIRECTIONS

BASE LINES (THE THREE NORTHS)

To express direction as a unit of angular measure, there is a starting point or zero measure, and a point of reference. These two points designate the base, or reference line. The three base lines include true north, magnetic north, and grid north. The most commonly used base lines are magnetic and grid. To explain further:

- **True north** is defined as a line from a point on the earth's surface to the North Pole. All lines of longitude are true north lines. True north is usually represented by a star.
- **Magnetic north** is the direction to the north magnetic pole, as indicated by the north-seeking needle of a magnetic instrument. The magnetic north is usually symbolized by a line ending with half of an arrowhead. Magnetic readings are obtained with instruments such as the lensatic and M2 compasses.
- **Grid north** is established by using the vertical grid lines on the map. Grid north may be symbolized by the letters GN or the letter "y."

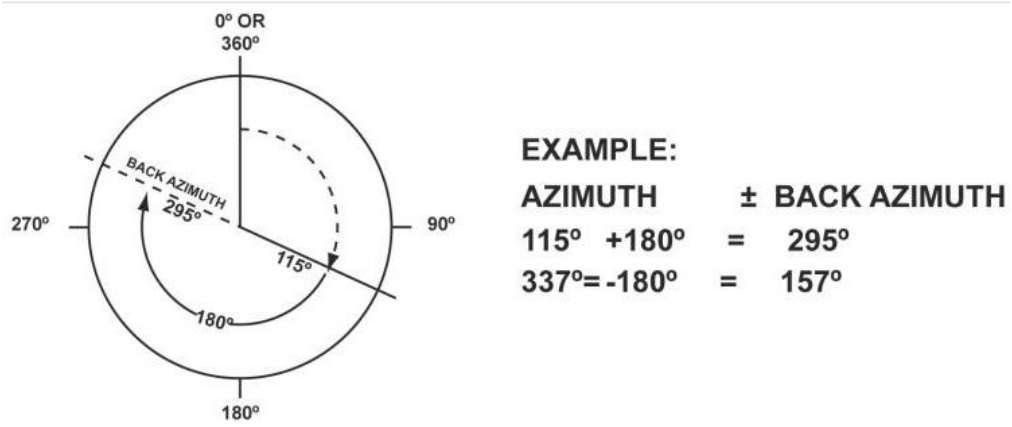


The Three Norths

AZIMUTHS

An azimuth is defined as a horizontal angle measured clockwise from a north base line. This north base line could be true north, magnetic north, or grid north. The azimuth is the most common military method to express direction. When using an azimuth, the point where the azimuth originates is the center of an imaginary circle. This circle is divided into 360 degrees, or 6400 mils. Other azimuths are:

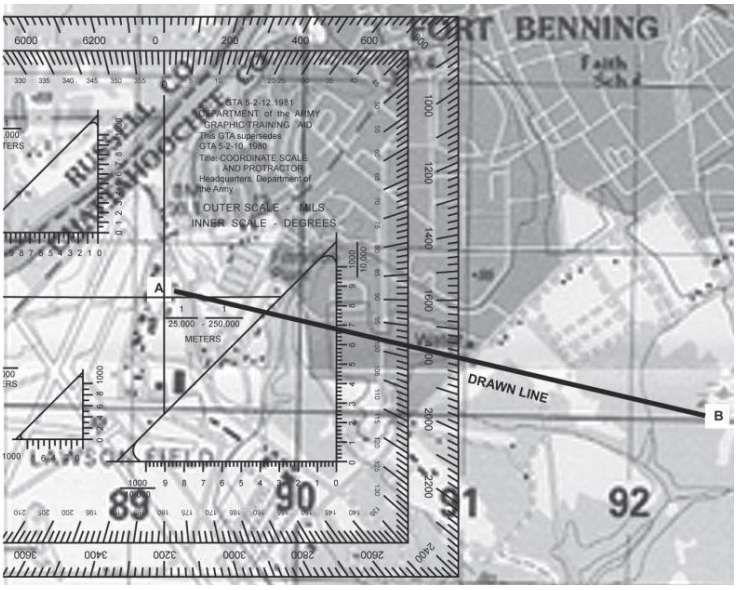
- **Back azimuth**. This is the opposite direction of an azimuth. It is comparable to doing an "about face." To obtain a back azimuth from an azimuth, add 180 degrees if the azimuth is 180 degrees or less; subtract 180 degrees if the azimuth is 180 degrees or more. The back azimuth of 180 degrees may be stated as 0 degrees or 360 degrees. For mils, if the azimuth is less than 3200 mils, add 3200 mils; if the azimuth is more than 3200 mils, subtract 3200 mils.
- **Magnetic azimuth.** Determined by using magnetic instruments such as lensatic and M2 compasses.



Azimuth Circle

GRID AZIMUTHS

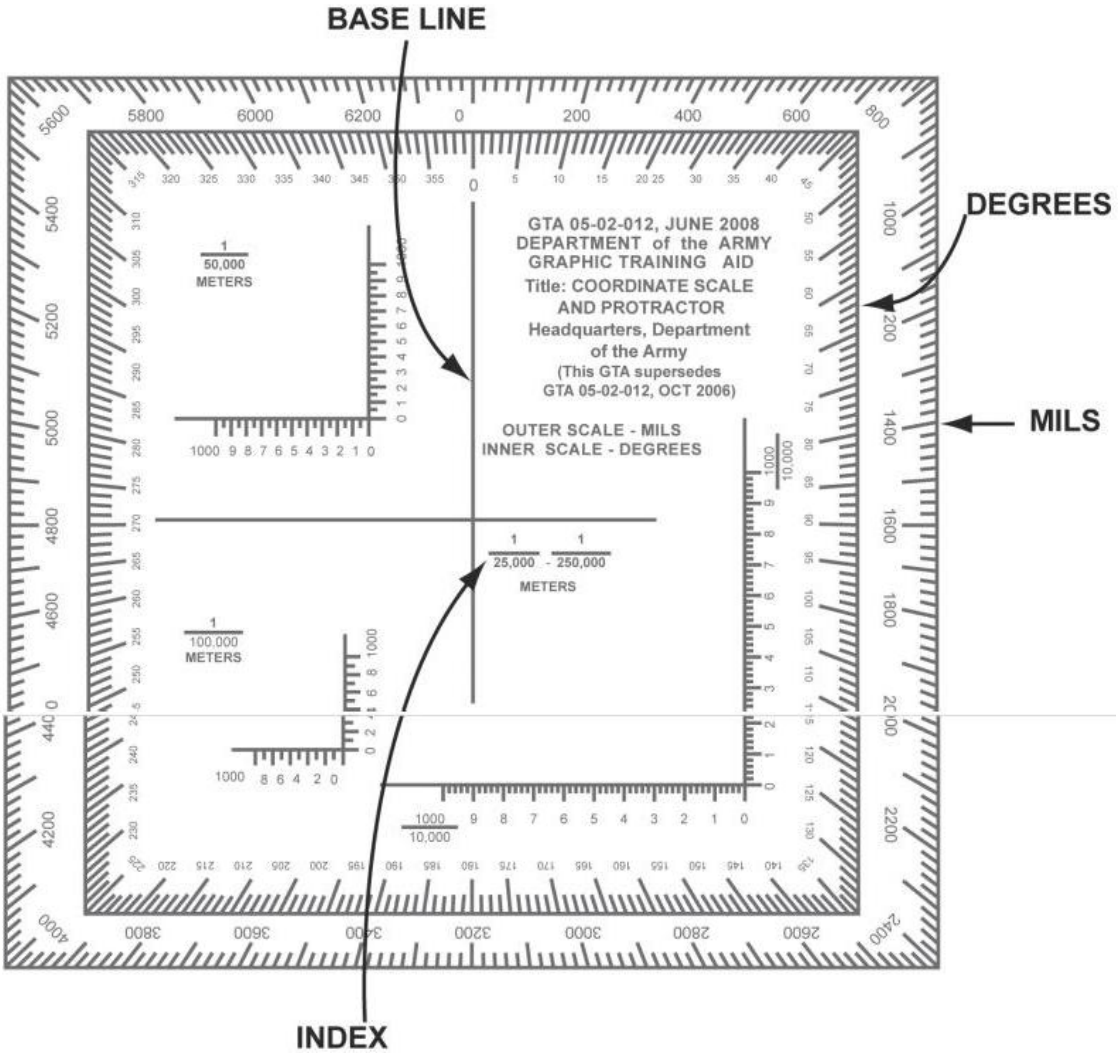
When an azimuth is plotted on a map between point A (starting point) and point B (ending point), the points are joined by a straight line. A protractor is used to measure the angle between grid north and the drawn line, and this measured azimuth is the grid azimuth. The example below represents 99 degrees.



Measuring an azimuth

PROTRACTOR

The military protractor (GTA 5-2-12) contains two scales: one in degrees (inner scale) and one in mils (outer scale). This protractor represents the azimuth circle. The degree scale is graduated from 0 to 360 degrees, with each tick mark representing one degree. A line from 0 to 180 degrees is called the base line of the protractor. The index (or center) of the protractor is where the base line intersects the horizontal line, between 90 and 270 degrees.

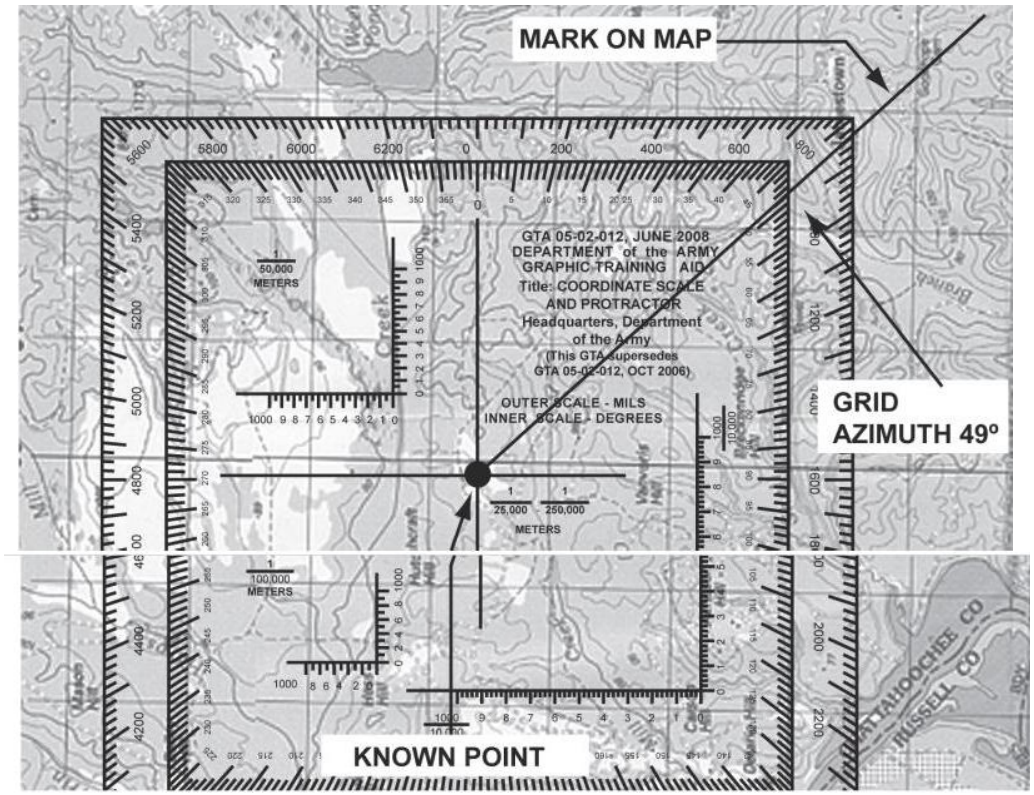


Military protractor

When using the protractor, the base line is always oriented parallel to a north-south grid line. The 0- or 360-degree mark is always toward the top or north on the map and the 90-degree mark is to the right. To determine the grid azimuth:

- Draw a line connecting the two points (A and B).
- Place the index of the protractor at the point where the drawn line crosses a vertical (north-south) grid line.
- Keeping the index at this point, align the 0- to 180-degree line of the protractor on the vertical grid line.
- Read the value of the angle from the scale; this is the grid azimuth from point A to point B.
- Convert the azimuth from magnetic to grid, if necessary.

 Place the protractor on the map with the index mark at the center of mass of the known point, and the base line parallel to a north-south grid line.
 Make a mark on the map at the desired azimuth.
 Remove the protractor and draw a line connecting the known point and the mark on the map. This is the grid direction line (azimuth).



Plotting an azimuth on the map

To obtain an accurate reading with the protractor (to the nearest degree or 10 mils), there are two techniques to check that the base line of the protractor is parallel to a north-south grid line:

 Place the protractor index where the azimuth line cuts a north-south grid line, aligning the base line of the protractor directly over the intersection of the azimuth line with the north-south grid line. The user should be able to determine whether the initial azimuth reading was correct. The user should re-read the azimuth between the azimuth and north-south grid line to check the initial azimuth.

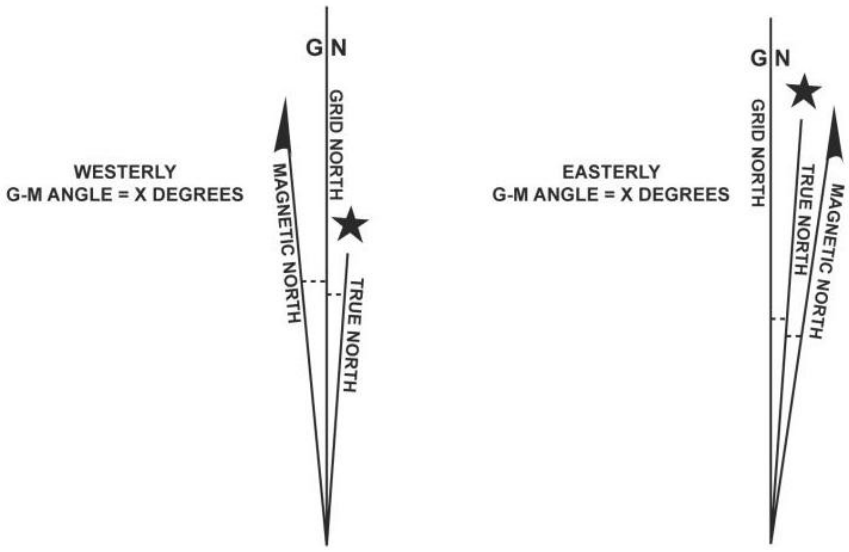
 Note that the protractor is cut at both the top and bottom by the same north-south grid line. Count the number of degrees from the 0-degree mark at the top of the protractor to this north-south grid line and then count the number of degrees from the 180-degree mark at the bottom of the protractor to this same grid line. If the two counts are equal, the protractor is properly aligned.

DECLINATION DIAGRAM

Declination is the angular difference between two norths. Having a map and a compass, the declination of most interest is between magnetic and grid north. Soldiers primarily receive information based on a magnetic north or grid north azimuth. The declination diagram shows the angular relationship, represented by prongs among the grid, magnetic, and true norths. While the relative positions of the prongs are correct, they are seldom plotted to scale. Do not use the diagram to measure a numerical value. This value is written in the map margin (in degrees and mils) beside the diagram.

Conversion of grid azimuths to magnetic azimuths and vice versa, depend on whether one is converting easterly or westerly G-M angles, the degree of declination change, and whether one is going from a magnetic azimuth to grid azimuth, or the opposite. To do this—

- From an easterly magnetic azimuth to grid azimuth, one would add. To go from a grid azimuth to magnetic azimuth, one would subtract.
- From a westerly magnetic azimuth to a grid azimuth, one would subtract. To go from a grid azimuth to a magnetic azimuth, one would add.



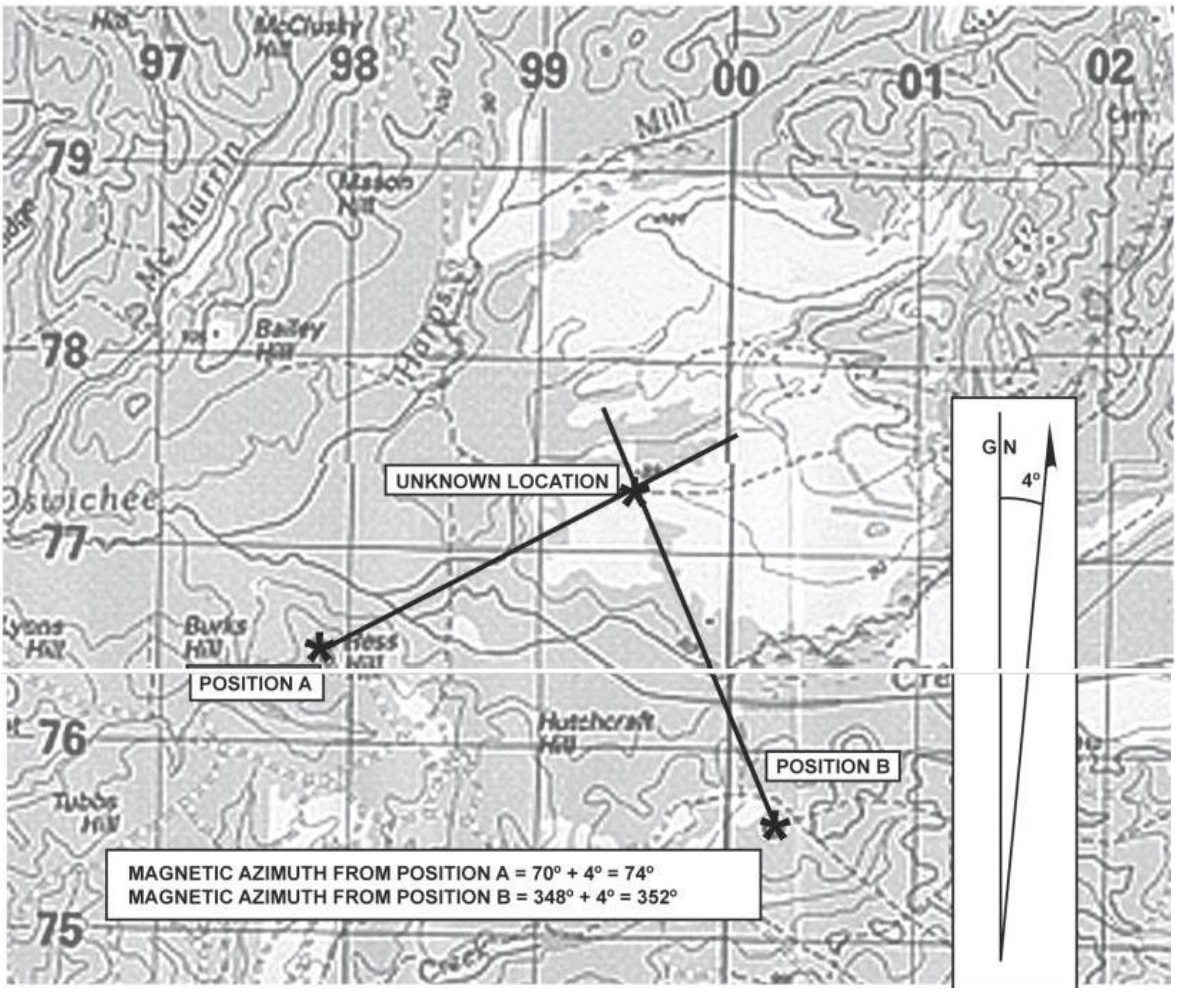
Declination diagrams

INTERSECTION

Intersection is the location of an unknown point by successively occupying at least two (preferably three) known positions on the ground, and then map sighting on the unknown location. It is used to locate distant or inaccessible points or objects such as enemy targets and danger areas. There are two methods of intersection—the map and compass method and the straightedge method:

- When using the map and compass method—

1. Orient the map using the compass.
2. Locate and mark the position on the map,
3. Determine the magnetic azimuth to the unknown position using the compass.
4. Convert the magnetic azimuth to grid azimuth.
5. Draw a line on the map from the position on this grid azimuth.
6. Move to a second known point and repeat the steps 1 through 5 above.
7. The location of the unknown position is where the lines cross on the map. Determine the grid coordinates to the desired accuracy.

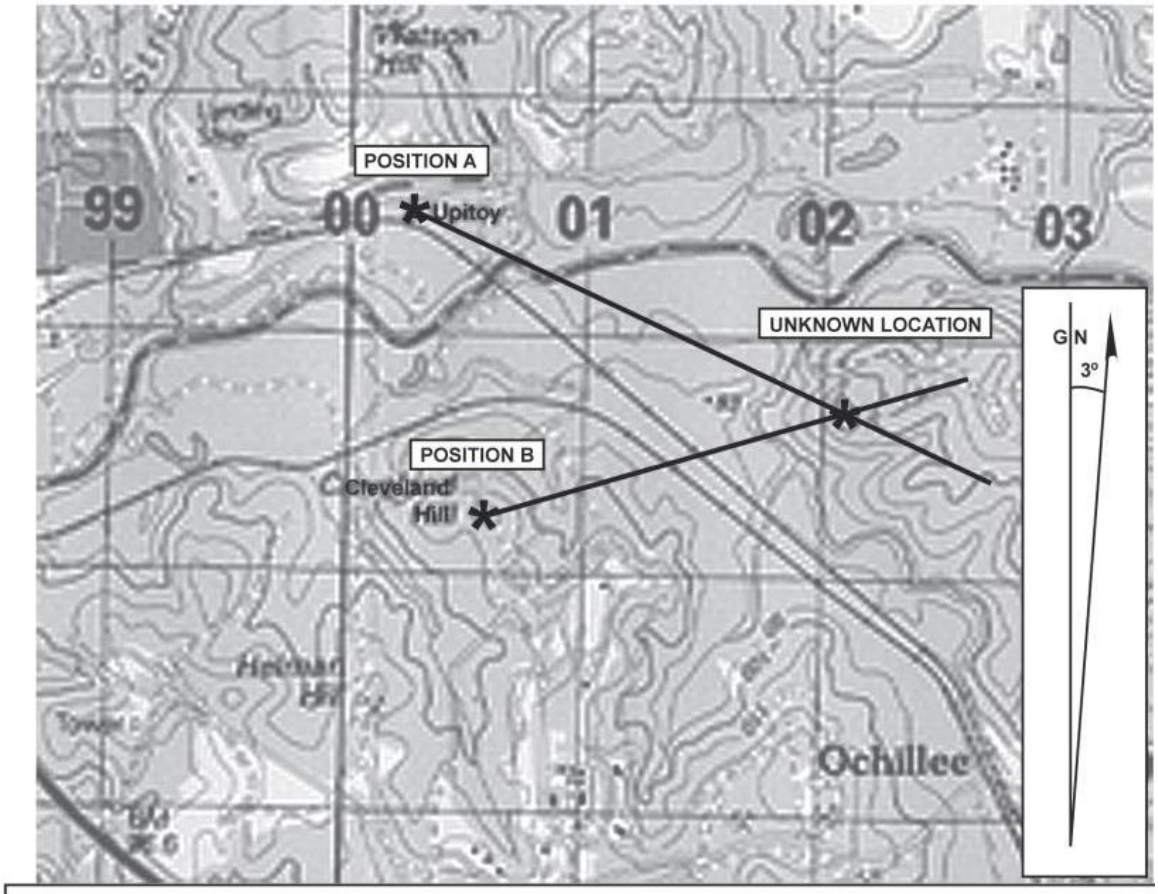


Intersection, using map and compass

RESECTION

Resection is the method of locating one's position on a map by determining the grid azimuth to at least two well-defined locations that can be pinpointed on the map. For greater accuracy, the desired method of resection is to use three or more well-defined locations. When using the map and compass method—

- Orient the map using the compass.
- Identify two or three known distant locations on the ground and mark them on the map.
- Measure the magnetic azimuth to one of the known positions from the location using a compass.
- Convert the magnetic azimuth to a grid azimuth.
- Convert the grid azimuth to a back azimuth. Using a protractor, draw a line for the back azimuth on the map from the known position back toward the unknown position.
- Measure and convert the magnetic azimuth to a grid azimuth, and convert the grid azimuth to a back azimuth for a second position (and a third position, if desired).
- The intersection of the lines is the location. Determine the grid coordinates to the desired accuracy.

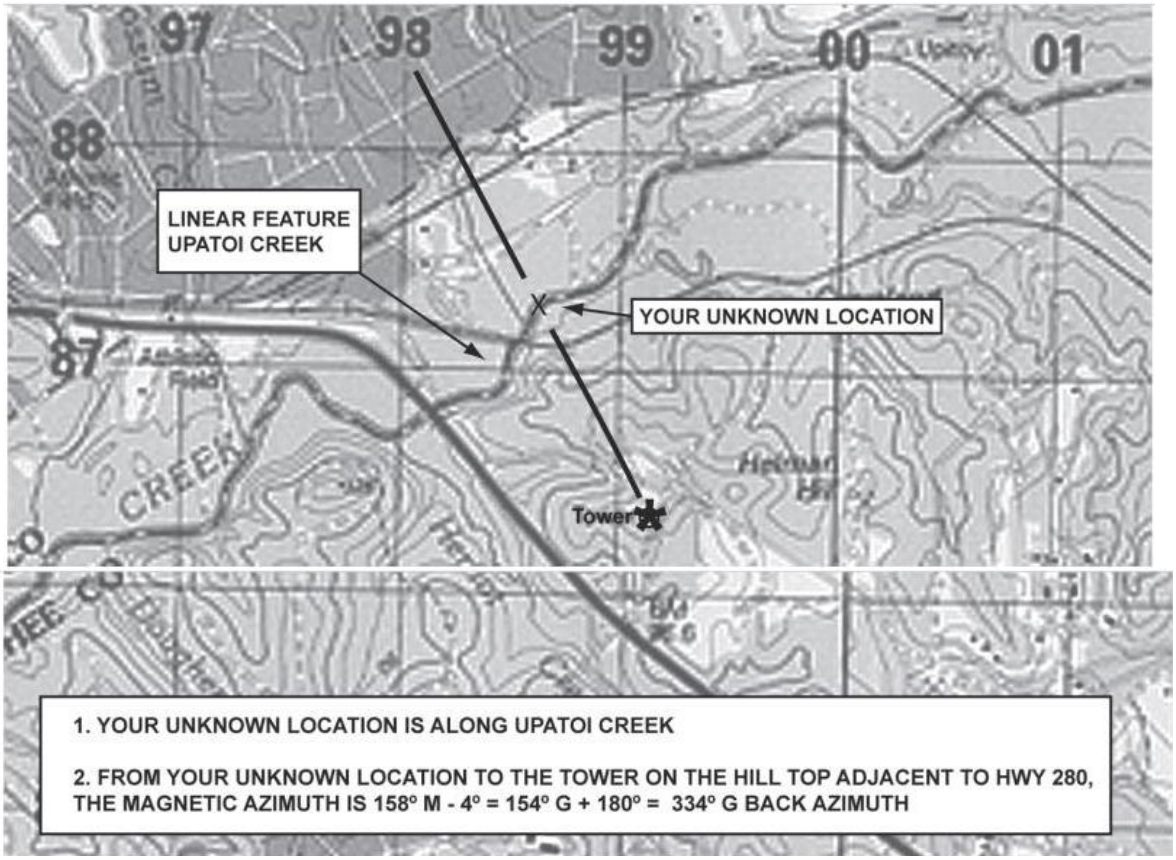


Resection with map and compass

MODIFIED RESECTION

Modified resection is the method of locating one's position on the map when the person is located on a linear feature on the ground, such as a road, canal, or stream. Proceed as follows:

- Orient the map using a compass or by terrain association.
- Find a distant point that can be identified on the ground and on the map.
- Determine the magnetic azimuth from the location to the distant known point.
- Convert the magnetic azimuth to a grid azimuth.
- Convert the grid azimuth to a back azimuth. Using a protractor, draw a line for the back azimuth on the map from the known position back toward the unknown position.
- The location of the user is where the line crosses the linear feature. Determine the grid coordinates to the desired accuracy.



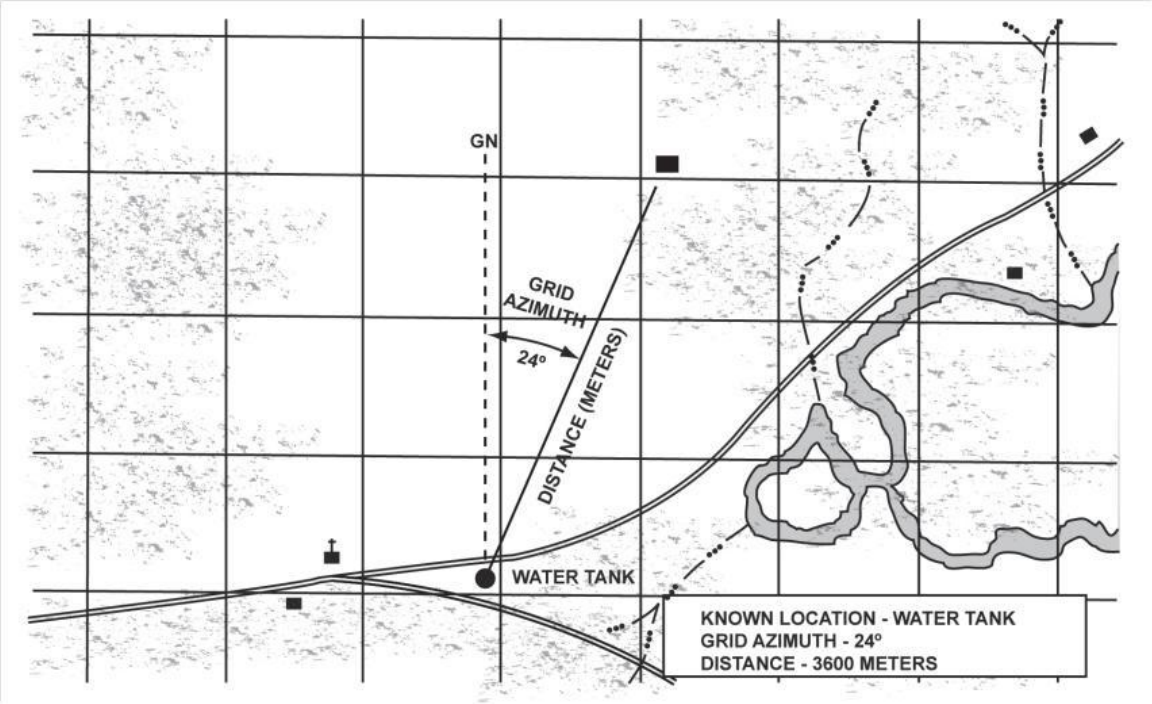
Modified resection

POLAR PLOT

A method of locating or plotting an unknown position from a known point by giving a direction and a distance along that direction line is called polar plot. The following elements are present when using polar plot:

- Present known location on the map.
- Azimuth (grid or magnetic).
- Distance (in meters).

Using the laser range finder to determine the range enhances accuracy in determining the unknown position's location.



Polar plot

SECTION V – USING A COMPASS

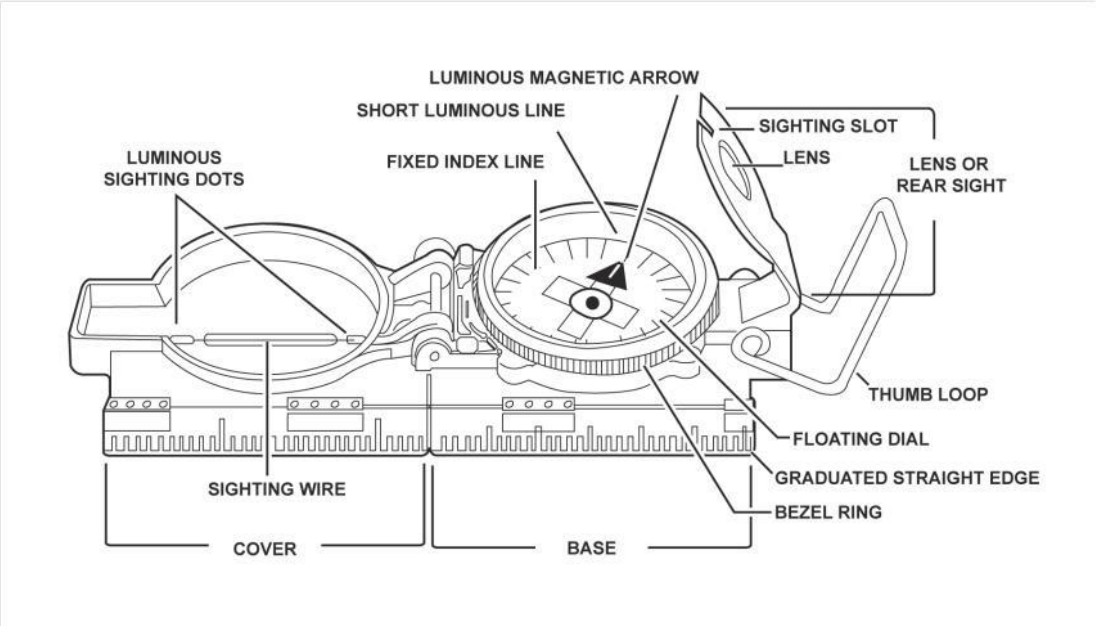
TYPES OF COMPASSES

The lensatic compass is the most common and simplest instrument for measuring direction. The artillery M2 compass is a special-purpose instrument designed for accuracy and is discussed in Appendix F. The wrist/pocket compass is a small magnetic compass that can be attached to a wristwatch band. It contains a north-seeking arrow and a dial in degrees. A protractor can determine azimuths when a compass is not available. However, only grid azimuths can be obtained when using the protractor on a map.

LENSATIC COMPASS

The lensatic compass consists of three major parts: the cover, base, and lens. The compass cover protects the floating dial. The cover also contains the sighting wire (front sight) and two luminous sighting slots or dots, used for night navigation. The base of the compass contains the following movable parts:

- The floating dial is mounted on a pivot so it can rotate freely when the compass is held level. Printed on the dial in luminous figures are an arrow and the letters E and W. The arrow always points to magnetic north, and the letters fall at E 90 degrees and W 270 degrees on the dial. There are two scales; the outer scale denotes mils and the inner scale (normally in red) denotes degrees.
- Encasing the floating dial is a glass containing a fixed black index line.
- The bezel ring is a ratchet device that clicks when turned. It contains 120 clicks when rotated fully; each click is equal to 3 degrees. A short luminous line that is used in conjunction with the northseeking arrow during navigation is contained in the glass face of the bezel ring.
- The thumb loop is attached to the base of the compass.
- The lens is used to read the dial and contains the rear-sight slot used in conjunction with the front for sighting on objects. The rear sight also serves as a lock and clamps the dial when closed for its protection. The rear sight is opened more than 45 degrees to allow the dial to float freely.



Lensatic compass

Note. When opened, the straight edge on the left side of the compass has a 1:50,000 coordinate scale.

COMPASS HANDLING

Compasses are delicate instruments and should be cared for accordingly. A detailed inspection is required when first obtaining and using a compass. One of the most important parts to check is the floating dial, which contains the magnetic needle. The user also makes sure the sighting wire is straight, the glass and crystal parts are not broken, the numbers on the dial are readable, and that the dial does not stick.

Metal objects and electrical sources can affect the performance of a compass. However, nonmagnetic metals and alloys do not affect compass readings. The following separation distances are suggested to ensure proper functioning of a compass:

- High-tension power lines.....55 m.
- Field gun, truck, or tank.....18 m.
- Telegraph or telephone wires and barbed wire.....10 m.

A compass in good working condition is very accurate. However, a compass has to be checked periodically on a known line of direction, such as a surveyed azimuth, using a declination station. Compasses with more than 3 degrees variation should not be used.

If traveling with the compass unfolded, make sure the rear sight is fully folded down onto the bezel ring. This locks the floating dial, prevents vibration, and protects the crystal and rear sight from damage.

USING A COMPASS

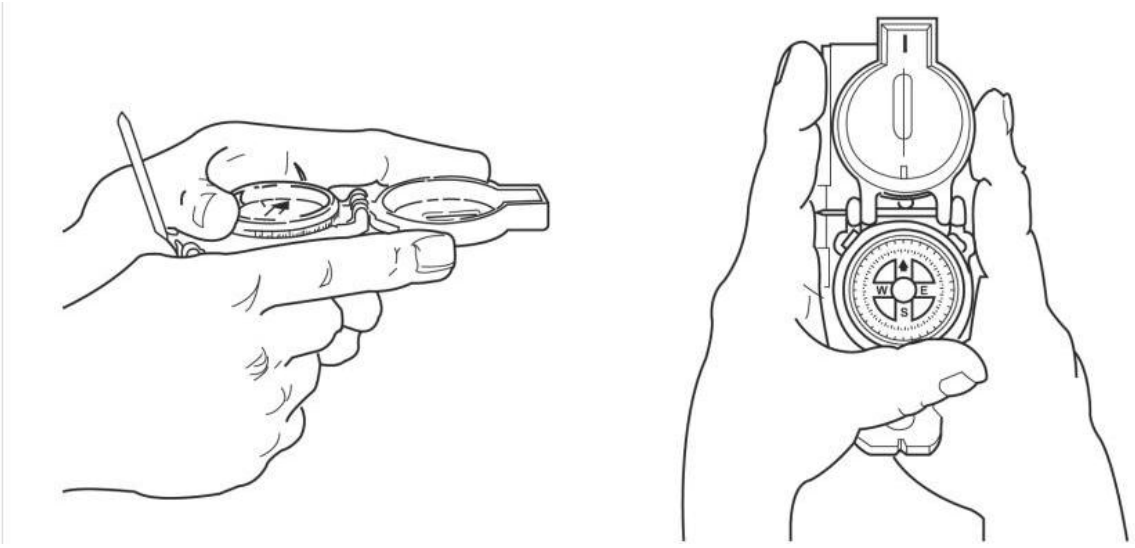
Magnetic azimuths are determined using magnetic instruments such as lensatic and M2 compasses. Employ the following techniques when using the lensatic compass: centerhold technique and compass-to-cheek technique.

CENTERHOLD TECHNIQUE

First, open the compass to its fullest so that the cover forms a straightedge with the base. Move the lens (rear sight) to the rearmost position, allowing the dial to float freely. Next, place your thumb through the thumb loop, form a steady base with your third and fourth fingers, and extend your index finger along the side of the compass. Place the thumb of the other hand between the lens (rear sight) and the bezel ring; extend the index finger along the remaining side of the compass, and the remaining fingers around the fingers of the other hand. Pull your elbows firmly into your sides; this places the compass between your chin and your belt.

To measure an azimuth, simply turn your entire body toward the object, pointing the compass cover directly at the object. Once you are pointing at the object, look down and read the azimuth from beneath the fixed black index line. This preferred method offers the following advantages over the sighting technique:

- It is faster and easier to use.
- It can be used under all conditions of visibility.
- It can be used when navigating over all types of terrain.
- It can be used without putting down the rifle. However, the rifle is slung well back over either shoulder.
- It can be used without removing eyeglasses.



Centerhold technique

COMPASS-TO-CHEEK TECHNIQUE

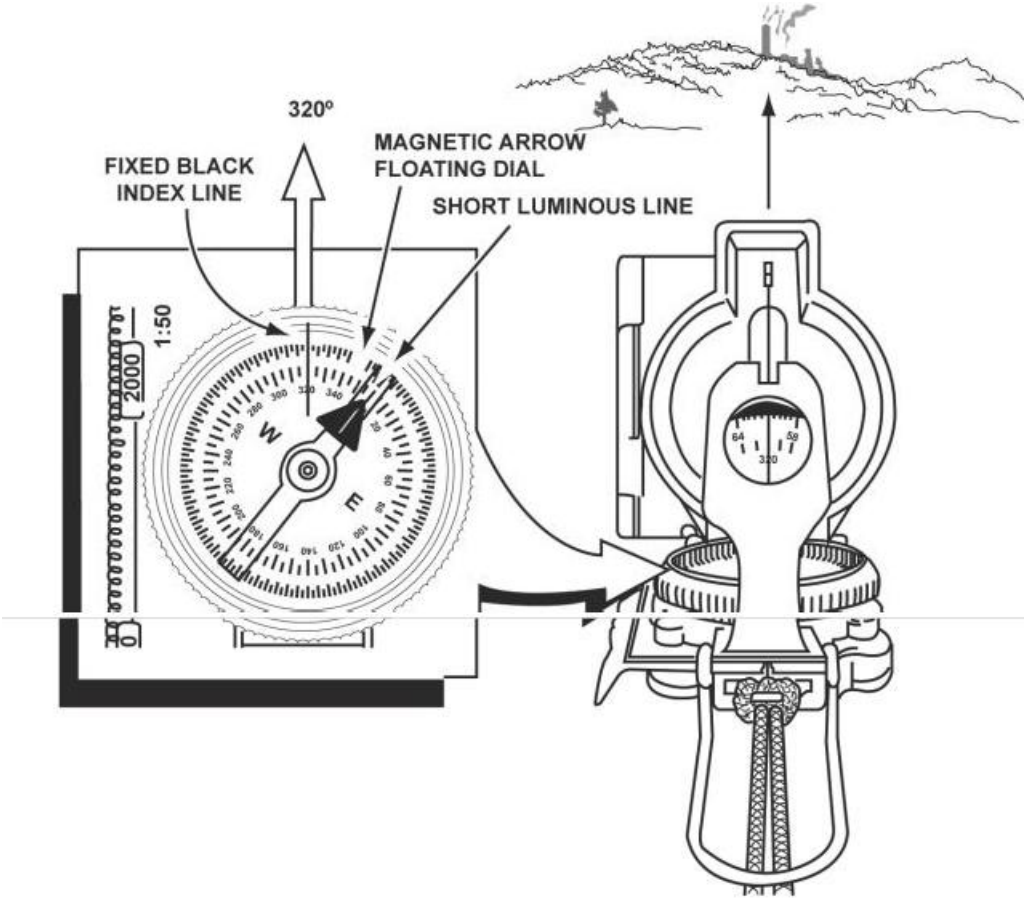
Fold the cover of the compass containing the sighting wire to a vertical position; then fold the rear sight slightly forward. Look through the rear-sight slot and align the front-sight hairline with the desired object in the distance. Glance down at the dial through the eye lens to read the azimuth. ***Note.*** The compass-to-cheek technique is used almost exclusively for sighting. It is the best technique for this purpose.

Compass-to-cheek technique

PRESETTING A COMPASS AND FOLLOWING AN AZIMUTH

Although different models of the lensatic compass vary somewhat in the details of their use, the principles are the same. During daylight hours or with a light source—

- Hold the compass level in the palm of the hand.
- Rotate it until the desired azimuth falls under the fixed black index line (for example, 320 degrees), maintaining the azimuth as prescribed.
- Turn the bezel ring until the luminous line is aligned with the north-seeking arrow. Once the alignment is obtained, the compass is preset.
- To follow an azimuth, assume the centerhold technique, and turn your body until the north-seeking arrow is aligned with the luminous line. Proceed forward in the direction of the front cover's sighting wire, which is aligned with the fixed black index line that contains the desired azimuth.



Compass preset at 320 degrees

During limited visibility, an azimuth may be set on the compass by the click method. Remember that the bezel ring contains 3-degree intervals (clicks). To employ the click method—

- Rotate the bezel ring until the luminous line is over the fixed black index line.
- Find the desired azimuth and divide it by three. The result is the number of clicks needed to rotate the bezel ring.
- Count the desired number of clicks. If the desired azimuth is smaller than 180 degrees, the number of clicks on the bezel ring should be counted in a counterclockwise direction. For example, the desired azimuth is 51 degrees; 51 degrees ÷ 3 = 17 clicks counterclockwise. If the desired azimuth is

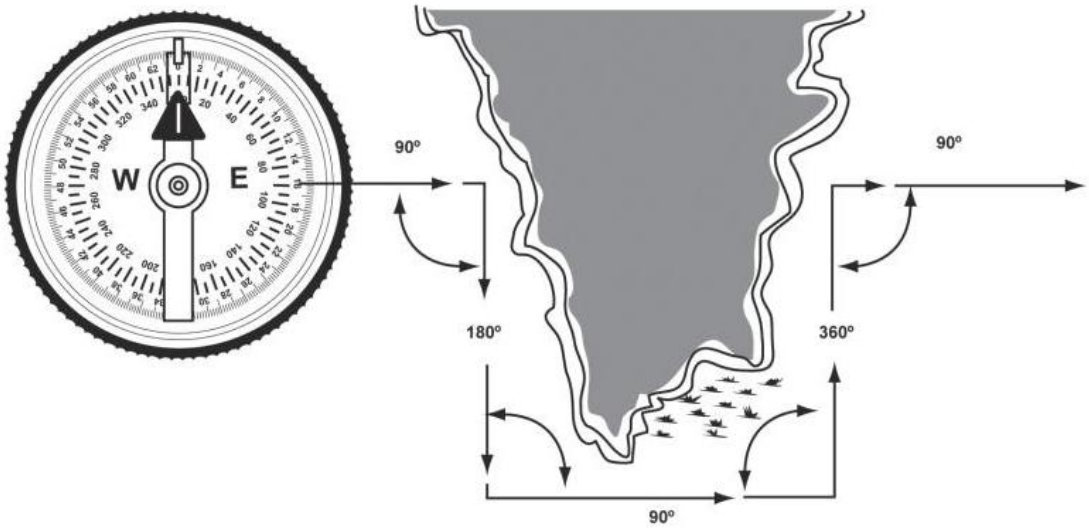
larger than 180 degrees, subtract the number of degrees from 360 degrees and divide by 3 to obtain the number of clicks. Count them in a clockwise direction. For example, the desired azimuth is 330 degrees; 360 degrees − 330 degrees = 30 ÷ 3 = 10 clicks clockwise.

- With the compass preset as described above, assume a centerhold technique and rotate your body until the north-seeking arrow is aligned with the luminous line on the bezel. Proceed forward in the direction of the front cover's luminous dots, which are aligned with the fixed black index line containing the azimuth.
- When the compass is to be used in darkness, an initial azimuth should be set while light is still available, if possible. With the initial azimuth as a base, another azimuth that is a multiple of three can be established using the clicking feature of the bezel ring.

Note. Sometimes the desired azimuth is not exactly divisible by three, causing an option of rounding up or rounding down. Rounding up causes an increase in the value of the azimuth, and the object is to be found on the left. Rounding down causes a decrease in the value of the azimuth, and the object is to be found on the right.

BYPASSING AN OBSTACLE

To bypass enemy positions or obstacles and still stay oriented, detour around the obstacle by moving at right angles for specified distances. For example, while moving on an azimuth of 90 degrees change the azimuth to 180 degrees and travel for 100 m. Change the azimuth to 90 degrees and travel for 150 m. Change the azimuth to 360 degrees and travel for 100 m. Then, change the azimuth to 90 degrees and return to the original azimuth line.



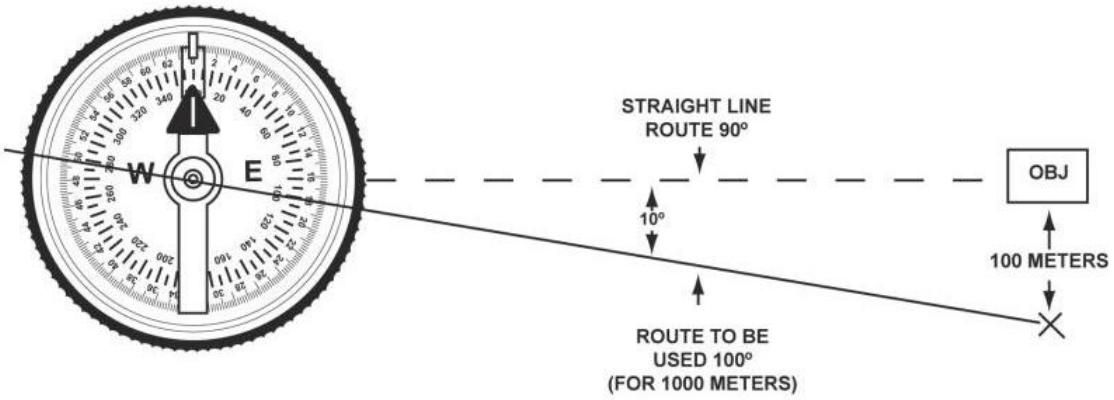
Bypassing an obstacle

Bypassing an unexpected obstacle at night is a fairly simple matter. To make a 90-degree turn to the right, hold the compass in the centerhold technique; turn until the center of the luminous letter E is under the luminous line (*do not* move the bezel ring). To make a 90-degree turn to the left, turn until the center of the luminous letter W is under the luminous line. This does not require changing the compass setting (bezel ring), and it ensures accurate 90-degree turns.

OFFSET

A deliberate offset is a planned magnetic deviation to the right or left of an azimuth to an objective. Use it when the objective is located along or in the vicinity of a linear feature such as a road or stream. Due to

errors in compass or map reading, the linear feature may be reached without knowing whether the objective lies to the right or left. A deliberate offset by a known number of degrees in a known direction compensates for possible errors and ensures that upon reaching the linear feature, the user knows whether to go right or left to reach the objective. Ten degrees is an adequate offset for most tactical uses. Each degree offset moves the course about 18 m to the right or left for each 1000 m traveled. In the example below, the number of degrees offset is 10 degrees. If the distance traveled to "X" is 1000 m, then "X" is located about 180 m to the right of the objective.



Deliberate offset to the objective

SECTION VI – TACTICAL CONSIDERATIONS OF NAVIGATION

Military cross-country navigation is intellectually demanding because it is imperative that the unit, crew, or vehicle survive and successfully complete the move in order to accomplish its mission. However, the unnecessary use of a difficult route makes navigation too complicated, creates more noise when proceeding over it, causes wear and tear on equipment and personnel, increases the need for and needlessly complicates recovery operations, and wastes time. On receipt of a tactical mission, the leader begins troop leading procedures and makes a tentative plan based upon a good terrain analysis.

One key to success in tactical missions is the ability to move undetected to the objective. There are four steps to land navigation: know where you are, plan the route, stay on the route, and recognize the objective.

KNOW WHERE YOU ARE (STEP 1)

You need to know where you are on the map and on the ground at all times and in every possible way. This includes knowing where you are relative to—

- Your directional orientation.
- The direction and distances to your objective.
- Other landmarks and features.
- Any impassable terrain, the enemy, and danger areas.
- The advantages and disadvantages presented by the terrain between you and your objective. This step is accomplished by knowing how to read a map; recognize and identify specific terrain and other features; determine and estimate direction; pace, measure, and estimate distances; and plot and estimate a position by resection.

PLAN THE ROUTE (STEP 2)

Depending upon the size of the unit and the length and type of movement to be conducted, several factors should be considered in selecting a good route or routes to be followed. These include—

- Travel time.
- Travel distance.
- Maneuver room needed.
- Traffic ability.
- Load-bearing capacities of the soil.
- Energy expenditure by troops.
- The factors of mission, enemy, terrain and weather, troops and support available, time available, civil considerations (METT-TC).
- Tactical aspects of terrain.
- Ease of logistical support.
- Potential for surprising the enemy.
- Availability of control and coordination features.
- Availability of good checkpoints and steering marks. In other words, the route is the result of careful map study and should address the requirements of the mission, tactical situation, and time available. It also provides for ease of movement and navigation. Keep in mind that—
  - The three route-selection criteria important for small-unit movements are cover, concealment, and the availability of reliable checkpoint features. The latter is weighted even more heavily when selecting the route for a night operation. The degree of visibility and ease of recognition (visual effect) is the key to proper selection of these features.
  - The best checkpoints are linear features that cross the route. Examples include perennial streams, hard-top roads, ridges, valleys, railroads, and power transmission lines. Next, it is best to select features that represent elevation changes of at least two contour intervals such as hills, depressions, spurs, and draws. Primary reliance upon cultural features and vegetation is cautioned against because they are most likely to change between map revisions.
  - Checkpoints located at places where changes in direction are made mark your decision points.

  Be especially alert to see and recognize these features during movement. During preparation and planning, it is especially important to review the route and anticipate where mistakes are most likely to be made so they can be avoided.
- Following a valley floor or proceeding near (not on) the crest of a ridgeline generally offers easy movement, good navigation checkpoints, and sufficient cover and concealment. It is best to follow terrain features whenever possible—not to fight them.
  - A lost or late-arriving unit, or a tired unit that is tasked with an unnecessarily difficult move, does not contribute to the accomplishment of a mission. On the other hand, the unit that moves too quickly and carelessly into a destructive ambush or leaves itself open to air strikes also has little effect. Careful planning and study are required each time a movement route is to be selected.

STAY ON THE ROUTE (STEP 3)

In order to know that the correct route is being followed, compare the evidence encountered while moving according to the plan developed on the map when the route was selected. This may include watching compass readings (dead reckoning) or recognizing various checkpoints or landmarks from the map in their anticipated positions and sequences as they are passed (terrain association). A better way is to use a combination of both techniques.

RECOGNIZE THE OBJECTIVE (STEP 4)
The destination is rarely a highly recognizable feature such as a dominant hilltop or road junction. Such locations are seldom missed by the most inexperienced navigators and are often dangerous places for Soldiers to occupy. The relatively small, obscure places are most likely to be the destinations.

Just how does a Soldier travel over unfamiliar terrain for moderate to great distances and know when he reaches the destination? One minor error, when many are possible, can cause the target to be missed. The answer is simple. Select a checkpoint (reasonably close to the destination) that is not so difficult to find or recognize. Then plan a short, fine-tuned last leg from the new expanded objective to the final destination. For example, if possible, plan and execute the move as a series of sequenced movements from one checkpoint or landmark to another using the terrain and a compass to keep on the correct course. After arriving at the last checkpoint, follow a specific compass azimuth and pace off the relatively short, known distance to the final, pinpoint destination. This procedure is called point navigation. A short movement out from a unit position to an observation post (OP) or to a coordination point may also be accomplished in the same manner.

SECTION VII – NAVIGATION METHODS

Staying on the route is accomplished through the use of one or two navigation techniques—dead reckoning and terrain association. These methods are discussed in detail below.

MOVING BY DEAD RECKONING
Dead reckoning consists of two fundamental steps. The first is the use of a protractor and graphic scales to determine the direction and distance from one point to another on a map. The second step is the use of a compass and some means of measuring distance to apply this information on the ground. In other words, it begins with the determination of a polar coordinate on a map and ends with the act of finding it on the ground.

Dead reckoning along a given route is the application of the same process used by a mapmaker establishing a measured line of reference upon which to construct the framework of the map. Therefore, triangulation exercises (either resection or intersection) can be easily undertaken by the navigator at any time to determine or confirm precise locations along or near the route. Between these position-fixes, establish your location by measuring or estimating the distance traveled along the azimuth being followed from the previous known point. Depending upon the situation, pacing, a vehicle odometer, or the application of elapsed time can be used for this purpose.

Most dead reckoned movements do not consist of single straight-line distances due to the tactical and navigational aspects of the terrain, enemy situation, natural and man-made obstacles, time, and safety factors. Another reason most dead reckoning movements are not single straight-line distances is because compasses and pace counts are imprecise measures. Error from them compounds over distance; causing a Soldier to be far from the intended route even if the procedures are performed correctly. The only way to counteract this phenomenon is to reconfirm location by terrain association or resection. Routes planned for dead reckoning generally consist of a series of straight-line distances between several checkpoints with perhaps some travel running on or parallel to roads or trails.
There are two advantages to dead reckoning. First, dead reckoning is easy to teach and to learn. Second, it can be a highly accurate way of moving from one point to another if done carefully over short distances, even where few external cues are present to guide the movements.

During daylight, across open country along a specified magnetic azimuth, never walk with the compass in the open position and in front of you. Because the compass does not stay steady or level, it does not give an accurate reading when held or used this way. Begin at the start point and face with the compass in the proper direction, then sight in on a landmark that is located on the correct azimuth to be followed. Close the compass and proceed to that landmark. Repeat the process as many times as necessary to complete the straight-line segment of the route.

The landmarks selected for this purpose are called steering marks, and their selection is crucial to success in dead reckoning. Steering marks should never be determined from a map study. They are selected as the march progresses and are commonly on or near the highest points visible along the azimuth line being followed. They may be uniquely shaped trees, rocks, hilltops, posts, towers, and buildings—anything that can be easily identified. If a good steering mark is not located to the front, a back azimuth toward some feature to the rear can be used until a good steering mark appears out in front. Characteristics of a good steering mark are:

- It has some characteristics about it, such as color, shade of color, size, or shape (preferably all four), that are recognized upon approach.
- If several easily distinguished objects appear along your line of march, the best steering mark is the most distant object. This procedure enables further distance travel with fewer references to the compass. If there are many options, select the highest object. A higher mark is not as easily lost to sight as is a lower mark that blends into the background upon approach. A steering mark should be continuously visible while moving toward it.
- Steering marks selected at night have even more unique shapes than those selected during daylight. As darkness approaches, colors disappear and objects appear as black or gray silhouettes. Instead of seeing shapes, only the general outlines are visible (that may appear to change during movement as the objects are seen from slightly different angles).

Dead reckoning without natural steering marks is used when the travel area is devoid of features, or when visibility is poor. At night, it may be necessary to send a member of the unit out in front of the unit's position to create steering marks in order to proceed. The position should be as far out as possible to reduce the number of chances for error during movement. Arm-and-hand signals or a radio may be used in placing the Soldier on the correct azimuth. After being properly located, move forward to this position and repeat the process until some steering marks can be identified or until the objective is reached. When handling obstacles/detours on the route, follow these guidelines:

- When an obstacle forces the march to leave the original line and take up a parallel one, always return to the original line as soon as the terrain or situation permits.
- To turn clockwise (right) 90 degrees, add 90 degrees to the original azimuth. To turn counterclockwise (left) 90 degrees from the current direction, subtract 90 degrees from the present azimuth.
- When making a detour, be certain that only paces taken toward the final destination are counted as part of the forward progress. They should not be confused with the local pacing that takes place perpendicular to the route in order to avoid the problem area and in returning to the original line of arch after the obstacle has been passed.

Sometimes a steering mark on the azimuth of travel can be seen across a swamp or some other obstacle which can be walked around. Dead reckoning can then begin at that point. If there is no obvious steering mark to be seen across the obstacle, perhaps one can be located to the rear. Compute a back azimuth to this point and later sight back to it once the obstacle has been passed in order to get back on track.

Highly accurate distance estimates and precision compass work may not be required for a deliberate offset technique if the destination or an intermediate checkpoint is located on or near a large linear feature that runs nearly perpendicular to the direction of travel. Examples include roads or highways, railroads, power transmission lines, ridges, or streams. In these cases, apply a deliberate error (offset) of about 10 degrees to the azimuth planned and then move, using the lensatic compass as a guide, in that direction until encountering the linear feature. Turning left or right to find the destination or checkpoint depends upon which way the deliberate offset was planned.

Because no one can move along a given azimuth with absolute precision, it is better to plan a few extra steps than to begin an aimless search for the objective once reaching the linear feature. This method also copes with minor compass errors and the slight variations that always occur in the earth's magnetic field.

There are disadvantages to dead reckoning. The farther dead reckoning is travelled without position confirmation in relation to the terrain and other features, the more errors accumulate in the movement. Therefore, confirm and correct the estimated position whenever encountering a known feature on the ground that is also on the map. Periodically, accomplish a resection triangulation using two or more known points to pinpoint and correct your position on the map. Pace counts or a distance measurement should begin anew each time the position is confirmed on the map.

It is dangerous to select a single steering mark, such as a distant mountaintop, and then move blindly toward it. This hampers sudden calls for needed fire support or medical evacuation. To pinpoint a current location, use resection and terrain association techniques along the way.

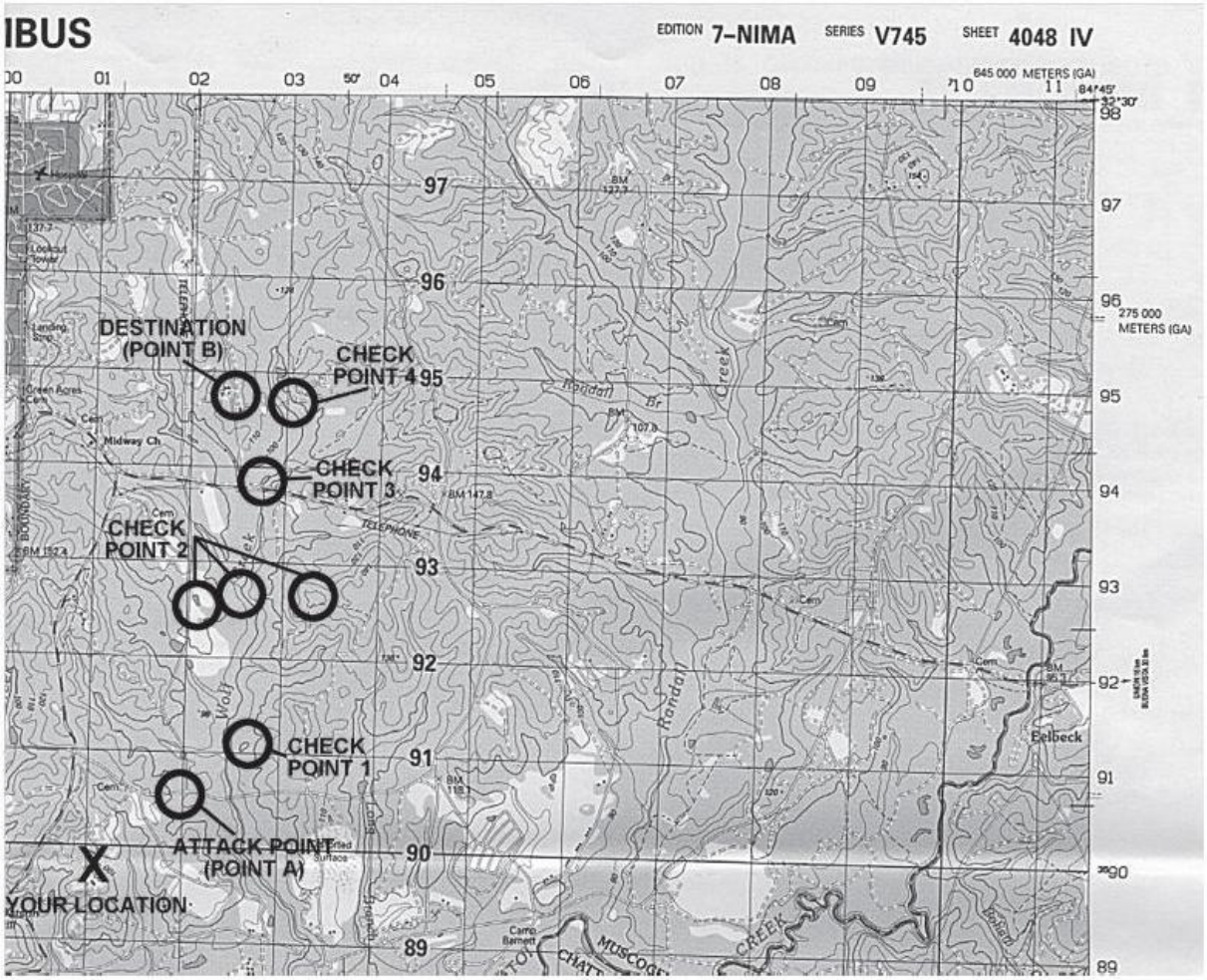
Steering marks can be farther apart in open country, thereby making navigation more accurate. In areas of dense vegetation where there is little relief, during darkness, or in fog, steering marks are close together. However, this introduces more chance for error.

Dead reckoning is time-consuming and demands constant attention to the compass. Errors accumulate easily and quickly. Every fold in the ground and detours as small as a single tree or boulder also complicate the measurement of distance.

MOVING BY TERRAIN ASSOCIATION

The technique of moving by terrain association is more forgiving of mistakes and far less time consuming than dead reckoning. It best suits those situations that call for movement from one area to another. Once an error has been made in dead reckoning, you are off the track. Errors made using terrain association are easily corrected because comparisons between what is expected from the map can be seen on the ground.

Errors are anticipated and do not go unchecked. Adjustments are easily made based upon what is encountered. After all, the neighborhood grocery store is not found by dead reckoning, but by adjusting movements according to the familiar landmarks encountered along the way. Periodic position-fixing through plotted or estimated resection also makes it possible to correct movements, call for fire, call in the locations of enemy targets, or call in other information of tactical or logistical importance.



Terrain association navigation

Identifying and Locating Selected Features

Being able to identify and locate the selected features on the map and on the ground are essential for the success in moving by terrain association. The following rules may prove helpful:

- Be certain the map is properly oriented when moving along the route and use the terrain and other features as guides. The orientation of the map needs to match the terrain or it can cause confusion. To locate and identify features being used to guide the movement, look for the steepness and shape of the slopes, the relative elevations of the various features, and the directional orientations in relation to your position and to the position of the other features that can be seen.
- Make use of the additional cues provided by hydrography, culture, and vegetation. All the information that is gathered assists in making the move. The ultimate test and the best practice for this movement technique is to go out in the field and use it. The use of terrain, other natural features, and man-made objects that appear on the map and on the ground are practiced at every opportunity. There is no other way to learn or retain this skill.

Using Handrails, Catching Features, and Navigational Attack Points

First, because it is difficult to dead reckon without error over long distances with a compass, the alert navigator can often gain assistance from the terrain. Handrails are linear features like roads or highways, railroads, power transmission lines, ridgelines, or streams that run roughly parallel to the direction of travel. Instead of using precision compass work, it is possible to rough compass (using the linear feature

to follow the general compass direction) without the use of steering marks for as long as the feature travels on the right or left. It acts as a handrail to guide the way.

Second, when reaching the point where the route or the handrail changes direction, be aware that it is time to go your separate ways. Some prominent feature located near this point is selected to provide this warning. This is called a catching feature; it can also be used to tell if you have gone too far.

Third, the catching feature may also be the navigational attack point. This point is the place where area navigation ends and point navigation begins. From this last easily identified checkpoint, the navigator moves cautiously and precisely along a given azimuth for a specified distance to locate the final objective. The selection of this navigational attack point is important. A distance of 500 m or less is most desirable.

Disadvantages of Terrain Association
The major disadvantage to navigation by terrain association is that the map is interpreted and analyzed to the physical world. Recognition of terrain and other features, the ability to determine and estimate direction and distance, and knowing how to do quick in-the-head position fixing are skills that are more difficult to teach, learn, and retain than those required for dead reckoning.

Combination of Techniques
The most successful navigation is obtained by combining the techniques described above. Constant orientation of the map and continuous observation of the terrain, in conjunction with compass-read azimuths and distance traveled on the ground, compared with map distance. When used together, they make reaching a destination more certain. One should not depend entirely on compass navigation or map navigation; either or both could be lost or destroyed.

SECTION VIII – NIGHT NAVIGATION

NIGHT NAVIGATION
Darkness presents its own characteristics for land navigation due to limited or no visibility. However, the techniques and principles are the same as those used for day navigation. Success in nighttime land navigation depends upon rehearsals during the planning phase before the movement, such as detailed analysis of the map to determine the type of terrain in which the navigation is going to take place, and the predetermination of azimuths and distances. Night vision devices can greatly enhance night navigation.

The basic technique used for nighttime land navigation is dead reckoning with several compasses. The point man is in front of the navigator but just a few steps away for easy control of the azimuth. Smaller steps are taken during night navigation, so the pace count is different. It is recommended that a pace count be obtained by using a predetermined 100-m pace course used at night.

Navigation using the stars is recommended in some areas; however, a thorough knowledge of constellations and location of stars is needed. The four cardinal directions can also be obtained at night using the shadow-tip method with the moon instead of the sun. In this case, the moon needs to be bright enough to cast a shadow.

CHAPTER 5 COMMUNICATIONS
(FM 3-21.10 Pg 4-51 JUL06; FM 3-21.8 Pg 2-12 MAR07; FM 21-60 SEP87)

GENERAL - The three primary means of communication available to the infantry platoon are radio, wire and messenger. Normally, the platoon uses one or all of these during an operation. Additionally, the platoon leader plans an alternate means of communication in case the primary means fails.

Radio - Radio is the least secure means of communication. Radio is susceptible to interception and jamming. Proper radio procedures must be used to reduce the enemy's opportunity to hamper radio communications.

-Change frequencies and call signs IAW unit SOI (Signal Operating Instructions)
-Use established formats (ex. SALUTE) to expedite transmissions

Messenger - Messenger is the most secure means of communications. Messengers should vary their routes and schedules. Platoon leaders weigh the risk associated with using messengers. Although secure, messengers are the slowest form of communication.

SECTION I SINCGARS

1. AN/PRC 119 SINCGARS

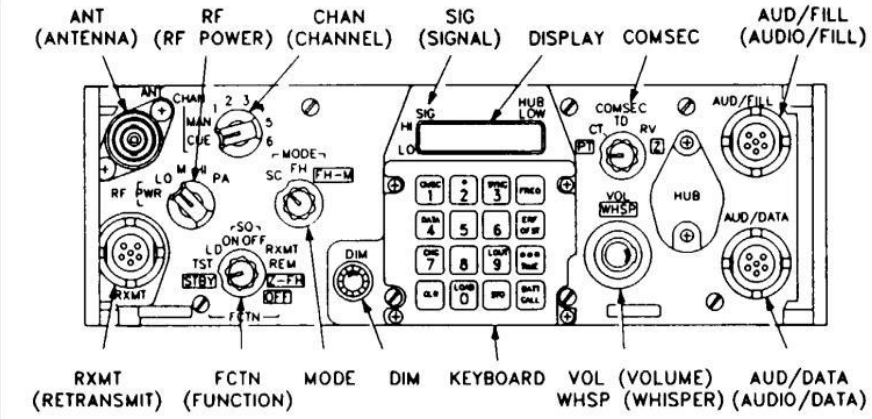
a. Characteristics and Capabilities

Single-Channel Ground and Airborne Radio System (SINCGARS) is capable of voice and data communication in two modes of operation: Single Channel (SC) and Frequency Hopping (FH).

SINGLE CHANNEL: When using the SC mode of operation, the Receiver/Transmitter (RT) communicates on one frequency, digitally selected using a numeric keyboard. Up to 6 pre-set frequencies can be loaded and stored in memory for use in the SC mode.

FREQUENCY HOPPING: SINCGARS also has the ability to secure transmissions through the use of a transmission security key and frequency hopping to reduce or eliminate the threat of jamming and direction-finding equipment. In order for your RT to use the FH mode of operation, it must be loaded with FH data. (During CST, SINCGARS will be used in SC mode only.)

b. Assembly and Preparation



c. Install Battery.

> **WARNING**
> **THE LITHIUM BATTERY USED WITH YOUR MANPACK RADIO IS HAZARDOUS IF MISUSED OR TAMPERED WITH BEFORE, DURING, OR AFTER DISCHARGE. STRICTLY OBSERVE THE FOLLOWING PRECAUTIONS TO PREVENT INJURY TO PERSONNEL OR DAMAGE TO EQUIPMENT.**
> **DO NOT heat, incinerate, crush, puncture, disassemble, or otherwise mutilate battery.**
> **DO NOT short circuit, recharge, or bypass any internal fuse.**
> **DO NOT store battery in equipment during periods of non-use.**
> **TURN OFF equipment immediately if you feel battery case becoming very hot, hear battery venting (hissing, or burping), or smell irritating gas (sulphur dioxide), Remove battery only after it cools to the touch; then return it to supply for disposal.**

a. Visually Inspect battery box for dirt and damage. If battery has been previously used, note battery life condition number.
b. Stand RT on front panel guards; place battery box on RT. Secure using latches.
c. Check battery life condition (written on battery if battery is not new).
d. Write down number (for later entry into radio).
e. Place battery in battery box and mate connectors.
f. Close battery box cover, and secure using latches.
g. Return radio to upright position.
h. If used battery was installed, enter the battery life condition into the radio by performing the following:
(1) Set FCTN to LD.
(2) Press BATT; then CLR.
(3) Enter number recorded on side of battery.
(4) Press STO.
(5) Set FCTN to SQ ON.

d. Attach Antenna.
a. Screw whip into antenna base.
b. Hand tighten.
c. Carefully mate antenna base with RT ANT connector.
d. Hand tighten. (Important not to over-tighten.)
e. Position antenna as needed by bending goose neck.

NOTE: Keep antenna straight up if possible. If the antenna is bent to a horizontal position, it may be necessary to turn the radio in order to receive and transmit messages.

CAUTION: Do not use antenna as a handle. Equipment damage may result.

e. Attach Handset. Connect and secure handset connector to AUD/DATA connector. Make sure that keys line up on handset connector and RT AUD/DATA connector; then push handset connector onto AUD/DATA connector and twist right (clockwise) to lock in place. Push handset connector in and twist left (counterclockwise) to remove handset.

f. Loading Frequencies

The procedure for loading SC frequencies requires setting the proper switches, pressing the correct number keys for the frequency you wish to load, and storing the load in RT permanent memory by pressing STO button.

1. Obtain authorized operating frequency from SOI, NCS or chain of command.
2. Set FCTN to LD.
3. Set MODE to SC.
4. Set CHAN to MAN, CUE, or desired channel (1 - 6) where frequency is to be stored.
5. Press FREQ (display will show "00000" or frequency to which RT is currently tuned).
6. Press CLR (display will show five lines).
7. Enter the numbers of the new frequency (using keyboard buttons). If you make a mistake while entering a frequency, press CLR (this action will delete the last digit entered). Note: It is important that you enter another number, or store a frequency within 7 seconds. Otherwise, the display will go blank and you will have to re-enter the numbers. If you require more than 7 seconds to perform a step, continue to press the last button, and the 7 second clock will be stopped.
8. Press STO (display will blink and show the frequency you just stored).
9. Repeat steps 1 thru 8 for additional frequencies that you wish to load.
10. Set CHAN to frequency you will be using.
11. Set FCTN to SQ ON (or normal operating position).

SECTION II - PROCEDURE WORDS (PROWORDS)

a. PROWORDS

(1) Speed up communications

(2) Add a degree of security

(3) Help with mission command

(4) Prowords are established during tactical operations to describe objectives, phase lines, check points and link ups and to keep voice transmission as short and clear as possible, radio operators use them to take the place of long sentences.

b. Signals - Signals can be used in many forms during an operation. Signals are usually either audio or visual. The key to the use of signals is ensuring **everyone** is aware of the signal and its meaning.

PROWORD	Explanation
ALL AFTER	The portion of the message to which I have reference is all that which follows _____.
ALL BEFORE	The portion of the message to which I have reference is all that which precedes _____.
AUTHENTICATE	The station called is to reply to the challenge which follows
AUTHENTICATION IS	The transmission authentication of this message is _____.

BREAK	I hereby indicate the separation of the text from other portions of the message.
CALL SIGN	The group that follows is a call sign.
CORRECT	You are correct, or what you have transmitted is correct.
CORRECTION	An error has been made in this transmission. Transmission will continue with the last word correctly transmitted.
	An error has been made in this transmission (or message indicated). The correct version is _____.
	That which follows is a corrected version in answer to your request for verification.
DISREGARD THIS TRANSMISSION -- OUT	This transmission is in error. Disregard it. This PROWORD shall not be used to cancel any message that has been completely transmitted and for which receipt or acknowledgement has been received.
DO NOT ANSWER	Stations called are not to answer this call, receipt for this message, or otherwise to transmit in connection with this transmission. When this PROWORD is employed, the transmission shall be ended with the PROWORD "OUT".
EXECUTE	Carry out the purpose of the message or signal to which this applies. To be used only with the executive mode.
EXECUTE TO FOLLOW	Action on the message or signal which follows is to be carried out upon receipt of the PROWORD "EXECUTE". To be used only with the delayed executive method.
FLASH	Precedence FLASH
FROM	The originator of this message is indicated by the address designator immediately following.
I AUTHENTICATE	The group that follows is the reply to your challenge to authenticate.
IMMEDIATE	Precedence IMMEDIATE.
IMMEDIATE EXECUTE	Action on the message or signal following is to be carried out on receipt of the word EXECUTE. To be sued only with the Immediate Executive Method.
I READ BACK	The following is my response to your instructions to read back.

I SAY AGAIN	I am repeating transmission or portion indicated.
I SPELL	I shall spell the next word phonetically
I VERIFY	That which follows has been verified at your request and is repeated. To be used only as a reply to VERIFY.
MORE TO FOLLOW	Transmitting station has additional traffic for the receiving station.
OUT	This is the end of my transmission to you and no answer is required or expected.
OVER	This is the end of my transmission to you and a response is necessary. Go ahead, transmit
PRIORITY	Precedence PRIORITY
READ BACK	Repeat this entire transmission back to me exactly as received.
ROGER (Use instead of "copy")	I have received your last transmission satisfactorily.
ROUTINE	Precedence ROUTINE
SAY AGAIN	Repeat all of your last transmission. Followed by identification data means "Repeat _____ (portion indicated)".
SILENCE(Repeated three or more times)	Cease transmission on this net immediately. Silence will be maintained until lifted. (When an authentication system is in force, the transmission imposing silence is to be authenticated).
SILENCE LIFTED	Silence is lifted. (When an authentication system is in force, the transmission lifting silence is to be authenticated).
SPEAK SLOWER	Your transmission is at too fast a speed. Reduce speed of transmission.
STOP REBROADCASTING	Cut the automatic link between the two nets that are being rebroadcast and revert to normal working.
THIS IS	This transmission is from the station whose designator immediately follows.
TIME	That which immediately follows is the time or date time-time group of the message.
UNKNOWN STATION	The identity of the station with whom I am attempting to establish communication is unknown.
VERIFY	Verify entire message (or portion indicated) with the

	originator and send the correct version. To be used only at the discretion of or by the addresses to which the questioned message was directed.
WAIT	I must pause for a few seconds
WAIT -- OUT	I must pause longer than a few seconds.
WILCO	I have received your signal, understand it, and will comply. To be used only by the addressee. Since the meaning of ROGER is included in that of WILCO, the two PROWORDS are never used together.
WORD AFTER	The word of the message to which I have reference is that which follows _____.
WORD BEFORE	The word of the message to which I have reference is that precedes _____.

SECTION III – PHONETIC ALPHABET

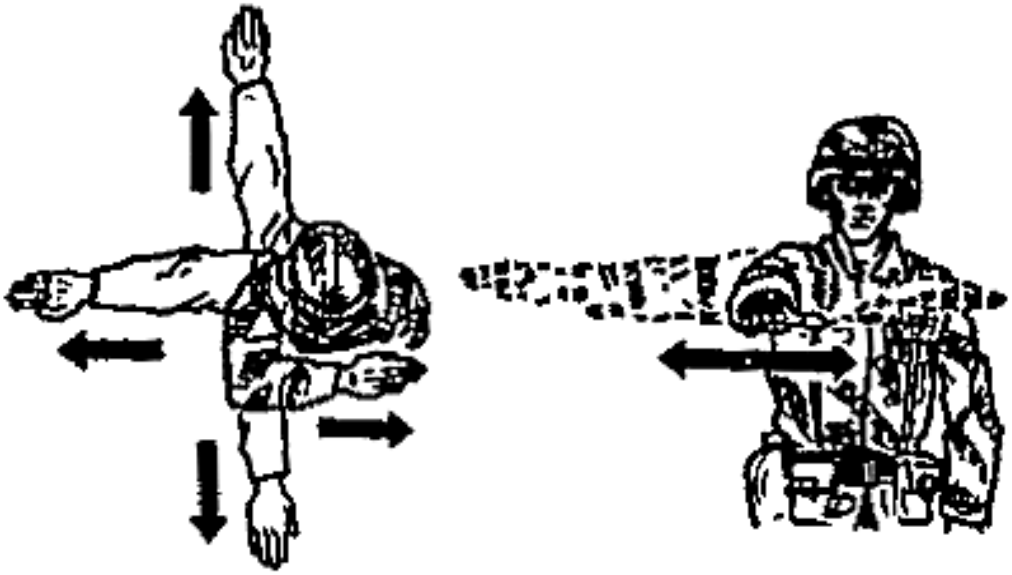
A	ALFA	AL FAH
B	BRAVO	BRAH VOH
C	CHARLIE	CHAR LEE or SHAR LEE
D	DELTA	DELL TAH
E	ECHO	ECK OH
F	FOXTROT	FOKS TROT
G	GOLF	GOLF
H	HOTEL	HOH TELL
I	INDIA	IN DEE AH
J	JULIETT	JEW LEE ETT
K	KILO	KEY LOH
L	LIMA	LEE MAH
M	MIKE	MIKE
N	NOVEMBER	NO VEM BER
O	OSCAR	OSS CAH
P	PAPA	PAH PAH
Q	QUEBEC	KEH BECK
R	ROMEO	ROW ME OH
S	SIERRA	SEE AIR RAH
T	TANGO	TANG GO
U	UNIFORM	YOU NEE FORM or OO NEE FORM
V	VICTOR	VIK TAH
W	WHISKEY	WISS KEY
X	XRAY	ECKS RAY
Y	YANKEE	YANG KEY
Z	ZULU	ZOO LOO

Number pronunciation guide

Numeral	Spoken As	Numeral	Spoken As
0	ZE RO	5	FIFE
1	WUN	6	SIX
2	TOO	7	SEV EN
3	TREE	8	AIT
4	FOW ER	9	NIN ER

SECTION IV - HAND AND ARM SIGNALS

(1) DISPERSE - Extend either arm vertically overhead; wave the arm and hand to the front, left, right, and rear with the palm toward the direction of each movement.



DISPERSE

(2) ASSEMBLE or RALLY – Raise the arm vertically overhead, palm to the front, and wave in large, horizontal circles. NOTE: Signal is normally followed by the signaler pointing to the assembly or rally site.

ASSEMBLE or RALLY

(3) JOIN ME, FOLLOW ME, or COME FORWARD – Point toward person(s) or unit(s); beckon by holding the arm horizontally to the front, palm up, and motioning toward the body.

JOIN ME, FOLLOW ME, OR COME FORWARD

(4) INCREASE SPEED, DOUBLE TIME, or RUSH – Raise the fist to the shoulder; thrust the fist upward to the full extent of the arm and back to shoulder level, do this rapidly several times.

INCREASE SPEED, DOUBLE TIME, or RUSH

(5) QUICK TIME – Extend the arm horizontally sideward, palm to the front, and wave the arm slightly downward several times, keeping the arm straight. Do not move the arm above the horizontal.

QUICK TIME

(6) ENEMY IN SIGHT - Hold the rifle in the ready position at shoulder level. Point the rifle in the direction of the enemy.

ENEMY IN SIGHT

(7) TAKE COVER – Extend the arm at a 45-degree angle from the side, above the horizontal, palm down, and then lower the arm to the side.

TAKE COVER

(8) WEDGE – Extend arms downward and to the sides at an angle of 45-degrees below the horizontal, palms to the front.

WEDGE

(9) VEE – Raise the arms and extend them 45-degrees above the horizontal.

VEE

(10) LINE – Extend the arms parallel to the ground.

LINE

(11) COIL – Raise one arm above the head and rotate it in a small circle.

COIL

(12) ECHELON LEFT – Extend the right arm and raise it 45-degrees above the shoulder. Extend the left arm 45-degrees below the horizon and point toward the ground.

ECHELON LEFT

(13) ECHELON RIGHT – Extend the left arm and raise it 45-degrees above the shoulder. Extend the right arm 45-degrees below the horizon and point toward the ground.

ECHELON RIGHT

(14) STAGGERED COLUMN – Extend the arms so that upper arms are parallel to the ground and the forearms are perpendicular. Raise the arms so they are fully extended above the head. Repeat.

STAGGERED COLUMN

(15) COLUMN – Raise and extend the arm overhead. Move it to the right and left. Continue until the formation is executed.

COLUMN

(16) TRAVELING – Extend the arm overhead and swing it in a circle from the shoulder.

TRAVELING

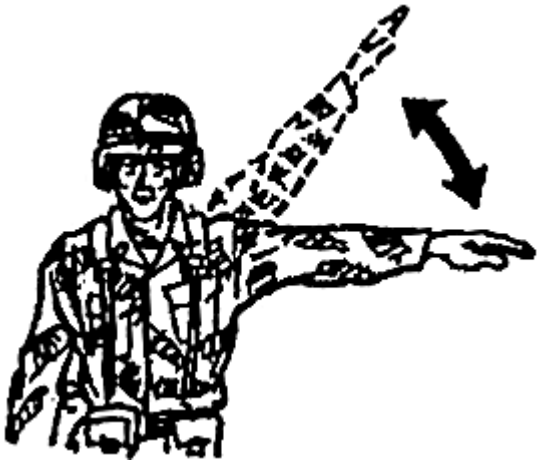
(17) TRAVELING OVERWATCH – Extend both arms and raise them up and down.

TRAVELING OVERWATCH

(18) BOUNDING OVERWATCH, COVER MY MOVE – Extend one arm to a 45-degree angle. Bend the arm and tap the helmet. Repeat.

BOUNDING OVERWATCH, COVER MY MOVE

(19) MOVE TO LEFT – Extend the arm to the left and raise it up and down.



MOVE TO LEFT

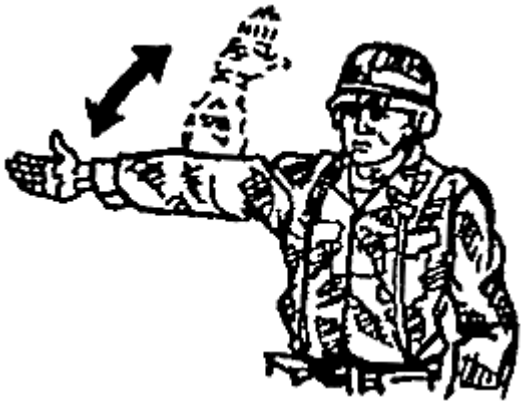
(20) MOVE TO RIGHT – Extend the arm to the right and raise it up and down.

MOVE TO RIGHT

(21) CONTACT LEFT – Extend the left arm parallel to the ground. Bend the arm until the forearm is perpendicular. Repeat.

CONTACT LEFT

(22) CONTACT RIGHT – Extend the right arm parallel to the ground. Bend the arm until the forearm is perpendicular. Repeat.



CONTACT RIGHT

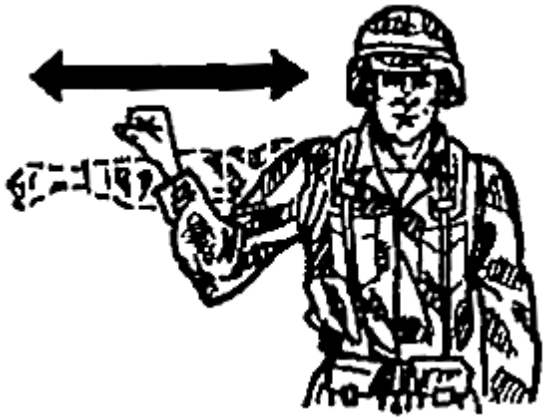
(23) ACTION LEFT – Extend both arms parallel to the ground. Raise the right arm until it is overhead. Repeat.

ACTION LEFT

(24) ACTION RIGHT– Extend both arms parallel to the ground. Raise the left arm until it is overhead. Repeat.

ACTION RIGHT

(25) ACTION (FRONT, RIGHT, LEFT, or REAR), FIGHT ON FOOT, or ASSAULT FIRE (DISMOUNTED TROOPS) – Raise the fist to shoulder level and thrust it several times in the desired direction of action.



ACTION (FRONT, RIGHT, LEFT, or REAR), FIGHT ON FOOT, or ASSAULT FIRE (DISMOUNTED TROOPS)

(26) NUCLEAR, BIOLOGICAL, CHEMICAL ATTACK – Extend the arms and fists. Bend the arms to the shoulders. Repeat.

NUCLEAR, BIOLOGICAL, CHEMICAL ATTACK

(27) MAP CHECK – Point at the palm of one hand with the Index finger of the other hand.

MAP CHECK

(28) PACE COUNT – Tap the heel of boot repeatedly with an open hand.

PACE COUNT

(29) RADIOTELEPHONE OPERATOR FORWARD – Raise the hand to the ear with the thumb and little finger extended.

RADIOTELEPHONE OPERATOR FORWARD

(30) HEAD COUNT – Tap the back of the helmet repeatedly with an open hand.

HEAD COUNT

(31) DANGER AREA – Draw the right hand, palm down, across the neck in a throat-cutting motion from left to right.

DANGER AREA

(32) FREEZE – Raise the fist to head level.

FREEZE

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CHAPTER 6 FIRST AID
(STP 21-1-SMCT Area 2 SEP12; STP 21-24 SMCT Area 2 SEP08; CLS Course: Student Self-Study Sub Course ISO871)

BATTLEFIELD CASUALTY ASSESSMENT

SECTION I – EVALUATE A CASUALTY

TASK: Evaluate a Casualty (081-COM-1001)

OUTCOME: You will demonstrate an understanding of patient evaluation by employing proper technique to identify all life threatening injuries while performing this task at a hands-on evaluation station; you will not be required to provide any treatment to your simulated casualty. Failure to perform to the prescribed standard will result in retraining and retesting until proficiency is achieved.

PERFORMANCE MEASURES

- Identify the stages of care in Tactical Combat Casualty Care
- Form a general impression of the casualty as you approach (extent of injuries, chance of survival).
- Check Responsiveness (AVPU)
- Position the casualty and open the airway.
- Assess for breathing and chest injuries.
- Identify and control bleeding.
- Check for fractures.
- Check for burns.
- Administer pain medications and antibiotics (the casualty's combat pill pack) to any Soldier wounded in combat.
- Document the casualty's injuries and the treatment given on the TCCC Casualty Card – DA 7656).
- Transport the casualty to the site where evacuation is anticipated.

CARE UNDER FIRE

- Determine best route of access to the casualty and egress
- Scan the area for danger
- Plan what you will do before you go to the casualty's aid
- Return fire as directed or required. Request covering fire.
- Do not expose yourself to enemy fire in order to provide care.
- If possible, direct casualty to return fire, move to cover, and administer self-aid; "Play dead" if necessary.
- Casualties should be extricated from burning vehicles or buildings and moved to places of relative safety. Stop burning process.
- Airway management is generally best deferred until the Tactical Field Care phase
- Stop life-threatening external hemorrhage if tactically feasible:
  - Direct casualty to control hemorrhage by self-aid if able.
  - Use a tourniquet for hemorrhage that is anatomically amenable to tourniquet application.
  - Apply tourniquet proximal to bleeding site, over uniform, tighten, move casualty to cover.
- Move casualty to safe place to perform Tactical Field Care.

– Secure weapons and equipment if possible.

NOTE: Treat any severe, life threatening, bleeding not treated during care under fire.

Then…

- Form a general impression of the casualty as you approach (extent of injuries, chance of survival).
- Check Responsiveness (AVPU)
- Position the casualty and open the airway.
- Assess for breathing and chest injuries.
- Identify and control bleeding.
- Check for fractures.
- Check for burns.
- Administer pain medications and antibiotics (the casualty's combat pill pack) to any Soldier wounded in combat.
- Document the casualty's injuries and the treatment given on the TCCC Casualty Card – DA 7656).
- Transport the casualty to the site where evacuation is anticipated.

EVACUATION CARE

- Consider requesting MEDEVAC
- Double check all dressings and treatment
- Assist in loading casualty onto vehicle or aircraft

TACTICAL COMBAT CASUALTY CARE

- CARE UNDER FIRE
- TACTICAL FIELD CARE
- EVACUATION CARE

Consider this…

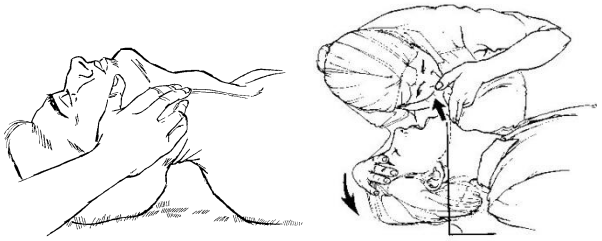
- The three primary <u>preventable</u> causes of death from injury on the battlefield are:
  - Severe bleeding (apply a tourniquet or emergency trauma dressing)
  - Collapsed lung (perform needle chest decompression)
  - Airway blockage (insert a nasopharyngeal airway)
- Circumstances in which you should <u>not</u> treat a casualty while you are under enemy fire:
  - Your own life is in imminent danger
  - Other Soldiers in area require more urgent treatment
  - The casualty does <u>not</u> have vital (life) signs (breathing, pulse)
- You should <u>not</u> treat a casualty while under enemy fire if the casualty's injury is not survivable without immediate evacuation to a medical treatment facility and such evacuation is not possible
  - Penetrating head trauma with brain tissue exposed
  - Severe burns covering a large part of the body
  - Mutilating blast injuries

CHECK RESPONSIVENESS

- Gently shake or tap the casualty on the shoulder and ask in a loud, but calm, voice: "Are you okay?"
- AVPU (**A**lert, **V**erbal, **P**ainful, **U**nresponsive)
- If conscious, ask where it hurts or where his body feels different than usual.
- Casualties with an altered mental status should be disarmed

POSITION THE CASUALTY AND OPEN THE AIRWAY

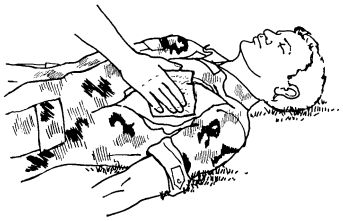
- Head-Tilt/Chin-Lift
- Jaw Thrust
- Airway Adjuncts (NPA)



Unconscious and making a gurgling or snoring noise:

- **Insert a NPA**

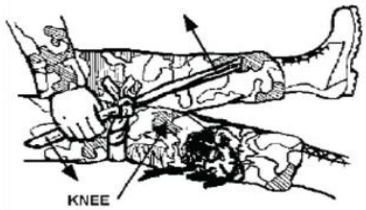
- Penetrating chest wound and is breathing or making an effort to breath
  - Stop the evaluation and apply an occlusive dressing to the open chest wound.

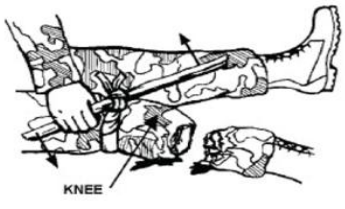


- Penetrating chest wound and is not making any effort to breath
  - <u>Do not</u> attempt to treat the injury.
- In a combat situation, if you find a casualty with no signs of life (no respiration and no pulse), **<u>do not</u>** continue first aid on the casualty.

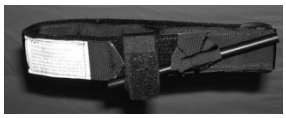
IDENTIFY AND CONTROL BLEEDING

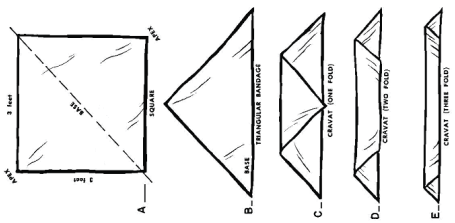
- Look for blood soaked clothes
- Look for entry and exit wounds

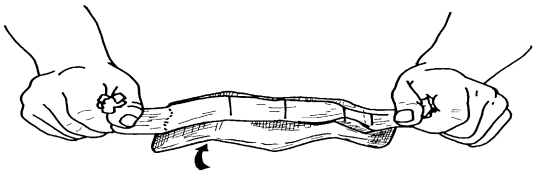




- If life-threatening bleeding from an extremity (arm or leg) is present:
  - **Stop the evaluation and control the bleeding using a tourniquet or other means.**







CHECK FOR FRACTURES

- Check for open fractures by looking for bleeding or a bone sticking through the skin.

- Check for closed fractures by looking for swelling, discoloration, deformity, or unusual body position.

- If a suspected fracture is present:

  - **Stop the evaluation and apply a splint.**

CHECK FOR BURNS

- Look carefully for reddened, blistered, or charred skin. Also check for singed clothes.
- If burns are found:
  - **Stop the evaluation and begin treatment.**
    - **Thermal** - remove from source
    - **Electrical** - turn off source or drag casualty away with nonconductive material
    - **Chemical** - flush with copious amounts of water

PROVIDE ADDITIONAL CARE

- Administer pain medications and antibiotics (the casualty's combat pill pack) to any Soldier wounded in combat.
- Document the casualty's injuries and the treatment given on the TCCC Casualty Card – DA 7656.
- Transport the casualty to the site where evacuation is anticipated

*Reassure the casualty
*If mission allows, provide assistance to the Combat Medic

SECTION II - CONTROL HEMORRHAGE

TASK: Perform first aid for a bleeding or severed extremity

OUTCOME: You will demonstrate an understanding of material presented by identifying the indications for treatment, selection of appropriate materials, and employment of the prescribed technique while performing this task at a hands-on evaluation station. Failure to perform to the prescribed standard will result in retraining and retesting until proficiency is achieved.

Performance Measures

- Uncover wound, unless clothing is stuck to wound or in a chemical environment
- Apply trauma or field dressing
- Apply pressure dressing and elevate extremity

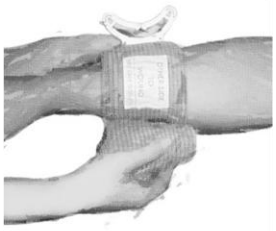
- Apply tourniquet; mark forehead with T and time
- Perform first aid for burns
- Watch closely for life-threatening conditions and treat for shock

SECTION III - APPLY A FIRST AID OR TRAUMA DRESSING

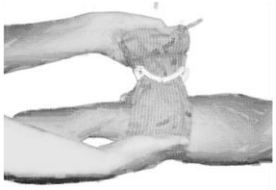
- Open bandage

FIRST AID **TRAUMA**

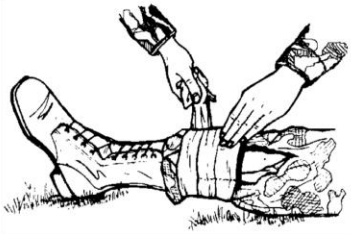
-Apply sterile side towards the wound

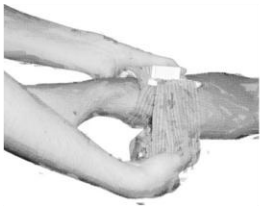


- Hold in place while wrapping tail(s)

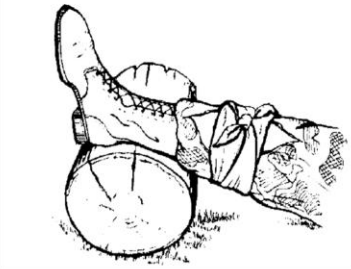


- Wrap the tail(s), cover the edges so no white is exposed





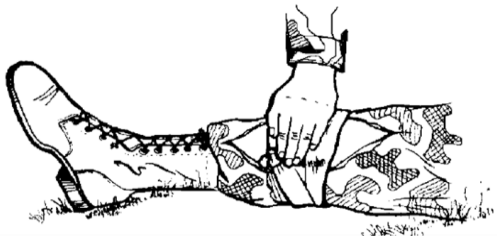
- Tie the tails in a non-slip knot on the side of the injury (First Aid)
- Secure plastic retaining clip (Trauma)



SECTION IV - APPLY A PRESSURE DRESSING

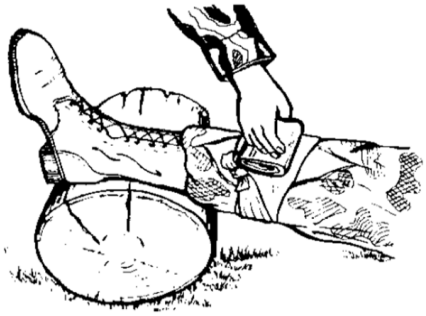
IF BLEEDING CONTINUES…

- Apply direct pressure and elevate for 10 minutes

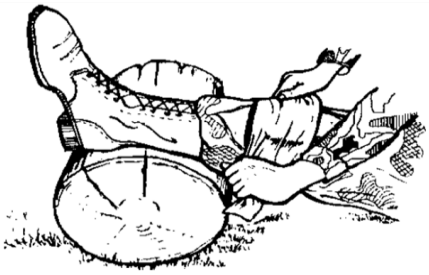


IF BLEEDING CONTINUES…

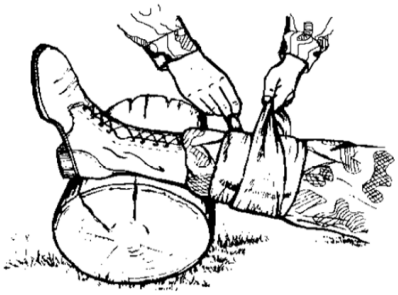
- Apply a bunched or wadded material directly over the wound – maintain pressure



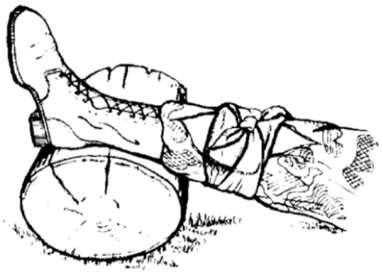
- Wrap a cravat or other material around the wad to secure in place



- Tie the material off with a non-slip knot directly over the wound



- Elevate the extremity unless contraindicated



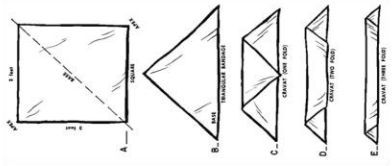
SECTION V - APPLY A TOURNIQUET

If bleeding continues or a tourniquet was indicated during initial assessment…

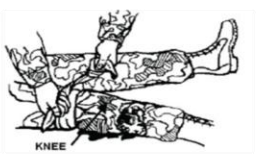
IMPROVISED

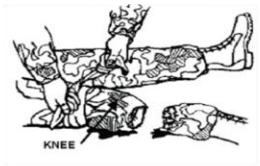
COMBAT APPLICATION TOURNIQUET

- Gather materials – cravat + stick or CAT

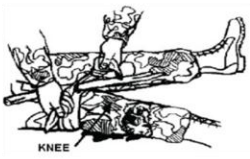


- Wrap material (loop CAT) around extremity and insert windlass

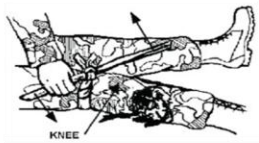


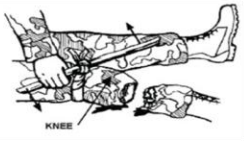


- Twist windlass until bleeding stops



- Secure windlass and tuck loose ends





- Mark T on forehead and time/date on TCCC Casualty Card

SECTION VI - TREAT FOR BURNS

TASK: Perform first aid for burns

OUTCOME: You will demonstrate an understanding of material presented by identifying the types of burns and applying proper technique to treat burns at a hands-on evaluation station. Failure to perform to the prescribed standard will result in retraining and retesting until proficiency is achieved.

Performance Measures

- Eliminate the source of the burn
- Uncover the burn
- Apply the casualty's dressing to the burn
- Watch the casualty closely for life-threatening conditions and checked for other injuries, if necessary.
- Seek medical aid.

Eliminate the source of the burn

- Thermal burns. Remove the casualty from the source. If the casualty's clothing is on fire, cover the casualty with a field jacket or large piece of nonsynthetic material. Roll him/her on the ground to put it out.

- Electric burns. Of the casualty is in contact with an electrical source, turn the electricity off. If electricity cannot be turned off, use any nonconductive material (rope, clothing, or dry wood) to drag the casualty away from source
- Chemical burns. (1)Remove liquid chemicals from the burned casualty by flushing with as much water or nonflammable fluid as possible. (2) Remove dry chemicals by carefully brushing them off with a clean, dry cloth. (3) Smother burning white phosphorus with water, a wet cloth, or wet mud. Keep covered with wet material.

Uncover the burn

- Cut clothing covering the burning area
- Gently lift away clothing covering the burn area
- Remove jewelry if casualty's hand or wrist(s) have been burned and place in casualty's pockets

Apply the casualty's dressing to the burn

Caution: Do NOT uncover the wound in a chemical environment. Do NOT attempt to remove clothing that is stuck to the wound.

SECTION VII - TREAT FOR SHOCK

TASK: Treat for shock

OUTCOME: You will demonstrate an understanding of material presented by identifying the signs and symptoms of shock and applying proper technique to treat shock at a hands-on evaluation station. Failure to perform to the prescribed standard will result in retraining and retesting until proficiency is achieved.

Performance Measures

- Identify signs and symptoms of shock
- Position the casualty
- Loosen tight or binding clothes.
- Splint the limb, if appropriate.
- Prevent the casualty from chilling or overheating.
- Reassure the casualty.
- Watch the casualty closely for life-threatening conditions and checked for other injuries, if necessary.
- Seek medical aid.

Check the casualty for signs and symptoms of shock.

- Sweaty but cool skin.
- Pale skin.
- Restlessness or nervousness.
- Thirst.
- Severe bleeding.
- -Confusion.
- -Rapid breathing.
- -Blotchy blue skin.
- -Nausea and/or vomiting.

- Position the casualty on his/her back and elevate feet higher than the heart.

- Loosen tight or binding clothes.

- Prevent the casualty from chilling or overheating.

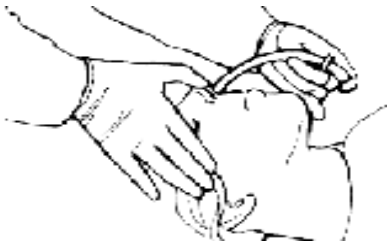
SECTION VIII - MAINTAIN RESPIRATORY FUNCTION

TASK: Insert a nasopharyngeal airway (NPA).

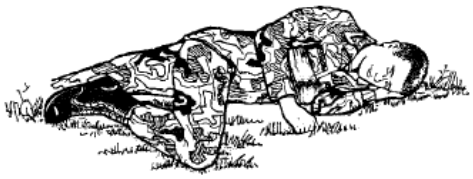
OUTCOME: You will demonstrate an understanding of material presented by identifying the indications for a nasopharyngeal airway and employment of the prescribed technique while performing this task at a hands-on evaluation station. Failure to perform to the prescribed standard will result in retraining and retesting until proficiency is achieved.

PERFORMANCE MEASURES

- Position the casualty - the casualty should be face-up
  - Open the airway with a chin lift/jaw thrust maneuver.
  - Assess the upper airway for visible obstruction.
- Lubricate the Nasopharyngeal Airway with a surgical lubricant.
- Insert the airway into the nose
  - Push the tip of the nose upward gently.
  - Position the tube with the bevel (pointed end of tube) toward the septum (the skin separating the nostrils)
  - Aim at a 90 degree angle to the face. Avoid aiming upwards towards the top of the head.
  - Use a rotary and/or back-and-forth motion to facilitate insertion.
  - Insert all the way to the flange.
- **CAUTION**: Never force the tube into the nostril. If resistance is met, pull the tube out and attempt to insert it in the other nostril. If neither nostril will accommodate the tube, place the casualty in the recovery position.



- **NOTE**: Positioning the patient in the recovery position allows blood and mucus to drain out of the casualty's nose and mouth and not back into the airway.



SECTION IX - TRANSPORT A CASUALTY

TASK: Transport a casualty

OUTCOME: You will demonstrate an understanding of manual carries by determining and executing the appropriate carry based on enemy threat, distance to travel, and patient injuries. You must employ proper technique to avoid causing unnecessary injury to the patient or yourself. This task will be performed at a hands-on evaluation station. Failure to perform to the prescribed standard will result in retraining and retesting until proficiency is achieved.

Performance Measures

- Select appropriate movement technique
- Transport casualty
- Does not cause unnecessary injury

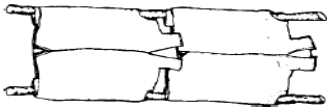
Manual Carries

WARNING: Do not use manual carries to move a casualty with a neck or spine injury unless a life-threatening hazard is in the immediate area. Seek medical personnel for guidance on how to move and transport the casualty.

- **Fireman's carry:** Use for an unconscious or severely injured casualty.

- **Four Hand Seat Carry:** Use in combat for moderate distances with two Soldiers.

- **Improvised Litters:** Use for moderate to long distances, or if manual carries will cause further injury. Ensure stability of materials.



FIREMAN'S CARRY

Positioning the casualty for the carry

- To roll a casualty
  - Kneel at the casualty's uninjured side.
  - Place arms above his head
  - Cross ankles - place the ankle farther from you on the ankle closer to you.
  - Hand placement: shoulder and hip or thigh.

  - Roll gently …

CAUTION-Remain low behind casualty with Kevlar on while rolling the casualty to protect yourself from possible booby-traps.

Straddle the casualty & clasp hands under the casualty's chest.

Lift casualty to his knees as you move backward.

Move backward until the casualty's legs straighten and lock.

Move forward, bringing the casualty to a standing position still tilted slightly backward to prevent the knees from buckling.

Maintain constant support of casualty with one arm. Quickly grasp his wrist with the other arm, raise it high passing your head under the casualty's raised arm, releasing it as you pass under it.

Move swiftly to face the casualty. Secure your arms around his waist. Immediately place your foot between his feet and spread them approximately 6 to 8 inches apart.

Again grasp the casualty's raise the arm high above your head.

Bend down and pull the casualty's arm over and down your shoulder bringing his body across your shoulders. At the same time pass your arm between their legs.

Grasp the casualty's wrist with one hand while placing your other hand on your knee for support.

Rise - with the casualty correctly positioned.

SUPPORTING CARRY

In the supporting carry, the casualty must be able to walk or at least hop on one leg, using the bearer as a crutch. This carry can be used to assist him as far as he is able to walk or hop.

1. Raise the casualty from the ground to a standing position by using the fireman's carry.
2. Grasp the casualty's wrist and draw his arm around your neck.
3. Place your arm around his waist. The casualty is now able to walk or hop using you as a support.

CRADLE DROP / EQUIPMENT DRAG

The cradle drop or equipment drag is effective in moving a casualty up or down steps or rapidly dragging for short distances.

-Kneel at the casualty's head (with him lying on his back). Slide your hands, with palms up, under the casualty's shoulders and get a firm hold under his armpits – **ALTERNATE:** use the grab handle attached to the Load Bearing Vest (LBV) or other sturdy piece of equipment

-Rise (partially), supporting the casualty's head on one of your forearms. (You may bring your elbows together and let the casualty's head rest on both of your forearms.)

- Rise and drag the casualty backward. (The casualty is in a semi-sitting position.)
-Back down the steps, supporting the casualty's head and body and letting his hips and legs drop from step to step.

NOTE: If the casualty needs to be moved up the steps, you should backup the steps, using the same procedure.

NECK DRAG

WARNING: Do not use the neck drag if the casualty has a broken and/or fractured arm or a suspected neck injury. If the casualty is unconscious, protect his head from the ground.

1. Tie the casualty's hands together at the wrists. (if conscious, the
2. casualty may clasp his hands together around your neck.
3. Straddle the casualty in a kneeling face-to-face position.
4. Loop the casualty's tied hands over and/or around your neck.
5. Crawl forward, looking ahead, dragging the casualty with you.

FOUR HAND SEAT CARRY

Only a conscious casualty can be transported with the four-hand seat carry because he must help support himself by placing his arms around the bearers' shoulders. This carry is especially useful in transporting a casualty with a head or foot injury for a moderate distance (50 to 300 meters). It is also useful for placing a casualty on a litter.

1. Each bearer grasps one of his wrists and one of the other bearer's wrists, thus forming a packsaddle.

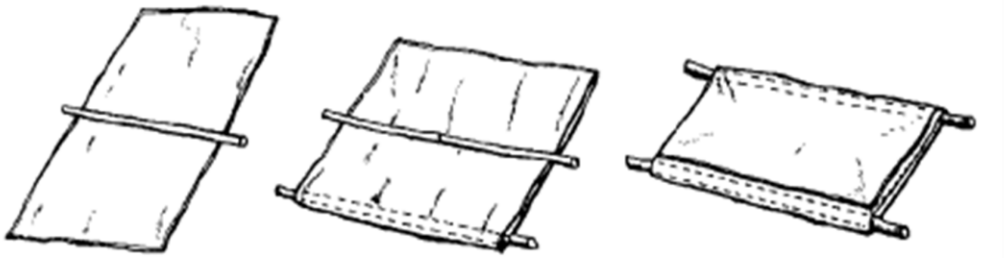
2. The two bearers lower themselves sufficiently for the casualty to sit on the packsaddle; then, they have the casualty place his arms around their shoulders for support.

3. The bearers then rise to an upright position

IMPROVISED LITTER

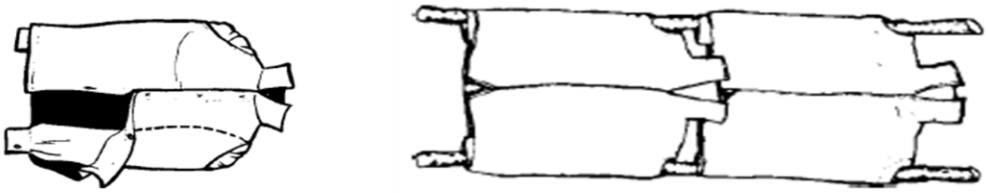
– Use the poncho and two poles limbs, or ropes

Open the poncho and lay the two poles lengthwise across the center forming three equal sections. Reach in and pull the hood up toward you and lay it flat on the poncho. Fold one section of the poncho over the first pole. Fold the remaining section over the second pole to the first pole.



– Use shirts or jackets and two poles or limbs.

Button two or three shirts or jackets and turn them inside out leaving the sleeves inside. Lay the shirts or jackets on the ground and pass the poles through the sleeves.



– Place the casualty on the litter using the following carries.

The two-man arms carry, the two-man fore-and-aft carry, the two-hand seat carry or the four-hand seat carry.

– Raise the litter together keeping it as level as possible.

SECTION X - REQUEST MEDICAL EVACUATION

TASK: Request a medical evacuation

OUTCOME: You will demonstrate an understanding of material presented by preparing and transmitting a MEDEVAC request, using the prescribed format, within 25 seconds. You will be provided a patient scenario, from which you must extract the information required to construct a 9-line MEDEVAC request within two minutes and thirty seconds. You may use your CST TACSOP to assist you. You must then transmit the first five lines of the MEDEVAC request within 25 seconds. Transmission of lines six thru nine is required, but not timed. Failure to perform to the prescribed standard will result in retraining and retesting until proficiency is achieved

Performance Measures

- Collected all information needed for the MEDEVAC request line items 1 through 9.
- Recorded the information using the authorized brevity codes.
- Transmitted the MEDEVAC request within 25 seconds.

MEDEVAC REQUEST DATA

Line 1. **Location of the pick-up site. (8 digit coordinate)**
Line 2. **Radio frequency, call sign, and suffix. (your information)**
Line 3. **Number of patients by precedence:**
A – Urgent B - Urgent Surgical
C – Priority D - Routine
E – Convenience
Line 4. **Special equipment required:**
A – None B - Hoist
C – Extraction equipment D - Ventilator
Line 5. **Number of patients:**
A – Litter B - Ambulatory
Line 6. **Security at pick-up site:**
N – No enemy troops in area
P – Possible enemy troops in area
E – Enemy troops in area (approach with caution)
X – Enemy troops in area (armed escort required)
* In peacetime – number and types of wounds, injuries, and illnesses

Line 7. **Method of marking pick-up site:**
A – Panels B – Pyrotechnic signal
C – Smoke signal D – None
E – Other
Line 8. **Patient nationality and status:**
A – US Military B – US Civilian
C – Non-US Military D – Non-US Civilian
E - EPW
Line 9. **NBC Contamination:**
N – Nuclear B – Biological
C – Chemical
* In peacetime – terrain description of pick-up site

LINE	ITEM	EXPLANATION	WHERE/HOW OBTAINED	WHO NORMALLY PROVIDES	REASON
1	Location of Pickup Site.	Encrypt the grid coordinates of the pickup site. When using the DRYAD Numeral Cipher, the same "SET" line will be used to encrypt the grid zone letters and the coordinates. To preclude misunderstanding, a statement is made that grid zone letters are included in the message (unless unit SOP specifies its use at all times).	From Map	Unit Leader(s)	Required so evacuation vehicle knows where to pick up patient. Also, so that the unit coordinating the evacuation mission can plan the route for the evacuation vehicle (if the evacuation vehicle must pick up from more than one location).
2	Radio Frequency, Call Sign, and Suffix	Encrypt the frequency of the radio at the pickup site, not a relay frequency. The call sign (and suffix if used) of the person to be contacted at the pickup site may be transmitted in the clear.	From SOI	RTO	Required so that the evacuation vehicle can contact the requesting unit while enroute (obtain additional information or change in situation or directions).
3	Number of Patients by Precedence	Report only applicable information and encrypt the brevity codes. A - URGENT. B - URGENT-SURG. C - PRIORITY. D - ROUTINE. E - CONVENIENCE. If two or more categories must be reported in the same request, insert the word "BREAK" between each category.	From Evaluation of Patient(s)	Medic or Senior Person Present	Required by the unit controlling the evacuation vehicles to assist in prioritizing missions.
4	Special Equipment Required	Encrypt the applicable brevity codes. A - None. B - Hoist. C - Extraction equipment. D - Ventilator.	From Evaluation of the Patient/ Situation	Medic or Senior Person Present	Required so that the equipment can be placed on board the evacuation vehicle prior to the start of the mission.
5	Number of Patients by Type	Report only applicable information and encrypt the brevity code. If requesting MEDEVAC for both types, insert the word "BREAK" between the litter entry and ambulatory entry. L + # of Pnt - Litter A + # of Pnt - Ambulatory (sitting)	From Evaluation of Patient(s)	Medic or Senior Person Present	Required so that the appropriate number of evacuation vehicles may be dispatched to the pickup site. They should be configured to carry the patients requiring evacuation.
6	Security of the Pickup Site (Wartime)	N - No enemy troops in the area. P - Possibly enemy troops in the area (approach with caution). E - Enemy troops in the area (approach with caution). X - Enemy troops in the area (armed escort required).	From Evaluation of the Situation	Unit Leader	Required to assist the evacuation crew in assessing the situation and determining if assistance is required. More definitive guidance can be furnished to the evacuation vehicle while it is en route (specific location of the enemy to assist an aircraft in planning its approach).
6	Number and Type of Wound, Injury, or Illness (Peacetime)	Specific information regarding patient wounds by type (gunshot or shrapnel). Report serious bleeding, along with patient blood type, if known.	From Evaluation of Patient	Medic or Senior Person Present	Required to assist evacuation personnel in determining treatment and special equipment needed.
7	Method of Marking Pickup Site	Encrypt the brevity codes. A - Panels. B - Pyrotechnic signal. C - Smoke signal. D - None. E - Other.	Based on the Situation and Availability of Materials	Medic or Senior Person Present	Required to assist the evacuation crew in identifying the specific location of the pickup. Note that the color of the panels or smoke should not be transmitted until the evacuation vehicle contacts the unit (just prior to its arrival). For security, the crew should identify the color and the unit verify it.
8	Patient Nationality and Status	The number of patients in each category need not be transmitted. Encrypt only the applicable brevity codes. A - US military. B - US civilian. C - Non-US military. D - Non-US civilian. E - EPW	From Evaluation of Patient	Medic or Senior Person Present	Required to assist in planning for destination facilities and need for guards. Unit requesting support should ensure that there is an English-speaking representative at the pickup site.
9	CBRN Contamination (Wartime)	Include this line only when applicable. Encrypt the applicable brevity codes. C - Chemical. B - Biological. R - Radiological. N - Nuclear.	From the Situation	Medic or Senior Person Present	Required to assist in planning for the mission. (Determine which evacuation vehicle will accomplish the mission and when it will be accomplished.)
9	Terrain Description (Peacetime)	Include details of terrain features in and around the proposed landing site. If possible, describe relationship of the site to prominent terrain feature (lake, mountain, tower).	From an Area Survey	Personnel at Site	Required to allow evacuation personnel to assess route/avenue of approach into the area. Of particular importance if hoist operation is required.

MEDEVAC REQUEST DATA

Line 1. _____ **Location of the pick-up site. (8 digit coordinate)**

Line 2. _____ **Radio frequency, call sign, and suffix.**
(your information)

Line 3. _____ **Number of patients by precedence:**

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E – Convenience

Line 4. _____ **Special equipment required:**

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Line 5. _____ **Number of patients:**

L – Litter A- Ambulatory

Line 6. _____ **Security at pick-up site:**

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* In peacetime – number and types of wounds, injuries, and illnesses

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E – Other

Line 8. _____ **Patient nationality and status:**

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C – Non-US Military D – Non-US Civilian
E - EPW

Line 9. _____ **NBC Contamination:**

N – Nuclear B – Biological
C – Chemical

* In peacetime – terrain description of pick-up site

ESTABLISH A LANDING ZONE

SAFETY

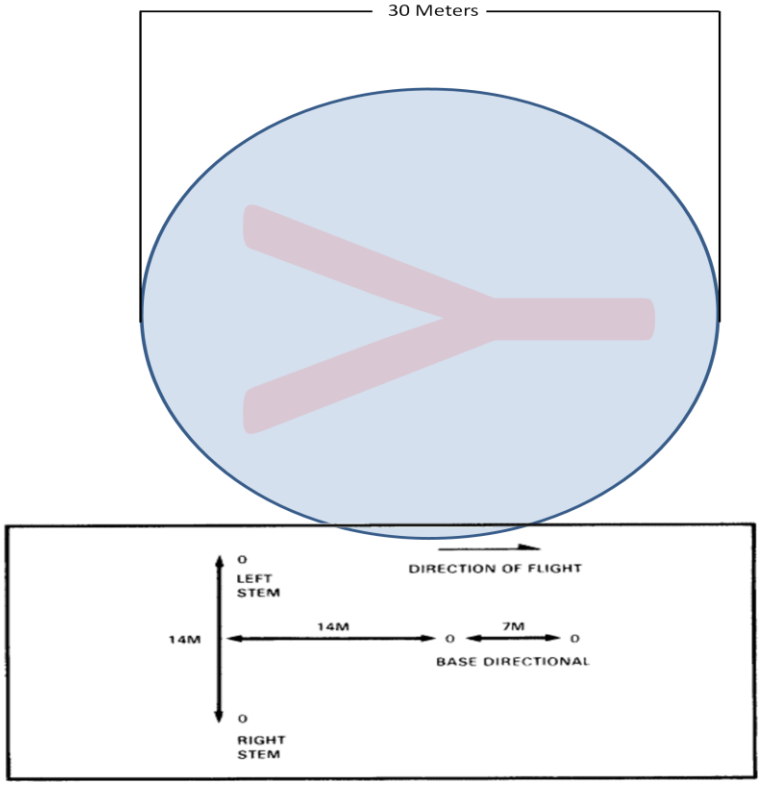
- At all times take all the necessary safety precautions.
- Element that is running the LZ provides all required safety gear.
  - Safety goggles.
  - Visual Signal, VS-17 panels/chemical lights.
  - Smoke .
- LZ MUST be secure.
- Snipers with air defense capabilities may occupy upper stories of the urban area's taller buildings.

MARKING THE LZ

- Use colored smoke to identify the LZ and wind direction.
- Use an inverted "Y" to mark the LZ.
- During daylight, camouflage the LZ so the VS-17 panels cannot be seen until evacuation aircraft are confirmed and inbound.
- At night, emplace chemical lights only when an AA is confirmed and is inbound.

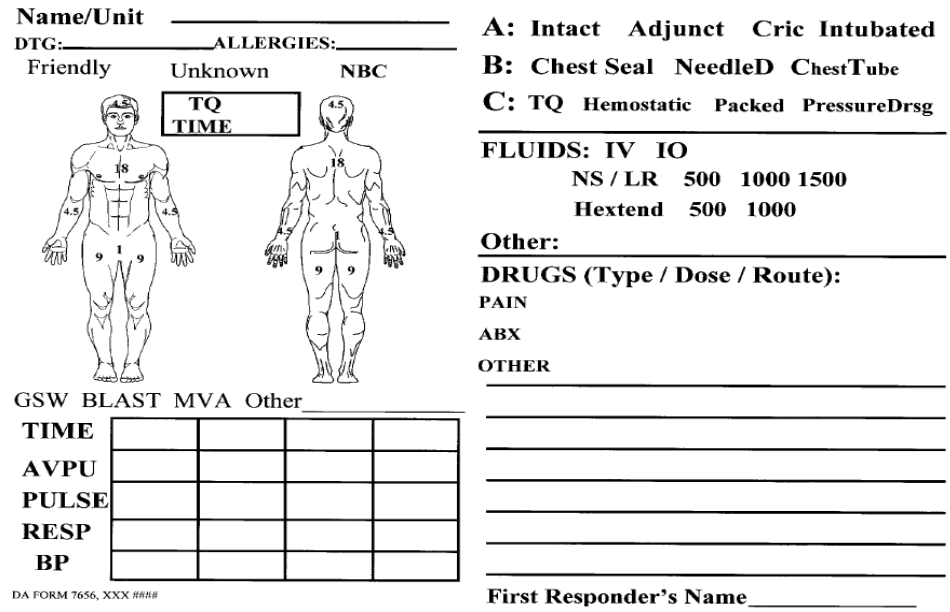
LANDING REQUIREMENTS

- Minimum real estate required is a cleared area 30 meters in diameter.
- Area must have an approach and departure zone clear of obstructions.
- Telephone and electrical wire and communication antennas hinder aircraft movement.



SECTION XI - CASUALTY CARD – DA 7656

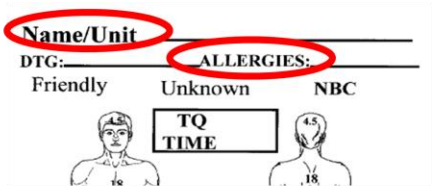
- This casualty card will be found in each Soldier's IFAK.
- May be completed with a ball point pen.
- Attach it to casualty's belt loop, or place it in their upper left sleeve or left trouser cargo pocket.
- Include as much information as you can.



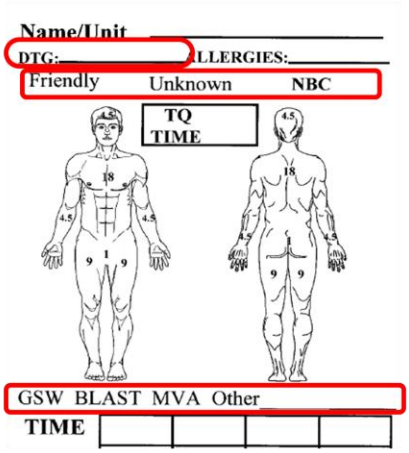
- Record each specific intervention in each category.
- If you are not sure what to do, the card will prompt you where to go next.
- Simply circle the intervention you performed.
- Explain any action you want clarified in the remarks area.

FRONT

- Individual's name and allergies are filled in before placing in the IFAK.



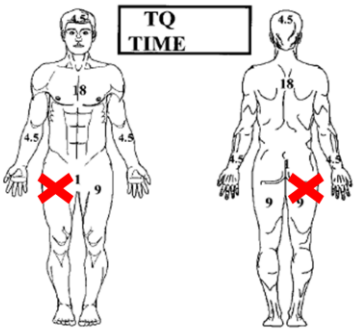
- Add Date / Time Group
- Friendly / Unknown / NBC



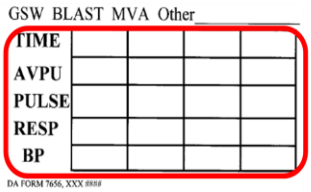
- Cause of injury

FRONT

- Mark an "X" at the site of the injury/ies on body picture.
- Note burn percentage on figure



- Note casualty's vital signs with time
- Note casualty's level of consciousness using AVPU
  - Alert
  - Alert to Verbal stimuli
  - Alert to Painful Stimuli
  - Unresponsive

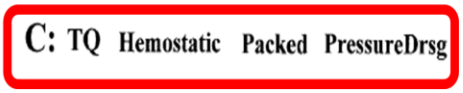


BACK

- Record Airway interventions

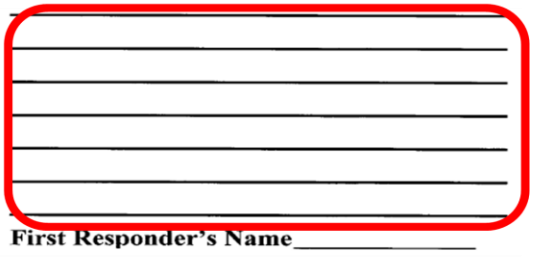
- Record Breathing interventions

- Record Bleeding control measures; note use of tourniquet on front of card

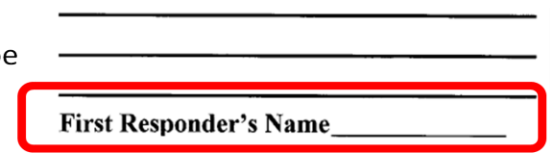


BACK

- Record any pertinent notes



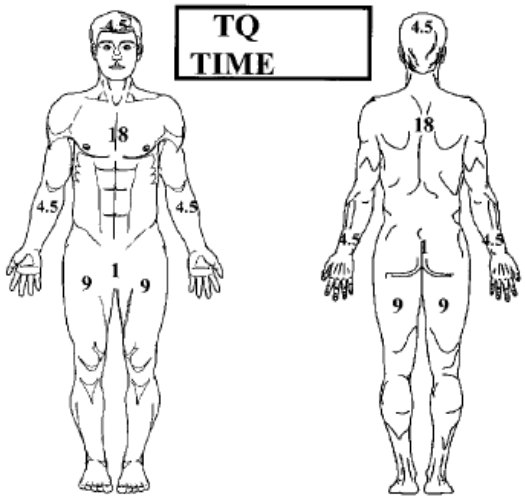
- Sign card – Does not have to be a medic to sign



Name/Unit _____

DTG:_____ **ALLERGIES:**_____

Friendly Unknown **NBC**



GSW BLAST MVA Other_____

TIME				
AVPU				
PULSE				
RESP				
BP				

DA FORM 7656, XXX ####

A: Intact Adjunct Cric Intubated

B: Chest Seal NeedleD ChestTube

C: TQ Hemostatic Packed PressureDrsg

FLUIDS: IV IO

NS / LR 500 1000 1500

Hextend 500 1000

Other: _____

DRUGS (Type / Dose / Route):

PAIN

ABX

OTHER

_____

_____

_____

_____

_____

_____

_____

First Responder's Name_____

DTG = Date-Time, Group (e.g. – 110900Sep2001)
NBC = Nuclear, Biological, Chemical
TQ = Tourniquet
GSW = Gunshot Wound
MVA = Motor Vehicle Accident
AVPU = Alert, Verbal stimulus, Painful stimulus, Unresponsive
Cric = Cricothyroidotomy
NeedleD = Needle decompression
IV = Intravenous
IO = Intraosseous
NS= Normal Saline
LR = Lactated Ringers
ABX = Antibiotics

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CHAPTER 7 – OPERATIONS
(FM 3-21.10 Chap 9 JUL06)

SECTION I - REPORTS

1. SALUTE -

a. **S**ize

b. **A**ctivity

c. **L**ocation

d. **U**nit/Uniform

e. **T**ime

f. **E**quipment

2. SITREP - (situation report) given IAW OPORD

3. Spot Reports (FM 3-21.8 Pg 1-17 MAR07) **-** normally, team leaders gives an ACE report (a common spot report) to the squad leader and the squad leaders give them to the platoon sergeant after contact with the enemy.

a. Ammunition (GREEN, AMBER, BLACK)

b. Casualty (UP or # OF CASUALTIES)

c. Equipment (UP or NAME OF MISSING EQUIPMENT)

4. Logistics - team leaders and squad leaders report twice daily up the chain of command.

5. Sensitive item - status reported by team leaders and squad leaders up the chain of command twice daily.

6. Personnel status - team leaders and squad leaders report twice daily. Normally, reports are given at stand-to and before nightfall.

UNEXPLODED ORDNANCE/IED 9 LINE REPORT
(FM 3-21.10 Pgs G-13, G-14 JUL06)

Many areas, especially previous battlefields, might be littered with a wide variety of sensitive and deadly UXO. Soldiers need to follow these precautions on discovering a suspected UXO:

1. Do not move toward the UXO. Some types of ordnance have a magnetic or motion-sensitive fuse.
2. Never approach or pick up UXO even if identification is impossible from a distance. Observe the UXO with binoculars if available.
3. Send a UXO report to higher HQ. Use radios at least 100 meters away from the ordnance. Some UXO fuses might be set off by radio transmissions.
    a. **DTG:** Date and time UXO was discovered.
    b. **Reporting Unit or Activity, and UXO Location:** Grid coordinates.
    c. **Contact Method:** How EOD team can contact the reporting unit.
    d. **Discovering Unit POC:** MSE, or DSN phone number and unit frequency or call sign.
    e. **Type of UXO:** Dropped, projected, thrown, or placed, and number of items discovered.
    f. **Hazards Caused by UXO:** Report the nature of perceived threats such as a possible chemical threat or a limitation of travel over key routes.
    g. **Resources Threatened:** Report any equipment, facilities, or other assets threatened by the UXO.
    h. **Impact on Mission:** Your current situation and how the UXO affects your status.
    i. **Protective Measures:** Describe what you have done to protect personnel and equipment such as marking the area and informing local civilians.
4. Mark the area with mine tape or other obvious material at a distance from the UXO to warn others of the danger. Proper markings will also help EOD personnel find the hazard in response to the UXO report.
5. Evacuate the area while carefully scanning for other hazards.
6. Take protective measures to reduce the hazard to personnel and equipment. Notify local people in the area.

SECTION II – FIRE CONTROL AND DISTRIBUTION

1. Fire control measures Fire control measures are the means by which the company commander or subordinate leaders control direct fires. Helps the unit acquires the enemy, focus fires, distribute the effects, and prevent fratricide.

Terrain-Based Fire-Control Measures	*Threat-Based Fire-Control Measures*
Target reference point	Fire patterns
Engagement area	Target array
Sector of fire	Engagement priorities
Direction of fire	Weapons ready posture
Terrain-based quadrant	Engagement criteria
Friendly based quadrant	Weapons control status
Maximum engagement line	Rules of engagement
Restrictive fire line	Weapons safety posture
Final protective line	Engagement techniques

2. Engagement Techniques – Effects-oriented direct-fire distribution measures.

a. Point Fire
b. Area Fire
c. Volley Fire
d. Alternating Fire
e. Sequential Fire
f. Observed Fire
g. Time of Suppression
h. Reconnaissance by Fire

3. Fire Commands – Oral orders issued by leader to focus and distribute fires as required to achieve desired effects. The elements of a Fire Command include:

a. Alert. The leader designates which weapon(s) is to fire by weapon type, Soldier's position, or Soldier's name. (Ex: GUIDONS (all subordinate elements), RED (1st Plt only))

b. Weapon or Ammunition (Optional). Identifies weapon or ammunition to be employed. May designate type or number of rounds to limit ammo expenditure. (Ex: JAVELIN, MACHINE GUN)

c. Target Description. The leader identifies the target. For multiple targets, he also tells which target to engage first. (Ex: TROOPS IN TRENCH, BUNKER, PCs)

d. Orientation. Identifies location or vicinity of target.(Ex: TRP13, ONE O'CLOCK, LEFT FRONT, ON MY TRACER)

e. Range (Optional). Distance to target.

f. Control (Optional). Used to direct desired target effects, distribution methods, or engagement techniques. (Ex: JAVELIN ENGAGE VEHICLE, MACHINE GUNS ENGAGE TROOPS)

g. Execution (Time). Specifies when direct fires should be initiated. (Ex: FIRE, AT MY COMMAND, AT YOUR COMMAND, AT PHASE LINE ORANGE)

SECTION III – WEAPONS

1. Basic Safety:

a. Weapons on safe until target is identified and acquired

b. Muzzle Awareness

c. Finger outside of trigger well until sights are on the target

d. Every weapon is ALWAYS treated as loaded

2. Weapons Readiness

a. GREEN:

Weapon on Safe

Empty Magazine inserted in weapon

Bolt forward, ejection port cover closed

b. AMBER:

Weapon on Safe

Magazine with ammunition inserted in weapon

Bolt forward, **NO round in chamber**, ejection port cover closed.

c. RED:

Weapon on safe

Magazine with ammunition inserted in weapon

Round chambered, ejection port cover closed.

3. Clearing the M16/A1, M16/A2, or M4 Rifle -

a. Point the weapon in a safe direction. Place the selector lever on safe.

b. Remove the magazine

c. Lock the bolt to the rear

d. Inspect the chamber and receiver areas for ammunition

e. With the selector switch on safe, allow the bolt to go forward.

INFANTRY PLATOON WEAPONS GUIDE

(FM 3-21.8 Pgs 2-5, 2-8, App A MAR07)

1. TYPES OF INFANTRY PLATOON WEAPONS – There are five types: small arms; machine guns; grenade launchers; shoulder-launched munitions (SLM)/Close Combat Missile System (CCMS); and mortars.

	Small Arms	**Machine Gun**	**Grenade Launcher**	**SLM/CCMS**	**Mortars**
Lay	Direct fire	Direct fire	Direct fire	Direct fire	Indirect fire
Ammunition	Penetration	Penetration	HE	Penetration/ HE	HE WP ILLUM
Trajectory	Low trajectory	Low trajectory	High trajectory	Low trajectory	High trajectory
Point or Area Enemy Target	Point target	Point and area target	Point and area target	Point target	Area target
Organic Infantry Unit Weapons	M4	M249 MG M240 MG	M203	AT4 SMAW-D M72 Javelin	Organic to company/ battalion

2. FIRE TEAM WEAPONS – The rate of fire is the number of rounds fired in a minute by a particular weapon system. The leader dictates the rate of fire for each weapon system under his control. There are two factors that contribute to leader decisions about rates of fire: achieving fire superiority; and ammunition constraints.

a. RIFLE - Rifleman and Infantry leaders are currently armed with the M4 rifle. The M4 rifle is a direct fire weapon that fires ball and tracer 5.56-mm ammunition. The rifleman's primary role is to kill the enemy with precision fire. In this capacity, the rate of fire for the M4 rifle is not based on how fast the Soldier can pull the trigger. Rather, it is based on how fast the Soldier can accurately acquire and engage the enemy. The second role of the rifleman is to engage likely or suspected enemy targets with suppressive fire.

b. M249 MACHINE GUN - The automatic rifleman is currently armed with an M249 machine gun. The M249 is a direct-fire, low trajectory weapon that is primarily used to fire ball tracer 5.56-mm ammunition linked at area targets. The M249 also has the ability to fire unlinked 5.56-mm ammunition in 30-round magazines, but reliability is greatly reduced. Firing with a magazine should be limited to emergency situations.

c. M240B MACHINE GUN - Two medium machine guns and crews are found in the Infantry platoon's weapons squad. Machine gunners are a self-contained support by fire element or with a rifle squad to provide long range, accurate, sustained fires against enemy Infantry and apertures in fortifications, buildings, and lightly-armored vehicles. Machine gunners also provide a high volume of short-range fire in self defense against aircraft. The M240B fires 7.62-mm ammunition.

d. SHOULDER-LAUNCHED MUNITIONS - Shoulder-launched munitions (SLM) are lightweight, self-contained, single-shot, disposable weapons that consist of unguided free flight, fin-stabilized, rocket-type cartridges packed in launchers. SLM provide the Soldier a direct fire capability to defeat enemy personnel within field fortifications, bunkers, caves, masonry structures, and lightly armored vehicles. Soldiers use SLM to engage enemy combatants at very close ranges—across the street or from one building to another. Likewise, SLM may be fired at long distances to suppress the enemy or kill him. Soldiers may employ the SLM as a member of a support-by fire element to incapacitate enemy forces that threaten the friendly assault element. When the assault element clears a building, the leader may reposition the SLM gunner inside to engage a potential counterattack force.

Weapon	M16A2	M249 SAW	M60	AT4	M240B
Weight (lbs)	8.7	15.5	23	14.8	27.6
Length (in)	39	41.1	43	40.16	49
Max Rng (m)	3600	3600	3750	2100	3725
Arming Rng (m)	n/a	n/a	n/a	10	n/a
Min Safe Rng (m)	n/a	n/a	n/a		n/a
Effective Rng (m)					
Area	800	800	1100		1100
Point	580	600	600	300	800
Moving	200	n/a	n/a		n/a
Rate of Fire (rpm)					
Cyclic	700-800	800	550		650-950
Rapid	n/a	200*	200*		200*
Sustained	16	85	100		100
Ammunition	Ball,	Ball,	Ball,	HE	Ball,
	Tracer,	Tracer,	Tracer,		Tracer,
	Blank	Blank	Blank		Blank
Basic Load (rds)	210	600	900		900
*** with barrel change**					

3. MACHINE GUN SPECIFICATIONS –

WEAPON	M249	M240B	M2	MK 19
FIELD MANUAL	FM 3-22.68	FM 3-22.68	FM 3-22.65	FM 3-22.27
TM	9-1005-201-10	9-1005-313-10	9-1005-213-10	9-1010-230-10
DESCRIPTION	5.56-mm gas-operated automatic weapon	7.62-mm gas-operated medium machine gun	.50-caliber recoil-operated heavy machine gun	40-mm air- cooled, blowback- operated automatic grenade launcher
WEIGHT	16.41 lbs (gun with barrel) 16 lbs (tripod)	27.6 lbs (gun with barrel) 20 lbs (tripod)	128 lbs (gun with barrel and tripod)	140.6 lbs (gun with barrel and tripod)
LENGTH	104 cm	110.5 cm	156 cm	109.5 cm
SUSTAINED RATE OF FIRE Rounds/burst Interval Minutes to barrel change	50 RPM 6-9 rounds 4-5 seconds 10 minutes	100 RPM 6-9 rounds 4-5 seconds 10 minutes	40 RPM 6-9 rounds 10-15 seconds Change barrel end of day or if damaged	40 RPM
RAPID RATE OF FIRE Rounds/burst Interval Minutes to barrel change	100 RPM 6-9 rounds 2-3 seconds 2 minutes	200 RPM 10-13 rounds 2-3 seconds 2 minutes	40 RPM 6-9 rounds 5-10 seconds Change barrel end of day or if damaged	60 RPM
CYCLIC RATE OF FIRE	850 RPM in continuous burst Barrel change every 1 minute	650-950 RPM in continuous burst Barrel change every 1 minute	450-550 RPM in continuous burst	325-375 RPM in continuous burst
MAXIMUM EFFECTIVE RANGES	Bipod/point: 600 m Bipod/area: 800 m Tripod/area: 1,000 m Grazing: 600 m	Bipod/point: 600 m Tripod/point: 800 m Bipod/area: 800 m Tripod/area: 1,100 m Suppression: 1,800 m Grazing: 600 m	Point: 1,500 m (single shot) Area: 1,830 m Grazing: 700 m	Point: 1,500 m Area: 2,212 m
MAXIMUM RANGE	3,600 m	3,725 m	6,764 m	2,212 m

4. COMPANY MORTARS (60 mm) SPECIFICATIONS

0 mm	Circular Lethal Bursting Area	50% Chance Suppression Achieved	Little Suppression
HE (M49A4)	20 m	Within 35 m of TGT	> 50 m from tgt
WP*	10 m		
HE (M720)	28 m		

* WP (White Phosphorous- used mainly to produce immediate, close point obscuration, not long lasting or wide area (approx. 60 m)

Round	60 mm
Max Rng (m)	3490
Max Rate of Fire	30 rnd/min 1st min
Sustained ROF	20 rnd/min
Min Rng (m)	70
Fuses XXXXXXXXXXX	MO (Multi-Option-VT, PD, DLY) (VT= Variable Time; PD= Point Detonating; D=Delay)
Risk Estimate Distance (RED) XXXXXXXXXXX	.1% PI=175 meters 10% PI = 65 meters (PI= percent of incapacitation)

SECTION IV – RANGE CARDS AND SECTOR SKETCHES
(STP 7-11B1-SM-TG Pg 218; ATTP 3-21.71 NOV10)

1. RANGE CARDS

a. The marginal information at the top of the card is listed as follows

(1) SQD, PLT, CO. The squad, platoon, and company designations are listed. Units higher than company are not listed.

(2) MAGNETIC NORTH. The range card is oriented with the terrain and the direction of magnetic north arrow is drawn.

b. The gunner's sector of fire is drawn in the sector sketch section. It is not drawn to scale, but the data referring to the targets must be accurate.

(1) The weapon symbol is drawn in the center of the small circle.

(2) Left and right limits are drawn from the position. A circled "L" and "R" are placed at the end of the appropriate limit lines.

(3) The value of each circle is determined by using a terrain feature farthest from the position that is within the weapons capability. The distance to the terrain is determined and rounded off to the next even hundred. The maximum number of circles that will divide evenly into the distance is

determined and divided. The result is the value for each circle. The terrain feature is then drawn on the appropriate circle.

(4) All TRPs and reference points in sector are drawn, numbered consecutively and circled.

(5) Dead space is drawn in the sector.

(6) A maximum engagement line is drawn on range cards for anti-armor weapons.

(7) Weapon reference point is numbered last. Location uses a six-digit grid coordinate. When there is no terrain feature to be designated, the location is shown as an eight-digit grid coordinate.

c. The data section is filled in as follows:

(1) POSITION IDENTIFICATION. Identified as Primary, Alternate, or Supplementary.

(2) DATE. Date and time the range card was completed.

(3) WEAPON. Indicates the weapons used.

(4) EACH CIRCLE EQUALS _____ METERS. Write distance in meters between circles.

(5) NO. Starting with left and right limits, TRPs and reference points listed in numerical order.

(6) DIRECTION/DEFLECTION. The direction listed in degrees, deflection listed in mils.

(7) ELEVATION. The elevation listed in mils.

(8) RANGE. Distance in meters to left and right limits, TRPs, and reference points.

(9) AMMO. Type of ammunition used.

(10) DESCRIPTION. Name of the object (e.g., FARMHOUSE, WOODLINE, HILLTOP).

(11) REMARKS. Record weapon reference point data and any additional information.

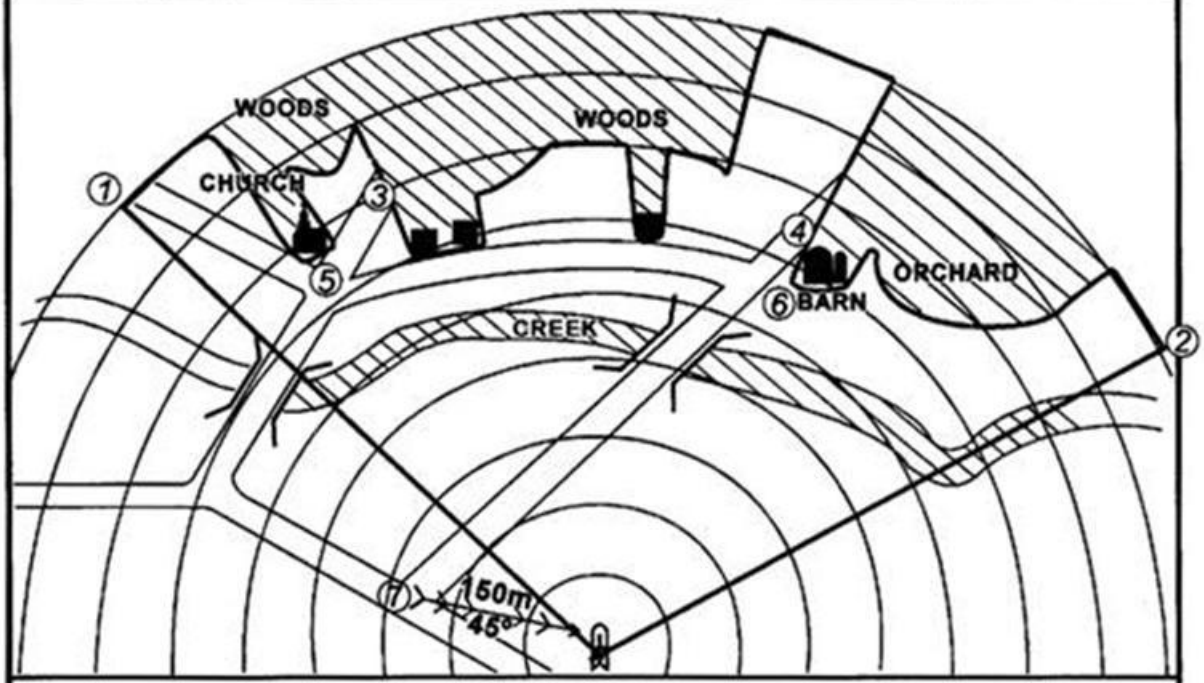
STANDARD RANGE CARD

For use of this form see FM 3-21.71. The proponent agency is TRADOC.

SQD 1
PLT 3
CO A

May be used for all types of direct fire weapons.

MAGNETIC NORTH



DATA SECTION

POSITION IDENTIFICATION: PRIMARY
DATE:

WEAPON: JAVELIN
EACH CIRCLE EQUALS METERS: 220m

NO.	DIRECTION/ ~~DEFLECTION~~	~~ELEVATION~~	RANGE	~~AMMO~~	DESCRIPTION
1	230°		1775m		LL
2	289°		2000m		RL
3	240°		1675m		ROAD - AA
4	246°		1425m		ROAD - AA
5	260°		1550m		CHURCH - AB1670
6	264°		1350m		BARN - AB1677

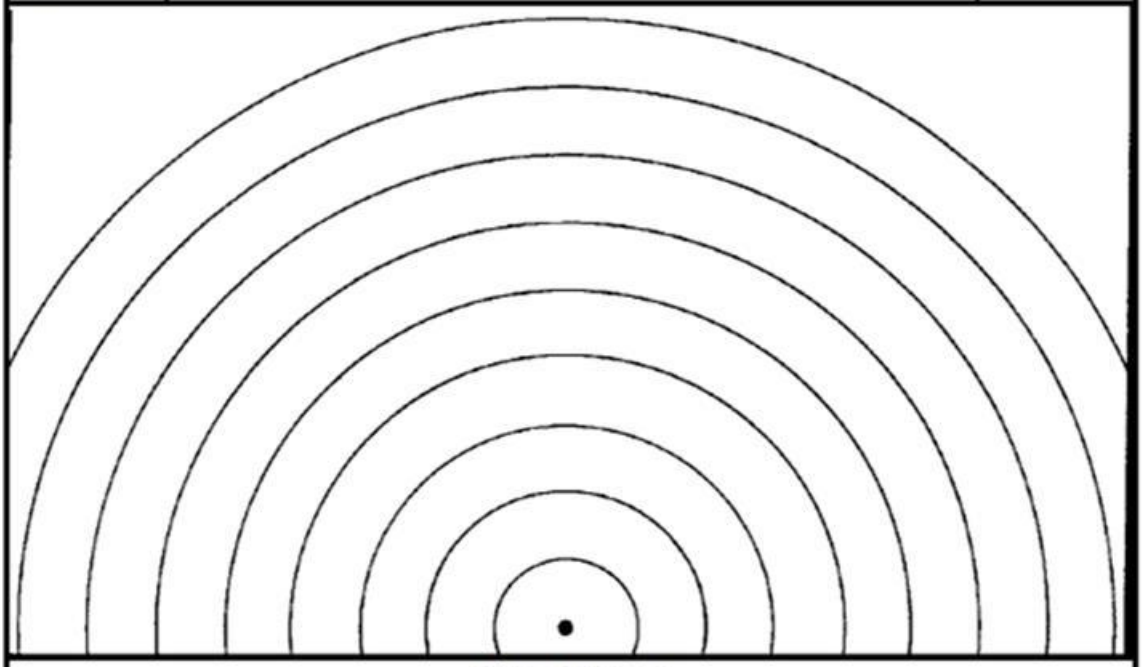
REMARKS:
MAKE 2 COPIES ⑦ - GRP DIR 45° RANGE 150m DESCR - INTERSECTION

DA FORM 5517-R, FEB 86

STANDARD RANGE CARD

For use of this form see FM 3-21.71; the proponent agency is TRADOC.

SQD _____ PLT _____ CO _____	May be used for all types of direct fire weapons.	MAGNETIC NORTH



DATA SECTION

POSITION IDENTIFICATION	DATE
WEAPON	EACH CIRCLE EQUALS _____ METERS

NO.	DIRECTION/ DEFLECTION	ELEVATION	RANGE	AMMO	DESCRIPTION

REMARKS:

DA FORM 5517-R, FEB 1986

APD PE v1.01

2. SECTOR SKETCHES

a. Squad sector - Squad leaders prepare an original and one copy of the sector sketch. The original remains in the squad CP, and the copy is turned in to the platoon leader. As a minimum, include:

(1) Key terrain within the squad sector.

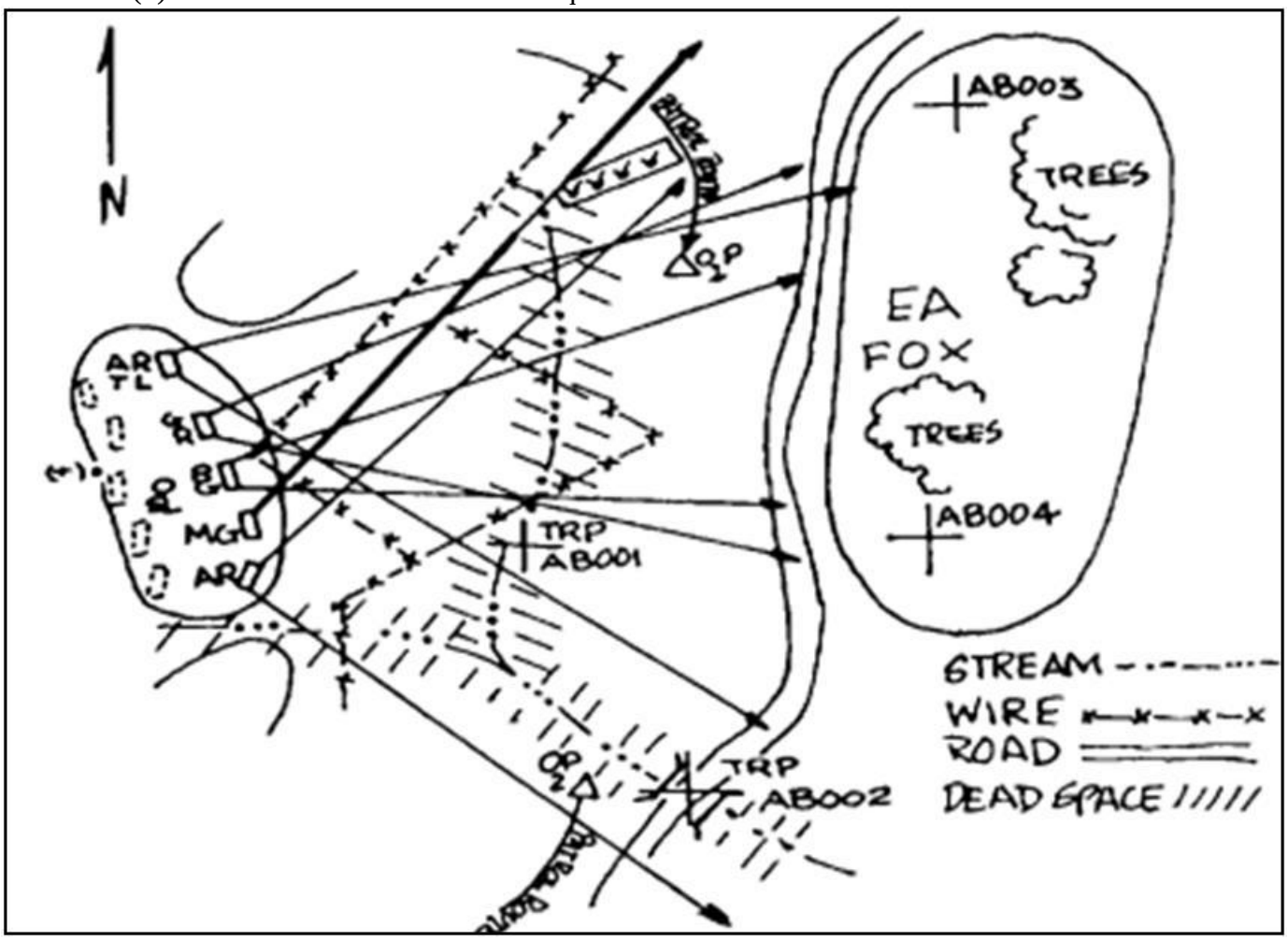
(2) Each individual fighting position and its primary and secondary sectors of fire.

(3) Key weapons positions, primary and secondary sectors of fire, and fire control measures.

(4) All CP and OP locations.

(5) All dead space within squad sector.

(6) All obstacles and mines within squad sector.



Squad Sector Sketch

b. Platoon sector - Platoon leader prepares an original and one copy of the sector sketch. The original remains in the platoon CP, and the copy is turned in to the company commander. As a minimum, include:

(1) Squad positions and sectors of fire.

(2) Key weapons positions, sectors of fire, and fire control measures.

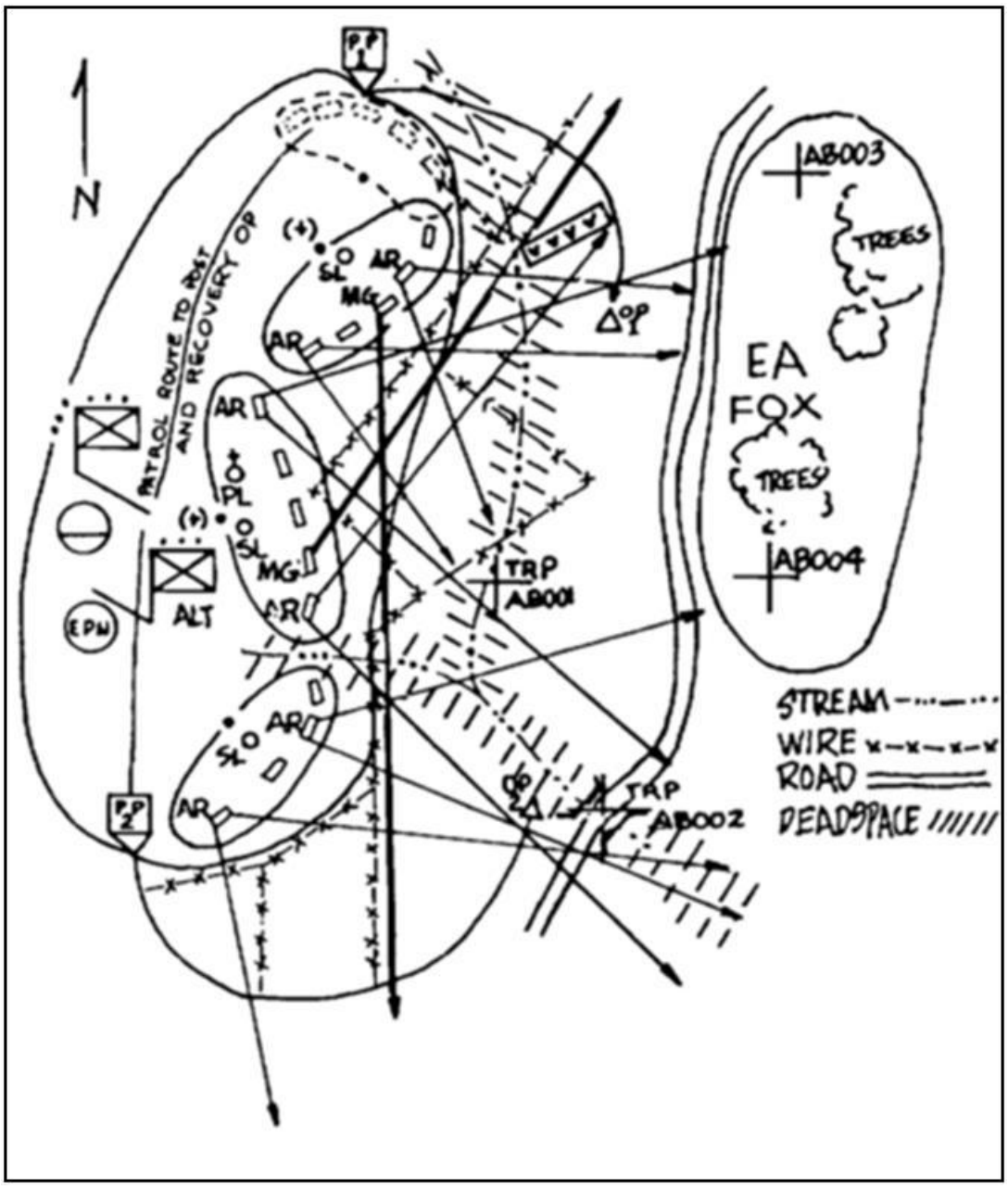
(3) CPs (Command Post), OPs (Observation Post), and patrol routes.

(4) Platoon maximum engagement lines.

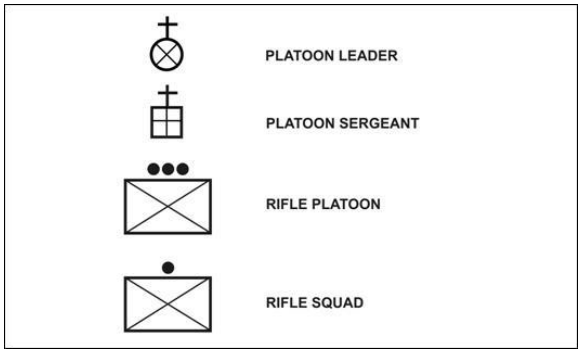
(5) All dead space within platoon sector.

(6) All mines and obstacles within platoon sector.

(7) Any TRPs or FPFs (Final Protective Fires) within platoon sector.



Company Sector Sketch



AR= Automatic Rifleman
SL= Squad Leader
MG= Machine Gun
TL= Team Leader
PL= Platoon Leader
△ = OP
PP 8 = Passage Point

SECTION V – CULTURAL AWARENESS

According to FM 3-24, Counterinsurgency, troops operating in the effort of nation building must:
- Establish and maintain a presence in the populace
- Seek to understand others and avoid any hasty actions
- Build trusted networks of people in the area of operations

According to FM 3-07, Stability Operations, the most successful Soldiers:
- Understand themselves and empathize with people from all cultures
- Recognize and suspend their own cultural biases
- Ask questions before taking action
- De-escalate tension through humility and respect

Culture (VBBN): Values, Beliefs, Behaviors, and Norms

What is Culture? - FM 3-24, Counterinsurgency, p. 3-6, Dec 2006
- Culture is a "web of meaning" shared by members of a particular society or group within a society
- A system of shared beliefs, values, customs, behaviors, and artifacts that member of a society use to cope with their world and with one another
- Learned, through a process called enculturation
- Shared by members of a society; there is no "culture of one"
- Patterned, meaning that people in a society live and think in ways forming definite, repeating patterns
- Changeable, through social interaction between people and groups
- Arbitrary, meaning that Soldiers and Marines should make no assumptions regarding what a society considers right and wrong, good and bad
- Internalized, in the sense that it is habitual, taken for granted, and perceived as "natural" by people within the society
- An "operational code" that is valid for an entire group of people

Influences on Culture: Geography, Climate, History, Religion, Economics, Political Structures, Social Organizations

PMESII-PT - Operational Analysis of Culture
Political
Military
Economic
Social

Information
Infrastructure
Physical Environment
Time

ASCOPE - Mission Analysis of Culture

Areas
Structures
Capabilities
People
Events

Tactical Conflict Assessment and Planning Framework (TCAPF)

- What changes need to be made?
- What are the most important problems?
- Who can solve these problems?
- What should be done first?

Cultural Understanding

- Look for commonalities between cultures
- Recognize that our way of doing things may not work in another culture - recognize where cultural barriers exist
- Use the concepts and values of another's culture to communicate ideas about our culture
- Observe social customs and use in a respectful manner
- Drink tea and partake in local foods
- Attempt to use at least a few simple words or phrases in the local language

Cultural Planning Factors

- How to distinguish the enemy from the population and understand their motivation?
- Key personnel in the community / Family to help control non-combatant personnel - Tribes? Religion? Government?
- How to avoid non-combatant casualties
- How to best employ local security forces to deal with culturally sensitive operations
- Civilian battle rhythm, holidays, or other special community events - weddings, funerals, sports, entertainment
- Civilian traffic patterns
- Amount of property damage likely in an operation and how to settle claims
- Implications of entering holy places and treatment of holy artifacts
- Number of interpreters needed
- Local sources of information / media - how does the enemy put out information?
- Availability of female Soldiers to conduct searches
- Implications of using military working dogs for searches

Cross Cultural Discussions

- Don't be in a rush - establish rapport
- Ask lots of questions, but avoid yes-no questions - use open ended questions that allow someone to elaborate
- Follow up with questions about their answers
- Paraphrase their answers to check your understanding
- Avoid cornering someone - give them an easy way to save face

- Verify information from separate sources

Building Rapport

- Use active listening and take interest in your counterpart
- Greet and interact according to local customs
- Identify mutual goals
- Relax, get comfortable, be friendly, smile, and laugh
- Show and accept hospitality
- Show that you care, are concerned about the local situation, respect them, and empathize with their situation
- get over initial awkwardness
- Clarify communication, show when grateful, and forgive errors
- Establish trust - look for easy short term tasks and deliver on promises

Barriers to Cultural Understanding

- Force protection
- Stereotypes and biases
- Miscommunication
- Culture shock

Female Search Considerations:

- Always maintain security - conduct the search out of the public eye
- Always use dignity and respect while conducting a search - remain cool and calm and explain why you are conducting the search
- Use local female Police or Soldiers if possible - use a female interpreter
- Ask them to surrender any contraband items they may have
- Ask females to remove their burqa or other clothing themselves- only enough to determine hidden weapons or items presenting a hazard
- Can also ask the female to pull her clothing tight, pat down herself, or ask another female from the same tribe help with the search
- Use metal detecting wands to avoid contact; wear gloves during the search
- Use the back of the hand to search

Tactical Questioning - Screening

- What is your name and address? Verify ID
- Where are you going? Why are you going there? What route did you travel to get here? What obstacles did you encounter? Did you see anything unusual? What route are you taking from here?
- Who do you know that opposes the coalition? What anti-coalition activities do you know of? Why do you believe the coalition is here? What do you think about the coalition presence? What would you change about how the coalition operates?

Tactical Questioning - Detainee Screening - JUMPS:

- Is there any immediate danger?
- What is your **Job**, tribe, father's name, place of birth, age?
- What is your **Unit**, name of company / boss / supervisor?
- What is the **Mission** of your company, and what is your job/part?
- Ask questions based on your **PIR**
- Ask follow up questions or **Stuff** that pertains to the situation - especially about any items they had on their person

SOLDIER RULES Army Regulation (AR) 350-1, para 4-14b

1. Soldiers fight only enemy combatants
2. Soldiers do not harm enemies who surrender. They disarm them and turn them over to their superiors
3. Soldiers do not kill or torture enemy prisoners of war
4. Soldiers collect and care for the wounded, whether friend or foe
5. Soldiers do not attack medical personnel, facilities or equipment
6. Soldiers destroy no more than the mission requires
7. Soldiers treat civilians humanely
8. Soldiers do not steal. Soldiers respect private property and possessions
9. Soldiers should do their best to prevent violations of the law of war
10. Soldiers report all violations of the law of war to their superior

MEDIA DO'S and DON'T'S- Media on the battlefield have a story to tell. Follow your command guidance and follow the below guidance when dealing with the media.

DO tell the Army story – use the command message
DO maintain security-cameras attract the attention of Soldiers
DO speak in sound bites- short clear and to the point
DO spotlight your Soldiers-feature the effort and the hard work they are doing
DO stay in your lane – talk about what you know **–don't offer opinions**
DON'T say "No Comment" (stay in your lane)- it may appear you are hiding something when you aren't
DON'T grab the mike – be polite and professional
DON'T use acronyms or military jargon
DON'T violate OPSEC
DON'T lie or speculate
DON'T comment on matters of policy
Remember- the media will use what you say to tell THEIR story.

OPFOR UNIFORM

COALITION FORCES

SECTION VI – CALL FOR FIRE
(ATP 3-09.30, Techniques for Observed Fire, AUG 13)

The battalion fire support execution matrix may require the platoon to call for and adjust its own indirect fire support. Normally, the battalion fire support annex will designate company targets. However, the matrix also might designate platoon targets. The platoon uses these preplanned artillery targets to call for and adjust indirect fire. Either a Soldier or a forward observer (FO) can prepare and request a call for fire. To receive immediate indirect fire support, the observer must plan targets and follow proper call-forfire procedures. If available, he should use a GPS and laser range finder.

The call for fire consists of required and optional elements. If the observer is untrained, FDC personnel are trained to assist him in the call-for-fire procedure and subsequent adjustments by asking leading questions to obtain the information needed. Optional elements, methods of engagement, and methods of fire and control require a relatively high level of experience, but are not necessary to get fire support.

REQUIRED ELEMENTS

Calls for fire must include the following three elements:

- Observer identification and warning order.
- Target location.
- Target description.

Observer Identification and Warning Order

Observer identification tells the fire direction center (FDC) who is calling. It also clears the net for the duration of the call. The WARNO tells the FDC the type of mission and the method of locating the target. The types of indirect fire missions are adjust fire, fire for effect (FFE), suppress, and immediate suppression.

Adjust Fire

Use this command when uncertain of target location. Calling an adjust fire mission means the observer knows he will need to make adjustments prior to calling a fire for effect.

Fire for Effect

Use this command for rounds on target, no adjustment. An example of this situation is if it is known that the target is in building X. Building X is easily identified on the map as Grid ML 12345678910.

Suppress

Use this command to obtain fire quickly. The suppression mission is used to initiate fire on a preplanned target (known to the FDC) and unplanned targets. An example is calling for fire to force the enemy to “get down and seek cover.” This should enable friendly forces to close with and destroy the enemy with direct fire.

Immediate Suppression

Use this command to indicate the platoon is already being engaged by the enemy. Target identification is required. The term “immediate” tells the FDC that the friendly unit is in direct fire contact with the enemy target.

Target Location Methods

When locating a target for engagement, the observer must determine which of the target location methods he will use: grid, polar, or shift from a known point.

Grid Mission

The observer sends the enemy target location as an 8- or 10-digit grid coordinate. Before the first adjusting rounds are fired, the FDC must know the direction from the observer's location. The observer sends observer-target (OT) direction (to the nearest 10 mils) from his position to the target.

Example fire mission, grid.

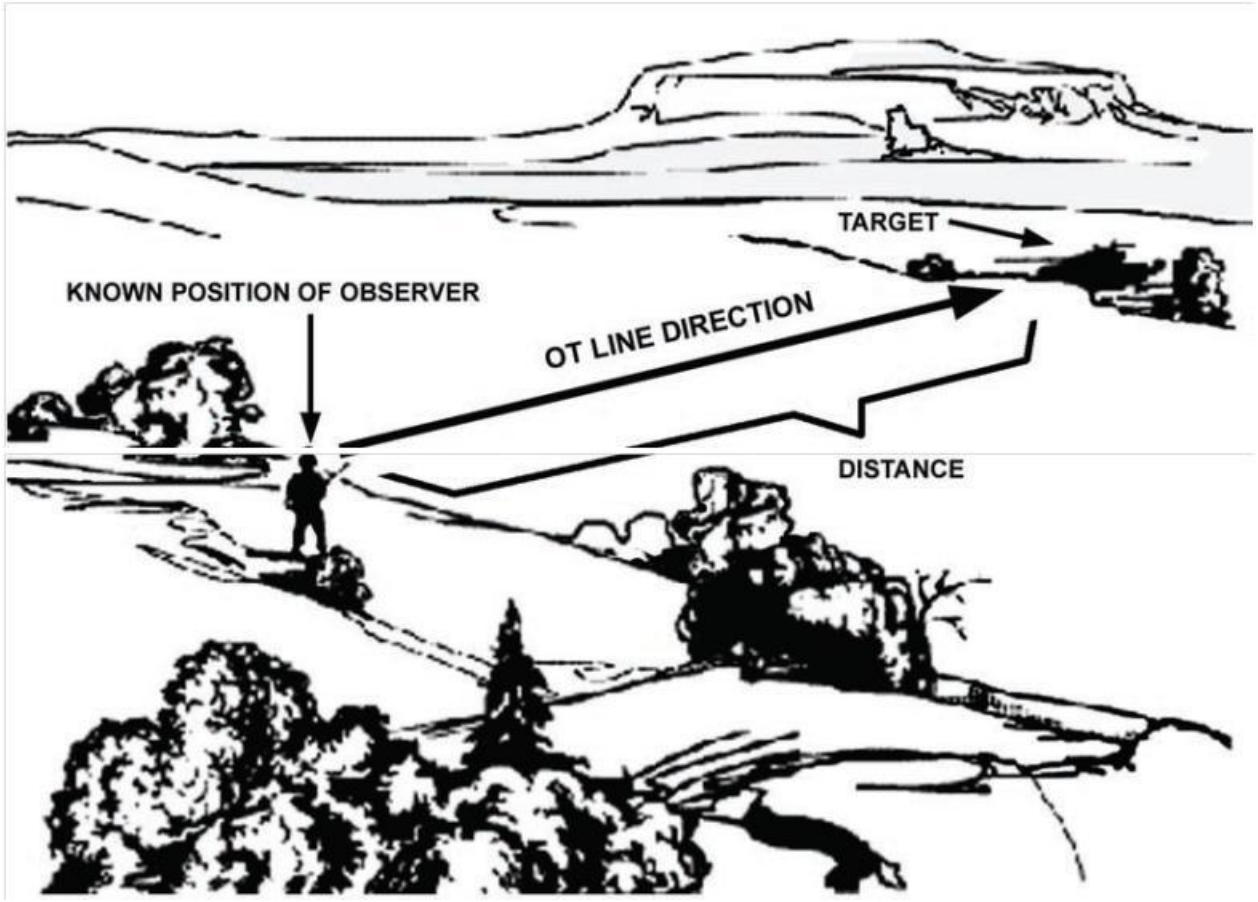
Initial Fire Request From Observer to FDC	
Observer	**FDC**
Z57, THIS IS 271, ADJUST FIRE, OVER.	THIS IS Z57, ADJUST FIRE, OUT.
GRID NK180513, OVER.	GRID NK180513, OUT.
INFANTRY PLATOON IN THE OPEN, ICM IN EFFECT, OVER.	INFANTRY PLATOON IN THE OPEN, ICM IN EFFECT, OUT.
Message to Observer	
FDC	**Observer**
Z, 2 ROUNDS, TARGET, AF1027, OVER.	Z, 2 ROUNDS, TARGET IS AF1027, OUT.
For Subsequent Rounds (From Observer to FDC)	
Observer	**FDC**
DIRECTION 1680, OVER.	DIRECTION 1680, OUT.
Note: Send direction before or with the first subsequent correction.	

Polar Mission

The observer sends direction, distance, and an up or down measurement (if significant) from his location to the enemy target. The FDC must know the observer's location prior to initiating the call for fire. The word "polar" in the WARNO alerts the FDC that the target will be located with respect to the observer's position. The up or down correction is an estimated vertical shift from the observer's location to the target and is only significant if greater than or equal to 35 meters. If the target is higher, it is an up correction. If the target is lower, it is a down correction. Normally, inexperienced observers only send a direction and distance and ignore the up or down correction.

Example fire mission, polar plot.

Initial Fire Request From Observer to FDC	
Observer	**FDC**
Z56, THIS IS Z31, FIRE FOR EFFECT, POLAR, OVER.	THIS IS Z56, FIRE FOR EFFECT, POLAR, OUT.
DIRECTION 4520, DISTANCE 2300, DOWN 35, OVER.	DIRECTION 4520, DISTANCE 2300, DOWN 35, OUT.
INFANTRY COMPANY IN OPEN, ICM, OVER.	INFANTRY COMPANY IN OPEN, ICM, OUT.
Message to Observer	
FDC	**Observer**
Y, VT, 3 ROUNDS, TARGET AF2036, OVER.	Y, VT, 3 ROUNDS, TARGET AF2036, OUT.



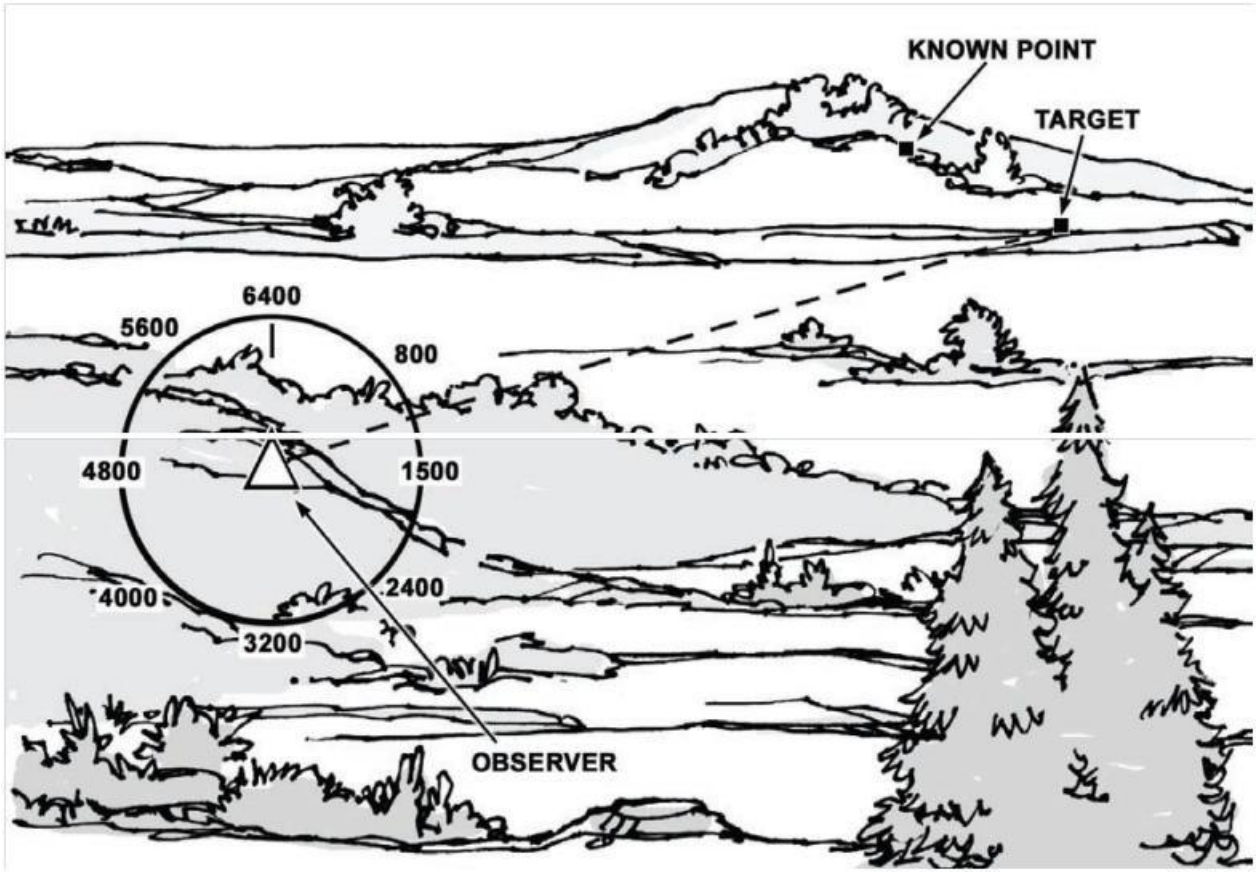
Shift From a Known Point

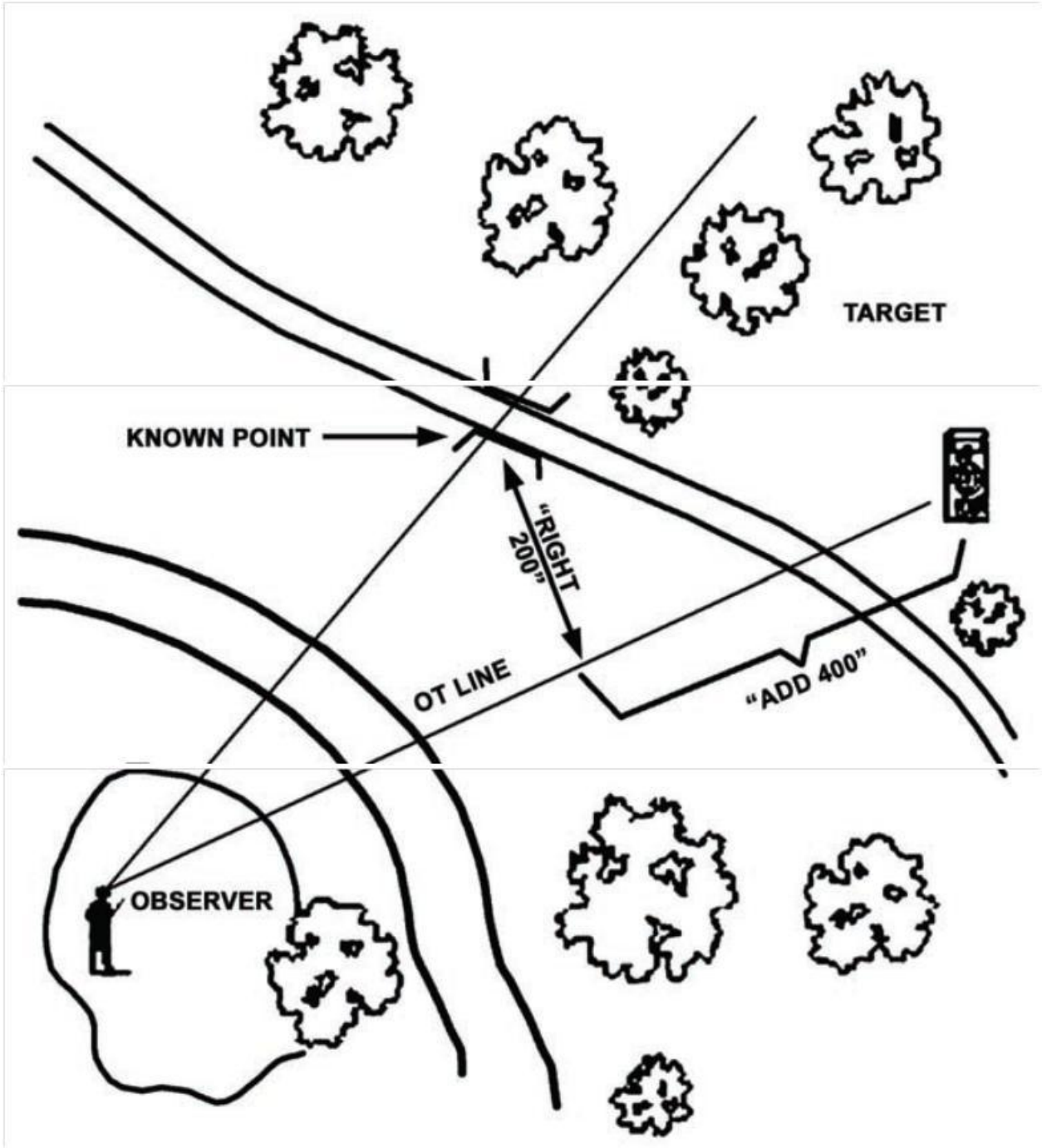
Shift from a known point is performed when the observer and FDC have a common known point. The observer sends OT line and then determines the lateral and range shifts. The enemy target will be located in relation to a preexisting known point or recorded target. The point or target from which the shift is made is sent in the WARNO. (Both the observer and the FDC must know the location of the point or recorded target.) The observer sends a target/known point number, a direction, and left/right, add/drop, and up/down corrections as listed below:

- Direction from observer (grid azimuth in mils) to target.
- The lateral shift in meters (how far left or right the target is) from the known point.
- The range shift (how much farther [ADD] or closer [DROP] the target is in relation to the known point, to the nearest 100 meters).
- The vertical shift (how much the altitude of the target is above [UP] or below [DOWN] the altitude of the known point, expressed to the nearest 5 meters). A vertical shift is usually only significant if it is greater than or equal to 35 meters.

Example fire mission, shift from a known point.

Initial Fire Request From Observer to FDC	
Observer	**FDC**
H66 THIS IS H44, ADJUST FIRE, SHIFT AA7733, OVER.	THIS IS H66, ADJUST FIRE, SHIFT AA7733, OUT.
DIRECTION 5210, LEFT 380, ADD 400, DOWN 35, OVER.	DIRECTION 5210, LEFT 380, ADD 400, DOWN 35, OUT.
COMBAT OP IN OPEN, ICM IN EFFECT, OVER.	COMBAT OP IN OPEN, ICM IN EFFECT, OUT.
Message to Observer	
FDC	**Observer**
H, 1 ROUND, TARGET AA7742, OVER.	H, 1 ROUND, TARGET AA7742, OUT.




TARGET
KNOWN POINT
"RIGHT 200"
OT LINE
"ADD 400"
OBSERVER

Target Description
The target description helps the FDC to select the type and amount of ammunition to best defeat the enemy target. Following is a brief description of the target using the mnemonic SNAP:
- **S**ize and or shape ("one enemy soldier" or "platoon of enemy soldiers").
- **N**ature and or nomenclature ("T72," "sniper team," "machine gunner").

- **A**ctivity ("stationary" or "moving").
- **P**rotection and or posture ("in the open," "dug in," or "on a rooftop").

Message to Observer
After the FDC receives the call for fire, it determines if and how the target will be attacked. That decision is announced to the observer in the form of a message to the observer. The observer acknowledges the message to observer by reading it back in its entirety.
Additionally, the FDC will send the following transmissions:
- **Shot.** The term SHOT, OVER is transmitted by the FDC after each round fired in adjustment and after the initial round in the fire for effect (FFE) phase. The observer acknowledges with SHOT, OUT.
- **Splash.** The term SPLASH, OVER is transmitted by the FDC to inform the observer when his round is five seconds from detonation/impact. The observer responds with SPLASH, OUT.
- **Rounds Complete.** The term ROUNDS COMPLETE, OVER signifies that the number of rounds specified in the FFE have been fired. The observer responds with ROUNDS COMPLETE, OUT.

OPTIONAL ELEMENTS
A call for fire also might include the following information

- Method of engagement.
- Danger close.
- Method of fire and control.
- Refinement and end of mission.

Method of Engagement
The observer uses the method of engagement portion of the call for fire to tell the FDC how to attack the enemy target. The method of engagement consists of the type of engagement, trajectory, danger close (if applicable), ammunition, and distribution.
Trajectory
A low-angle trajectory is standard without a request. A high-angle trajectory is at the request of the observer or when required due to masking terrain. An example of this terrain would be an enemy position in defilade on the backside of a mountain range. This allows the indirect fire munitions to successfully clear the top of the masking terrain and have more of a vertical descent, resulting in the munitions impacting directly on the enemy position.
Danger Close
Danger close is announced when applicable. Include the term danger close in the method-ofengagement portion of the call for fire when the target is within 600 meters of any friendly elements for both mortars and field artillery. When adjusting naval gunfire, announce DANGER CLOSE when the target is located within 750 meters and naval guns 5 inches or smaller are in use. 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 forward observer makes range changes by creeping the rounds to the target using corrections of less than 100 meters.

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. The type of ammunition can be requested by the observer, but final determination is by the FDC based on Class V unit basic load and target description.

Method of Fire and Control
The method of fire and control indicates the desired manner of attacking the target, whether the observer wants to control the time or delivery of fire, and whether he can observe the target. The observer announces the appropriate method of fire and control.

Fire When Ready
FIRE WHEN READY is standard without request, and is not announced. The mission will be fired as soon as the data is processed, guns are laid on the target, and munitions are loaded.

At My Command
If the observer wishes to control the time of delivery of fire, he includes AT MY COMMAND in the method of control. When the pieces are ready to fire, the FDC announces PLATOON (or BATTERY or BATTALION) IS READY, OVER. (Call signs are used.) The observer announces FIRE when he is ready for the pieces to fire. In certain scenarios, the observer must consider the time of flight for the munitions to leave the indirect fire system and impact on the target. The “time of flight” data can be requested by the observer and determined by the FDC. This only applies to adjusting rounds and the first volley of an FFE. AT MY COMMAND remains in effect throughout the mission until the observer announces CANCEL AT MY COMMAND, OVER.
AT MY COMMAND can be further specified. BY ROUND AT MY COMMAND controls every round in adjustment and every volley in the FFE phase.

Time on Target
The observer may tell the FDC when he wants the rounds to impact by requesting, for example, TIME ON TARGET, 0859, OVER. The observer must ensure his time and the FDC's time are synchronized prior to the mission.

Time to Target
The observer may tell the FDC when he wants the rounds to impact by requesting TIME TO TARGET (so many) MINUTES AND SECONDS, OVER, STANDBY, READY, READY, HACK, OVER. Time to target is the time in minutes and seconds after the "hack" statement is delivered when rounds are expected to hit the target.

Check Firing
CHECK FIRING is used to cause an immediate halt in firing. Use this command only when necessary to immediately stop firing (for example, safety reasons) as it may result in cannons being out of action until any rammed/loaded rounds can be fired or cleared from the tubes.

Repeat
REPEAT can be given during adjustment or fire-for-effect missions. During adjustment, REPEAT means firing another round(s) with the last data and adjusting for any change in ammunition if necessary. REPEAT is not sent in the initial call for fire.
During fire for effect, REPEAT means fire the same number of rounds using the same method of fire for effect as last fired. Changes in the number of guns, the previous corrections, the interval, or the ammunition may be requested.

Request Splash
SPLASH can be sent at the observer's request. The FDC announces SPLASH to the observer 5 seconds prior to round impact. SPLASH must be sent to aerial observers and during high-angle fire missions.

Refinement and End of Mission
The observer should observe the results of the fire for effect and then take one of the following actions to complete the mission:
- Correct any adjustments.

- Record as target.
- Report battle damage assessment.
- Report end of mission.

ADJUST FIRE

If the rounds have accurately impacted the target after the initial call for fire, the observer requests fire for effect. If the rounds are not impacting the target, the observer adjusts the indirect fire onto the enemy target. Making adjustments to an indirect fire mission requires the observer to determine deviation and range corrections. Deviation corrections move the round right or left toward the target while range corrections add or drop the round toward the target with respect to the observer's position. If the observer cannot locate the target (due to deceptive terrain, lack of identifiable terrain features, poor visibility, or an inaccurate map), he adjusts the impact point of the rounds. The observer chooses an adjusting point. For a destruction mission (precision fire), the target is the adjusting point. For an area target (area fire), the observer picks a well defined adjusting point close to the center. The observer spots the first and each successive adjusting round and sends range and deviation corrections back to the FDC until rounds hit the target. The observer spots each round by relating the round's point of impact to the adjusting point. See ATP 3-09.30, Techniques for Observed Fire, AUG 13, for a more detailed discussion of adjusting mortar and artillery fire.

SECTION VII – ROE/DETAINEE OPERATIONS

(FM 3-39, Military Police Operations, AUG13; FM 3-39.40 Internment & Resettlement Ops, FEB10)

Rules of Engagement

ROE are directives issued by competent military authority, which delineate the circumstances and limitations under which US forces will initiate or continue combat engagement with other forces encountered.

Rules of Engagement

a. The ROE apply to US forces during all military operations and contingencies. Commanders may augment the ROE for specific operations. Commanders must assess the capabilities and intent of other forces and make recommendations for supplemental ROE through the chain of command. Clearly state the ROE in simple language.

b. These ROE are intended for the following:

(1) Implementing the right of self-defense, this is applicable worldwide, to all echelons of command.

(2) Providing guidance governing the use of force consistent with mission accomplishment.

(3) Use in peacetime operations other than war, during transition from peacetime to armed conflict or war, and during armed conflict in the absence of superseding guidance.

Guide for Handling Detainees, Captured Enemy Documents (CEDs), & Captured Enemy Equipment (CEE)

1. Detainees, retained personnel, CEDs, and CEE are critical sources of combat intelligence. Often the Maneuver Battalion S2 is the first MI officer to encounter these sources. His actions are critical to the exploitation system. Information from these items is time sensitive, and these information sources need to be exploited at as low an echelon as possible. The S2 should anticipate requirements for support based on planned missions and request HUMINT collector support as necessary. If unable to receive HUMINT collector support, the S2 must be prepared to exploit these sources of information to the best of his ability and more importantly expedite their evacuation to locations and units where they can be exploited.

Purpose

2. This guide is for battalion and brigade S2s. It explains standard procedures on what the S2 should do when his unit—

- Captures an enemy soldier or other detainee.
- Encounters a civilian on the battlefield.
- Finds or captures an enemy document.
- Discovers an unusual enemy weapon or other unusual piece of equipment during tactical operations.

PERSONNEL HANDLING

3. The Geneva Convention defines persons entitled to treatment as prisoners of war upon capture, in Article 4.

4. The Geneva Convention defines the civilian population (exclusive of those civilian persons listed in Article 4) who benefit to varying degrees from the provisions of the Geneva Conventions.

5. Persons in each of these categories have distinct rights, duties, and restrictions. Persons who are not members of the Armed Forces, as defined in Article 4, who bear arms or engage in other conduct hostile to the enemy thereby deprive themselves of many of the privileges attaching to the members of the civilian population. The capturing unit treats all combatants and noncombatants who are suspected of being part of the threat force as EPWs or retained personnel until their status can be determined. This determination normally occurs at the detainee collection point or at a higher echelon. Noncombatants are handled, questioned, detained, evacuated, and released in accordance with theater policy. In all cases, detainees are treated humanely.

6. Detainees are treated humanely but with firmness at all times. High standards of discipline are required not only of detainees but also of capturing and escort forces. Fraternization with detainees or mistreatment or abuse of them is not only a violation but also is not conducive to good discipline. In addition to not being conducive to good discipline, the mistreatment or abuse of detainees is a violation of the UCMJ for which violators may be punished. The control of detainees is exercised through the issuance and firm enforcement of necessary instructions in their own language. Instructions relating to their control during evacuation from the combat zone should be as brief as possible. Care must be taken to ensure that detainees have a clear understanding of all instructions to them.

7. At the capture point, the capturing element performs the following steps on detainees. The senior soldier will ensure that the steps are performed. The steps are referred to as the "Five S's and a T".

STEP 1. SEARCH

8. The capturing unit's first job is to disarm, search, and maintain positive control over all detainees. The detainees are disarmed and searched for concealed weapons and for equipment and documents of particular intelligence value immediately upon capture, unless the number of detainees captured, enemy action, or other circumstances make such a search impracticable. Until each detainee is searched, the responsible forces must be alert to prevent the use of concealed weapons or destruction of documents or equipment.

9. The capturing unit gathers all loose CEDs and CEE in the area. Identification documents and protective military equipment such as helmets or CBRN gear stay with the detainee unless otherwise directed by the battalion S2.

- Equipment. Items of personal or individual equipment that are new or appear to be of a type not previously observed may be of intelligence value and should be processed and reported in accordance with the unit's SOP, specific evacuation instructions in Annex B (Intelligence) of the OPORD, and theater policy. Equipment for personal protection such as protective masks or protective clothing may not be taken unless replaced with equivalent equipment.
- Documents. A CED is any piece of recorded information that has been in the hands of the enemy. CEDs include but are not limited to maps, sketches, photographs, orders, tactical and technical manuals

and instructions, code books, log books, maintenance records, shipping and packing slips and lists, war and field diaries, personal diaries, pay books, newspapers, service records, postal savings books, payrolls, postcards and letters, and any written, printed, engraved, or photographic matter that may contain information relative to the enemy and to weather and terrain data. A capturing unit is normally not able to accurately determine the potential intelligence value of any documents found on the detainee. It is therefore normally expedient to remove all documents, with the exception of the detainee's primary identification document. These documents are sealed in a waterproof container and tagged with part C of the capture tag. If capture tags are not available, the document bag must be marked at a minimum to identify the detainee to whom the documents belong.

- Personal effects. Except as provided in Step 1, detainees should be permitted to retain all of their personal effects including money; valuables; protective equipment, such as helmets, protective masks, and like items; effects and articles used for clothing or eating, except knives and forks; identification cards or tags; badges of grade and nationality; and articles having a personal or sentimental value. When items of equipment issued for the personal protection of detainees are taken from them, they must be replaced with equivalent items serving the same purpose. Although money and other valuables may be taken from detainees as a security measure, they must then be receipted for and a record thereof maintained in a special register. These administrative steps normally are not practical to accomplish prior to arrival of the detainee at an EPW camp.

STEP 2. SILENCE

10. Detainees are kept silent so that they cannot plan deception or encourage each other to resist. Keeping the detainees silent also prevents them from relieving the stress and shock of capture by talking with others. If the shock of capture is preserved, HUMINT collectors can take advantage of it in an approach. The capturing unit instructs or signals the detainees to be silent. If that does not work, the detainee is gagged. Guards give orders to detainees, but do not converse with them or give them any comfort items.

STEP 3. SAFEGUARD

11. All detainees are promptly evacuated out of the "danger" zone. Their presence may not be used to render points or areas immune to attack, nor should they be retained for participation in psychological warfare or other activities. The capturing forces must protect detainees from reprisals. Detainees will not be denied food, potable water, or appropriate clothing and shelter. Necessary medical attention will not be delayed. Those detainees held in an area should be provided protective facilities and equipment and should be oriented as to procedures to be followed in case of chemical, biological, and radiological agent attack.

STEP 4. SEGREGATE

12. The capturing unit separates officers from enlisted, senior from junior, male from female, and civilian from military within their capabilities to both guard and safeguard the detainees. (Physical segregation at this point is not always possible.) Deserters and people of different nationalities and ideologies should be further segregated. The capturing unit prepares a capture tag and puts one on each detainee (see DD Form 2745)

STEP 5. SPEED TO THE REAR

13. The capturing unit moves detainees and CEDs to the unit supply point or other area where transportation to the rear is available for evacuation. Evacuation of detainees from the combat zone should be effected within the minimum time after capture. While in the combat zone, not only may detainees become casualties as the result of enemy fire but also the fluidity of operations, the wide dispersion of units, and the austerity of facilities may necessitate their rapid evacuation.

14. The normal evacuation channel is from the detainee collection point through intermediate detainee holding areas to an internment facility at a higher echelon. Available returning transportation, however, may bypass any intermediate detainee holding area and proceed directly to a corps or theater internment facility. Detainees will then be processed directly into the corps or theater internment facility. Evacuation may be by foot, vehicle, rail, aircraft, or ship. Evacuate detainees who are litter patients through medical channels.
15. The command (brigade and above) from which the detainees are being evacuated is responsible to provide transportation and rations and for coordinating all other matters related to the evacuation. Escort guards are furnished by the command (division and above) to which the detainees are being evacuated.

STEP 6. TAG
16. When the detainees have been searched and segregated, the capturing unit prepares a capture tag and puts one on each detainee. It is very important that the capturing unit fill out the Capture Tag as accurately and completely as possible. HUMINT collectors will use the information from the tag when preparing to interrogate detainees. The "capturing unit" and "location of capture" information will be used to provide direct feedback to the capturing unit when information of immediate tactical value is obtained. Each EPW tag has a different serial number used for the purpose of accountability and cannot be reproduced. The EPW tag is perforated into three parts: Part A is attached to the detainee, Part B is retained by the capturing unit, and Part C is attached to the detainee's property (see DD Form 2745).

DOCUMENT HANDLING
DOCUMENTS FOUND ON ENEMY PRISONER OF WAR (EPWs)
17. The battalion S2 and subordinate unit commander ensure that CEDs found on detainees are handled as follows. The capturing unit will—
- Search each detainee.
- Return identification documents to detainees. It may be preferable to return only one identity document, to preclude the detainee from spreading extras around to cause confusion. The preferred ID document to return to the detainee is a picture ID (such as a military or government ID card). If the detainee has several identification documents, the S2 returns the ID that most accurately reflects the detainee's official status. This might be a military ID for a soldier and a passport or government-issue ID for a civilian. If the detainee has several identification documents with different names, this may be an indicator of CI interest. The S2 notifies the nearest Counter Intelligence (CI) unit.
- Write the following on the top and bottom half of the EPW capture tag: Number of documents taken, date and time, location and circumstances of capture, capturing unit's designation.
- Put CEDs in a waterproof bag, one per detainee.
- Affix Part C of the capture tag to the bag.
- Give CEDs to the senior escort.
- Direct the senior escort to evacuate CEDs with the detainee.

DOCUMENTS FOUND IN THE AO
18. An example of CEDs found in the AO is paperwork discovered in an overrun CP, but not on a detainee. The capturing unit will—
- Put CEDs in a waterproof bag.
- Follow the same procedures described above, and tag the bag.
- Evacuate the CEDs to the battalion S2.
- Evacuate all CEDs as dictated by Annex B of the OPORD. This is normally through the MI chain (for example, from Battalion S2 to Brigade S2, to the first HUMINT collection or DOCEX unit in the MI chain). The S2 normally coordinates with the S4 for the use of supply vehicles returning empty to the rear for the transportation of large numbers of documents.

INITIAL DOCUMENT EXPLOITATION

19. A combat unit without language-qualified personnel can perform limited battlefield DOCEX, mainly on maps and overlays. The unit S2 is normally responsible for any initial exploitation by the capturing unit. The S2 safeguards the items pending disposition. At the same time he—

- Looks over the document.
- Does not mark or harm it in anyway.
- Uses whatever resources are available to decipher it; for example, dictionaries and enemy map symbol guides.
- Looks for information that has a direct bearing on his current mission.

20. The S2 extracts the combat information and uses the SALUTE format as a template to organize the information.

EQUIPMENT HANDLING PROCEDURES

21. CEE includes all types of foreign materiel found on a detainee or in the AO that may have military application. The capturing unit—

- Always permits the detainee to keep protective equipment and equipment for his personal well being unless this gear is replaced by equivalent items by the capturing unit. This equipment includes helmet, CBRN gear, mess gear (excluding knife and fork).
- Disposes of equipment in accordance with unit SOPs and instructions in Annex B of the OPORD. Most routine equipment is normally destroyed in place. Unusual or new equipment or equipment identified as being of technical intelligence is tagged with a CEE tag (Part C of DD Form 2745) and evacuated to the nearest technical intelligence unit. Communications equipment is also tagged and evacuated to the nearest signals intelligence unit.
- Identifies equipment that cannot be easily evacuated; its location is passed through intelligence channels to the nearest unit that will be involved in its exploitation.

FIELD-EXPEDIENT TAGGING PROCEDURES

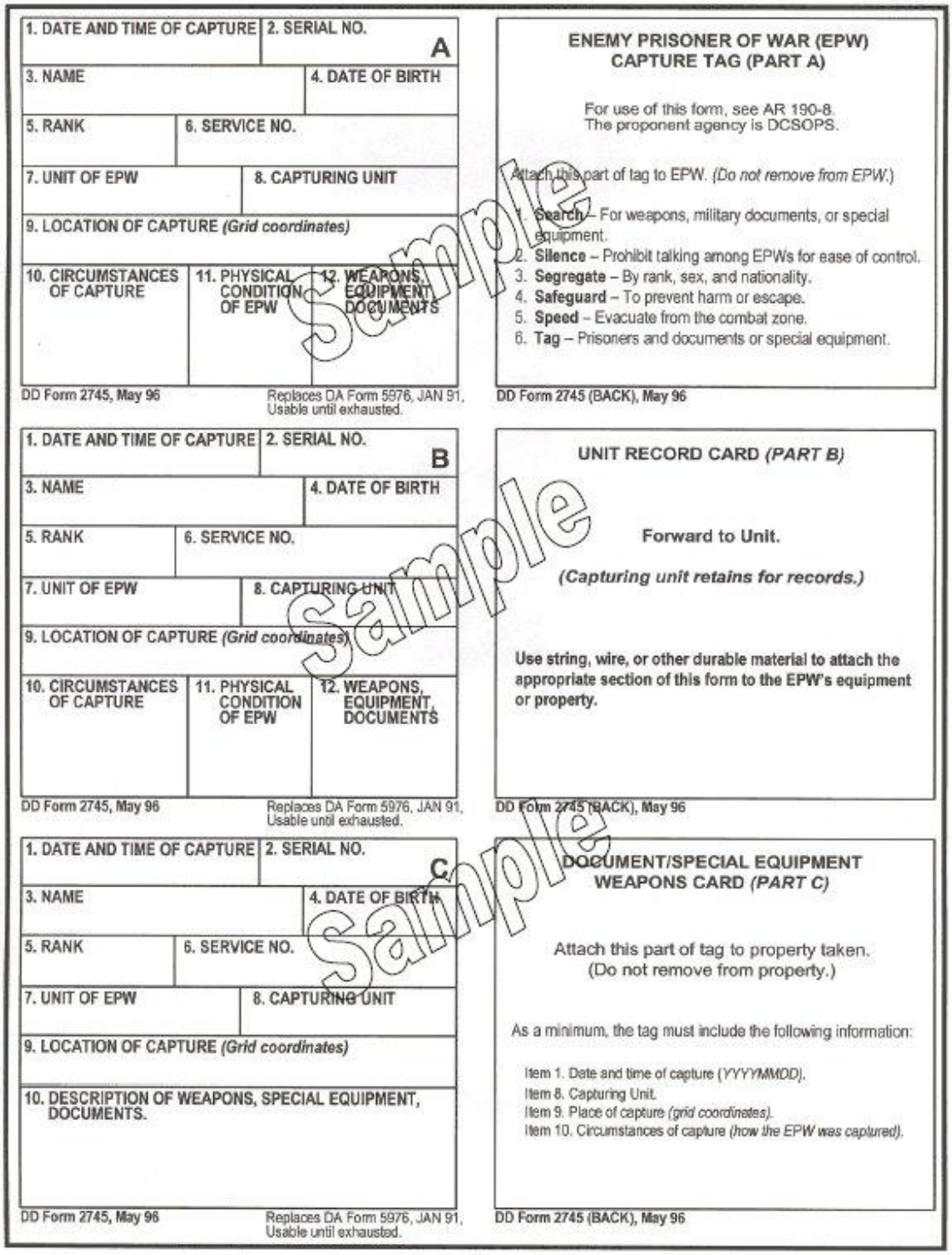
22. When no standard tag forms are available, the following field-expedient methods may be used:

- Use meals, ready-to-eat (MRE) cardboard or other type of paper.
- Write the capturing unit's designation.
- Write data and time of capture.
- Write POC coordinates.
- Write circumstances of capture.
- Identify EPW, captured document, or equipment captured.
- Put tag, without damaging the CED, in a waterproof bag.
- Attach EPW and CEE tags so they will not come off.

MEDICAL CARE

23. Medical equipment and supplies to permit the administering of emergency first aid should be available at each EPW collecting point and EPW holding area. A qualified medical retained person, if available, may administer first aid to other detainees. All detainees suspected of having communicable diseases are isolated for examination by a medical officer. Wounded detainees may be questioned by intelligence personnel once the detainees are cleared by competent medical authority for questioning.

24. For evacuation purposes, detainees may be classified as walking wounded or sick, or as non-walking wounded or sick. Walking wounded detainees are evacuated through MP EPW evacuation channels. Non-walking wounded are delivered to the nearest medical aid station and evacuated through medical channels.



1. DATE AND TIME OF CAPTURE | 2. SERIAL NO. — A
3. NAME | 4. DATE OF BIRTH
5. RANK | 6. SERVICE NO.
7. UNIT OF EPW | 8. CAPTURING UNIT
9. LOCATION OF CAPTURE *(Grid coordinates)*
10. CIRCUMSTANCES OF CAPTURE | 11. PHYSICAL CONDITION OF EPW | 12. WEAPONS, EQUIPMENT, DOCUMENTS

DD Form 2745, May 96 — Replaces DA Form 5976, JAN 91, Usable until exhausted.

ENEMY PRISONER OF WAR (EPW) CAPTURE TAG (PART A)

For use of this form, see AR 190-8. The proponent agency is DCSOPS.

Attach this part of tag to EPW. *(Do not remove from EPW.)*

1. **Search** – For weapons, military documents, or special equipment.
2. **Silence** – Prohibit talking among EPWs for ease of control.
3. **Segregate** – By rank, sex, and nationality.
4. **Safeguard** – To prevent harm or escape.
5. **Speed** – Evacuate from the combat zone.
6. **Tag** – Prisoners and documents or special equipment.

DD Form 2745 (BACK), May 96

1. DATE AND TIME OF CAPTURE | 2. SERIAL NO. — B
3. NAME | 4. DATE OF BIRTH
5. RANK | 6. SERVICE NO.
7. UNIT OF EPW | 8. CAPTURING UNIT
9. LOCATION OF CAPTURE *(Grid coordinates)*
10. CIRCUMSTANCES OF CAPTURE | 11. PHYSICAL CONDITION OF EPW | 12. WEAPONS, EQUIPMENT, DOCUMENTS

DD Form 2745, May 96 — Replaces DA Form 5976, JAN 91, Usable until exhausted.

UNIT RECORD CARD *(PART B)*

Forward to Unit.

(Capturing unit retains for records.)

Use string, wire, or other durable material to attach the appropriate section of this form to the EPW's equipment or property.

DD Form 2745 (BACK), May 96

1. DATE AND TIME OF CAPTURE | 2. SERIAL NO. — C
3. NAME | 4. DATE OF BIRTH
5. RANK | 6. SERVICE NO.
7. UNIT OF EPW | 8. CAPTURING UNIT
9. LOCATION OF CAPTURE *(Grid coordinates)*
10. DESCRIPTION OF WEAPONS, SPECIAL EQUIPMENT, DOCUMENTS.

DD Form 2745, May 96 — Replaces DA Form 5976, JAN 91, Usable until exhausted.

DOCUMENT/SPECIAL EQUIPMENT WEAPONS CARD *(PART C)*

Attach this part of tag to property taken. (Do not remove from property.)

As a minimum, the tag must include the following information:

Item 1. Date and time of capture (*YYYYMMDD*).
Item 8. Capturing Unit.
Item 9. Place of capture *(grid coordinates)*.
Item 10. Circumstances of capture *(how the EPW was captured)*.

DD Form 2745 (BACK), May 96

Sample
Sample
Sample

DD Form 2745 (Enemy Prisoner of War Capture Tag)

SECTION VIII – HAND GRENADE
(TC 3-23.30, Grenades & Pyrotechnics, NOV13)

Perform Safety Checks on Hand Grenades

Conditions: Given any standard issue U.S. hand grenade with extra safety clips and load-carrying equipment (LCE).

Standards: Inspect the grenade for defects; identify and correct defects, if possible. Report and turn in grenades that have defects you cannot correct. Identify each grenade by type, and correctly attach grenades to your ammunition pouch.

1. Identify the grenades listed in table 071-325-4401-1 by type, color, markings, and usage.

Table 071-325-4401-1. Hand grenades

TYPE	COLOR/MARKINGS	USAGE
M67 Fragmentation	OD with yellow marking.	To disable or kill personnel. Will explode 4 to 5 seconds after the safety lever is released.
M18 Colored smoke	OD with color of smoke on top.	To signal personnel.
M34 WP Smoke	Light green, yellow band, red marking. "OLD MARKING" light gray, yellow band, yellow printing.	To signal personnel. Can produce casualties up to 35 meters away.
AN-M8 HC Smoke	Light green, black marking, white top.	To screen, "provide concealment."
AN-M14 TH3 Incendiary	Light red with black lettering.	To destroy equipment and start fires.
ABC-M25A2 CS Riot Control	Gray, red band(s) and markings.	To control riots or disable individuals without serious injury.

2. Inspect hand grenades for defects. Correct defects, if possible.
   a. Check the fuse to ensure that it is screwed tightly onto the body of the grenade.
   b. Check the safety clip to ensure that—
      (1) It is present.
      (2) It is in the correct position.
   c. Replace safety clips (only if missing).
      (1) Slide the clip onto the handle.
      (2) Attach the loop portion of the clip around the fuse.
      (3) Snap the clip end around the safety lever.
   d. Check the safety pin.
      (1) Ensure that the clip is in the correct position. If not, carefully push it into place while holding down the safety lever.
      (2) Ensure that the clip is straight (not bent). If it is bent, carefully bend it back in position.
   e. Check the safety ring for cracking. Reject any grenade that has a cracked safety ring.
   f. Check the grenade for dirt. Wipe any dirty or grimy grenade clean with a cloth.
   g. Turn in any defective grenade.

WARNING
•Never attempt to modify a grenade.
•Never attempt to defuse a grenade.
•Never attempt to remove a grenade found upside down in its packing container.
•Never handle a dud grenade.
•Never attach grenades to clothing or equipment by the pull ring.

3. Attach the grenade to an ammunition pouch.
   a. Attach the grenade to the new style pouch.
      (1) Slip the grenade safety lever over the small strap sewn on each side of the ammunition pouch.
      (2) Push the grenade down until it firmly seats against the side of the pouch.
      (3) Ensure that the pull ring points downward.
      (4) Wrap the carrying strap around the fuse, safety lever, and pull ring.
   b. Attach the grenade to the old-style pouch.
      (1) Slip the safety lever over the strap sewn on each side of the pouch. Push down the grenade until it firmly seats against the side of the pouch.
      (2) Ensure the pull ring points downward, and wrap the carrying strap around the fuse, safety lever, and pull ring.

4. Check grenades occasionally while moving to ensure that the fuse is tight and the strap is secure.

Employ Hand Grenades

Conditions: Given load-carrying equipment (LCE) and an offensive (concussion), riot-control, smoke, or incendiary grenade with a time-delayed fuze.

Standards: Throw the hand grenade to hit a target. Avoid exposing, and thus endangering, yourself for more than 5 seconds at a time.

1. Position your body in a comfortable and natural position.
    a. Make sure you are in a covered position.
    b. Look at the target and judge the distance to the target.
    c. Align your body with the target as if you were going to throw a football or baseball.
    Note: This is body-target alignment.

2. Grip the hand grenade as follows:
    a. Hold the safety lever down with your thumb.
    b. Keep the pull ring and safety clip (if present) free, and face it towards your throwing hand.

3. Arm the grenade.
    a. Remove the safety clip.
    Note: Hold the safety lever down with your thumb. This keeps the pull ring and safety clip free and facing your non-throwing hand.
    b. Insert index finger in the pull ring and rotate 90 degrees to disengage the ring from the confidence clip.
    c. Pull the pin.

4. Confirm your body-target alignment.
    a. TARGET: Troops in the open. EFFECTIVE ENGAGEMENT: Within 5 meters of center.
    b. TARGET: Troops with overhead cover. EFFECTIVE ENGAGEMENT: Inside the enclosure.
    c. TARGET: Troops dug in without overhead cover. EFFECTIVE ENGAGEMENT: Inside the position.

5. Toss the grenade using an overhand movement. Release the grenade when it comes into your field of vision ensuring that you—
    a. Keep your eyes on the target.
    b. Follow through your throwing motion.
    c. Take cover, exposing yourself to fire for no more than 5 seconds.

6. Return to the position behind cover until the grenade detonates, and avoid exposing yourself for more than 5 seconds at a time.

7. Detonate the grenade within the effective bursting radius of the target.

SECTION IX - CBRN
(STP 21-1-SMCT SEP12; STP 21-1-24 SMCT SEP09)

Chemical Biological Radiological and Nuclear (CBRN) is a committee at CST which will train Cadets on CBRN Tasks and to develop confidence in the protective mask. Given appropriate training area with CS Chamber and appropriate equipment, Cadets will train on select BOLC A Tasks IAW the CST Master Training Schedule and develop a Situational Training Exercise that tests the Cadets CBRN skills in a physically challenging environment (Cobalt Challenge). Cadets correctly wear, operate and have confidence in their CBRN Clothing and equipment and appreciate the leadership challenges and constraints associated with operating in a CBRN environment.

NBC 1 (Initial Observers Report)

B- Position of Observer
D-Date/Time of Attack
(Zulu, Local, or Letter Zone)
H-Type of Agent
C-Azimuth of Attack from Observer
or
F-Location of Attack
(State Estimated or Actual)

MOPP Levels

MOPP 0- All Gear Carried
MOPP 1- Over Garments (OG)Worn
MOPP 2- O.G, Boots Worn
MOPP 3- O.G, Boots, Mask Worn
MOPP 4- O.G, Boots, Mask, Gloves Worn

React to CB Hazard

- Stop, Don Protective Mask, Sound Alarm
- Seek Cover, Go to MOPP 4, Decontaminate exposed skin
- Detect CB Hazards with available detection equipment
- Compile NBC 1 Report, send report higher
- Conduct Self / Buddy Aid (if necessary)
- Continue with mission

Use M8 Detector Paper

- Before use, ensure in MOPP 4
- Find stick, check stick to ensure no contamination
- Affix M8 Paper to stick for sampling
- Sample possible contamination with M8
  - Check for paper color change
  - Use M8 booklet as key to determine type of agent (color change
- Use info for NBC 1 Report

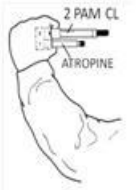
Mild Symptoms Of Nerve Agent Poisoning

1. Unexplained Runny Nose
2. Unexplained Sudden Headache
3. Excessive Flow Of Saliva (Drooling)
4. Tightness Of Chest, Causing Breathing Difficulties
5. Difficulty Seeing (Blurred Vision)
6. Muscular Twitching Of Exposed Contaminated Skin
7. Stomach Cramps
8. Nausea

Severe Symptoms Of Nerve Agent Poisoning

1. Strange And Confused Behavior
2. Gurgling Sounds Made When Breathing
3. Severely Pinpointed Pupils
4. Red Eyes With Tearing
5. Vomiting
6. Severe Muscular Twitching
7. Loss Of Bladder And/Or Bowel Control
8. Convulsions
9. Unconsciousness Or Stoppage Of Breathing

First Aid for Nerve Agent Poisoning with NAAK Kit

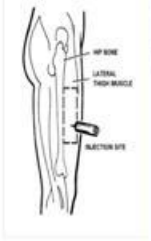


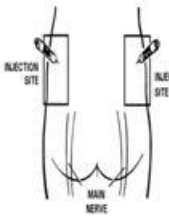
Remove one set of atropine injectors. Hold injector by plastic clip, with other hand check injection site to avoid buttons and objects in pockets.

Grasp small injector without covering the needle end and pull out of the clip. Hold injector between thumb and first two fingers. Place the needle end of the injector against the injection site. And hold in place for at least ten seconds.

First Aid for Nerve Agent Poisoning with NAAK Kit

The injection can be given in any part of the lateral thigh muscle from about a hand's width above the knee, and a hand's width below the hip joint.

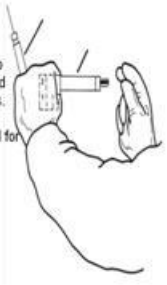




Very thin soldiers should Give the injection in the upper outer quarter of the buttocks. Ensure location is correct to avoid hitting the major nerve which crosses the buttocks, which could cause paralysis

First Aid for Nerve Agent Poisoning with NAAK Kit

Remove the first injector from your muscle and place between two fingers, grasp the large injector, hold between thumb and first two fingers. Place needle end of the injector against outer thigh muscle and hold for ten seconds.



Secure the used injectors, push the needle of each used injector through one of the pocket flaps of the protective over-garment.

First Aid for Nerve Agent Poisoning with NAAK Kit

CHAPTER 8 – TACTICS

SECTION I – UNIT LEADER RESPONSIBILITIES

1. Patrol Leader Responsibilities

a. Make the plan
b. Unit rehearsals
c. Final inspections
d. Develop the timeline
e. Assault element
f. Moves after 1st squad
g. OPORD PARA 2 and 3
h. Mission accomplishment
i. Salute report
j. Actions on the objective
k. Leader's Recon
l. Designating % security

2. Assistant Patrol Leader Responsibilities

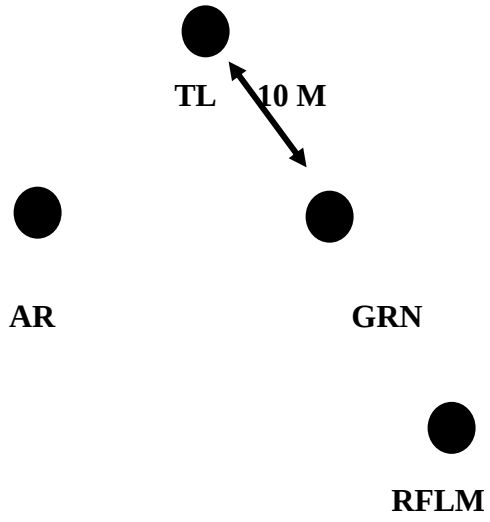
a. Making it happen
b. Special team rehearsals
c. Initial inspection
e. Enforcing timeline
f. Support element
g. OPORD PARA 4
h. ACE report
i. Consolidation and reorganization
j. ORP activities
k. Making security roster
l. Accountability
m. Maintenance
n. Patrol base activities
o. Stand-to
p. Soldier care issues
q. Packing list
r. Correcting breaks in contact
s. Noise and light discipline
t. Coordination for movement

SECTION II – MOVEMENT(SQD LFX)
(FM 3-21.8 Chap 3 MAR07)

Movement Formation	When Most Often Used	CHARACTERISTICS			
		Control	Flexibility	Fire Capabilities and Restrictions	Security
Fire team wedge	Basic fire team formation	Easy	Good	Allows immediate fires in all directions	All-round
Fire team file	Close terrain, dense vegetation, limited visibility conditions	Easiest	Less flexible than wedge	Allows immediate fires to the flanks, masks most fires to the rear	Least

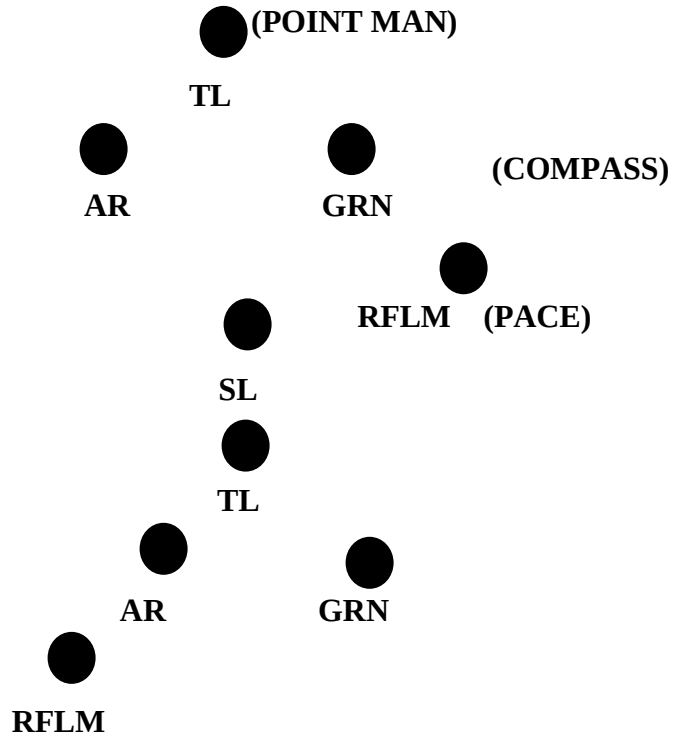
- Team Leader (TL)
- Auto Rifleman (AR)
- Grenadier (GRN)
- Rifleman (RFLM)

Fire Team File

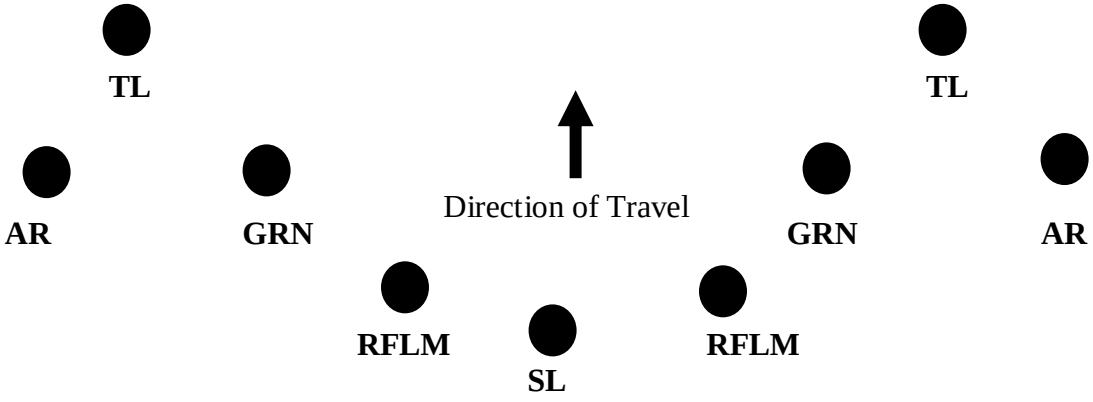


Fire Team Wedge

Movement Formation	When Most Often Used	CHARACTERISTICS			
		Control	Flexibility	Fire Capabilities and Restrictions	Security
Squad column	The main squad formation	Good	Aids maneuver, good dispersion laterally and in depth	Allows large volume of fire to the flanks but only limited volume to the front	All-around
Squad line	For maximum firepower to the front	Not as good as squad column	Limited maneuver capability (both fire teams committed)	Allows maximum immediate fire to the front	Good to the front, little to the flank and rear
Squad file	Close terrain, dense vegetation, limited visibility conditions	Easiest	Most difficult formation to maneuver from	Allows immediate fire to the flanks, masks most fire to the front and rear	Least



Squad Column, Fire Teams in Wedge



Squad Line

SQUAD FILE

TL

SL (OPTIONAL)

AR

GRN

RFLM

SL

TL

AR

GRN

TL (OPTIONAL)

RFLM

TRAVELING

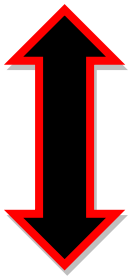
TEAM LEADER
(POINTMAN)

AUTOMATIC RIFLEMAN

GRENADIER
(COMPASS)

RIFLEMAN
(PACE)

ENEMY CONTACT UNLIKELY
TEAMS CLOSE TOGETHER
SPEED ESSENTIAL



SQUAD LEADER

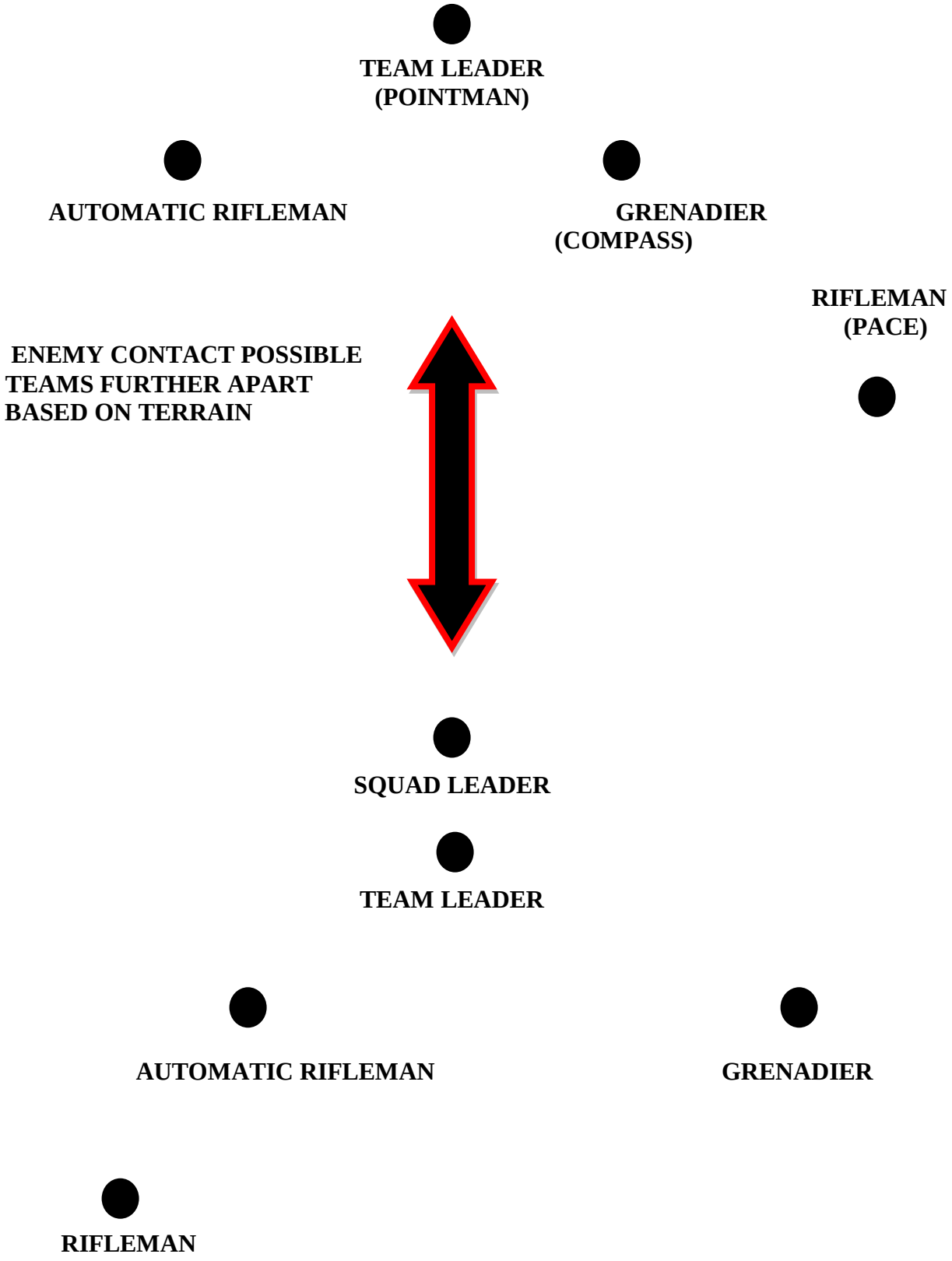
TEAM LEADER

AUTOMATIC RIFLEMAN

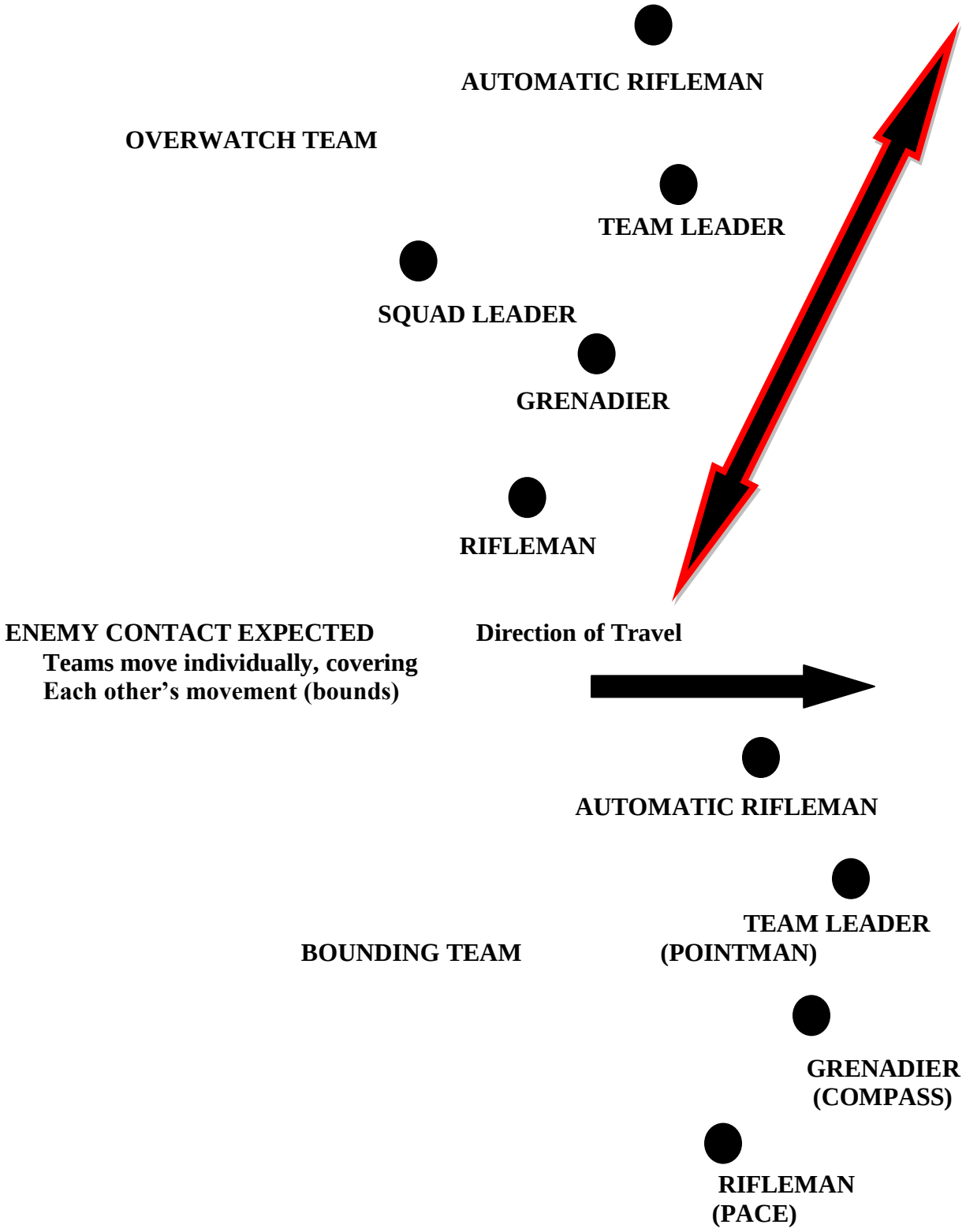
GRENADIER

RIFLEMAN

TRAVELING OVERWATCH



BOUNDING OVERWATCH



PRINCIPLES OF URBAN MOVEMENT

1. Readjust your security. Maintain three-dimensional (air, ground, below ground) situational awareness.

2. Look for your next covered position and know where you are going before you leave your current covered position. This should be coordinated with the overwatching team.

3. When initially breaching into a building, immediately secure the initial room and strong point any opening into that room. When fighting building-to-building or breaching interior walls, do not allow your fire team to be separated by more than one room.

4. When your team is the lead team in the order of movement, you will have to provide your own long security if you move down the street to reach your next covered position.

5. Before your team can move to its next position or building, you must engage threat targets on the opposite side of the street. Once this has been accomplished, you are ready to move to your next position.

6. Have a plan before moving. Plans may be in the form of a unit's SOP.

7. Coordinate movements within your team to maintain security and firepower.

8. Maintain contact with and coordinate movements with the adjacent fire team.

9. Overwatch / sniper teams may be used to cover your team's movement if the tactical situation permits.

- When used, overwatch/sniper teams should be employed on the second or third floors of buildings to give teams maximum overwatch of the fire teams/squads.
- The overwatch/sniper teams should not go higher than the second or third floors. Remaining at these levels allows the team to get out of the building quickly should overwhelming enemy forces close in on their position.
- Take steps to ensure that the overwatch/sniper teams do not have a break in contact with the main assault force. This is especially critical and crucial while the fire teams/squad are crossing intersections or performing turning movements.

10. If overwatch/sniper teams are used during fire team movements, the forward fire team should set up a new overwatch/sniper position when the overwatch/sniper team to the rear can no longer effectively provide cover. The rear overwatch/sniper team falls into the moving fire team and continues to move with the assault force. Caution should be used to ensure that the assault force elements do not have a break in contact. (**Note**: This technique can slow the assault force momentum.)

11. Disperse crew-served weapons among the assault force. When enemy fire is received, the crew-served weapons engage/suppress enemy fire so that the remainder of the force can continue to maneuver. Employ the 40-mm grenade launcher in the same fashion.

12. The crew-served weapons should provide outer security on the objective.

13. During night operations white light should be used sparingly while outside the objective buildings. White light will only mark your position for the enemy. The use of night vision goggles (NVG) and infrared (IR) sighting systems will reduce your signature, making it more difficult for the enemy. These pieces of equipment must be used during training to maintain proficiency. Use IR strobe lights to mark buildings that are strong-pointed for identification by close air support (CAS) aircraft and attack aviation. However, ensure that you are able to retrieve the strobe before you move out: once CAS aircraft / attack aviation identify the friendly positions, the surrounding area of operations becomes a free-fire zone.

SECTION III – CROSSING DANGER AREAS
(FM 3-21.8 Pg 3-3, 3-33 thru 3-37 MAR07)

Danger Area - Any area on the planned route where the terrain exposes the platoon to enemy observation, fire or both. The patrol should avoid danger areas. When the unit must cross a danger area it should do so quickly and carefully.

Examples:

-OPEN AREAS
-ROADS & TRAILS
-VILLAGES
-ENEMY POSITIONS
-MINEFIELDS
-STREAMS
-WIRE OBSTACLES

Crossing Danger Areas Process

1) Designate Near and Far Side Rally Points
2) Secure the Near Side
3) Recon and Secure the Far Side
4) Cross the Danger Area

PERFORMANCE MEASURES:

a. When the lead team signals "danger area" (relayed throughout the platoon), the platoon halts.

b. PL moves forward, confirms the danger area, and determines what technique the platoon will use to cross. PSG also moves forward to the PL.

c. The PL informs all SLs of the situation & the near-side & far-side rally points.

d. PSG directs positioning of the near-side security (usually conducted by the trail squad). These two security teams may follow him forward when the platoon halts and a danger area signal is passed back.

e. PL recons the danger area and selects crossing point that provides best cover and concealment.

f. Near-side security observes to the flanks and overmatches the crossing.

g. When near-side security is in place, PL directs the far-side security team to cross the danger area.

h. The far-side security team clears the far side.

i. The far-side security team leader establishes an observation post forward of the cleared area.

j. Far-side security team signals to the SL that the area is clear. SL relays the message to the PL.

k. PL selects the method to cross the danger area.

l. Platoon quickly and quietly crosses the danger area.

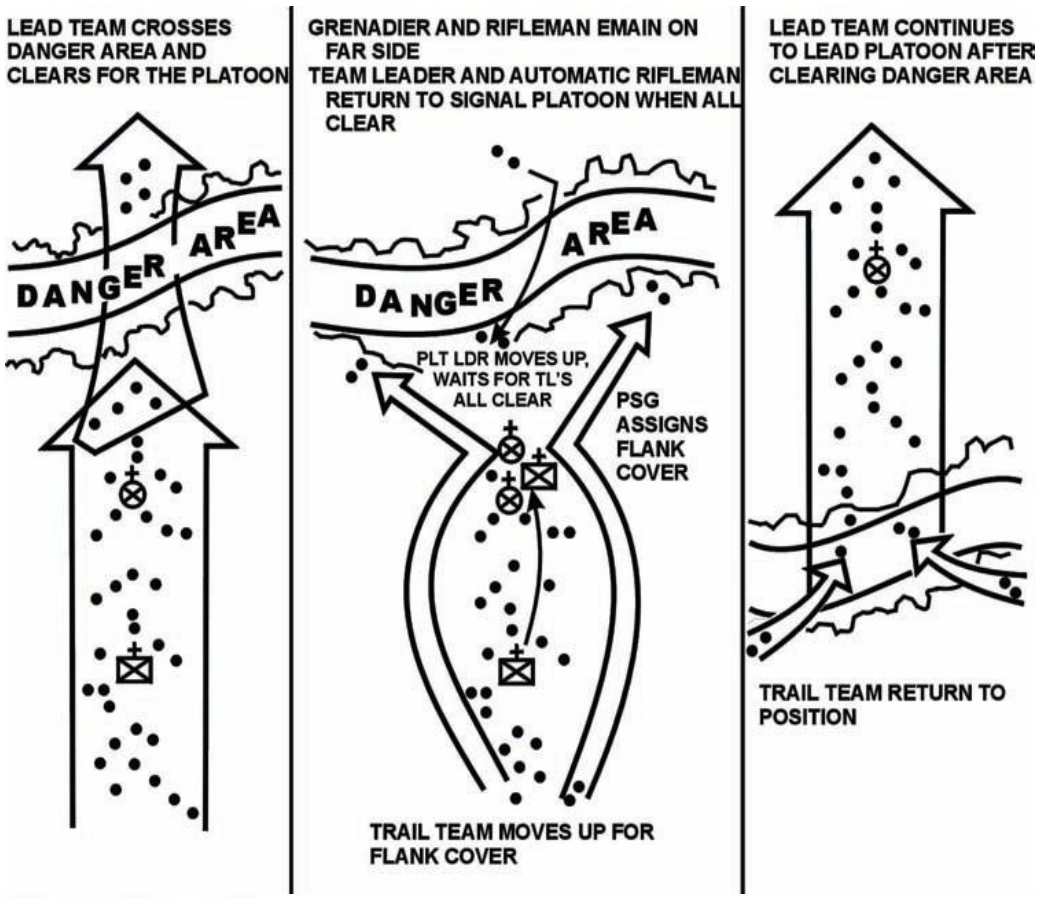
m. Once across the danger area, the main body begins moving slowly on the required azimuth.

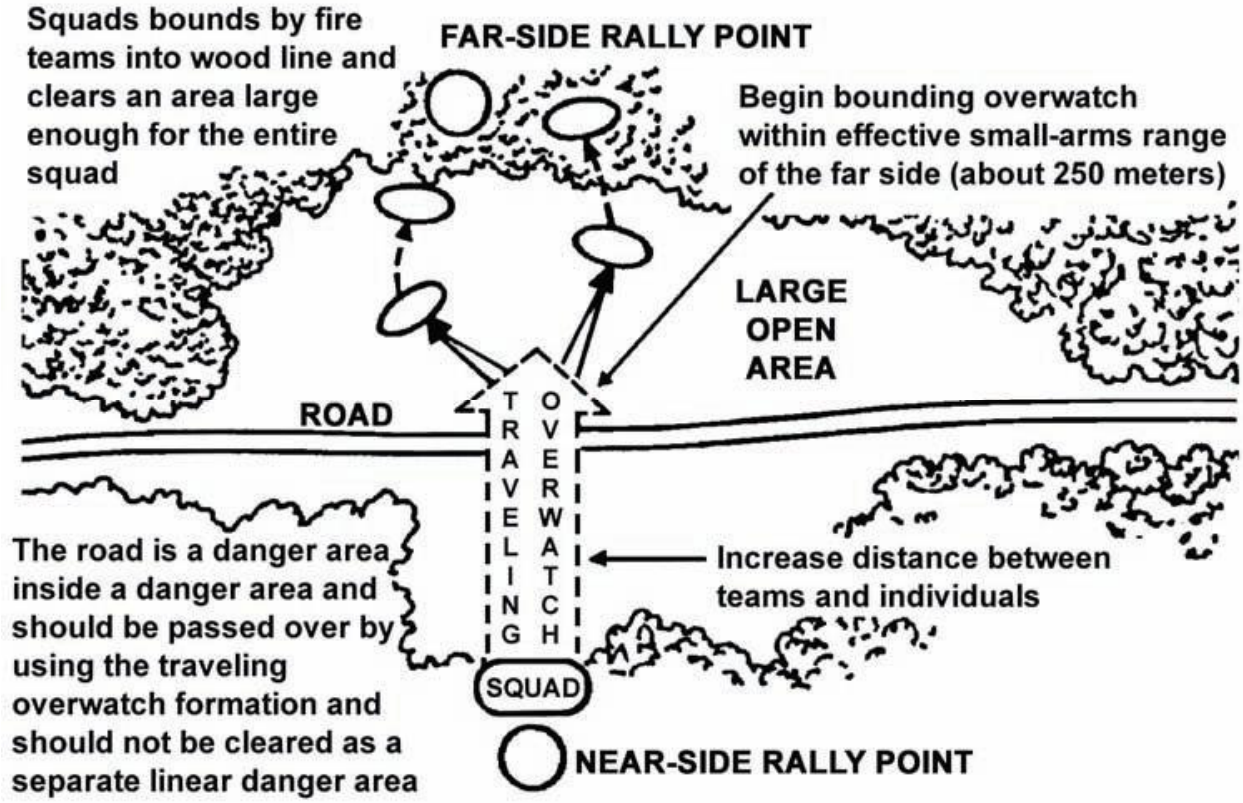
n. The near-side security element, controlled by the PSG, crosses the danger area where the platoon crossed. They may attempt to cover any tracks left by the platoon.

o. The PSG ensures everyone crosses & submits report.

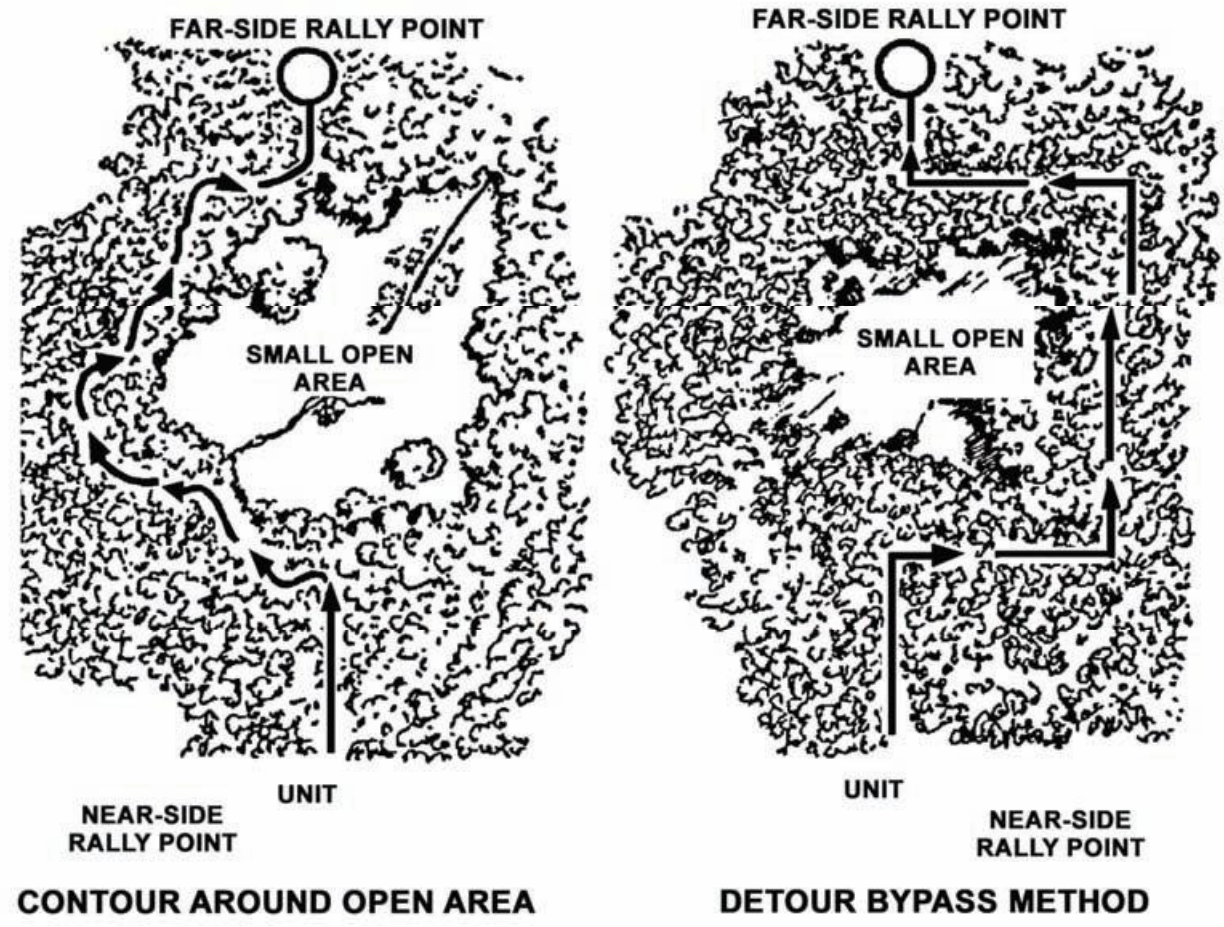
p. The PL ensures accountability & resumes movement.

Crossing a Linear Danger Area





Crossing an Open (Danger) Area



SECTION IV - PATROLLING
(FM 3-21.8 Pg 9-1 thru 9-4 MAR07)

Patrols are organizations, not missions, sent out by a larger unit to conduct a specific combat, reconnaissance or security mission. Their organization is temporary and specifically matched to the immediate task. Upon completion of that task, the patrol returns to friendly lines (the main body), reports to the commander and describes the events that took place, the status of the patrol's members and equipment and any observations.

1. Two Types of Patrols
   a. Combat (Raid, Ambush, Security)
   b. Reconnaissance (Area, Route, Zone, Point)

2. Initial Planning & Coordination/Considerations -Begin with TLP and an estimate of the situation. Identify required actions on the OBJ, backward plan to the departure from friendly lines, then forward to reentry. Consider:
   a. Changes or updates in the enemy situation.
   b. Best use of terrain for routes, RPs & patrol bases.
   c. Light and weather data.
   d. Changes in the friendly situation.

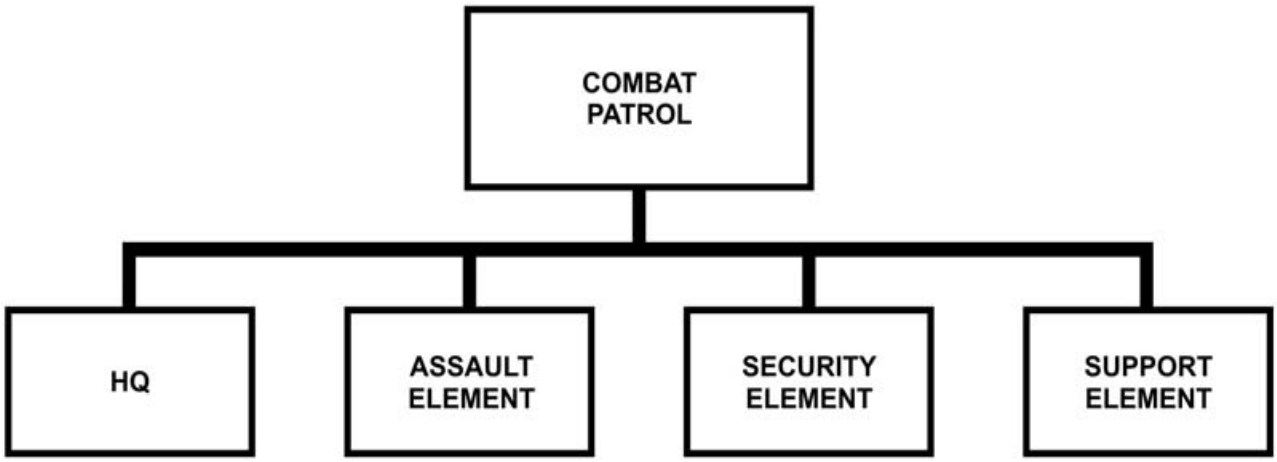
e. Attachment of Soldiers with special skills or equipment.
f. Use and location of landing or pickup zones.
g. Fire support on the objective and along the route.
h. Rehearsals (terrain should be similar to the OBJ).
i. Special equipment and ammunition requirements.
j. Transportation support.
k. Signal plan (call signs, frequencies, code words, pyro).

A patrol is organized to perform specific tasks. It must secure itself, navigate accurately, identify and cross danger areas, reconnoiter the patrol objective, conduct detailed searches and deal with casualties and prisoners or detainees. As part of the planning process, the patrol leader identifies those tasks the patrol must perform and decides which of the patrol's elements will implement them. He should maintain squad and fire team integrity, with squads and fire teams often performing more than one task.

1. Common Patrol Organization
   -Headquarters Element (PL, APL, RTO, FO, additional mission required patrol attachments)
   -Aid and Litter Team(s)
   -Enemy POW/Detainee Team(s)
   -Surveillance Team(s)
   -En Route Recorder
   -Compass and Pace Man
   -Assault Team(s)
   -Support Team(s)
   -Breach Team(s)
   -Search Team(s)

2. Combat Patrols (FM 3-21.8 Pg 9-2 & 9-14 MAR07) -Provide security and harass, destroy or capture enemy troops, equipment or installations. When the commander gives a unit the mission to send out a combat patrol, he intends for the patrol to make contact with the enemy and engage in close combat.
   Three Types:
   -Raid
   -Ambush
   -Security

3. 5 Principles of Patrolling NEVER VIOLATE ANY OF THEM!
   1. Planning
   2. Reconnaissance
   3. Security
   4. Control
   5. Common Sense



Combat Patrol Structure

SECTION V – RAID
(FM 3-21.8 Pg 9-7, 9-8, 9-10 MAR07; FM 3-21.10 pg 8-41 JUL06)

A surprise attack against a position or installation for a specific purpose other than seizing/holding terrain. Destroy a position or installation, destroy or capture enemy soldiers or equipment or free prisoners. Retain terrain long enough to accomplish the intent. Always end w/ planned withdrawal off the OBJ & return to main body.

Characteristics
- -Destruction of key systems or facilities (ex. C2 nodes).
- -Provide or deny critical information.
- -Secure hostages or prisoners.
- -Confuse the enemy or disrupt his plans.
- -Conducted in enemy controlled territory, often against an enemy of equal or greater strength.

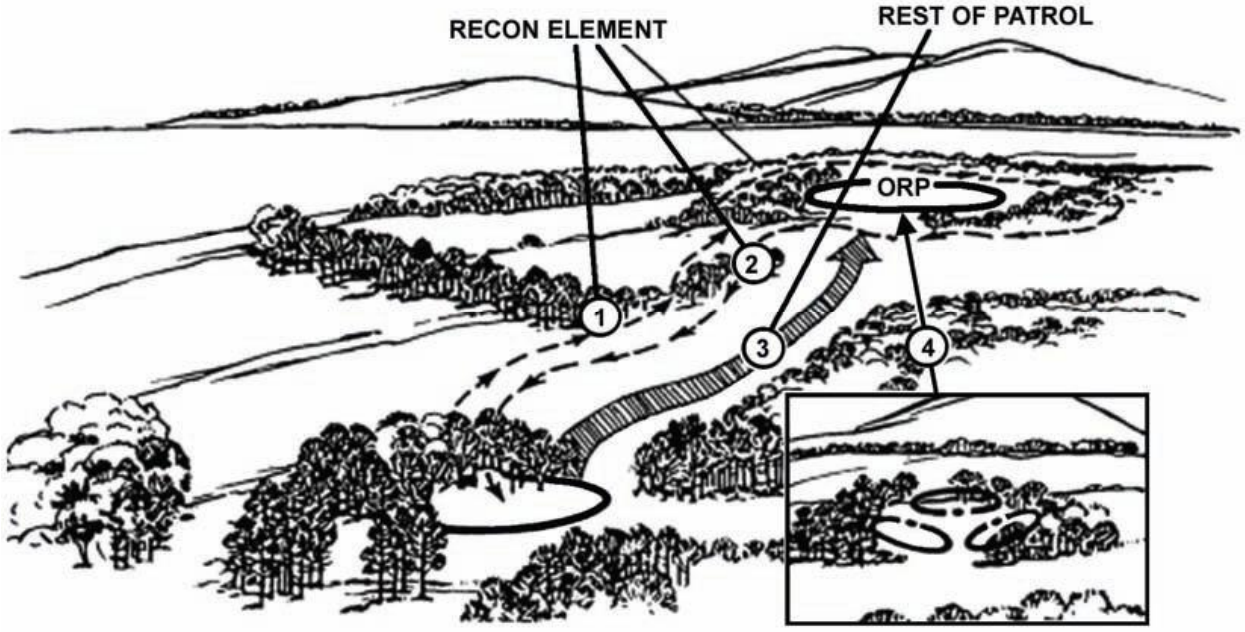
Successful Execution
- -Unexpected time/place, limited visibility, movement over terrain the enemy thinks impassable.
- -Avoiding detection through movement techniques, skillful camouflage and concealment.
- -Timing the operation's phases as closely as possible.
- -Using all available support (including special weapons)
- -Focus full combat power at the decisive time and place.
- -Disengage quickly upon mission completion.
- -Withdraw along planned routes and include deception.

Planning Considerations
- -Ensure the unit retains the element of surprise.
- -Extraction/withdrawal plan developed and coordinated to ensure unit's survival executing raid.
- -Fire support plan complex (depends on raid's depth).
- -Requires more detailed intelligence of the objective.

Conduct a Raid (FM 3-21.10 Pg 8-43 JUL06; FM 3-21.8 Pg 9-10 MAR07) - The unit moves to the ORP, secures it and sends out a leaders' recon. Once the recon confirms the plan, teams move to their positions and isolate the OBJ. The patrol assaults the OBJ, completes the raid and reassembles at the ORP before tactically moving a safe distance away to recognize and disseminate information. The patrol then returns to friendly lines/the main body.

Objective Rally Point (FM 3-21.8 Pg 9-6 MAR07) - A point out of sight, sound and small-arms range of the objective area. It is normally located in the direction that the platoon plans to move after completing its actions on the objective. The ORP is tentative until the objective is pinpointed (see Figure). Actions at or from the ORP include—

-Issuing a final FRAGO.
-Disseminating info from recon if contact was not made.
-Making final preparations before continuing operations.
-Accounting for Soldiers & equip. after actions at the OBJ.
-Reestablishing CoC after actions at the OBJ.



1. RECON ELEMENT MOVES TO CHECK ORP
2. TWO SOLDIERS FROM RECON ELEMENT RETURN TO LEAD THE REST OF PATROL TO ORP
3. REMAINDER OF SOLDIERS RETURN TO ORP
4. UNIT SETS UP A PERIMETER FO R SECURITY

Leader's Recon Patrol (FM 3-21.8 Pg 9-23, 28, 29 MAR07) - Reconnoiters the objective just before an attack or prior to sending elements forward to locations where they will support by fire. It confirms the condition of the objective, gives each subordinate leader a clear picture of the terrain where he will move, and identifies any part of the objective he must seize or suppress. The leader's reconnaissance patrol can consist of the unit commander or representative, the leaders of major subordinate elements, and (sometimes) security personnel and unit guides. It gets back to the main body as quickly as possible. The leader must accomplish three things during this reconnaissance: pin point the objective and establish surveillance (using short term vantage points and longer term observation points to conduct surveillance until the main body moves forward), identify a release point and follow-on linkup point (if required), and confirm the observation plan. The commander issues a five-point contingency (GOTWA):

-G Going - where is leader going?
-O Others - what others are going w/ him?
-T Time (duration) how long leader gone?
-W What do we do if leader fails to return?

-A Actions - what actions do the departing reconnaissance element and main body plan to take on contact?

Raid Actions on the Objective (FM 3-21.10 Pg 8-40 JUL06 - Patrol Leader initiates with fires onto the objective from support and assault elements. Once the OBJ is suppressed the support team shifts/lifts its fire and the assault team conducts a rapid and violent assault through the OBJ. The following actions occur:

-Cross OBJ, Killing Enemy & Removing Weapons
-Teams Pull Back onto OBJ to Complete the Mission (ex. destroying equipment/installation)
-Patrol Teams Conduct Missions (simultaneously)
  -Aid & Litter
  -Search
  -Recorder
  -Demolition (charges set – not detonated)
-Pull off of OBJ (Demolition final step after last Soldier).

Raids are normally conducted on an objective that is a valuable asset to the enemy. The enemy has extra forces in position to react to any threat. The assault element must conduct a rapid and precise assault into and through the objective. The element must spend as little time as possible on the objective. Task organization should include only the personnel and teams who are essential to complete the assigned mission. This is particularly important during limited visibility, to reduce confusion and friendly casualties. To help ensure rapid and thorough mission accomplishment, the assault team's actions must be thoroughly rehearsed.

SECTION VI- DELIBERATE AMBUSH
(FM 3-21.8 Pg 9-3 thru 9-22 MAR07)

Conducted against a specific target at a location chosen based on intelligence. Leaders plan and prepare based on detailed information that allows them to anticipate enemy actions and enemy locations. Detailed information includes:

-type and size of target
-organization or formation
-routes and direction of movement
-time the force will reach or pass certain points on its route
-weapons and equipment carried.

Three Elements:

1) Assault accomplish the mission during actions on the objective.
2) Support suppress or destroy enemy on the objective in support of the assault element.
3) Security assist in isolating the objective by preventing enemy from entering and leaving the objective area as well as by ensuring the patrol's withdrawal route remains open.

Scheme of maneuver:

-Troop Leading Procedures
-Departure from Friendly Lines
-Occupy Rally Points (initial, en route, objective, reentry, near/far side)
-Conduct Leader's Recon
-Occupy Site/Position Elements
-Conduct Ambush
-Report to Higher Headquarters

3. Reconnaissance Patrols (FM 3-21.8 Pg 9-24, 25, 27, 28 MAR07)

a. Three Fundamentals of Reconnaissance
1) Gain Required Information (the patrol's decisive action)
2) Avoid Detection (element organization is key)
3) Employ Security Measures (use remaining Soldiers)

b. Organizational Teams
1) Security
2) Reconnaissance

c. Organizational Team Structures

1) Recon elements separate from security elements. Used when security element is able to support recon element from one location. Requires recon objective to be clearly defined and the area to be fairly open.

2) Recon elements & security elements combine into R&S teams. Used when the recon objective is not clearly defined or the teams are not mutually supporting and each reconnaissance potentially needs its own security force. Within each R&S team, recon is done by one or two individuals while the rest of the element provides security. Number of Soldiers in an R&S team varies depending on mission. Usually a fire team is required for adequate recon while still providing team security.

3) R&S teams established with an additional, separate security element. The separate security element can also act as a reserve or as a quick reaction force.

d. Planning Process

1) Determine the reconnaissance objective, an information requirement (IR) that corresponds to the terrain and or enemy in a specific area, route, or zone - it may be designated by a control measure such as a named area of interest, checkpoint, objective, route, phase lines or boundaries

2) Determine the observation plan that will enable the patrol to obtain the IR

3) Determine tactical movement necessary to position the patrol to achieve the observation plan

SECTION VII – RECONNAISSANCE PATROL

1) Area: obtain information about a certain location & its area (road junctions, hills, bridges, enemy positions). Location of the OBJ is shown by either grid coordinates or map overlay. Boundary line encircles the area.

2) Zone: obtain information on all the enemy, terrain and routes within a specific zone. Zone defined by boundaries.

3) Route: orients on a road, a narrow axis such as an infiltration lane or a general direction of attack. A platoon conducts a hasty route reconnaissance when there is too little time for a detailed route reconnaissance or when the mission requires less detailed information. Information sought in a hasty route reconnaissance is restricted to the type of route (limited or unlimited), obstacle limitations (maximum weight, height & width) and observed enemy.

Area Reconnaissance (FM 3-21.8 Pg 9-29 thru 9-31 MAR07)

- Conducted to obtain information about a specified location and the area around it
- Location may be given as a grid or an objective on an overlay
- Patrol uses surveillance at OPs/vantage points around the objective from which to observe the objective and the surrounding area

-Multiple R&S teams allow for better observation of the objective from various locations, but increases the likelihood of enemy detection

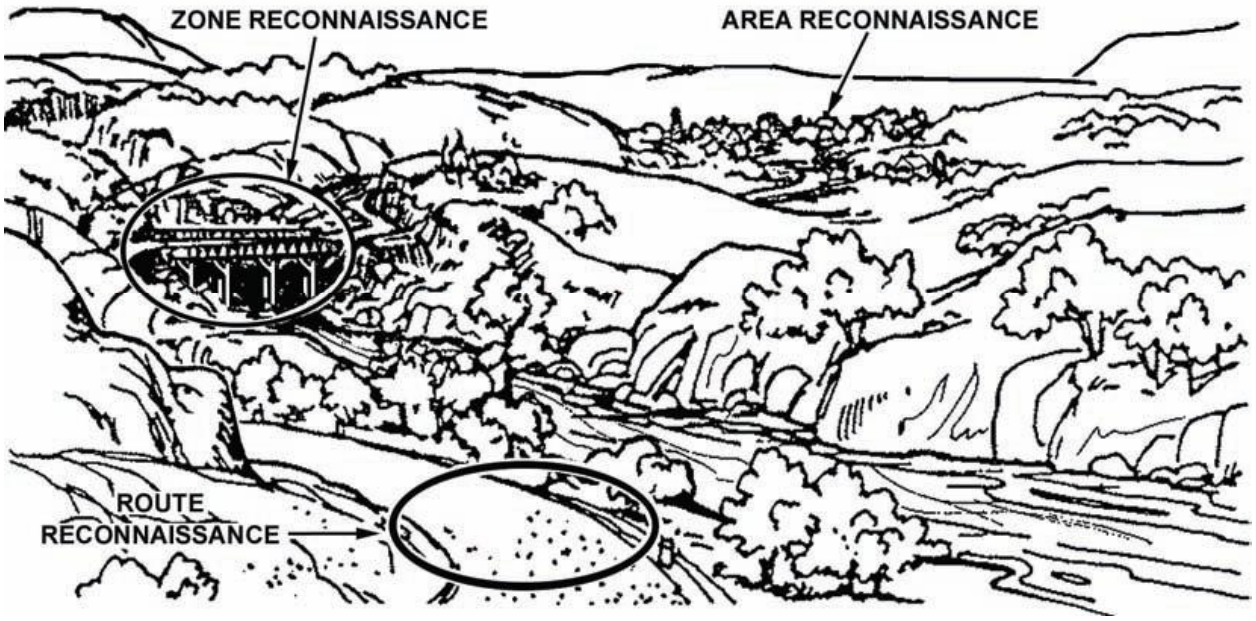
- Patrol leader considers these actions:

  -PL may include a surveillance team in the recon of the objective from the ORP

  -PL positions the team while on recon

  -APL is responsible for security at ORP and positions other security teams as required on enemy avenues of approach in the objective area

- If required PL positions other surveillance teams about objective. PL may move them on one route, positioning them as they move or may direct them to move along separate routes to assigned locations.
- After observing objective for a specified time, all elements return to ORP and report their observations to PL and/or recorder. Once all information is collected, it is disseminated.



Consolidate and Reorganize (FM 3-21.8 Pg 7-10 MAR07; FM 3-21.10 Pg 4-10 JUL06)

Consolidate -organizing & strengthening a newly captured position so that it can be defended)

- Establish Security
  -360-degree local security.
  -Use security patrols and observation posts/outposts.
  -Emplace early warning devices.
  -Establish and register final protective fires.
  -Seek out and eliminate all immediate enemy resistance.
- Automatic weapons (man/position/assign PDFs to Soldiers manning automatic weapons).
- Establish sectors of fire & direct fire control measures.
- Entrenchment (ex. digging/building fighting positions).

Reorganize - shifting internal resources w/n a degraded unit to increase combat effectiveness

- Reestablish the chain of command.
- Man key weapon systems.

- Maintain communications and reports, including:
  -Restore commo w/ any unit temporarily out of commo.
  -Send SITREP (at least mission accomplishment status).
  -Identify & request resupply of critical shortages.
- Resupply and redistribute ammunition & other supplies.
- Perform special team actions such as:
  -Consolidate and evacuate casualties, EPWs, enemy weapons, noncombatants/refugees and damaged equipment (not necessarily in the same location).
  -Treat and evacuate wounded personnel.
  -Evacuate friendly KIA.
  -Treat and process EPWs.
  -Segregate and safeguard noncombatants/refugees.
  -Search and mark positions to indicate cleared areas to other friendly forces.

SECTION VIII – PATROL BASE
(FM 3-21.10 Pg 5-20 thru 5-23, 8-49, 12-65, 66 JUL06)

A patrol base is a position set up when the patrol halts for an extended period in enemy territory (an unprotected place). The unit must take active and passive security measures. Occupation depends on the need for secrecy, but should not exceed 24 hours and the same location should not be occupied twice (returned to once vacated).

Purposes
-Rest/Eat
-Change of Mission Adjustments
-Maintenance
-Planning/Issuing Orders
-Base for Concurrent/Consecutive Missions
-Avoid Detection, Hide

Site Selection/Considerations
-Covered and concealed location off any avenues of approach that allows 360 degree defense.
-Ability to abandoned patrol base quickly into a movement technique and/or alternate site.
-Fighting positions can be reinforced & supported.
-Team/Squad in reserve to support perimeter.
-Mortars located in center - increases coverage.

Patrol Base Priorities of Work (FM 3-21.10 Pg 5-39 JUL06) - A set method of controlling the preparation and conduct of a defense. Unit TACSOP describes the priority of work including individual duties. The commander changes priorities based on the situation. Everyone must have a priority of work – leaders have a specific priority of work for their duty position. Several tasks are performed at the same time as required.
-Post 360 degree security.
-Establish the company R&S operation.
-Position Javelins/machine guns/Soldiers (sectors of fire).
-Position other assets (ex. CP/HQ and mortars).
-Designate FPLs and FPFs.
-Prepare range cards and sector sketches.
-Improve/Prepare fighting positions.

-Install wire communications, if applicable.
-Emplace obstacles and mines.
-Mark TRPs and direct fire-control measures.
-Establish sleep and rest plan.
-Reconnoiter movements.
-Adjust positions and control measures as required.
-Continue to improve positions.

Departure from Friendly Lines (FM 3-21.8 Pgs 9-5 thru 9-6 MAR07)**:**

a. Coordination with forward, adjacent and other patrolling unit leaders

(1) The platoon leader provides the forward unit leader with the unit identification, size of the patrol, departure and return times, and area of operation

(2) The forward unit leader provides the platoon leader with the following:
(a) Additional information on terrain just outside the friendly unit lines
(b) Known or suspected enemy positions in the near vicinity
(c) Likely enemy ambush sites
(d) Latest enemy activity
(e) Detailed information on friendly positions, obstacles, and OPs
(f) Friendly unit fire plan
(g) Support the unit can provide (fire support, litter teams, guides, communications, and reaction force)

b. Planning the departure of friendly lines (sequence of actions)

(1) Making contact with friendly guides at the contact point

(2) Moving to a coordinated initial rally point just inside friendly lines

(3) Completing final coordination

(4) Moving to and through the passage point

(5) Establishing a security-listening halt beyond the friendly unit's final protective fires

Rally Points (FM 3-21.8 Pgs 9-6 thru 9-7 MAR07)**:**

a. Selection/Characteristics of Rally Points (leader physically reconnoiters when possible, at least conducts a map reconnaissance):

(1) Easy to recognize on the ground

(2) Cover and concealment

(3) Away from natural lines of drift

(4) Defendable for short periods

b. Types of Rally Points

(1) Initial Rally Point – inside friendly lines

(2) En Route Rally Point – designated based on terrain, vegetation, visibility

(3) Objective Rally Point – out of site/sound/small-arms range of objective; remains tentative until objective is pinpointed; normally located along the direction of travel planned for after patrol completes actions on the objective

(4) Reentry Rally Point – out of site/sound/small-arms range of friendly unit through which patrol will return; outside of the final protective fires of that friendly unit

(5) Near- and Far- Side Rally Points – on either side of a danger area; used by Soldiers if the patrol makes contact while crossing the danger area and control is lost; allows Soldiers to regroup, reestablish the chain of command and continue the mission

SECTION IX – CORDON AND SEARCH
(ATP 3-06.20, Cordon and Search Tactics, Techniques, & Procedures; MAY13)

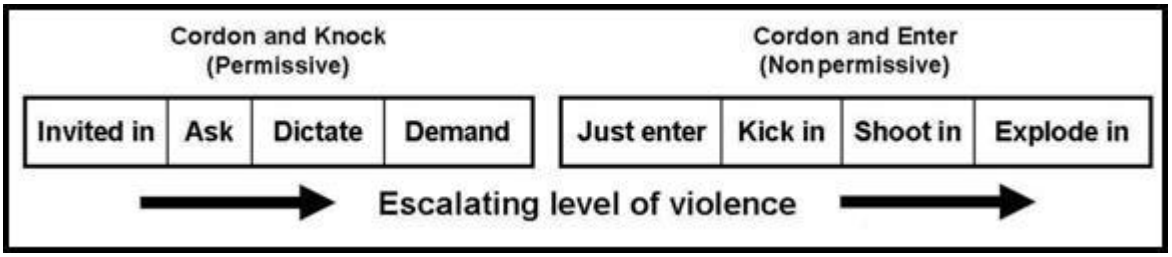
1. A cordon and search operation is conducted to seal (cordon) off an area in order to search it for persons or things such as items, intelligence data, or answers to PIR. Effective cordon and search operations possess sufficient forces to both effectively cordon a target area and thoroughly search that target. Usually, this operation contributes to establishing public order and safety, a key establish civil control subtask. It is also one of the techniques used in the "clear" phase of a clear-hold-build operation.

2. Cordon is a tactical task given to a unit to prevent withdrawal from or reinforcement to a position. Cordon implies occupying or controlling terrain especially mounted and dismounted avenues of approach. Search implies the physical and visual inspection of an area. Both the object of the search and the physical area of the search influence the type and degree of the search.

METHODS

a. The two basic methods of executing a cordon and search are—cordon and knock and cordon and enter. They differ in level of aggression. Based on the enemy SITEMP and identified operational risk, actual cordon and search operations vary between these two levels.

b. Key factors to consider in selecting the method to use include the enemy threat, the local populace support, the level of intelligence available, and the capabilities of the HN security forces. In both methods, the cordon is still established with as much speed or surprise as possible to isolate the objective. Both methods may require some integrated HN security forces or civil authorities to obtain the agreement by the occupants of the targeted search area. The figure below compares the characteristics of permissive and non-permissive cordon and search operations.



Comparison of cordon and search methods.

Cordon and Knock

a. This is less intrusive than cordon and search. It is used when the populace is seen as friendly or neutral, when no resistance is expected, and when the goal is to disrupt and inconvenience the occupants as little as possible. One version of this is called the tactical callout. This is a procedure where occupants are asked to exit the before search forces enter. If occupants refuse to exit, or if the ground commander believes that the potential exists for an insurgent encounter, he may escalate to cordon and enter.

b. A second version of the cordon and knock is cordon and ask which means occupants or the local Host Nation authorities are asked for permission to search a particular location. If permission is denied, no entry occurs. However, the cordon and knock and the cordon and ask require some degree of integration with HN security force or HN authorities to obtain the agreement by the occupants of the target to the subsequent search. At a minimum, a sufficient number of translators, preferably one with each element is required.

Cordon and Enter

This approach is intrusive. The intent is to rapidly breach barriers to gain entry into the search area, typically using speed and surprise to allow the unit to quickly gain control. This action allows units to maintain the initiative over a potentially unknown insurgent force operating in the search area. Intrusive entry ranges from a Soldier simply opening a door without occupant permission, to mechanical ballistic, or explosive breaching. In addition, mounted units can use vehicles to breach. The cordon and enter approach does not explicitly require integrated HN security forces or HN authorities, because occupants' permission is not required. However, during a counterinsurgency, obtaining the leadership or direct support of the HN is always preferred. Commanders assume operational risk in COIN by foregoing these considerations. Some considerations when using the cordon and enter method follow. These considerations may be more or less important than capturing the target individual, site, or equipment. Gains in security by violent capture of a key insurgent leader may result in far more substantial losses along the other LOE:

- Risk to civilian occupants and bystanders.
- Collateral damage to infrastructure.
- Perception of the populace.
- Risk to Soldiers.
- Rehearsals.
- Level of training of breach element.
- Effects on subsequent tactical site exploitations.

APPROACHES

Leaders plan and execute cordon and search operations using either a systematic or selective approach. A systematic approach is the search of all buildings in the targeted area, while a selective approach is the search of specific locations within a targeted area. The approach used depends on numerous factors. However, the purpose of the operation is still to capture the designated personnel, site, or equipment.

CONSIDERATIONS

If intelligence indicates enemy presence, and the local populace is either neutral or supportive of the insurgency, then the principles of speed and surprise are the keys to a successful cordon and search. Specific considerations using elements of the mission variables are—

Mission

Leaders determine the focus and method of the cordon and search based on the anticipated threat and the level of violence in the area of operations.

Enemy

Cordon elements cannot effectively block pedestrian egress or ingress. Therefore, commanders should consider how to best physically stop pedestrian traffic. Lethal fire is not a universal means of enforcing the nature of a cordon.

Troops and Support Available

The size and composition of the cordon and search force is based on the size of the area to be cordoned, the size of the area to be searched and the suspected enemy SITEMP. Normally, a military commander, with the police in support, best controls a search involving a battalion or larger force. The police, with the military in support, best control a search involving smaller forces. Regardless of the controlling agency, HN police are the best choice for performing the actual search. However, they must be available in adequate numbers and be trained in search operations.

Time Available

As time available to plan and prepare for a cordon and search mission is generally limited, it is often necessary to conduct planning while reconnaissance and intelligence collection are ongoing. The size of the area, especially the interior layout of urban buildings, impacts force size and search time. Leaders should plan on allowing time for follow-on missions based on exploitable information.

Civil Considerations

Cordon and search operations are a great opportunity for all Soldiers to conduct information engagements with the population. Each Soldier should know and understand the information engagement task and purpose.

PHASES

The phases of a cordon and search are the planning phase, reconnaissance phase, movement to the objective phase, isolate the objective phase, search phase and the withdrawal phase.

Plan

a. Establishing the cordon requires detailed planning, effective coordination, and meticulous integration and synchronization of available assets to achieve the desired effects. This requires the commander to consider both lethal and nonlethal effects. Each subordinate cordon position such as a traffic control point or blocking position must have a designated leader and a clearly understood task and purpose.

b. A cordon and search operation can usually support the conduct engagement LOE. Commanders must develop, integrate, and nest the information message in accordance with the purpose of the search. Often the best message in COIN is one's actions or that of the entire unit.

c. Search of an urban area varies from a few, easily isolated buildings to a large well developed urban city. Leaders should divide the urban area to be searched into zones. Buildings should be numbered and assigned specific search parties for coordination and clarity

Enablers

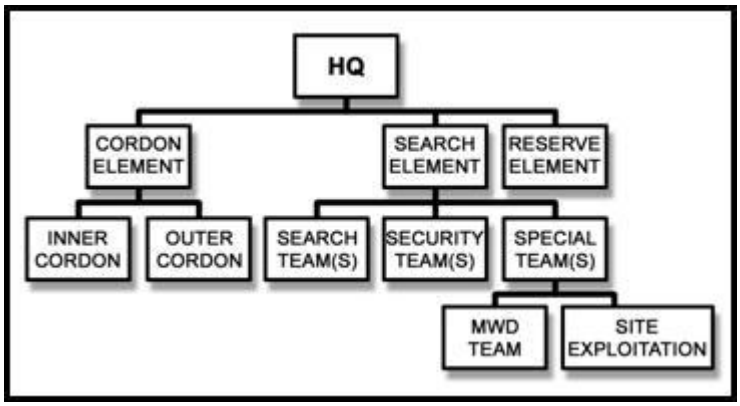
a. Assets employed during the cordon and search may include tactical PSYOP teams (TPTs), tactical HUMINT teams (THTs), law enforcement professionals (LEPs), special advisors, attack, reconnaissance, and assault aviation, CAS, SIGINT enablers, MASINT enablers, military working dog teams, (MWDs) biometrics collection efforts, female searchers, and civil affairs teams (CATs, Chapter 3).

b. A TPT is an outstanding combat multiplier. Messages broadcast in the local language during cordon and search/knock operations facilitates situational awareness and understanding for the local inhabitants. These TPTs, using vehicle mounted or man pack loudspeaker systems, can help inform and control the population. In addition, the TPT conducts face-to-face communication along with disseminating handbills or leaflets explaining the purpose and scope of the cordon and search. This helps in gaining compliance by the local population.

c. THT is also an outstanding combat multiplier. THTs collect valuable information from individuals in the search area, provide a tactical questioning capability, and have additional language capabilities.

Organization

The typical cordon and search organization includes a command element, a cordon element, a search element, and a reserve element each with a clear task and purpose. The figure below displays a typical organization for search operations.



Typical organization for cordon and search operations.

Command Element

An overall commander controls the unit conducting the cordon and search. He identifies the subordinate element leaders.

Cordon Element

This force must have enough combat power to cordon off the area. An effective cordon that both prevents the egress of individuals from the search area and prevents outside support to the search area, is critical to the success of the search effort. Based on the mission variables (METT-TC), two cordons are often established: an outer cordon to isolate the objective from outside reinforcements or disruptions, and an inner cordon to prevent individuals from leaving or communicating with someone outside the search area. Both cordon elements must maintain 360-degree security. UAS, scouts, attack reconnaissance aviation, or sniper teams should be considered by tactical units for use in observing the objective area for enemy both before and during the operation.

Search/Assault Element

a. The search element conducts the actual search operation. A search may orient on people, on materiel, on buildings, or on terrain. Normally, it is organized into special teams. The most basic search team is a two person team consisting of one person who conducts the actual search while another person provides immediate security to the searcher. Establish discipline and standardized search SOPs to ensure searches are thorough, PIR-focused, and of minimal risk to Soldiers.

b. All search elements must be prepared to handle male and female personnel, key equipment, hazardous materials (biohazards or other toxic elements), ordinance, and record key events. They must be trained to understand and on order execute information engagements, tactical site exploitation, detainee operations, and adjacent unit coordination. Search personnel must be trained to operate with HN security forces and within the established ROE. First aid and other medical training is critical. Soldiers must be proficient with signaling and marking devices as well as detection and recording equipment. Biometric and video/audio recording device proficiency

is crucial in COIN search operations. Basic language training is essential to maintain effective searches and overall operational tempo.

c. Typical search teams are organized in two- to three Soldier teams. Female Soldiers are a proven combat multiplier during search operations, because few cultures tolerate males searching females. Search teams clear each room or area in accordance with FM 3-21.8. Units should not confuse entry methods and their levels of aggression with the requirement to respect the Host Nation's people and homes. Typically, once a room is cleared, one team member provides security while the other(s) searches. All search element personnel are prepared to fight. Basic considerations for any search team include the following:

- Detailed instructions including prohibited items such as weapons, chemicals, medicines, and machine tools.
- Understanding of search restrictions and special considerations to include—
  Searching of religious buildings.
  Searching of females by female Soldiers.
  Searching of historical, cultural, or governmental sites (unauthorized or hostile).
- Host nation security forces or local interpreters.
- Biometrics tools.
- Breaching kit.
- Vehicle access tools such as lock picks.
- Information engagement products and tools.
- Audio and video recording devices and data imaging devices.
- Markings and signaling techniques and any constraints.
- Respect for personal property.
- Tools to collect and record information for HUMINT.
- Necessity to maintain communication and report location.
- Standardization of maps, imagery, and labeling conventions.

Reserve Element

The reserve element or QRF must possess and maintain enough combat power to defeat the insurgent forces template within the AO. The commander gives priorities for planning to the reserve that could include to be prepared to execute any of the subordinate unit missions. Priorities can also include additional missions such as CASEVAC or reinforcement. The reserve element leader focuses efforts on synchronized communications, rehearsals, battle tracking, and positioning before and during the operation.

Reconnaissance

Every target area should be reconnoitered prior to execution using many of the available resources. If the target is part of a unit's AO, then a patrol around the target may not be out of order. ISR assets, attack reconnaissance aviation, local nationals, and imagery are other methods for conducting reconnaissance. The reconnaissance plan must not provide the enemy with indicators of an impending cordon and search. Given the nature of COIN, the reconnaissance phase could last an extended period, as units identify the relative size and location of buildings, entry points, cordon position and avenues of approach. Further tools for objective analysis may be obtained from attack aviation photographs, maps, and local emergency services departments.

Movement to the Objective

The timing, routes, and execution of movement to the objective should consider the factors of METT-TC, and whether it should be simultaneous or phased. If contact is made in the movement, commanders should consider whether they wish to send forces forward to initiate the cordon.

Isolation of the Objective

Although analysis of the mission variables using METT-TC determines specifics, a unit typically establishes the outer cordon first, establishes the inner cordon second, and moves the search element to the objective last. Commanders should consider the value of using the opposite technique of forming the cordons following rapid movement to the objective to gain surprise. Timing is when executing either technique is important. The quicker these three events are accomplished, the less time personnel on the objectives have to egress, find concealment, or destroy materials or equipment.

Position the Reserve Element

The reserve element or QRF is a mobile force positioned in a nearby area, with multiple planned ground, water, or air routes to the objective area. Its mission is to aid the search and security elements if they require assistance or become unable to achieve their purpose.

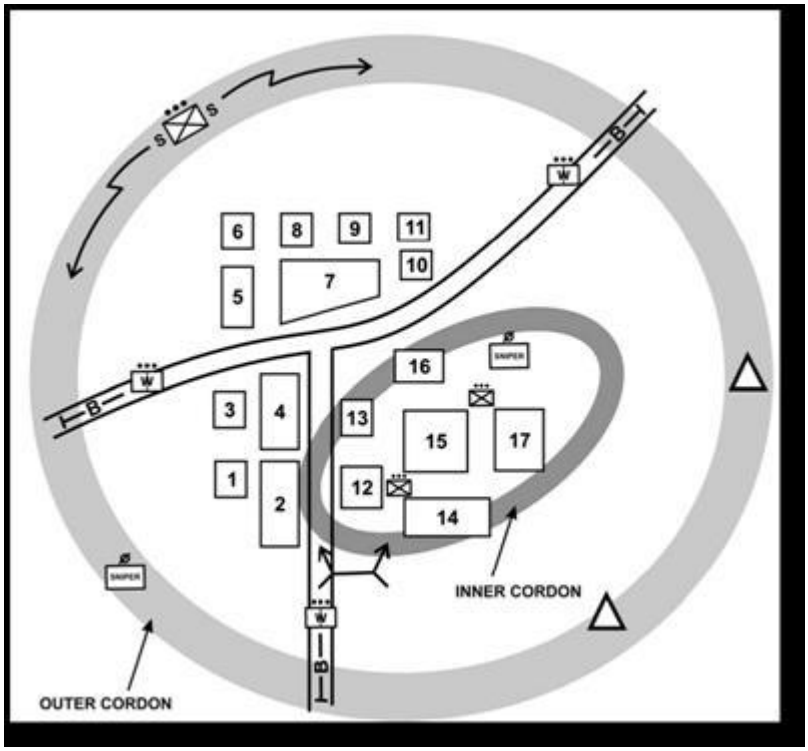
Establish the Cordon

a. There are two techniques for emplacing the actual cordon positions: simultaneously and sequentially. Careful consideration must be given to both, because each has advantages and disadvantages. Units establishing a cordon position themselves to be able to block movement to and from the objective area. This may be by observed fire, but usually it will be by physically controlling routes. Cordon positions should be occupied rapidly just prior to the search element reaching the objective. Establishing the cordon during a period of limited visibility increases movement security but makes control difficult. Cordon positions, once occupied, will be detected by locals as they conduct their daily business.

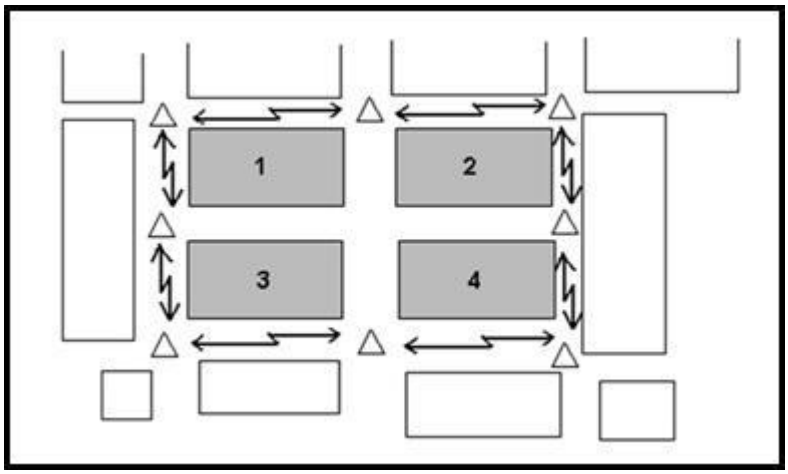
b. Both the outer and inner cordon leaders must maintain situational understanding of not only their AOs, but also each other's cordon and the progress of operations of the search element. In doing so, they can anticipate insurgent activity; controls direct and indirect fires, and achieve their task and purpose.

c. The various positions of the outer and inner cordons may include, vehicle mounted platoons or sections, dismounted platoons or squads, interpreters, detainee security teams, crowd control teams, tactical PSYOP teams, observation posts, traffic control points or blocking positions, Host Nation security forces (military or police), and aviation assets.

d. The outer cordon usually focuses on traffic control points and blocking positions, while the inner cordon focuses on overwatching the objective and preventing exfiltration or reposition of persons within the search area. The two figures below show the typical establishment of a cordon and the details of an inner cordon in an urban setting. Note the technique of assigning each building a number to increase clarity and coordination between units.



Typical establishment of an urban cordon.



Urban inner cordon.

Search

a. A search may be oriented toward people, materiel, buildings, or terrain. It usually involves both HN police and military personnel. It must be a systematic action to ensure that personnel, documents, electronic data, and other material are identified, evaluated, collected, and protected to develop intelligence and facilitate follow-on actions.

b. The tempo at which a search operation is conducted should be slow enough to allow for an effective search, while not so slow that it allows the insurgent force time to react to the search. Search teams must consider a return to an area after an initial search. This can surprise and remove insurgents who may not have been detected or may have returned. All searches should create

pressure on insurgents and sympathizers to not stay in the area, but not inconvenience the local residents to the degree that they will collaborate with the insurgents.

c. Special laws regulate the search powers of military forces. Misuse of search authority can adversely affect the outcome of operations and future legal proceedings; therefore, all searches must be lawful and properly recorded to be of value. These laws must be disseminated to the population to ensure understanding and compliance. Additional information on searches can be found in ATP 3-06.20. Search teams must have instructions for three basic categories:

Personnel - This includes both male and female and both persons of interest and other persons.

Physical Items - This includes weapons, equipment, documents, computers, and cameras.

Information Mediums - This includes data inside computers, cameras, and cell phones.

Withdrawal

During this phase, the unit may be the most vulnerable. To mitigate risk, a commander may choose to—

- A relief in place.
- Stay-behind elements to cover the withdrawal.
- Different routes and timing.
- Simultaneous or phased withdrawals.

SECTION X – BATTLE DRILLS

Infantry battle drills describe how platoons and squads apply fire and maneuver to commonly encountered situations. They require leaders to make decisions rapidly and to issue brief oral orders quickly. A battle drill is defined as "a collective action rapidly executed without applying a deliberate decision-making process."

A. Characteristics of a battle drill are:
• They require minimal instructions or guidance and are standardized throughout the Army.
• Sequential actions are vital to success in combat or critical to preserving life.
• They apply to platoon or smaller units.
• They are trained and rehearsed responses to enemy actions or leader's orders.
• They are reflexive steps followed for offensive and defensive actions in training and combat.

B. A platoon's ability to accomplish its mission often depends on Soldiers' and leaders' ability to execute key actions quickly. All Soldiers and their leaders must know their immediate reaction to enemy contact as well as follow-up actions. Drills are limited to situations requiring instantaneous response; therefore, Soldiers must execute drills instinctively. This results from continual practice. Drills provide small units with standard procedures essential for building strength and aggressiveness.
• They identify key actions that leaders and Soldiers must perform quickly.
• They provide for a smooth transition from one activity to another; for example, from movement to offensive action to defensive action.
• They provide standardized actions that link Soldier and collective tasks at platoon level and below. (Soldiers perform individual tasks to CTT or SDT standard).
• They require the full understanding of each individual and leader, and continual practice.

The format for drills discussed in the following pages includes the title, the SITUATION that would cue the unit or the leader into initiating the drill, the REQUIRED ACTIONS in sequence, and supporting illustrations. The following Squad Battle Drills are discussed:

Battle Drill 1A: Squad Attack
Battle Drill 07-3-D9501: React to Contact
Battle Drill 07-3-D9505: Break Contact
Battle Drill 07-3-D9502: React to Ambush (Near)
Battle Drill 07-3-D9503: React to Ambush (Far)
Battle Drill 07-3-D9406: Knock out a Bunker
Battle Drill 07-4-D9509: Enter Building Clear a Room

Battle Drill 1A. Squad Attack
From Field Manual No. 3.21.8 (FM 7-8), 15 July 2008 and ARTEP 7-8, Infantry Rifle Company and Squad, 28 March 2007

A. Situation. The squad is moving as part of the platoon conducting a movement to contact or a hasty or deliberate attack.

B. Required Actions.

Step 1. Action on Enemy Contact.
(1) Soldiers receiving fire take up nearest positions that afford protection from enemy fire (cover) and observation (concealment).
(2) The fire team in contact immediately returns heavy volume of suppressive fire in the direction of the enemy.
- Soldiers in the fire team in contact move to positions (bound or crawl) from which they can fire their weapons, position themselves to ensure that they have observation, fields of fire, cover, and concealment. They continue to fire and report known or suspected enemy positions to the fire team leader.
- The team leader directs fires using tracers or standard fire commands.
- The fire team not in contact takes covered and concealed positions in place and observes to the flanks and rear of the squad.
- The squad leader reports contact to the platoon leader and moves toward the fire team in contact.

Step 2. Locate the Enemy.
(1) Using sight and sound, the fire team in contact acquires known or suspected enemy positions.
(2) The fire team in contact begins to place well-aimed fire on suspected enemy positions.
(3) The squad leader moves to a position where he can observe the enemy and assess the situation.
(4) The squad leader requests, through the platoon leader, for immediate suppression indirect fires (normally 60-mm mortars).
(5) The squad leader reports the enemy size and location, and any other information to the platoon leader. (As the platoon leader comes forward, he completes the squad leader's assessment of the situation.)

Step 3. Suppress the Enemy. The squad leader determines if the fire team in contact can gain suppressive fire based on the volume and accuracy of the enemy fire.
(1) If the answer is YES, the fire team leader continues to suppress the enemy:
- The fire team destroys or suppresses enemy crew-served weapons first.

• The fire team places smoke using organic assets on the enemy position to obscure it.
• The fire team leader continues to control fires using tracers or standard fire commands. Fires must be well-aimed and continue at a sustained rate with no lulls.
• Buddy teams fire their weapons so that both are not reloading their weapons at the same time.

(2) If the answer is NO, the squad leader then deploys the fire team not in contact to establish a support-by-fire position. He reports the situation to the platoon leader. Normally, the squad will become the base-of-fire element for the platoon. The squad continues to suppress the enemy and responds to orders from the platoon leader. (The platoon leader, his RATELO, the platoon FO, one machine gun team, and the squad leader of the next squad, as well as the platoon sergeant and the other machine gun team, are already moving forward IAW Battle Drill 1, Platoon Attack.)

Step 4. Attack.

(1) If the fire team in contact can suppress the enemy, the squad leader determines if the fire team not in contact can maneuver. He makes the following assessment:
• Location of enemy position(s) and obstacles.
• Size of enemy force engaging the squad. (The number of enemy automatic weapons, the presence of any vehicles, and the employment of indirect fires are indicators of enemy strength.)
• Vulnerable flank.
• Covered and concealed flanking route to the enemy position.

(2) If the answer is YES, the squad leader maneuvers the fire team in the assault:
• The squad leader directs the fire team in contact to support the movement of the other fire team. He then leads or directs the assaulting fire team leader to maneuver his fire team along a route that places the fire team in a position to assault the enemy. (The assaulting fire team must pick up and maintain fire superiority throughout the assault. Handover of responsibility for direct fires from the supporting fire team to the assaulting fire team is critical.)
• Once in position, the squad leader gives the prearranged signal for the supporting fire team to lift fires or shift fires to the opposite flank of the enemy position.
• The assaulting fire team fights through enemy positions using fire and movement. (The supporting fire team must be able to identify the near flank of the assaulting fire team.)
- The assault team leader selects the route that allows him to reach his objective, while providing the best available cover and concealment for his team. The team leader then leads his team, from up front, in a shallow wedge throughout the attack.
- Fire team members conduct individual movement techniques as individuals or buddy teams, while maintaining their relative position in the assault formation. At the end of each move, Soldiers take up covered and concealed positions and resume firing.

(3) If the answer is NO or the assaulting fire team cannot continue to move, the squad leader deploys the assaulting fire team to add its fires against the enemy, reports to the platoon leader and requests instructions. The squad continues suppressing enemy positions and responds to the orders of the platoon leader.

Step 5. Consolidate and Reorganize.

(1) Once the assaulting fire team has seized the enemy position, the squad leader establishes local security. (At the conclusion of the assault, the squad is most vulnerable.)
• The squad leader signals for the supporting fire team to move up into a designated position.
• The squad leader assigns sectors of fire for both fire teams.
• The squad leader positions key weapons.
• All Soldiers take up hasty defensive positions.
• The squad leader develops an initial fire support plan against an enemy counterattack.
• The squad leader posts an OP to warn of enemy activity.

(2) The squad performs the following tasks:

- Reestablish the chain of command.
- Redistribute and re-supply ammunition.
- Man crew-served weapons first.
- Redistribute critical equipment (for example, radios, NBC, NVSTNCO).
- Treat casualties and evacuate wounded.
- Fill vacancies in key positions.
- Search, silence, segregate, safeguard, and speed EPWs to collection points.
- Collect and report enemy information and material.

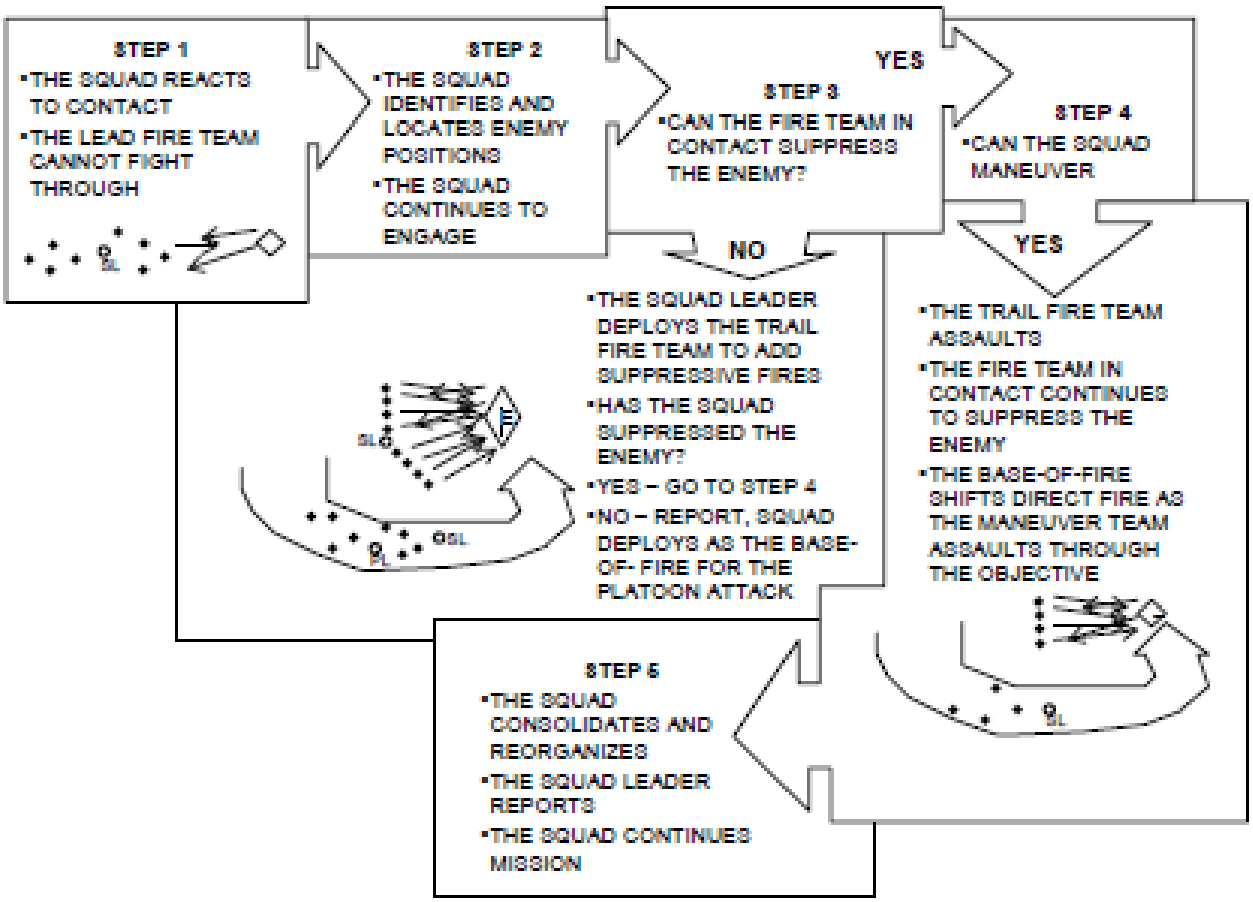


Illustration of Battle Drill 1A: Squad Attack

Battle Drill 07-3-D9501. React to Contact
From BDL 07-8 INFANTRY BATTLE AND CREW DRILLS , 28 March 2007
A. Situation. A squad or platoon receives fires from enemy individual or crew-served weapons.
B. Required Actions.
Step 1. Soldiers immediately take up the nearest covered positions and return fire in the direction of contact.
Step 2. Team/squad leaders locate and engage known or suspected enemy positions with well-aimed fire, and pass information to the squad/platoon leader.
Step 3. Fire team leaders control fire using standard fire commands (initial and supplemental) containing the following elements:
• Alert
• Direction
• Description of target
• Range
• Method of fire (manipulation, and rate of fire)
• Command to commence firing.

Step 4. Soldiers maintain contact with the Soldiers on their left and right.
Step 5. Soldiers maintain contact with their team leaders and report the location of enemy positions.
Step 6. Leaders check the status of their personnel.
Step 7. The team/squad leaders maintain contact with the squad/platoon leader.
Step 8. The squad/platoon leader –
• Moves up to the fire team/squad in contact and links up with its leader. (The platoon leader brings his RATELO or RTO, platoon FO, the squad leader of the nearest squad, and one machine gun team. The squad leader of the trail squad moves to the front of his lead fire team. The platoon sergeant also moves forward with the second machine gun team and links up with the platoon leader, ready to assume control of the base-of-fire element.)
• Determines whether or not his squad/platoon must move out of an engagement area.
• Determines whether or not he can gain and maintain suppressive fires with his element already in contact (based on the volume and accuracy of enemy fires against the element in contact).
• Makes an assessment of the situation. He identifies –
- The location of the enemy position and obstacles.
- The size of the enemy force. (The number of enemy automatic weapons, the presence of any vehicles, and the employment of indirect fires are indicators of the enemy strength.)
- Vulnerable flanks.
- Covered and concealed flanking routes to the enemy position.
• Determines the next course of action (for example, fire and movement, assault, breach, knock out bunker, enter and clear a building or trench).
• Reports the situation to the platoon leader/company commander and begins to maneuver.
• Calls for and adjusts indirect fire (mortars or artillery). (Squad leaders relay requests through the platoon leader.)
Step 9. Team leaders lead their teams by example; for example, “Follow me, do as I do.”
Step 10. Leaders relay all command and signals from the platoon chain of command.

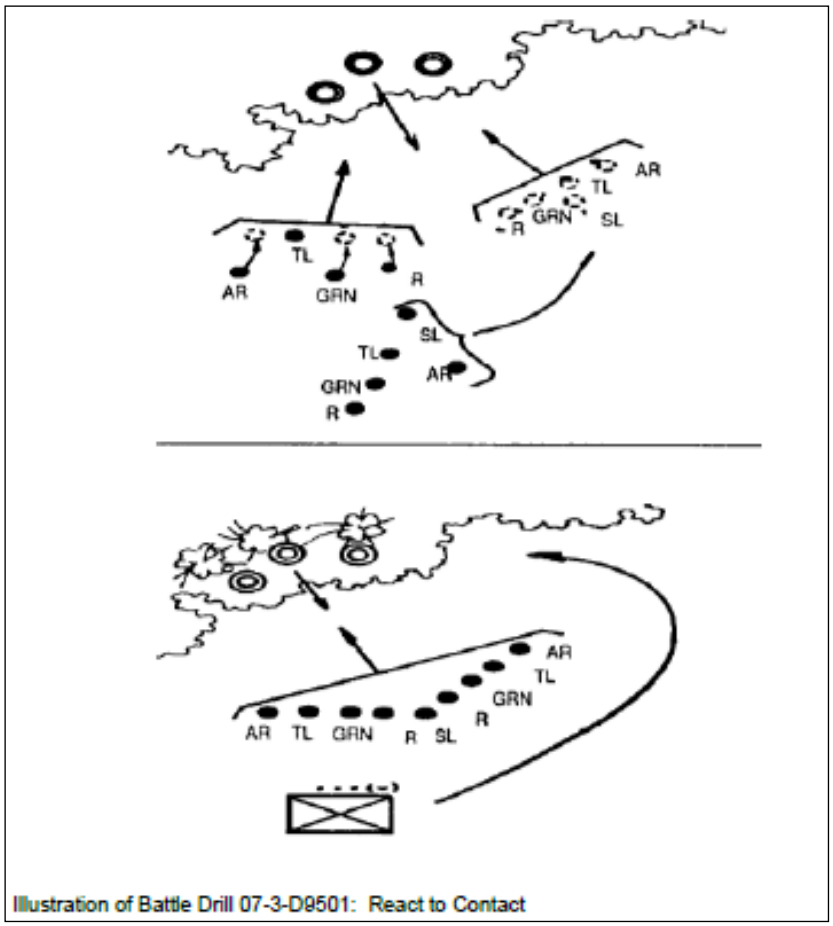


Illustration of Battle Drill 07-3-D9501: React to Contact

Battle Drill 07-3-D9505. Break Contact
From BDL 07-8 INFANTRY BATTLE AND CREW DRILLS , 28 March 2007
A. Situation. The squad/platoon is under enemy fire and must break contact.
B. Required Actions.
Step 1. The squad/platoon leader directs one fire team/squad in contact to support the disengagement of the remainder of the unit.
Step 2. The squad/platoon leader orders a distance and direction, or a terrain feature, or last objective rally point for the movement of the first fire team/squad.
Step 3. The base of fire (fire team/squad) continues to suppress the enemy.
Step 4. The moving element uses fragmentation, concussion, and smoke grenades to mask its movement.
Step 5. The moving element takes up the designated position and engages the enemy position.
Step 6. The platoon leader directs the base-of-fire element to move to its next location. (Based on the terrain and the volume and accuracy of the enemy's fire, the moving fire team/squad may need to use fire and movement techniques.
Step 7. The squad/platoon continues to bound away from the enemy until (the squad/platoon must continue to suppress the enemy as it breaks contact) –
• It breaks contact.
• It passes through a higher level support-by-fire position.
• Its fire teams/squads are in the assigned position to conduct the next mission.

Step 8. The leader should consider changing the direction of movement once contact is broken. This will reduce the ability of the enemy to place effective indirect fires on the unit.

Step 9. If the squad or platoon becomes disrupted, Soldiers stay together and move to the last designated rally point.
Step 10. Squad/platoon leaders account for Soldiers, report, reorganize as necessary and continue the mission.

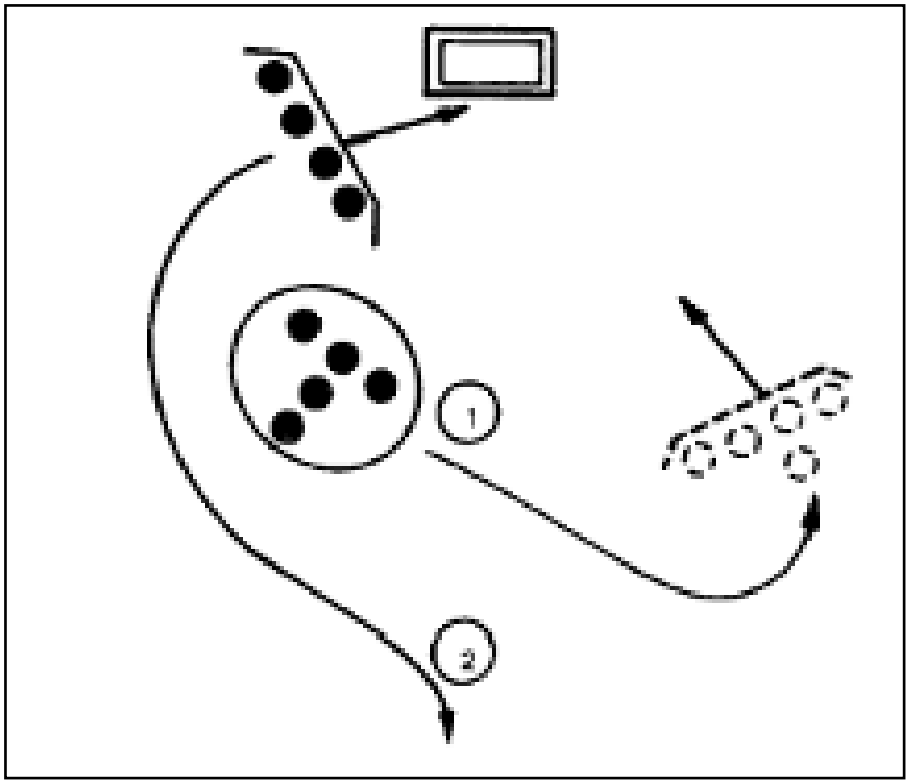
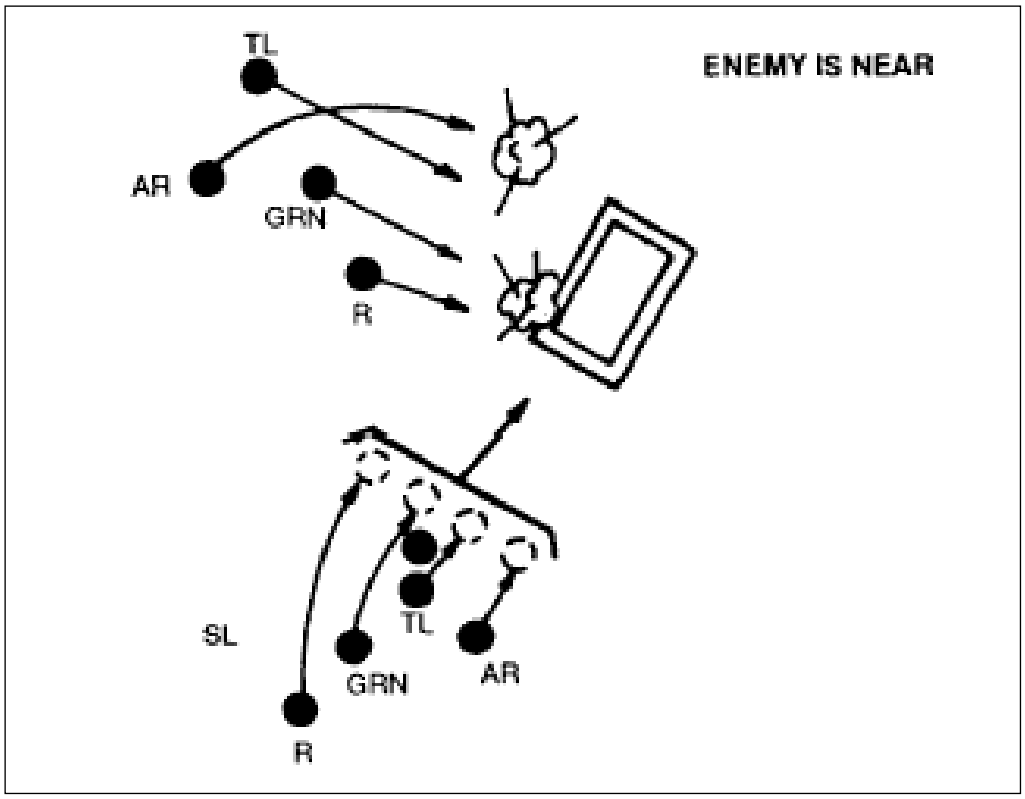


Illustration of Battle Drill 07-3-D9505: Break Contact

Battle Drill 07-3-D9502: React to Ambush (Near)
From BDL 07-8 INFANTRY BATTLE AND CREW DRILLS, 28 March 2007
A. Situation. If the squad/platoon enters a kill zone and the enemy initiates an ambush with a casualty-producing device and a high volume of fire within hand grenade range, the unit takes the following actions.
B. Required Actions:
1. In a near ambush, soldiers in the kill zone execute one of the following two actions:
• Return fire immediately. If cover is not available, immediately, without order or signal, assault through the kill zone.
• Return fire immediately. If cover is available, without order or signal, occupy the nearest covered position, and throw smoke grenades.

2. Soldiers not in the kill zone immediately –

- Identify enemy positions.
- Initiate immediate suppressive fires against the enemy.
- Take up covered positions.
- Shift fires as the Soldiers in the kill zone assault through the ambush.
3. The squad/platoon leader reports, reorganizes as necessary, and continues the mission



Battle Drill 07-3-D9502: React to Ambush (Near)

Battle Drill 07-3-D9503: React to Ambush (Far)

From BDL 07-8 INFANTRY BATTLE AND CREW DRILLS , 28 March 2007

A. Situation. If the squad/platoon enters a kill zone and the enemy initiates an ambush with a casualty-producing device and a high volume of fire, the unit takes the following actions.

B. Required Actions:

1. In a far ambush (beyond hand-grenade range), Soldiers receiving fire immediately return fire, take up covered positions, and suppress the enemy by-

• Destroying or suppressing enemy crew-served weapons first.

• Obscuring the enemy position with smoke using organic assets.

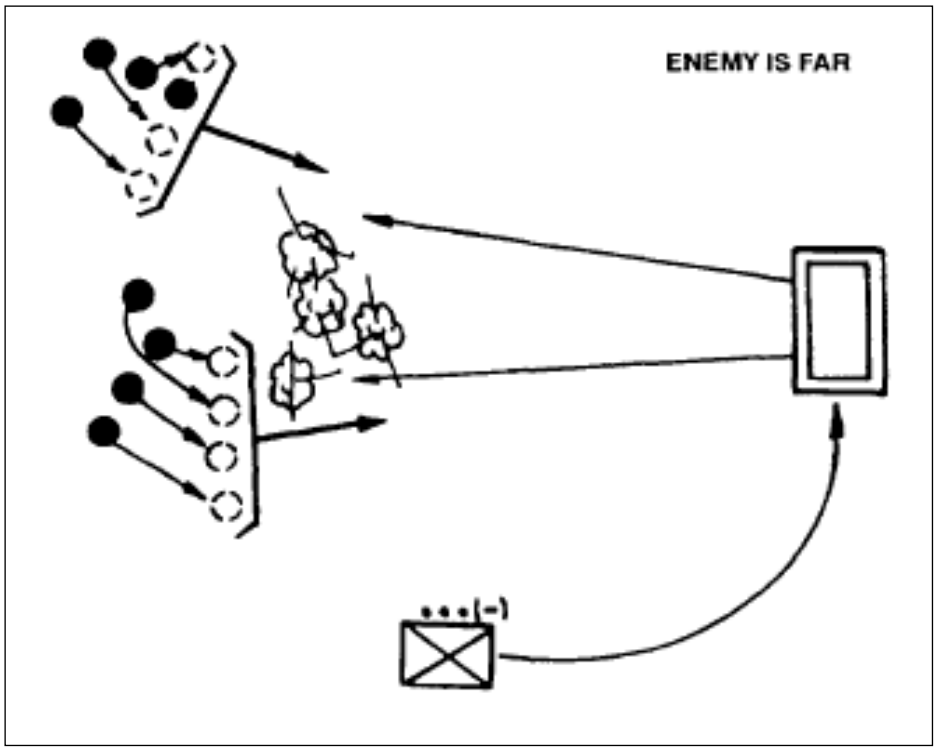
• Sustaining suppressive fires.

- Soldiers (teams/squads) not receiving fires move by a covered and concealed route to a vulnerable flank of the enemy position and assault using fire and movement techniques.

- Soldiers in the kill zone continue suppressive fires and shift fires as the assaulting team/squad fights through the enemy position.

• The platoon FO calls for and adjusts indirect fires as directed by the platoon leader. On order, he lifts fires or shifts them to isolate the enemy position, or to attack them with indirect fires as they retreat.

• The squad/platoon leader reports, reorganizes as necessary, and continues the mission.



Battle Drill 07-3-D9503: React to Ambush (Far)

Battle Drill 07-3-D9406. Knock Out Bunker (SQUAD)
From BDL 07-8 INFANTRY BATTLE AND CREW DRILLS, 28 March 2007
A. Situation. The platoon identifies enemy in bunkers while moving as a part of a larger force.
B. Required Actions.
Step 1. The squad initiates contact:
• The squad in contact establishes a base of fire.
• The squad leader moves forward to link up with the team leader of the team in contact.
• The team in contact become the base-of-fire element, they–
- Destroys or suppresses enemy crew-served weapons first.
- Obscures the enemy position with smoke using organic assets.
- Sustains suppressive fires at the lowest possible level.
• The squad leader calls for and adjusts indirect fires

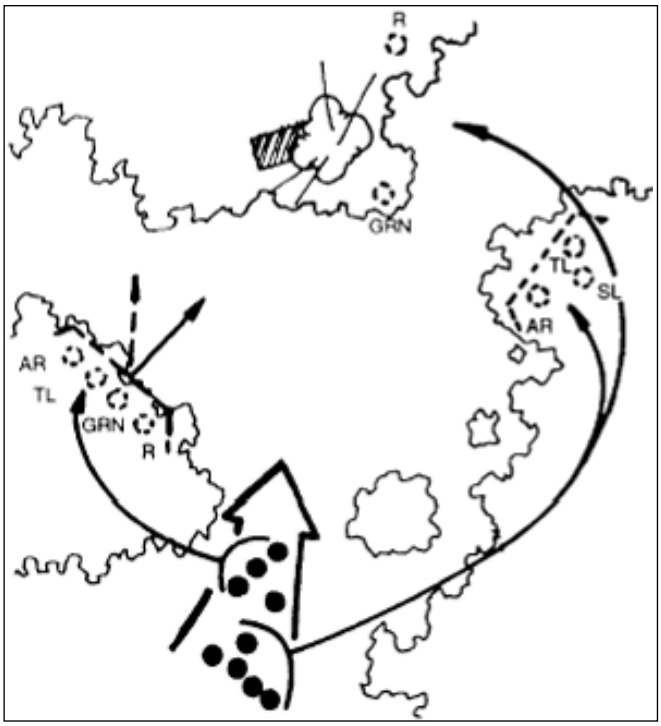
Step 2. The squad leader determines that he can maneuver by identifying –
• The enemy bunkers, other supporting positions, and any obstacles.
• The size of the enemy force engaging the squad. (The number of enemy automatic weapons, the presence of any vehicles, and the employment of indirect fires are indicators of enemy strength.)
• A covered and concealed flanking route to the flank of the bunker.

Step 3. The squad leader determines he can suppress the bunker with one team and directs one team (not in contact) to knock it out.
Step 4. Knock out bunker
• The assaulting team, with the squad leader, moves along the covered and concealed route and takes action to knock out the bunker.

- The assaulting fire team approaches the bunker from its blind side and does not mask the fires of the base-of-fire element.

- Soldiers constantly watch for other bunkers or enemy positions in support of it.
• Upon reaching the last covered and concealed position –

- The fire team leader and the automatic rifleman remain in place and add their fires to suppressing the bunker (includes the use of AT4s).
- The squad leader positions himself where he can best control his teams. On the squad leader's signal, the base-of-fire element lifts fires or shifts fires to the opposite side of the bunker from the assaulting fire team's approach.
- The grenadier and rifleman continue forward to the blind side of the bunker. One Soldier takes up a covered position near the exit, while one Soldier cooks off (two seconds maximum) a grenade, shouts FRAG OUT, and throws it through an aperture.
- After the grenade detonates, the Soldier covering the exit enters the bunker, firing short bursts, to destroy the enemy. The Soldier who throws the grenade should not be the first one to clear the bunker.
• The squad leader inspects the bunker to ensure that it has been destroyed. He reports, reorganizes as needed, and continues the mission. The platoon follows the success of the attack against the bunker and continues the attack of other bunkers.

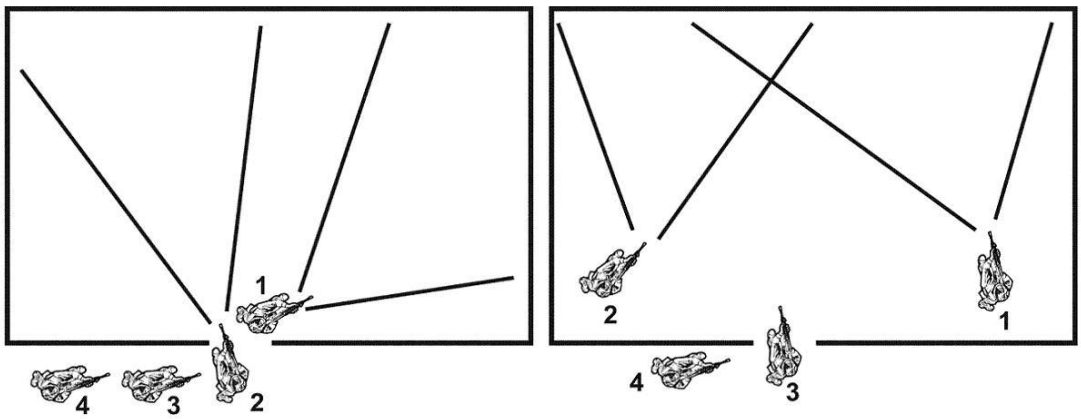


Battle Drill 07-3-D9406: Knock out Bunker (SQUAD)

Battle Drill 07-4-D9509. Enter and Clear a Room
From BDL 07-8 INFANTRY BATTLE AND CREW DRILLS, 28 March 2007
A. Situation. The element is conducting operations as part of a larger unit and your four Soldier team has been given the mission to clear a room. Enemy personnel are believed to be in building. Noncombatants may be present in the building and are possibly intermixed with the enemy personnel. Support and security elements are positioned at the initial foothold and outside the building. Some iterations of this drill should be performed in MOPP4. This drill begins on the order of the unit leader or on the command of the clearing team leader.

B. Required Actions.

The team secures and clears the room by killing or capturing the enemy, while minimizing friendly casualties, non-combatant casualties and collateral damage; team complies with Rules of Engagement (ROE). The team maintains a sufficient fighting force to repel an enemy counterattack and continue operations.
Step 1. The element leader occupies a position to best control the security and clearing teams.
a. Element leader directs a team to secure corridors or hallways outside the room with appropriate firepower.
b. The team leader (normally the number two Soldier) takes a position to best control the clearing team outside the room.
c. The element leader gives the signal to clear the room.
Note: If the element is conducting high intensity combat operations and grenades are being used, the element must comply with the Rules of Engagement (ROE) and consider the building structure. A Soldier of the clearing team cooks off at least one grenade (fragmentation, concussion or stun grenade), throws the grenade into the room and announces, "FRAG OUT." The use of grenades should be consistent with the ROE and building structure. Soldiers can be injured from fragments if walls and floors are thin or damaged.
Step 2. The clearing team enters and clears the room.
a. The first two Soldiers enter the room almost simultaneously

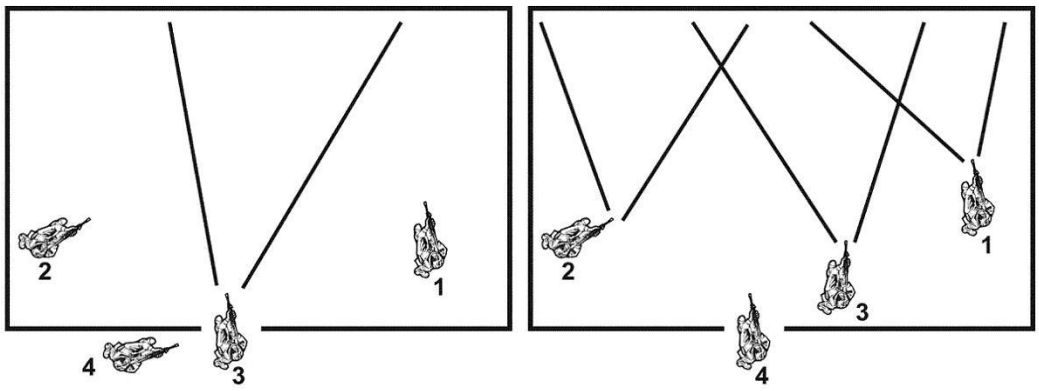


Clear a room-first two Soldiers

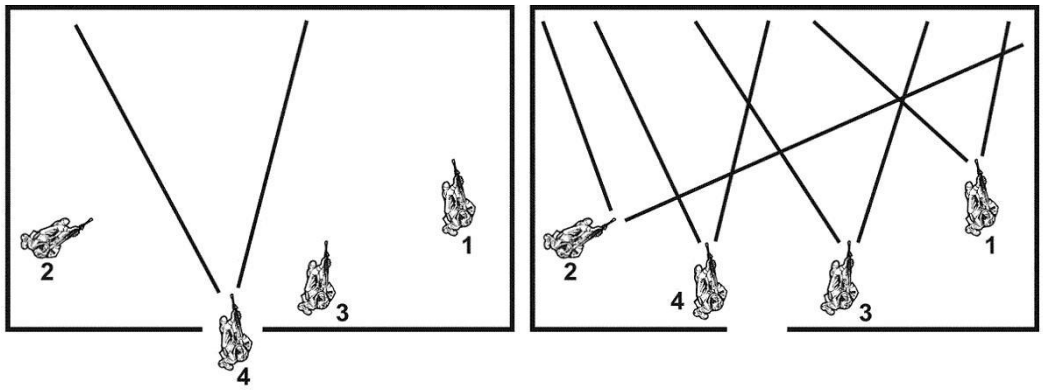
(1) The first Soldier enters the room and moves left or right along the path of least resistance to one of two corners. He assumes a position of domination facing into the room. During movement he eliminates all immediate threats.

(2) The second Soldier (normally the team leader) enters the room immediately after the first Soldier. He moves in the opposite direction of the first Soldier to his point of domination. During movement he eliminates all immediate threats in his sector.
Note: During high intensity combat the Soldiers enter immediately after the grenade detonates. Both Soldiers enter firing aimed bursts into their sectors engaging all threats or hostile targets to cover their entry.
Note: If the first or second Soldier discovers that the room is small or a short room (such as a closet or bathroom), he announces, "Short room" or "Short." The clearing team leader informs the third and fourth Soldiers whether or not to stay outside the room or to enter.

b. The third Soldier moves opposite direction of the second Soldier while scanning and clearing his sector as he assumes his point of domination.



c. The fourth Soldier moves opposite of the third Soldier to a position that dominates his sector.



d. All Soldiers engage enemy combatants with precision aimed fire and identify non-combatants to avoid collateral damage.
Note: If necessary or on order, number one and two Soldier of the clearing team may move deeper into the room while overwatched by the other team members.
e. The team leader announces to the element leader when the room is "CLEAR."
Step 3. The element leader enters the room.
a. Makes a quick assessment of room and threat.
b. Determines if squad has fire power to continue clearing their assigned sector.
c. Reports to the unit leader that the first room is clear.
d. Requests needed sustainment to continue clearing his sector.
e. Marks entry point IAW unit SOP.

Step 4. The element consolidates and reorganizes as necessary.

17. Objective Rally Point (ORP)

ORP is a point out of sight, sound, and small-arms range of the objective area. It is normally located in the direction that the squad plans to move after its actions on the OBJ

Actions at or from the ORP:

• Reconnoitering the objective
• Issuing a FRAGO
• Disseminating information from reconnaissance
• Make final preparations before continuing operations, i.e. re-camouflage, prep demolitions, line up rucksacks, first aid kits, and inspect weapons
• Account for soldiers and equipment
• Reestablish the chain of command

Occupation of an ORP by a squad:

• Halt beyond sight, sound, and small-arms weapons range of the tentative ORP (200-400 meters)
• Position security
• Move forward with a compass man and one member of each fire team to confirm the location of the ORP and determine its suitability. Issue a five-point contingency plan
• Position a Team A soldier at 12 o'clock, and the Team B soldier at 6 o'clock in the ORP. Issue them a contingency plan and return with the compass man

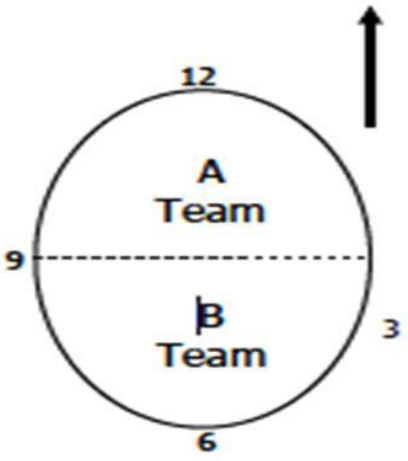
18. Consolidation and Reorganization

CONSOLIDATION

• All around security is critical; the enemy might counter-attack from any direction
• Evaluate terrain closely
• Most common technique: Clock Method – Squad leader designates either a compass direction or direction of attach as 12 o'clock
– Squad leader uses clock positions to identify the left and right boundaries for squads
– Squad leader positions key weapons along the most likely avenue of approach

REORGANIZATION

• Reestablish command and control
• Re-manning key weapons, redistribute ammo and equipment
• Clear objective of casualties and EPWs
• Assess and report the squad status of personnel, ammunition, supplies, and essential equipment



Battle Drill. React to a possible Improvised Explosive Device (IED)
(TC 093-89d-01 CTT 093-401-5050 May04)

Condition: During military operations you encounter a "Possible Improvised Explosive Device (IED)".
Standard: Properly establish initial exclusion area, security, and report "Possible Improvised Explosive Device (IED)" to Higher HQ with 100% accuracy.
Performance Steps

1. Establish minimum initial exclusion area of 300 meters around "Possible Improvised Explosive Device (IED)".
2. Establish security:
    a. Search secure area for possible secondary explosive device(s)/hazards, while maintaining security.
    b. Identify potential enemy force observation/vantage points.
    c. Seek all available manmade or natural frontal and overhead cover.
    d. Avoid establishing a "reaction" pattern.
3. Forward information to Higher HQ using standard 9-line UXO Report.
4. Continue mission IAW Higher HQ guidance.

IED Making Materials: Container, power source, initiating method, detonator and main charge

****NOTE: Always use the 5 Cs- Check, Confirm, Clear, Cordon, Control****

NOTES

AAR Key Points

After-action reviews--
- Are conducted during or immediately after each event.
- Focus on intended training objectives.
- Focus on soldier, leader, and unit performance.
- Involve all participants in the discussion.
- Use open-ended questions.
- Are related to specific standards.
- Determine strengths and weaknesses.
- Link performance to subsequent training.

AAR Format

- Introduction and rules.
- Review of training objectives.
- Commander's mission and intent (what was supposed to happen).
- Opposing force (OPFOR) commander's mission and intent (when appropriate).
- Relevant doctrine and tactics, techniques, and procedures (TTPs).
- Summary of recent events (what happened).
- Discussion of key issues (why it happened and how to improve).
- Discussion of optional issues.
- Discussion of force protection issues (discussed throughout).
- Closing comments (summary).

CALL FOR FIRE

- **"_____ THIS IS _____ FIRE FOR EFFECT (OR ADJUST FIRE), OVER"**
- **"GRID _____, DIRECTION _____ (IN MILS), OVER"**
- **"(TARGET DESCRIPTION), OVER"**
- **"(MUNITION REQUESTED-IE. HE, SMOKE), IN EFFECT, OVER"**
- **(IF ADJUST FIRE) "ADD/DROP, OVER"**
- **(IF ADJUST FIRE) "FIRE FOR EFFECT, OVER"**
- **"END OF MISSION, (TARGET DISPOSITION), (ESTIMATED CASUALTIES), OVER"**

Grid	TRP	Description

MEDEVAC

Line 1 - _____(Location of Pick-Up Site)

Line 2 - _____(Freq), _____(Call sign),

_____(suffix) (*Your Information*)

Line 3 - (Patients by Precedence) A ____ (Urgent)
B ____ (Urgent Surgical)
C ____ (Priority)
D ____ (Routine)
E ____ (Convenience)

Line 4 - ____ (A, B, C, or D) (Special Equipment Required)

Line 5 - (Patients by Type) L ____ (Litter)
A ____ (Ambulatory)

Line 6 - (Security at Site) ____ (N, P, E, or X)

Line 7 - (Marking of Site) ____ (A, B, C, D, or E)

Line 8 - (Patient Status) ____ (A, B, C, D, or E)

Line 9 - (NBC Contamination) ____ (N, B, C, NONE)

See Chapter 6, page 6-19, for more details